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)

4 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), Amy Butler, and Visal Poornaka.

AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
aecom.com

January 15, 2024

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 – 4th 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, Mr. Visal Poornaka, 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

Mary Massa
Geologist
AECOM
M: 314/795-7580
E: mary.massa@aecom.com

Melissa Remiger
Environmental Scientist
AECOM
M: 314/449-2913
E: melissa.remiger@ aecom.com

Wendy Pennington
Project Manager
AECOM
M: 314/452-8929
E: wendy.pennington@ aecom.com

Enclosures: 4thQuarter 2023 Report, Roxana Interim Groundwater Monitoring Program
RCRA Facility Groundwater, Leachate and Gas Reporting Form

cc: Leroy (Buddy) Bealer, Shell
Thomas Morgan, Phillips 66
Amy Butler, IEPA, Springfield
Visal Poornaka, IEPA, Collinsville
IEPA Collinsville FOS (Ali Al-Janabi), IEPA, Collinsville
Michelle Knapp, Atlantic Richfield Company
Ryan Mohr, Fox Smith LLC
Repositories - Roxana Public Library, website

AECOM

4th Quarter 2023 Report

Roxana Interim Groundwater Monitoring Program

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

Project number: 60697537

January 2024

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	Mr. Visal Poornaka IEPA, Collinsville
None	Yes	Ms. Michelle Knapp Atlantic Richfield Company
None	Yes	Ryan Mohr Fox Smith LLC
None	Yes	Roxana Public Library
None	Yes	website

Prepared for:

Equilon Enterprises LLC dba Shell Oil Products US

Prepared by:

Mary Massa
Geologist, PG
M: 314/795-7580
E: mary.massa@aecom.com

AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
aecom.com

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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 4th Quarter 2023 (4Q23) 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 (October 2023 through December 2023); prior regulatory-related correspondence which has not yet been addressed by IEPA can be found in **Appendix A**.

- On November 8, 2023, IEPA issued a Violation Notice (VN L-2023-00369), in response to the triennial site inspection performed in July 2023. The alleged violations included in this violation notice were related to monitoring well labels and construction.

Groundwater samples were collected and analyzed during 4Q23 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

As required by Condition 1 of the Illinois Environmental Protection Agency's (IEPA's) letter dated August 1, 2023, gauging and sampling of the groundwater monitoring wells in the Interim Groundwater Monitoring Network was performed on a monthly basis throughout 4Q23.

In addition to October 2 – October 4, 2023 comprehensive gauging, November 2023 and December 2023 Interim Groundwater Monitoring Network gauging was performed November 6, 2023, and December 5 – December 6, 2023, respectively. Due to previously scheduled site activities and staff availability, November and December monthly sampling events were combined. November/December 2023 (Nov/Dec 23) sampling was performed from November 27 – December 5, 2023. Analytical results collected during the November/December 2023 groundwater sampling event are still under review and evaluation. Finalized November/December 2023 analytical results will be included in the January 2024 Monthly Roxana Interim Groundwater Monitoring Report due on February 1, 2024. Finalized August/September 2023 analytical results, lab reports, and figures for monthly reports are included in **Appendix E**; finalized November/December 2023 groundwater contour figures are also included in **Appendix E**.

2.3 Groundwater Monitoring Well Gauging and Sampling

Groundwater Monitoring Well Gauging

The comprehensive quarterly groundwater monitoring well gauging event was conducted between October 2nd and 4th, 2023. The gauging activities were conducted in conjunction with the 4Q23 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 October 5th and October 20th, 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 through 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 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

[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.

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 4Q23 groundwater gauging and sampling event.

3.1 Groundwater Monitoring Well Gauging Results

The comprehensive quarterly groundwater monitoring well gauging for the 4Q23 event was conducted between October 2nd and October 5th, 2023. 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 0.4 foot since the 3Q23 gauging event. Groundwater levels in most wells in the central and eastern portions of the WRR have fallen approximately 1.1 feet since the 3Q23 gauging event. Water levels are above the top of the screens in the majority of the wells gauged during the 4Q23 event. The potentiometric surface observed during the 4Q23 groundwater monitoring well gauging (**Figures 3a** and **3b**) illustrates an inward gradient with groundwater flow toward the WRR groundwater production wells.

During the 4Q23 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 0.02 to 1.44 feet. Measured LNAPL thickness and the number of locations where it was observed during the 4Q23 quarterly gauging events was generally comparable to that observed in 3Q23.

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 4Q23 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 4Q23 gauging event.

During 4Q23, LNAPL was observed in groundwater monitoring well P-66 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 4Q23 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 4Q23 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. Five 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/SIM results, the laboratory re-analyzed for PAHs in sample P74-ROX-101723. 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 anomalous bis(2-Ethylhexyl)phthalate results, the laboratory re-analyzed for bis(2-Ethylhexyl)phthalate in sample P114R-ROX-101823. The results from the re-analysis were consistent with historical data, and the original results were deemed by the laboratory to be false positives

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 3Q23 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, 2023). 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 12 groundwater monitoring wells in the Interim Groundwater Monitoring Program (three in the Village, eight in the WRR along the West Fenceline, one in the WRR on Main Property) exhibited exceedances of the groundwater screening criteria for one or more of the following constituents:

- Benzene
- Tetrachloroethene
- bis(2-Ethylhexyl)phthalate
- Pentachlorophenol
- Phenol

Figure 5 presents concentrations of analytes that exceeded the indicated screening criteria for 4Q23. 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.

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

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

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 4Q23, 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**.

[5] Results are significant if p value is equal to or below 0.05.

4 Summary and Conclusions

AECOM conducted the 4Q23 Interim Groundwater Monitoring Program, and the following conclusions are based on the data and information collected as part of this program:

- During 4Q23, 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 0.4 foot since the 3Q23 gauging event. Groundwater levels in most wells in the central and eastern portion of the WRR have fallen approximately 1.1 feet since the 3Q23 gauging event.
- Measured LNAPL thickness and the number of locations where it was observed during the 4Q23 quarterly gauging events was generally comparable to that observed in 3Q23. LNAPL has been detected in P-66 since 2Q22, 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 1Q24 Roxana Interim Groundwater Monitoring program.
- The analytical results from 4Q23 are generally consistent with the results from previous sampling events.
- 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.

AECOM, 2023 (AECOM, 2023b); Additional Information to Log No. B-43R-CA-109 (PWY SEE – Response to 8/22/22 Letter & FDRCWP). Prepared for Shell Oil Products US (Shell), dated January 30, 2023.

Illinois Environmental Protection Agency, 2007 (IEPA, 2007); 35 Illinois Administrative Code 742, Tiered Approach to Corrective Action Objectives. Appendix B. *Table E – Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route*. Effective February 23, 2007; accessed on January 3, 2024.

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

Illinois Environmental Protection Agency, 2010 (IEPA, 2010b); *Hazardous Waste Management RCRA Post-Closure Permit.* Issued to Shell Oil Products US (Shell) at the WRB Refining LP Wood River Refinery (WRB WRR), issued September 23, 2010; effective October 28, 2010; modified April 2, 2013; modified June 13, 2014; modified November

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Tables

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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											
1Q23	442.83	1/3/2023	NE	40.50	NA	NA	NA	402.33	394.03 - 384.03 (48.80 - 58.80)	0.0	*
2Q23		4/3/2023	NE	40.76	NA	NA	NA	402.07		0.0	*
3Q23		7/6/2023	NE	40.51	NA	NA	NA	402.32		0.0	*
4Q23		10/2/2023	NE	41.06	NA	NA	NA	401.77		0.0	*
MW-02											
1Q23	443.93	1/3/2023	NE	41.74	NA	NA	NA	402.19	394.06 - 384.06 (49.87 - 59.87)	154.2	*
2Q23		4/3/2023	NE	42.03	NA	NA	NA	401.90		0.0	*
3Q23		7/5/2023	NE	41.71	NA	NA	NA	402.22		0.0	*
4Q23		10/2/2023	NE	42.27	NA	NA	NA	401.66		28.6	*
MW-03											
1Q23	430.23	1/3/2023	NE	27.80	NA	NA	NA	402.43	395.56 - 385.56 (34.67 - 44.67)	0.0	*
2Q23		4/3/2023	NE	28.03	NA	NA	NA	402.20		0.0	*
3Q23		7/6/2023	NE	27.75	NA	NA	NA	402.48		0.0	*
4Q23		10/2/2023	NE	28.48	NA	NA	NA	401.75		0.0	*
MW-04											
1Q23	441.31	1/3/2023	NE	38.95	NA	NA	NA	402.36	396.25 - 386.25 (45.06 - 55.06)	0.0	*
2Q23		4/3/2023	NE	39.21	NA	NA	NA	402.10		0.0	*
3Q23		7/6/2023	NE	38.96	NA	NA	NA	402.35		0.0	*
4Q23		10/2/2023	NE	39.57	NA	NA	NA	401.74		0.0	*
MW-05											
1Q23	429.98	1/3/2023	NE	27.48	NA	NA	NA	402.50	396.01 - 386.01 (33.97 - 43.97)	0.0	*
2Q23		4/3/2023	NE	27.68	NA	NA	NA	402.30		0.0	*
3Q23		7/6/2023	NE	27.53	NA	NA	NA	402.45		0.0	*
4Q23		10/2/2023	NE	28.16	NA	NA	NA	401.82		0.0	*
MW-06A											
1Q23	432.33	1/3/2023	NE	29.60	NA	NA	NA	402.73	398.48 - 388.48 (33.85 - 43.85)	0.0	*
2Q23		4/3/2023	NE	29.80	NA	NA	NA	402.53		0.0	*
3Q23		7/6/2023	NE	29.64	NA	NA	NA	402.69		0.0	*
4Q23		10/2/2023	NE	30.39	NA	NA	NA	401.94		0.0	*
MW-06B											
1Q23	432.37	1/3/2023	NE	29.65	NA	NA	NA	402.72	368.32 - 363.32 (64.05 - 69.05)	0.0	*
2Q23		4/3/2023	NE	29.85	NA	NA	NA	402.52		0.0	*
3Q23		7/6/2023	NE	29.71	NA	NA	NA	402.66		0.0	*
4Q23		10/2/2023	NE	30.41	NA	NA	NA	401.96		0.0	*
MW-06C											
1Q23	432.18	1/3/2023	NE	29.44	NA	NA	NA	402.74	347.23 - 342.23 (84.95 - 89.95)	0.0	*
2Q23		4/3/2023	NE	29.69	NA	NA	NA	402.49		0.0	*
3Q23		7/6/2023	NE	29.52	NA	NA	NA	402.66		0.0	*
4Q23		10/2/2023	NE	30.20	NA	NA	NA	401.98		0.0	*
MW-06D											
1Q23	432.06	1/3/2023	NE	29.31	NA	NA	NA	402.75	327.34 - 322.34 (104.72 - 109.72)	0.0	*
2Q23		4/3/2023	NE	29.50	NA	NA	NA	402.56		0.0	*
3Q23		7/6/2023	NE	29.37	NA	NA	NA	402.69		0.0	*
4Q23		10/2/2023	NE	30.07	NA	NA	NA	401.99		0.0	*
MW-07											
1Q23	443.31	1/3/2023	NE	40.98	NA	NA	NA	402.33	400.39 - 390.39 (42.92 - 52.92)	0.4	*
2Q23		4/3/2023	NE	41.19	NA	NA	NA	402.12		0.0	*
3Q23		7/5/2023	NE	40.97	NA	NA	NA	402.34		33.8	*
4Q23		10/2/2023	NE	41.63	NA	NA	NA	401.68		0.0	*
MW-08											
1Q23	434.43	1/3/2023	NE	31.94	NA	NA	NA	402.49	400.83 - 390.83 (33.60 - 43.60)	0.0	*
MW-09											
1Q23	445.28	1/3/2023	NE	42.16	NA	NA	NA	403.12	399.24 - 389.24 (46.04 - 56.04)	0.0	*
2Q23		4/3/2023	NE	42.55	NA	NA	NA	402.73		0.0	*
3Q23		7/5/2023	NE	42.43	NA	NA	NA	402.85		0.0	*
4Q23		10/2/2023	NE	43.11	NA	NA	NA	402.17		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
MW-10											
1Q23	445.06	1/3/2023	NE	41.99	NA	NA	NA	403.07	400.63 - 390.63 (44.43 - 54.43)	0.0	*
2Q23		4/3/2023	NE	42.44	NA	NA	NA	402.62		0.0	*
3Q23		7/5/2023	NE	42.43	NA	NA	NA	402.63		0.0	*
4Q23		10/2/2023	NE	42.98	NA	NA	NA	402.08		0.0	*
MW-11											
1Q23	442.38	1/3/2023	NE	39.77	NA	NA	NA	402.61	400.72 - 390.72 (41.66 - 51.66)	0.1	*
2Q23		4/3/2023	NE	40.03	NA	NA	NA	402.35		0.0	*
3Q23		7/5/2023	NE	39.86	NA	NA	NA	402.52		0.0	*
4Q23		10/2/2023	NE	40.67	NA	NA	NA	401.71		0.0	*
MW-12											
1Q23	442.64	1/3/2023	NE	40.22	NA	NA	NA	402.42	400.72 - 390.72 (41.92 - 51.92)	0.0	*
2Q23		4/3/2023	NE	40.47	NA	NA	NA	402.17		0.0	*
3Q23		7/6/2023	NE	40.24	NA	NA	NA	402.40		0.0	*
4Q23		10/2/2023	NE	40.81	NA	NA	NA	401.83		0.0	*
MW-13											
1Q23	430.30	1/4/2023	NE	27.80	NA	NA	NA	402.50	405.50 - 395.50 (24.80 - 34.80)	0.2	
2Q23		4/4/2023	NE	27.66	NA	NA	NA	402.64		0.8	
3Q23		7/6/2023	NE	27.46	NA	NA	NA	402.84		0.0	
4Q23		10/3/2023	NE	28.36	NA	NA	NA	401.94		0.0	
MW-14											
1Q23	434.61	1/4/2023	NE	31.95	NA	NA	NA	402.66	401.19 - 391.19 (33.42 - 43.42)	57.6	*
2Q23		4/6/2023	NE	32.32	NA	NA	NA	402.29		43.8	*
3Q23		7/7/2023	NE	31.86	NA	NA	NA	402.75		52.1	*
4Q23		10/4/2023	NE	32.52	NA	NA	NA	402.09		28.8	*
MW-16											
1Q23	443.60	1/3/2023	NE	41.27	NA	NA	NA	402.33	406.10 - 396.10 (37.50 - 47.50)	0.0	
2Q23		4/3/2023	NE	41.52	NA	NA	NA	402.08		0.0	
3Q23		7/7/2023	NE	41.33	NA	NA	NA	402.27		0.0	
4Q23		10/2/2023	NE	41.76	NA	NA	NA	401.84		0.0	
MW-17											
1Q23	441.78	1/3/2023	NE	39.44	NA	NA	NA	402.34	407.49 - 392.49 (34.29 - 49.29)	0.0	
2Q23		4/3/2023	NE	39.69	NA	NA	NA	402.09		0.0	
3Q23		7/5/2023	NE	39.52	NA	NA	NA	402.26		0.0	
4Q23		10/2/2023	NE	39.91	NA	NA	NA	401.87		0.0	
MW-18											
1Q23	442.24	1/3/2023	NE	40.03	NA	NA	NA	402.21	407.32 - 392.32 (34.92 - 49.92)	0.0	
2Q23		4/3/2023	NE	40.25	NA	NA	NA	401.99		0.0	
3Q23		7/5/2023	NE	40.08	NA	NA	NA	402.16		0.0	
4Q23		10/2/2023	NE	40.43	NA	NA	NA	401.81		0.0	
MW-19											
1Q23	442.98	1/3/2023	NE	40.77	NA	NA	NA	402.21	406.64 - 391.64 (36.34 - 51.34)	0.0	
2Q23		4/3/2023	NE	41.06	NA	NA	NA	401.92		0.0	
3Q23		7/5/2023	NE	40.74	NA	NA	NA	402.24		0.0	
4Q23		10/2/2023	NE	41.20	NA	NA	NA	401.78		0.0	
MW-20											
1Q23	443.86	1/3/2023	NE	41.70	NA	NA	NA	402.16	407.98 - 392.98 (35.88 - 50.88)	0.0	
2Q23		4/3/2023	NE	42.01	NA	NA	NA	401.85		0.0	
3Q23		7/5/2023	NE	41.72	NA	NA	NA	402.14		0.0	
4Q23		10/2/2023	NE	42.15	NA	NA	NA	401.71		0.0	
MW-21											
1Q23	444.01	1/3/2023	NE	41.80	NA	NA	NA	402.21	409.00 - 394.00 (35.01 - 50.01)	0.0	
2Q23		4/3/2023	NE	42.02	NA	NA	NA	401.99		0.0	
3Q23		7/5/2023	NE	41.91	NA	NA	NA	402.10		0.0	
4Q23		10/2/2023	NE	42.37	NA	NA	NA	401.64		0.0	
MW-22											
1Q23	442.38	1/3/2023	NE	39.93	NA	NA	NA	402.45	403.95 - 393.95 (38.43 - 48.43)	0.0	
2Q23		4/3/2023	NE	40.21	NA	NA	NA	402.17		0.0	
3Q23		7/6/2023	NE	40.04	NA	NA	NA	402.34		0.0	
4Q23		10/2/2023	NE	40.53	NA	NA	NA	401.85		0.0	

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MW-23											
1Q23	431.57	1/3/2023	NE	29.06	NA	NA	NA	402.51	402.55 - 392.55 (29.02 - 39.02)	0.0	
2Q23		4/3/2023	NE	29.17	NA	NA	NA	402.40		0.0	
3Q23		7/6/2023	NE	29.00	NA	NA	NA	402.57		0.2	*
4Q23		10/3/2023	NE	29.81	NA	NA	NA	401.76		0.0	
MW-24											
1Q23	443.65	1/3/2023	NE	41.07	NA	NA	NA	402.58	404.04 - 394.04 (39.61 - 49.61)	0.0	
2Q23		4/3/2023	NE	41.36	NA	NA	NA	402.29		0.0	
3Q23		7/5/2023	NE	41.12	NA	NA	NA	402.53		0.0	
4Q23		10/2/2023	NE	41.76	NA	NA	NA	401.89		0.0	
MW-25											
1Q23	438.53	1/3/2023	NE	36.12	NA	NA	NA	402.41	402.94 - 392.94 (35.59 - 45.59)	98.6	
2Q23		4/3/2023	NE	36.35	NA	NA	NA	402.18		0.0	
3Q23		7/6/2023	NE	36.11	NA	NA	NA	402.42		141.2	
4Q23		10/2/2023	NE	36.74	NA	NA	NA	401.79		82.3	
MW-26											
1Q23	441.23	1/3/2023	NE	38.85	NA	NA	NA	402.38	403.08 - 393.08 (38.15 - 48.15)	0.0	
2Q23		4/3/2023	NE	39.14	NA	NA	NA	402.09		0.0	
3Q23		7/6/2023	NE	38.88	NA	NA	NA	402.35		0.0	
4Q23		10/2/2023	NE	39.45	NA	NA	NA	401.78		0.0	
MW-27											
1Q23	443.60	1/3/2023	NE	39.86	NA	NA	NA	403.74	403.81 - 393.81 (39.79 - 49.79)	0.0	
2Q23		4/3/2023	NE	40.57	NA	NA	NA	403.03		0.0	
3Q23		7/5/2023	NE	40.32	NA	NA	NA	403.28		0.0	
4Q23		10/2/2023	NE	40.70	NA	NA	NA	402.90		0.0	
MW-28											
1Q23	443.55	1/3/2023	NE	39.08	NA	NA	NA	404.47	409.94 - 399.94 (33.61 - 43.61)	0.0	
2Q23		4/3/2023	NE	39.68	NA	NA	NA	403.87		0.0	
3Q23		7/5/2023	NE	39.82	NA	NA	NA	403.73		0.0	
4Q23		10/2/2023	NE	39.98	NA	NA	NA	403.57		0.0	
P-01											
1Q23	442.98	1/3/2023	NE	32.68	NA	NA	NA	410.30	380.76 - 375.76 (62.22 - 67.22)	0.0	*
2Q23		4/4/2023	NE	32.96	NA	NA	NA	410.02		0.0	*
3Q23		7/7/2023	NE	34.40	NA	NA	NA	408.58		0.0	*
4Q23		10/3/2023	NE	35.76	NA	NA	NA	407.22		0.0	*
P-4U											
1Q23	442.74	1/3/2023	NE	34.09	NA	NA	NA	408.65	361.59 - 359.59 (81.15 - 83.15)	0.0	*
2Q23		4/4/2023	NE	34.68	NA	NA	NA	408.06		0.0	*
3Q23		7/6/2023	NE	35.70	NA	NA	NA	407.04		0.0	*
4Q23		10/3/2023	NE	36.88	NA	NA	NA	405.86		0.0	*
P-5L											
1Q23	444.01	1/3/2023	NE	34.28	NA	NA	NA	409.73	303.61 - 301.61 (140.40 - 142.40)	0.0	*
2Q23		4/4/2023	NE	34.71	NA	NA	NA	409.30		0.0	*
3Q23		7/7/2023	NE	35.75	NA	NA	NA	408.26		0.0	*
4Q23		10/3/2023	NE	37.12	NA	NA	NA	406.89		0.0	*
P-5U											
1Q23	444.42	1/3/2023	NE	35.25	NA	NA	NA	409.17	313.79 - 311.79 (130.63 - 132.63)	0.0	*
2Q23		4/4/2023	NE	35.91	NA	NA	NA	408.51		0.0	*
3Q23		7/7/2023	NE	36.85	NA	NA	NA	407.57		0.0	*
4Q23		10/3/2023	NE	38.22	NA	NA	NA	406.20		0.0	*
P-6U											
1Q23	443.63	1/3/2023	NE	35.02	NA	NA	NA	408.61	363.13 - 361.13 (80.50 - 82.50)	0.0	*
2Q23		4/4/2023	NE	35.58	NA	NA	NA	408.05		0.0	*
3Q23		7/6/2023	NE	36.46	NA	NA	NA	407.17		0.0	*
4Q23		10/3/2023	NE	37.56	NA	NA	NA	406.07		0.0	*
P-7U											
1Q23	444.08	1/3/2023	NE	35.31	NA	NA	NA	408.77	383.00 - 381.00 (61.08 - 63.08)	0.0	*
2Q23		4/4/2023	NE	35.86	NA	NA	NA	408.22		0.0	*
3Q23		7/7/2023	NE	36.70	NA	NA	NA	407.38		0.0	*
4Q23		10/3/2023	NE	37.83	NA	NA	NA	406.25		0.0	*

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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											
1Q23	442.07	1/3/2023	NE	35.33	NA	NA	NA	406.74	382.72 - 380.72 (59.35 - 61.35)	18.4	*
2Q23		4/4/2023	NE	36.15	NA	NA	NA	405.92		0.0	*
3Q23		7/7/2023	NE	36.75	NA	NA	NA	405.32		0.0	*
4Q23		10/3/2023	NE	37.71	NA	NA	NA	404.36		0.0	*
P-9U											
1Q23	445.20	1/3/2023	NE	40.14	NA	NA	NA	405.06	344.61 - 342.61 (100.59 - 102.59)	0.0	*
2Q23		4/4/2023	NE	40.98	NA	NA	NA	404.22		0.0	*
3Q23		7/7/2023	NE	41.42	NA	NA	NA	403.78		0.0	*
4Q23		10/3/2023	NE	42.19	NA	NA	NA	403.01		0.0	*
P-11L											
1Q23	442.76	1/3/2023	NE	35.88	NA	NA	NA	406.88	332.55 - 330.55 (110.21 - 112.21)	0.0	*
2Q23		4/4/2023	NE	36.76	NA	NA	NA	406.00		0.0	*
3Q23		7/6/2023	NE	37.50	NA	NA	NA	405.26		0.0	*
4Q23		10/3/2023	NE	38.56	NA	NA	NA	404.20		0.0	*
P-11U											
1Q23	443.38	1/3/2023	NE	36.51	NA	NA	NA	406.87	343.46 - 341.46 (99.92 - 101.92)	0.0	*
2Q23		4/4/2023	NE	37.34	NA	NA	NA	406.04		0.0	*
3Q23		7/6/2023	NE	38.13	NA	NA	NA	405.25		0.0	*
4Q23		10/3/2023	NE	39.17	NA	NA	NA	404.21		0.0	*
P-14											
1Q23	443.01	1/3/2023	NE	32.77	NA	NA	NA	410.24	395.54 - 385.54 (47.47 - 57.47)	0.0	*
2Q23		4/4/2023	NE	33.04	NA	NA	NA	409.97		0.0	*
3Q23		7/7/2023	NE	34.50	NA	NA	NA	408.51		0.0	*
4Q23		10/3/2023	NE	35.85	NA	NA	NA	407.16		4.1	*
P-15											
1Q23	443.88	1/3/2023	NE	34.73	NA	NA	NA	409.15	398.43 - 388.43 (45.45 - 55.45)	0.0	*
2Q23		4/4/2023	NE	35.38	NA	NA	NA	408.50		0.0	*
3Q23		7/6/2023	NE	36.30	NA	NA	NA	407.58		0.0	*
4Q23		10/3/2023	NE	37.52	NA	NA	NA	406.36		0.0	*
P-16											
1Q23	442.84	1/3/2023	NE	33.90	NA	NA	NA	408.94	397.10 - 387.10 (45.74 - 55.74)	0.0	*
2Q23		4/4/2023	NE	34.49	NA	NA	NA	408.35		0.0	*
3Q23		7/6/2023	NE	35.36	NA	NA	NA	407.48		0.0	*
4Q23		10/3/2023	NE	36.50	NA	NA	NA	406.34		0.0	*
P-43											
1Q23	444.62	1/3/2023	NE	37.37	NA	NA	NA	407.25	381.06 - 371.06 (63.56 - 73.56)	0.2	*
2Q23		4/4/2023	NE	38.20	NA	NA	NA	406.42		0.0	*
3Q23		7/6/2023	NE	39.00	NA	NA	NA	405.62		0.0	*
4Q23		10/3/2023	NE	40.73	NA	NA	NA	403.89		0.0	*
P-53											
1Q23	446.57	1/3/2023	NE	41.53	NA	NA	NA	405.04	406.26 - 381.26 (40.31 - 65.31)	0.0	
2Q23		4/3/2023	NE	42.16	NA	NA	NA	404.41		0.0	
3Q23		7/6/2023	NE	42.50	NA	NA	NA	404.07		0.0	
4Q23		10/3/2023	NE	43.10	NA	NA	NA	403.47		0.0	
P-54											
1Q23	442.52	1/3/2023	NE	39.87	NA	NA	NA	402.65	404.52 - 379.52 (38.00 - 63.00)	0.0	
2Q23		4/3/2023	NE	40.13	NA	NA	NA	402.39		0.0	
3Q23		7/5/2023	NE	39.90	NA	NA	NA	402.62		0.0	
4Q23		10/2/2023	NE	40.60	NA	NA	NA	401.92		0.0	
P-55R											
1Q23	444.01	1/3/2023	39.47	39.55	404.46	404.54	0.08	404.52	403.58 - 393.58 (40.43 - 50.43)	112.9	*
2Q23		4/3/2023	40.00	40.11	403.90	404.01	0.11	403.99		104.6	*
3Q23		7/5/2023	39.91	39.92	404.09	404.10	0.01	404.10		74.4	*
4Q23		10/2/2023	40.35	40.37	403.64	403.66	0.02	403.66		119.6	*
P-56											
1Q23	446.32	1/3/2023	NE	44.19	NA	NA	NA	402.13	405.50 - 380.50 (40.82 - 65.82)	9.0	
2Q23		4/3/2023	NE	44.46	NA	NA	NA	401.86		5.7	
3Q23		7/5/2023	NE	44.20	NA	NA	NA	402.12		0.0	
4Q23		10/2/2023	NE	44.54	NA	NA	NA	401.78		13.8	

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											
1Q23	447.15	1/3/2023	NE	44.94	NA	NA	NA	402.21	402.96 - 392.96 (44.19 - 54.19)	72.7	
2Q23		4/3/2023	NE	45.22	NA	NA	NA	401.93		22.9	
3Q23		7/5/2023	NE	44.92	NA	NA	NA	402.23		8.1	
4Q23		10/2/2023	NE	45.43	NA	NA	NA	401.72		0.5	
P-58											
1Q23	445.16	1/3/2023	42.82	42.83	402.33	402.34	0.01	402.34	404.95 - 379.95 (40.21 - 65.21)	0.1	
2Q23		4/3/2023	NE	43.06	NA	NA	NA	402.10		3.0	
3Q23		7/5/2023	NE	42.82	NA	NA	NA	402.34		0.0	
4Q23		10/2/2023	NE	43.42	NA	NA	NA	401.74		0.0	
P-59											
1Q23	447.07	1/3/2023	NE	44.96	NA	NA	NA	402.11	399.16 - 374.16 (47.91 - 72.91)	132.6	*
2Q23		4/3/2023	NE	45.18	NA	NA	NA	401.89		201.2	*
3Q23		7/5/2023	NE	44.91	NA	NA	NA	402.16		161.8	*
4Q23		10/2/2023	NE	45.22	NA	NA	NA	401.85		205.6	*
P-60											
1Q23	446.88	1/3/2023	NE	44.46	NA	NA	NA	402.42	402.23 - 382.23 (44.65 - 64.65)	5.1	*
2Q23		4/3/2023	NE	44.72	NA	NA	NA	402.16		0.1	
3Q23		7/5/2023	NE	44.60	NA	NA	NA	402.28		0.0	*
4Q23		10/2/2023	NE	44.97	NA	NA	NA	401.91		0.4	
P-61											
1Q23	444.66	1/3/2023	NE	43.06	NA	NA	NA	401.60	398.98 - 373.98 (45.68 - 70.68)	34.7	*
2Q23		4/3/2023	NE	43.40	NA	NA	NA	401.26		9.9	*
3Q23		7/5/2023	NE	43.19	NA	NA	NA	401.47		19.5	*
4Q23		10/3/2023	NE	43.22	NA	NA	NA	401.44		24.5	*
P-62											
1Q23	442.60	1/3/2023	40.27	41.33	401.27	402.33	1.06	402.12	401.13 - 376.13 (41.47 - 66.47)	118.4	*
2Q23		4/3/2023	40.78	41.81	400.79	401.82	1.03	401.61		330.0	*
3Q23		7/6/2023	NE	41.60	NA	NA	NA	401.00		0.0	
4Q23		10/2/2023	40.95	42.01	400.59	401.65	1.06	401.44		0.0	
P-63											
1Q23	446.06	1/3/2023	43.96	43.98	402.08	402.10	0.02	402.10	398.77 - 373.77 (47.29 - 72.29)	28.4	*
2Q23		4/4/2023	44.59	44.61	401.45	401.47	0.02	401.47		78.9	*
3Q23		7/6/2023	NE	45.10	NA	NA	NA	400.96		1.4	*
4Q23		10/2/2023	45.41	45.56	400.50	400.65	0.15	400.62		0.0	*
P-64											
1Q23	446.78	1/3/2023	45.09	45.18	401.60	401.69	0.09	401.67	399.55 - 374.55 (47.23 - 72.23)	12.8	*
2Q23		4/4/2023	45.75	45.82	400.96	401.03	0.07	401.02		184.3	*
3Q23		7/6/2023	44.09	44.12	402.66	402.69	0.03	402.68		72.0	* Results anomalous
4Q23		10/3/2023	46.71	46.85	399.93	400.07	0.14	400.04		264.4	*
P-65											
1Q23	444.77	1/3/2023	NE	42.76	NA	NA	NA	402.01	397.75 - 372.75 (47.02 - 72.02)	22.3	*
2Q23		4/3/2023	43.42	43.43	401.34	401.35	0.01	401.35		4.4	*
3Q23		7/5/2023	NE	43.32	NA	NA	NA	401.45		3.4	*
4Q23		10/2/2023	44.00	44.06	400.71	400.77	0.06	400.76		0.0	*
P-66											
1Q23	437.00	1/4/2023	34.39	35.91	401.09	402.61	1.52	402.31	402.28 - 377.28 (34.72 - 59.72)	159.8	*
2Q23		4/6/2023	34.79	36.21	400.79	402.21	1.42	401.93		58.9	
3Q23		7/7/2023	34.52	35.02	401.98	402.48	0.50	402.38		21.3	*
4Q23		10/4/2023	34.91	36.35	400.65	402.09	1.44	401.80		0.0	
P-67											
1Q23	444.30	1/4/2023	41.00	41.01	403.29	403.30	0.01	403.30	402.32 - 377.32 (41.98 - 66.98)	1.8	*
2Q23		4/5/2023	41.49	41.50	402.80	402.81	0.01	402.81		0.7	*
3Q23		7/7/2023	41.07	41.11	403.19	403.23	0.04	403.22		0.7	*
4Q23		10/4/2023	41.75	41.76	402.54	402.55	0.01	402.55		0.0	*
P-68											
1Q23	445.38	1/3/2023	42.97	43.03	402.35	402.41	0.06	402.40	401.62 - 376.62 (43.76 - 68.76)	86.2	*
2Q23		4/3/2023	43.25	43.36	402.02	402.13	0.11	402.11		146.2	*
3Q23		7/5/2023	43.17	43.19	402.19	402.21	0.02	402.21		114.3	*
4Q23		10/2/2023	43.41	43.47	401.91	401.97	0.06	401.96		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-69											
1Q23	443.77	1/3/2023	NE	41.79	NA	NA	NA	401.98	402.95 - 377.95 (40.82 - 65.82)	1.9	
2Q23		4/3/2023	NE	42.03	NA	NA	NA	401.74		0.0	
3Q23		7/5/2023	NE	42.87	NA	NA	NA	400.90		0.0	
4Q23		10/2/2023	NE	42.06	NA	NA	NA	401.71		0.0	
P-70											
1Q23	443.11	1/3/2023	NE	41.20	NA	NA	NA	401.91	398.44 - 373.44 (44.67 - 69.67)	113.2	*
2Q23		4/3/2023	41.50	41.51	401.60	401.61	0.01	401.61		152.9	*
3Q23		7/5/2023	41.00	41.40	401.71	402.11	0.40	402.03		55.7	*
4Q23		10/3/2023	NE	41.53	NA	NA	NA	401.58		171.8	*
P-71											
1Q23	445.09	1/3/2023	NE	42.25	NA	NA	NA	402.84	402.48 - 377.48 (42.61 - 67.61)	34.8	*
2Q23		4/3/2023	NE	42.43	NA	NA	NA	402.66		44.6	*
3Q23		7/5/2023	NE	40.91	NA	NA	NA	404.18		46.9	*
4Q23		10/2/2023	NE	43.14	NA	NA	NA	401.95		0.0	
P-72											
1Q23	444.70	1/3/2023	NE	41.71	NA	NA	NA	402.99	398.93 - 373.93 (45.77 - 70.77)	11.1	*
2Q23		4/3/2023	NE	42.33	NA	NA	NA	402.37		2.4	*
3Q23		7/5/2023	NE	42.20	NA	NA	NA	402.50		0.1	*
4Q23		10/2/2023	NE	42.73	NA	NA	NA	401.97		0.0	*
P-73											
1Q23	444.02	1/3/2023	NE	42.10	NA	NA	NA	401.92	402.42 - 377.42 (41.59 - 66.59)	29.4	
2Q23		4/3/2023	NE	42.41	NA	NA	NA	401.61		0.0	
3Q23		7/6/2023	NE	42.25	NA	NA	NA	401.77		25.3	
4Q23		10/3/2023	NE	42.56	NA	NA	NA	401.46		0.0	
P-74											
1Q23	442.93	1/3/2023	NE	40.54	NA	NA	NA	402.39	399.10 - 374.10 (43.83 - 68.83)	0.0	*
2Q23		4/3/2023	NE	41.16	NA	NA	NA	401.77		0.0	*
3Q23		7/5/2023	NE	40.91	NA	NA	NA	402.02		10.6	*
4Q23		10/2/2023	NE	41.11	NA	NA	NA	401.82		0.0	*
P-75											
1Q23	446.68	1/4/2023	NE	44.53	NA	NA	NA	402.15	403.55 - 378.55 (43.13 - 68.13)	0.5	
2Q23		4/6/2023	NE	44.98	NA	NA	NA	401.70		0.0	
3Q23		7/7/2023	NE	44.65	NA	NA	NA	402.03		0.2	
4Q23		10/4/2023	NE	44.95	NA	NA	NA	401.73		0.0	
P-82A											
1Q23	434.94	1/4/2023	NE	28.92	NA	NA	NA	406.02	401.73 - 386.73 (33.21 - 48.21)	0.5	*
2Q23		4/4/2023	NE	28.95	NA	NA	NA	405.99		0.0	*
3Q23		7/19/2023	NE	29.28	NA	NA	NA	405.66		0.0	*
4Q23		10/3/2023	NE	30.05	NA	NA	NA	404.89		0.0	*
P-82B											
1Q23	434.68	1/4/2023	NE	28.65	NA	NA	NA	406.03	371.88 - 369.88 (62.80 - 64.80)	0.0	*
2Q23		4/4/2023	NE	28.66	NA	NA	NA	406.02		0.0	*
3Q23		7/19/2023	NE	29.01	NA	NA	NA	405.67		0.0	*
4Q23		10/3/2023	NE	29.76	NA	NA	NA	404.92		0.0	*
P-82C											
1Q23	434.41	1/4/2023	NE	28.34	NA	NA	NA	406.07	351.64 - 349.64 (82.77 - 84.77)	0.0	*
2Q23		4/4/2023	NE	28.42	NA	NA	NA	405.99		0.0	*
3Q23		7/19/2023	NE	28.71	NA	NA	NA	405.70		0.0	*
4Q23		10/3/2023	NE	29.48	NA	NA	NA	404.93		0.0	*
P-82D											
1Q23	435.09	1/4/2023	NE	29.11	NA	NA	NA	405.98	323.55 - 321.55 (111.54 - 113.54)	0.0	*
2Q23		4/4/2023	NE	29.16	NA	NA	NA	405.93		0.0	*
3Q23		7/19/2023	NE	29.50	NA	NA	NA	405.59		0.0	*
4Q23		10/3/2023	NE	30.25	NA	NA	NA	404.84		0.0	*
P-83A											
1Q23	445.54	1/3/2023	NE	41.92	NA	NA	NA	403.62	398.14 - 383.14 (47.40 - 62.40)	0.0	*
2Q23		4/4/2023	NE	42.58	NA	NA	NA	402.96		0.0	*
3Q23		7/6/2023	NE	43.46	NA	NA	NA	402.08		0.0	*
4Q23		10/3/2023	NE	43.94	NA	NA	NA	401.60		0.0	*

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-83B											
1Q23	445.77	1/3/2023	NE	42.17	NA	NA	NA	403.60	371.97 - 369.97 (73.80 - 75.80)	0.0	*
2Q23		4/4/2023	NE	42.93	NA	NA	NA	402.84		0.0	*
3Q23		7/6/2023	NE	43.73	NA	NA	NA	402.04		0.0	*
4Q23		10/3/2023	NE	44.20	NA	NA	NA	401.57		0.0	*
P-83C											
1Q23	445.95	1/3/2023	NE	42.31	NA	NA	NA	403.64	353.56 - 351.56 (92.39 - 94.39)	0.0	*
2Q23		4/4/2023	NE	42.97	NA	NA	NA	402.98		0.0	*
3Q23		7/6/2023	NE	43.87	NA	NA	NA	402.08		0.0	*
4Q23		10/3/2023	NE	44.35	NA	NA	NA	401.60		0.0	*
P-83D											
1Q23	445.86	1/3/2023	NE	42.28	NA	NA	NA	403.58	312.06 - 310.06 (133.80 - 135.80)	0.0	*
2Q23		4/4/2023	NE	42.94	NA	NA	NA	402.92		0.0	*
3Q23		7/6/2023	NE	43.85	NA	NA	NA	402.01		0.0	*
4Q23		10/3/2023	NE	45.30	NA	NA	NA	400.56		0.0	*
P-84A											
1Q23	446.63	1/4/2023	NE	42.57	NA	NA	NA	404.06	397.71 - 382.71 (48.92 - 63.92)	0.0	*
2Q23		4/4/2023	NE	43.03	NA	NA	NA	403.60		0.0	*
3Q23		7/7/2023	NE	43.51	NA	NA	NA	403.12		0.0	*
4Q23		10/3/2023	NE	44.44	NA	NA	NA	402.19		0.0	*
P-84B											
1Q23	446.35	1/4/2023	NE	42.30	NA	NA	NA	404.05	372.85 - 370.85 (73.50 - 75.50)	0.0	*
2Q23		4/4/2023	NE	42.76	NA	NA	NA	403.59		0.0	*
3Q23		7/7/2023	NE	43.23	NA	NA	NA	403.12		0.0	*
4Q23		10/3/2023	NE	43.78	NA	NA	NA	402.57		0.0	*
P-84C											
1Q23	446.37	1/4/2023	NE	42.32	NA	NA	NA	404.05	352.32 - 350.32 (94.05 - 96.05)	0.0	*
2Q23		4/4/2023	NE	42.50	NA	NA	NA	403.87		0.0	*
3Q23		7/7/2023	NE	43.26	NA	NA	NA	403.11		0.0	*
4Q23		10/3/2023	NE	43.78	NA	NA	NA	402.59		0.0	*
P-84D											
1Q23	446.38	1/4/2023	NE	42.31	NA	NA	NA	404.07	325.55 - 323.55 (120.83 - 122.83)	0.0	*
2Q23		4/4/2023	NE	43.76	NA	NA	NA	402.62		0.0	*
3Q23		7/7/2023	NE	43.24	NA	NA	NA	403.14		0.0	*
4Q23		10/3/2023	NE	43.78	NA	NA	NA	402.60		0.0	*
P-88A											
1Q23	443.27	1/4/2023	NE	34.35	NA	NA	NA	408.92	404.87 - 389.87 (38.40 - 53.40)	0.0	*
2Q23		4/4/2023	NE	34.82	NA	NA	NA	408.45		0.0	*
3Q23		7/7/2023	NE	35.08	NA	NA	NA	408.19		0.0	*
4Q23		10/3/2023	NE	35.86	NA	NA	NA	407.41		0.0	*
P-88B											
1Q23	443.35	1/4/2023	NE	34.40	NA	NA	NA	408.95	371.70 - 369.70 (71.65 - 73.65)	0.0	*
2Q23		4/4/2023	NE	34.89	NA	NA	NA	408.46		0.0	*
3Q23		7/7/2023	NE	35.11	NA	NA	NA	408.24		0.0	*
4Q23		10/3/2023	NE	35.93	NA	NA	NA	407.42		0.0	*
P-88C											
1Q23	443.31	1/4/2023	NE	34.34	NA	NA	NA	408.97	351.01 - 349.01 (92.30 - 94.30)	0.0	*
2Q23		4/4/2023	NE	34.85	NA	NA	NA	408.46		0.0	*
3Q23		7/7/2023	NE	35.09	NA	NA	NA	408.22		0.0	*
4Q23		10/3/2023	NE	35.88	NA	NA	NA	407.43		0.0	*
P-88D											
1Q23	443.38	1/4/2023	NE	34.50	NA	NA	NA	408.88	331.21 - 329.21 (112.17 - 114.17)	0.0	*
2Q23		4/4/2023	NE	35.95	NA	NA	NA	407.43		0.0	*
3Q23		7/7/2023	NE	35.20	NA	NA	NA	408.18		0.0	*
4Q23		10/3/2023	NE	35.97	NA	NA	NA	407.41		0.0	*
P-89B											
1Q23	447.64	1/3/2023	NE	42.76	NA	NA	NA	404.88	370.28 - 368.28 (77.36 - 79.36)	0.0	*
2Q23		4/4/2023	NE	43.68	NA	NA	NA	403.96		0.0	*
3Q23		7/6/2023	NE	44.16	NA	NA	NA	403.48		0.0	*
4Q23		10/3/2023	NE	44.98	NA	NA	NA	402.66		0.6	*

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											
1Q23	447.96	1/3/2023	NE	43.12	NA	NA	NA	404.84	351.56 - 349.56 (96.40 - 98.40)	0.0	*
2Q23		4/4/2023	NE	44.05	NA	NA	NA	403.91		0.0	*
3Q23		7/6/2023	NE	44.50	NA	NA	NA	403.46		0.0	*
4Q23		10/3/2023	NE	45.34	NA	NA	NA	402.62		103.6	*
P-89D											
1Q23	447.83	1/3/2023	NE	43.22	NA	NA	NA	404.61	309.33 - 307.33 (138.50 - 140.50)	0.0	*
2Q23		4/4/2023	NE	44.13	NA	NA	NA	403.70		0.0	*
3Q23		7/6/2023	NE	44.60	NA	NA	NA	403.23		0.0	*
4Q23		10/3/2023	NE	45.36	NA	NA	NA	402.47		0.0	*
P-91A											
1Q23	447.43	1/3/2023	NE	46.31	NA	NA	NA	401.12	395.92 - 380.92 (51.51 - 66.51)	37.4	*
2Q23		4/3/2023	46.84	46.85	400.58	400.59	0.01	400.59		9.7	*
3Q23		7/6/2023	NE	48.30	NA	NA	NA	399.13		8.4	*
4Q23		10/3/2023	47.99	48.06	399.37	399.44	0.07	399.43		3.2	*
P-91B											
1Q23	447.47	1/3/2023	NE	46.32	NA	NA	NA	401.15	372.78 - 370.78 (74.69 - 76.69)	0.3	*
2Q23		4/3/2023	NE	46.91	NA	NA	NA	400.56		1.2	*
3Q23		7/6/2023	NE	48.45	NA	NA	NA	399.02		0.1	*
4Q23		10/3/2023	NE	48.02	NA	NA	NA	399.45		3.3	*
P-91C											
1Q23	447.27	1/3/2023	NE	46.12	NA	NA	NA	401.15	352.54 - 350.54 (94.73 - 96.73)	0.0	*
2Q23		4/3/2023	NE	46.68	NA	NA	NA	400.59		0.2	*
3Q23		7/6/2023	NE	48.20	NA	NA	NA	399.07		0.0	*
4Q23		10/3/2023	NE	47.76	NA	NA	NA	399.51		0.0	*
P-91D											
1Q23	447.26	1/3/2023	NE	46.15	NA	NA	NA	401.11	278.94 - 276.94 (168.32 - 170.32)	0.0	*
2Q23		4/3/2023	NE	46.69	NA	NA	NA	400.57		0.1	*
3Q23		7/6/2023	NE	48.20	NA	NA	NA	399.06		0.0	*
4Q23		10/3/2023	NE	47.76	NA	NA	NA	399.50		2.2	*
P-92A											
1Q23	446.39	1/3/2023	44.75	44.76	401.63	401.64	0.01	401.64	398.82 - 383.82 (47.57 - 62.57)	124.6	*
2Q23		4/3/2023	NE	45.44	NA	NA	NA	400.95		108.8	*
3Q23		7/6/2023	45.61	45.76	400.63	400.78	0.15	400.75		55.8	*
4Q23		10/2/2023	NE	46.16	NA	NA	NA	400.23		0.0	*
P-92B											
1Q23	446.33	1/3/2023	NE	44.47	NA	NA	NA	401.86	371.92 - 369.92 (74.41 - 76.41)	0.9	*
2Q23		4/3/2023	NE	45.37	NA	NA	NA	400.96		0.4	*
3Q23		7/6/2023	NE	45.54	NA	NA	NA	400.79		0.0	*
4Q23		10/2/2023	NE	46.10	NA	NA	NA	400.23		0.0	*
P-92C											
1Q23	446.34	1/3/2023	NE	44.70	NA	NA	NA	401.64	353.38 - 348.38 (92.96 - 97.96)	1.3	*
2Q23		4/3/2023	NE	45.38	NA	NA	NA	400.96		2.0	*
3Q23		7/6/2023	NE	45.52	NA	NA	NA	400.82		1.5	*
4Q23		10/2/2023	NE	46.12	NA	NA	NA	400.22		0.0	*
P-92D											
1Q23	446.15	1/3/2023	NE	44.58	NA	NA	NA	401.57	305.15 - 303.15 (141.00 - 143.00)	0.0	*
2Q23		4/3/2023	NE	45.26	NA	NA	NA	400.89		0.6	*
3Q23		7/6/2023	NE	45.42	NA	NA	NA	400.73		0.0	*
4Q23		10/2/2023	NE	45.99	NA	NA	NA	400.16		0.0	*
P-93A											
1Q23	445.37	1/3/2023	NE	43.13	NA	NA	NA	402.24	402.30 - 392.30 (43.07 - 53.07)	0.0	
2Q23		4/3/2023	NE	43.38	NA	NA	NA	401.99		0.0	
3Q23		7/5/2023	NE	43.10	NA	NA	NA	402.27		0.0	
4Q23		10/2/2023	NE	43.64	NA	NA	NA	401.73		0.0	
P-93B											
1Q23	446.70	1/3/2023	NE	44.47	NA	NA	NA	402.23	371.92 - 369.92 (74.78 - 76.78)	0.0	*
2Q23		4/3/2023	NE	44.74	NA	NA	NA	401.96		0.0	*
3Q23		7/5/2023	NE	44.43	NA	NA	NA	402.27		0.0	*
4Q23		10/2/2023	NE	44.98	NA	NA	NA	401.72		0.0	*

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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											
1Q23	446.55	1/3/2023	NE	44.31	NA	NA	NA	402.24	353.67 - 348.67 (92.88 - 97.88)	0.0	*
2Q23		4/3/2023	NE	44.57	NA	NA	NA	401.98		0.0	*
3Q23		7/5/2023	NE	44.30	NA	NA	NA	402.25		0.0	*
4Q23		10/2/2023	NE	44.83	NA	NA	NA	401.72		0.0	*
P-93D											
1Q23	446.97	1/3/2023	NE	44.67	NA	NA	NA	402.30	321.31 - 319.31 (125.66 - 127.66)	0.0	*
2Q23		4/3/2023	NE	44.92	NA	NA	NA	402.05		0.0	*
3Q23		7/5/2023	NE	44.64	NA	NA	NA	402.33		0.0	*
4Q23		10/2/2023	NE	45.21	NA	NA	NA	401.76		0.0	*
P-94											
1Q23	445.04	1/3/2023	NE	38.95	NA	NA	NA	406.09	398.80 - 383.80 (46.24 - 61.24)	0.0	*
2Q23		4/4/2023	NE	39.82	NA	NA	NA	405.22		0.0	*
3Q23		7/6/2023	NE	40.34	NA	NA	NA	404.70		0.0	*
4Q23		10/3/2023	NE	41.17	NA	NA	NA	403.87		0.0	*
P-95											
1Q23	443.95	1/4/2023	NE	32.22	NA	NA	NA	411.73	407.43 - 392.43 (36.52 - 51.52)	0.0	*
2Q23		4/4/2023	NE	32.81	NA	NA	NA	411.14		0.0	*
3Q23		7/7/2023	NE	33.21	NA	NA	NA	410.74		0.0	*
4Q23		10/3/2023	NE	34.04	NA	NA	NA	409.91		0.0	*
P-102											
1Q23	445.14	1/4/2023	NE	35.81	NA	NA	NA	409.33	402.39 - 382.39 (42.75 - 62.75)	2.4	*
2Q23		4/4/2023	NE	36.41	NA	NA	NA	408.73		3.5	*
3Q23		7/7/2023	NE	37.07	NA	NA	NA	408.07		19.1	*
4Q23		10/3/2023	NE	38.18	NA	NA	NA	406.96		2.9	*
P-114R											
1Q23	429.48	1/4/2023	NE	27.07	NA	NA	NA	402.41	406.47 - 396.47 (23.01 - 33.01)	0.0	
2Q23		4/4/2023	NE	26.72	NA	NA	NA	402.76		21.8	
3Q23		7/6/2023	NE	26.50	NA	NA	NA	402.98		0.0	
4Q23		10/3/2023	NE	27.65	NA	NA	NA	401.83		0.0	
P-115											
1Q23	433.54	1/4/2023	NE	31.15	NA	NA	NA	402.39	401.24 - 381.24 (32.30 - 52.30)	0.0	*
2Q23		4/4/2023	NE	30.65	NA	NA	NA	402.89		0.1	*
3Q23		7/6/2023	NE	30.61	NA	NA	NA	402.93		0.0	*
4Q23		10/3/2023	NE	31.71	NA	NA	NA	401.83		0.0	*
P-116											
1Q23	436.79	1/4/2023	NE	34.63	NA	NA	NA	402.16	399.35 - 379.35 (37.44 - 57.44)	0.0	*
2Q23		4/4/2023	NE	34.05	NA	NA	NA	402.74		0.0	*
3Q23		7/6/2023	NE	34.00	NA	NA	NA	402.79		0.1	*
4Q23		10/3/2023	NE	35.16	NA	NA	NA	401.63		0.0	*
P-117											
1Q23	432.87	1/4/2023	NE	30.86	NA	NA	NA	402.01	399.94 - 379.94 (32.93 - 52.93)	0.0	*
2Q23		4/4/2023	NE	30.25	NA	NA	NA	402.62		0.0	*
3Q23		7/6/2023	NE	30.22	NA	NA	NA	402.65		0.0	*
4Q23		10/3/2023	NE	31.38	NA	NA	NA	401.49		0.0	*
P-118											
1Q23	431.48	1/4/2023	NE	29.95	NA	NA	NA	401.53	400.36 - 384.43 (31.12 - 47.05)	0.1	*
2Q23		4/4/2023	NE	29.07	NA	NA	NA	402.41		0.0	*
3Q23		7/6/2023	NE	29.10	NA	NA	NA	402.38		0.2	*
4Q23		10/3/2023	NE	30.41	NA	NA	NA	401.07		0.0	*
P-119											
1Q23	432.11	1/4/2023	NE	29.24	NA	NA	NA	402.87	401.44 - 385.51 (30.67 - 46.60)	0.0	*
2Q23		4/4/2023	NE	29.05	NA	NA	NA	403.06		0.0	*
3Q23		7/6/2023	NE	28.90	NA	NA	NA	403.21		0.0	*
4Q23		10/3/2023	NE	29.85	NA	NA	NA	402.26		0.0	*
P-120											
1Q23	433.00	1/4/2023	NE	29.72	NA	NA	NA	403.28	401.62 - 385.69 (31.38 - 47.31)	0.0	*
2Q23		4/4/2023	NE	29.38	NA	NA	NA	403.62		0.0	*
3Q23		7/6/2023	NE	29.31	NA	NA	NA	403.69		0.0	*
4Q23		10/3/2023	NE	30.38	NA	NA	NA	402.62		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-129											
1Q23	432.66	1/4/2023	NE	32.46	NA	NA	NA	400.20	400.69 - 384.76 (31.97 - 47.90)	17.2	
2Q23		4/4/2023	NE	30.91	NA	NA	NA	401.75		0.0	*
3Q23		7/6/2023	NE	31.41	NA	NA	NA	401.25		0.0	*
4Q23		10/3/2023	NE	32.78	NA	NA	NA	399.88		1.3	
ROST-3-MW											
1Q23	442.52	1/3/2023	NE	39.77	NA	NA	NA	402.75	404.71 - 394.71 (37.81 - 47.81)	361.7	
2Q23		4/3/2023	NE	40.11	NA	NA	NA	402.41		0.0	
3Q23		7/5/2023	NE	40.00	NA	NA	NA	402.52		0.0	
4Q23		10/2/2023	NE	40.44	NA	NA	NA	402.08		0.0	
ROST-4-PZ											
1Q23	442.15	1/3/2023	NE	38.58	NA	NA	NA	403.57	407.22 - 397.22 (34.93 - 44.93)	0.3	
2Q23		4/3/2023	NE	39.30	NA	NA	NA	402.85		0.0	
3Q23		7/5/2023	NE	39.10	NA	NA	NA	403.05		0.0	
4Q23		10/2/2023	NE	39.48	NA	NA	NA	402.67		0.0	
ROST-4-PZ(A)											
1Q23	442.15	1/3/2023	NE	37.89	NA	NA	NA	404.26	407.38 - 397.38 (34.77 - 44.77)	0.0	
2Q23		4/3/2023	NE	38.75	NA	NA	NA	403.40		0.0	
3Q23		7/5/2023	NE	38.56	NA	NA	NA	403.59		0.0	
4Q23		10/2/2023	NE	39.06	NA	NA	NA	403.09		0.0	
ROST-4-PZ(B)											
1Q23	442.40	1/3/2023	NE	38.54	NA	NA	NA	403.86	407.35 - 397.35 (35.05 - 45.05)	0.0	
2Q23		4/3/2023	NE	39.34	NA	NA	NA	403.06		0.0	
3Q23		7/5/2023	NE	39.15	NA	NA	NA	403.25		0.0	
4Q23		10/2/2023	NE	39.50	NA	NA	NA	402.90		0.0	
ROST-4-PZ(C)											
1Q23	442.97	1/3/2023	NE	39.65	NA	NA	NA	403.32	408.02 - 398.02 (34.95 - 44.95)	0.0	
2Q23		4/3/2023	NE	40.29	NA	NA	NA	402.68		0.0	
3Q23		7/5/2023	NE	40.10	NA	NA	NA	402.87		0.0	
4Q23		10/2/2023	NE	39.55	NA	NA	NA	403.42		0.0	
ROST-4-PZ(D)											
1Q23	442.92	1/3/2023	NE	39.44	NA	NA	NA	403.48	407.95 - 397.95 (34.97 - 44.97)	0.1	
2Q23		4/3/2023	NE	40.07	NA	NA	NA	402.85		0.0	
3Q23		7/5/2023	NE	40.05	NA	NA	NA	402.87		0.0	
4Q23		10/2/2023	NE	40.30	NA	NA	NA	402.62		0.0	
ROST-4-PZ(E)											
1Q23	441.98	1/3/2023	NE	38.51	NA	NA	NA	403.47	407.23 - 397.23 (34.75 - 44.75)	0.0	
2Q23		4/3/2023	NE	39.14	NA	NA	NA	402.84		0.0	
3Q23		7/5/2023	NE	38.96	NA	NA	NA	403.02		0.0	
4Q23		10/2/2023	NE	39.29	NA	NA	NA	402.69		0.0	
ROST-4-PZ(F)											
1Q23	442.12	1/3/2023	NE	38.73	NA	NA	NA	403.39	407.59 - 397.59 (34.53 - 44.53)	0.0	
2Q23		4/3/2023	NE	39.23	NA	NA	NA	402.89		0.0	
3Q23		7/5/2023	NE	39.07	NA	NA	NA	403.05		0.0	
4Q23		10/2/2023	NE	39.35	NA	NA	NA	402.77		0.0	
ROST-4-PZ(G)											
1Q23	442.20	1/3/2023	NE	39.74	NA	NA	NA	402.46	407.92 - 397.92 (34.28 - 44.28)	0.2	
2Q23		4/3/2023	NE	40.00	NA	NA	NA	402.20		0.0	
3Q23		7/5/2023	NE	39.82	NA	NA	NA	402.38		0.0	
4Q23		10/2/2023	NE	40.26	NA	NA	NA	401.94		0.0	
S-1											
1Q23	444.06	1/3/2023	41.81	41.96	402.10	402.25	0.15	402.22	Unknown	138.6	
2Q23		4/3/2023	42.34	42.36	401.70	401.72	0.02	401.72		172.6	
3Q23		7/5/2023	42.18	42.20	401.86	401.88	0.02	401.88		102.3	
4Q23		10/2/2023	42.67	42.71	401.35	401.39	0.04	401.38		0.0	
T-1											
1Q23	445.61	1/3/2023	NE	42.33	NA	NA	NA	403.28	398.61 - 388.61 (47.00 - 57.00)	0.0	*
2Q23		4/3/2023	NE	42.80	NA	NA	NA	402.81		0.0	*
3Q23		7/5/2023	NE	42.90	NA	NA	NA	402.71		0.0	*
4Q23		10/2/2023	NE	43.33	NA	NA	NA	402.28		0.0	*

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T-2											
1Q23	443.40	1/3/2023	NE	40.40	NA	NA	NA	403.00	392.90 - 372.75 (50.49 - 70.64)	0.0	*
2Q23		4/3/2023	NE	40.91	NA	NA	NA	402.49		0.2	*
3Q23		7/6/2023	NE	41.35	NA	NA	NA	402.05		0.0	*
4Q23		10/2/2023	NE	41.66	NA	NA	NA	401.74		0.0	*
T-3											
1Q23	449.21	1/3/2023	NE	47.13	NA	NA	NA	402.08	403.99 - 388.99 (45.22 - 60.22)	0.0	
2Q23		4/4/2023	NE	47.74	NA	NA	NA	401.47		0.0	
3Q23		7/6/2023	NE	48.60	NA	NA	NA	400.61		0.0	
4Q23		10/3/2023	NE	48.85	NA	NA	NA	400.36		0.0	
T-4											
1Q23	446.82	1/3/2023	NE	46.45	NA	NA	NA	400.37	396.80 - 381.80 (50.02 - 65.02)	0.0	*
2Q23		4/4/2023	NE	46.88	NA	NA	NA	399.94		0.0	*
3Q23		7/6/2023	NE	47.45	NA	NA	NA	399.37		0.0	*
4Q23		10/3/2023	NE	48.07	NA	NA	NA	398.75		0.0	*
T-5											
1Q23	443.66	1/3/2023	NE	40.92	NA	NA	NA	402.74	395.33 - 378.78 (48.33 - 64.88)	6.0	*
2Q23		4/3/2023	NE	41.65	NA	NA	NA	402.01		0.5	*
3Q23		7/5/2023	NE	41.31	NA	NA	NA	402.35		5.6	*
4Q23		10/2/2023	NE	42.13	NA	NA	NA	401.53		0.0	*
T-6											
1Q23	446.78	1/3/2023	NE	44.59	NA	NA	NA	402.19	394.27 - 380.02 (52.51 - 66.76)	0.1	*
2Q23		4/3/2023	NE	44.90	NA	NA	NA	401.88		0.0	*
3Q23		7/5/2023	NE	44.61	NA	NA	NA	402.17		0.0	*
4Q23		10/2/2023	NE	45.07	NA	NA	NA	401.71		2.4	*
T-7											
1Q23	444.26	1/4/2023	NE	41.06	NA	NA	NA	403.20	395.54 - 380.54 (48.72 - 63.72)	16.5	*
2Q23		4/5/2023	41.47	41.49	402.77	402.79	0.02	402.79		0.8	*
3Q23		7/7/2023	NE	41.50	NA	NA	NA	402.76		1.3	*
4Q23		10/4/2023	NE	41.73	NA	NA	NA	402.53		3.2	*
T-12											
1Q23	444.99	1/3/2023	NE	42.75	NA	NA	NA	402.24	398.16 - 372.16 (46.83 - 72.83)	3.9	*
2Q23		4/3/2023	NE	42.93	NA	NA	NA	402.06		0.0	*
3Q23		7/5/2023	NE	42.74	NA	NA	NA	402.25		0.0	*
4Q23		10/2/2023	NE	43.09	NA	NA	NA	401.90		0.3	*
T-13											
1Q23	443.76	1/3/2023	NE	40.20	NA	NA	NA	403.56	399.95 - 373.95 (43.81 - 69.81)	0.0	*
2Q23		4/3/2023	NE	40.76	NA	NA	NA	403.00		0.0	*
3Q23		7/5/2023	NE	40.81	NA	NA	NA	402.95		0.0	*
4Q23		10/2/2023	NE	41.41	NA	NA	NA	402.35		0.0	*
T-15											
1Q23	445.35	1/3/2023	NE	42.13	NA	NA	NA	403.22	396.95 - 370.95 (48.40 - 74.40)	0.0	*
2Q23		4/3/2023	NE	42.72	NA	NA	NA	402.63		0.1	*
3Q23		7/6/2023	NE	43.45	NA	NA	NA	401.90		0.0	*
4Q23		10/3/2023	NE	43.79	NA	NA	NA	401.56		0.0	*
T-17											
1Q23	446.19	1/3/2023	NE	41.88	NA	NA	NA	404.31	401.72 - 375.72 (44.47 - 70.47)	0.0	*
2Q23		4/4/2023	NE	42.84	NA	NA	NA	403.35		0.0	*
3Q23		7/7/2023	NE	43.35	NA	NA	NA	402.84		0.0	*
4Q23		10/3/2023	NE	44.00	NA	NA	NA	402.19		0.0	*
T-19											
1Q23	446.99	1/3/2023	NE	46.50	NA	NA	NA	400.49	396.22 - 370.22 (50.77 - 76.77)	11.7	*
2Q23		4/4/2023	NE	47.02	NA	NA	NA	399.97		5.0	*
3Q23		7/6/2023	NE	47.46	NA	NA	NA	399.53		14.8	*
4Q23		10/3/2023	NE	48.06	NA	NA	NA	398.93		92.6	*
T-21											
1Q23	444.22	1/4/2023	NE	32.57	NA	NA	NA	411.65	412.26 - 386.26 (31.96 - 57.96)	0.0	
2Q23		4/4/2023	NE	33.50	NA	NA	NA	410.72		0.0	
3Q23		7/7/2023	NE	33.54	NA	NA	NA	410.68		0.0	
4Q23		10/3/2023	NE	34.42	NA	NA	NA	409.80		0.0	

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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											
1Q23	442.37	1/4/2023	NE	34.43	NA	NA	NA	407.94	410.82 - 385.12 (31.55 - 57.25)	0.0	
2Q23		4/4/2023	NE	35.36	NA	NA	NA	407.01		0.0	
3Q23		7/7/2023	NE	34.96	NA	NA	NA	407.41		0.0	
4Q23		10/3/2023	NE	35.73	NA	NA	NA	406.64		0.0	
T-23											
1Q23	432.90	1/4/2023	NE	27.41	NA	NA	NA	405.49	405.67 - 379.67 (27.23 - 53.23)	0.0	
2Q23		4/4/2023	NE	28.37	NA	NA	NA	404.53		0.0	
3Q23		7/6/2023	NE	27.53	NA	NA	NA	405.37		0.0	
4Q23		10/3/2023	NE	28.43	NA	NA	NA	404.47		0.0	
T-24											
1Q23	444.00	1/3/2023	NE	41.90	NA	NA	NA	402.10	402.50 - 376.85 (41.50 - 67.15)	2.1	
2Q23		4/3/2023	42.25	42.26	401.74	401.75	0.01	401.75		0.4	
3Q23		7/5/2023	NE	42.21	NA	NA	NA	401.79		0.0	
4Q23		10/2/2023	NE	42.40	NA	NA	NA	401.60		0.0	
T-28											
1Q23	444.56	1/3/2023	NE	41.11	NA	NA	NA	403.45	Unknown	0.0	
2Q23		4/4/2023	NE	41.81	NA	NA	NA	402.75		0.0	
3Q23		7/6/2023	NE	42.65	NA	NA	NA	401.91		0.0	
4Q23		10/3/2023	NE	43.14	NA	NA	NA	401.42		0.0	
T-37											
1Q23	447.44	1/3/2023	NE	42.60	NA	NA	NA	404.84	398.58 - 378.58 (48.85 - 68.85)	0.0	*
2Q23		4/4/2023	NE	43.52	NA	NA	NA	403.92		0.0	*
3Q23		7/6/2023	NE	44.00	NA	NA	NA	403.44		0.0	*
4Q23		10/6/2023	NE	44.97	NA	NA	NA	402.47		0.6	*
T-38											
1Q23	445.89	1/3/2023	NE	38.83	NA	NA	NA	407.06	396.75 - 376.75 (49.14 - 69.14)	0.0	*
2Q23		4/4/2023	NE	39.71	NA	NA	NA	406.18		0.0	*
3Q23		7/7/2023	NE	40.74	NA	NA	NA	405.15		0.0	*
4Q23		10/3/2023	NE	42.02	NA	NA	NA	403.87		1.2	*
T-62											
1Q23	432.16	1/4/2023	NE	29.35	NA	NA	NA	402.81	412.45 - 382.45 (19.71 - 49.71)	0.0	
2Q23		4/4/2023	NE	28.73	NA	NA	NA	403.43		0.5	
3Q23		7/6/2023	NE	28.68	NA	NA	NA	403.48		0.2	
4Q23		10/3/2023	NE	29.68	NA	NA	NA	402.48		0.0	
T-63											
1Q23	431.55	1/4/2023	NE	29.07	NA	NA	NA	402.48	411.57 - 381.57 (19.98 - 49.98)	0.0	
2Q23		4/4/2023	NE	28.27	NA	NA	NA	403.28		0.5	
3Q23		7/6/2023	NE	28.34	NA	NA	NA	403.21		0.1	
4Q23		10/3/2023	NE	29.36	NA	NA	NA	402.19		0.0	
T-64											
1Q23	429.10	1/4/2023	NE	27.20	NA	NA	NA	401.90	409.29 - 379.29 (19.81 - 49.81)	0.0	
2Q23		4/4/2023	NE	26.27	NA	NA	NA	402.83		0.6	
3Q23		7/6/2023	NE	26.32	NA	NA	NA	402.78		0.0	
4Q23		10/3/2023	NE	27.50	NA	NA	NA	401.60		0.0	

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 gravity 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 million; NA = Not Applicable; 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 Village of Roxana Interim Groundwater Monitoring Program and the WRB Refining LP Wood River Refinery Program.

7) 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.

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 Permit Condition IV.J.9, which requires wells be surveyed every five (5) years.

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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							
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	
3Q23	6.85	20.80	0.903	4.07	0.54	-6.30	
4Q23	6.76	18.88	0.851	7.05	1.80	104.51	
MW-02							
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	
3Q23	7.09	20.40	0.881	2.97	0.59	-136.02	
4Q23	7.22	19.57	0.941	19.98	0.51	-151.93	
MW-03							
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	
3Q23	6.82	21.14	1.155	42.16	1.16	-168.80	
4Q23	6.95	20.07	1.021	0.03	0.60	-120.38	
MW-04							
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	
3Q23	6.75	20.00	0.999	6.26	0.55	-137.25	
4Q23	6.69	18.39	0.953	0.55	0.59	35.63	
MW-05							
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	
3Q23	6.80	20.87	1.160	6.31	0.58	-140.50	
4Q23	6.44	18.18	1.188	0.00	0.57	-39.24	
MW-06A							
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	
3Q23	6.74	22.54	0.966	37.03	1.02	-154.44	
4Q23	6.80	19.67	0.913	14.00	0.66	-27.45	
MW-06B							
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	
3Q23	7.05	21.62	0.720	41.14	0.76	-149.21	
4Q23	7.04	19.58	0.814	3.33	0.61	-57.38	
MW-06C							
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	
3Q23	7.03	20.68	0.839	19.48	1.13	-157.77	
4Q23	6.93	18.44	0.819	27.31	0.59	-84.37	
MW-06D							
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	
3Q23	6.97	20.35	0.980	0.31	0.58	-133.68	
4Q23	7.04	19.49	1.249	9.03	0.60	-83.34	

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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							
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	
3Q23	6.80	20.63	1.189	2.98	0.56	-113.44	
4Q23	6.68	19.45	1.116	0.00	0.59	12.36	
MW-08							
1Q23	6.84	15.98	1.230	46.70	0.63	-132.72	
MW-09							
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	
3Q23	6.77	19.72	0.967	28.91	0.57	-92.74	
4Q23	6.72	18.21	1.020	0.00	0.62	-47.63	
MW-10							
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	
3Q23	6.89	20.15	1.351	40.74	0.53	-132.65	
4Q23	6.77	19.35	1.431	19.63	0.58	-77.60	
MW-11							
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	
3Q23	6.78	19.42	1.371	27.92	0.54	-93.02	
4Q23	6.64	17.60	1.395	1.62	0.61	-12.31	
MW-12							
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	
3Q23	6.83	20.09	0.967	5.42	0.57	140.14	
4Q23	6.87	19.36	0.862	0.64	0.64	40.61	
MW-13							
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	
3Q23	6.65	23.38	1.203	46.91	0.47	-125.85	
4Q23	6.26	20.78	1.209	1.73	0.55	-18.65	
MW-14							
1Q23	6.70	17.87	1.186	14.20	0.62	-25.50	
2Q23	6.76	17.70	1.058	4.60	0.55	-85.75	
3Q23	6.59	20.61	1.066	0.00	0.56	-103.45	
4Q23	6.75	19.51	1.026	25.36	0.58	-76.88	
MW-16							
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	
3Q23	6.62	19.26	0.770	12.65	1.26	-97.39	
4Q23	6.54	18.64	0.806	0.00	0.71	89.08	

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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							
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	
3Q23	6.97	20.84	1.229	17.42	0.56	73.27	
4Q23	6.77	19.26	1.307	0.00	0.64	-57.24	
MW-23							
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	
3Q23	6.61	21.81	0.945	45.04	0.39	-130.90	
4Q23	6.41	19.14	1.140	15.65	0.60	-33.78	
MW-24							
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	
3Q23	6.68	20.38	1.572	44.93	1.29	170.98	
4Q23	6.66	18.71	1.764	1.18	0.72	147.60	
MW-25							
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	
3Q23	6.90	22.56	0.898	5.94	0.56	-118.47	
4Q23	6.69	19.14	0.898	22.65	0.75	9.98	
MW-26							
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	
3Q23	6.81	20.74	1.133	12.39	1.41	65.37	
4Q23	6.72	19.86	1.167	1.71	1.96	111.12	
MW-27							
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	
3Q23	6.61	19.07	0.781	1.14	0.86	135.89	
4Q23	6.61	16.91	0.741	0.00	2.22	96.44	
MW-28							
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	
3Q23	6.75	21.65	1.235	0.00	0.59	-61.00	
4Q23	6.77	20.31	1.282	3.90	0.67	16.06	
P-54							
1Q23	6.76	15.82	1.268	11.44	4.51	150.86	
2Q23	6.94	19.57	1.305	3.46	2.09	-7.27	
3Q23	6.86	22.89	1.029	12.28	1.84	40.10	
4Q23	6.87	19.17	1.283	1.36	4.28	94.48	
P-55R							
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.
3Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.

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-56							
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	
3Q23	7.27	25.70	1.270	26.93	0.48	-160.20	
4Q23	7.27	20.45	1.214	5.50	0.31	-128.05	
P-57							
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	
3Q23	6.90	20.97	1.010	4.98	0.50	12.83	
4Q23	6.48	19.15	1.006	0.00	0.51	-23.89	
P-58							
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	
3Q23	6.69	22.78	1.393	1.36	0.65	70.16	
4Q23	6.61	21.37	1.500	16.50	0.49	-74.73	
P-59							
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	
3Q23	6.55	23.76	1.413	7.83	0.51	115.37	
4Q23	6.71	23.09	1.501	0.00	0.26	-108.90	
P-66							
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.
3Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-68							
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.
3Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q23	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-74							
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	
3Q23	6.38	24.36	0.370	10.51	0.54	72.48	
4Q23	6.17	19.39	0.584	0.00	0.61	11.13	
P-93A							
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	
3Q23	6.64	21.03	1.299	0.00	0.60	150.23	
4Q23	6.82	20.09	1.208	0.00	0.43	46.42	
P-93B							
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	
3Q23	6.75	19.87	1.332	17.00	0.53	125.35	
4Q23	6.85	18.34	1.439	0.00	0.23	-131.21	

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
P-93C							
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	
3Q23	6.88	21.07	1.072	29.84	0.58	40.13	
4Q23	7.04	19.16	1.069	17.26	0.44	-95.38	
P-93D							
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	
3Q23	6.99	19.51	1.062	0.00	0.73	135.80	
4Q23	7.16	18.50	0.945	0.00	0.22	-89.26	
P-114R							
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	
3Q23	6.72	23.97	0.841	34.73	0.40	-162.87	
4Q23	6.50	22.58	0.861	38.90	0.46	-99.25	
ROST-3-MW							
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	
3Q23	6.80	19.78	1.143	0.27	0.55	-124.48	
4Q23	6.77	18.14	1.124	7.45	0.64	-92.31	
ROST-4-PZ(C)							
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	
3Q23	6.96	20.80	1.190	4.80	0.56	77.93	
4Q23	6.58	17.64	1.158	0.00	0.61	39.01	
ROST-4-PZ(E)							
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.
3Q23	6.76	21.39	2.224	20.45	0.59	95.27	
4Q23	6.75	19.90	1.858	4.81	0.71	-21.86	
ROST-4-PZ(G)							
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	
3Q23	7.02	20.50	1.340	29.57	0.44	-161.40	
4Q23	6.93	20.28	1.347	0.00	0.64	-73.40	
T-12							
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	
3Q23	6.90	22.44	1.760	8.75	0.45	84.33	
4Q23	6.83	20.64	2.010	2.36	0.28	-138.55	

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	Carbon tetrachloride	Chloroform	Chloromethane	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	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]	0.005 [1]	0.07 [1]			0.0002 [1]	0.07 [1]	0.7 [1]	0.7 [1]	19000 [3]	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-011323	1/13/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000028	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW1-ROX-071023	7/10/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW1-ROX-100523	10/5/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-02	MW2-ROX-011323	1/13/2023	< 0.025	0.0016	< 0.001	0.033	0.0040	0.0046	0.00063 J	0.00063 J	< 0.0010	< 0.001	< 0.001	0.0039	< 0.000030	< 0.001	0.036	0.037	< 0.025	< 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	< 0.0020	< 0.002	< 0.002	0.0016 J	< 0.000029	< 0.002	0.4	0.023	< 0.05	< 0.002	0.05	0.027	0.0031
	MW2-ROX-071823	7/18/2023	0.02 J	0.0017	< 0.0010	0.01 J	0.0045	0.0032	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0032	< 0.000030	< 0.0010	0.19	0.042	< 0.025	< 0.0010	0.03	0.056	0.0037
	MW2-ROX-101323	10/13/2023	0.15	0.0011	< 0.0010	< 0.025	0.0029	0.0033	0.00083 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0028	< 0.000031	< 0.0010	0.067	0.035	< 0.025	< 0.0010	0.018	0.049	0.0032
MW-03	MW3-ROX-011123	1/11/2023	< 0.025	0.00061 J	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001 UJ	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001 UJ	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	0.00074 J	< 0.005	< 0.001	< 0.001
	MW3-ROX-071023	7/10/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000028	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0010	< 0.0050	< 0.0010	< 0.0010
	MW3-ROX-101223	10/12/2023	0.024 J	< 0.0010	< 0.0010 UJ	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00087 J	< 0.0050	< 0.0010	< 0.0010
	MW3-ROX-101223-DUP	10/12/2023	0.024 J	< 0.0010	< 0.0010 UJ	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00088 J	< 0.0050	< 0.0010	< 0.0010
MW-04	MW4-ROX-010923	1/9/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	0.00027 J	< 0.005	< 0.001	< 0.001
	MW4-ROX-071323	7/13/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW4-ROX-102023	10/20/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-05	MW5-ROX-011023	1/10/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	0.0016	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	0.0029	< 0.005	< 0.001	< 0.001
	MW5-ROX-071723	7/17/2023	< 0.025	0.0030	< 0.0010	< 0.025	< 0.0010	< 0.0010	0.00098 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0025	< 0.0050	< 0.0010	< 0.0010
	MW5-ROX-101623	10/16/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0020	< 0.0050	< 0.0010	< 0.0010
MW-06A	MW6A-ROX-011123	1/11/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	0.00034 J	< 0.005	< 0.001	< 0.001
	MW6A-ROX-071123	7/11/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000028	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00031 J	< 0.0050	< 0.0010	< 0.0010
	MW6A-ROX-101023	10/10/2023	0.013 J	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-06B	MW6B-ROX-011123	1/11/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000034	< 0.001	< 0.001	< 0.001	< 0.025	0.00041 J	< 0.005	< 0.001	< 0.001
	MW6B-ROX-071123	7/11/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00034 J	< 0.0050	< 0.0010	< 0.0010
	MW6B-ROX-071123-DUP	7/11/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00031 J	< 0.0050	< 0.0010	< 0.0010
	MW6B-ROX-101023	10/10/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-06C	MW6C-ROX-011123	1/11/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000031	< 0.001	< 0.001	< 0.001	< 0.025	0.00023 J	< 0.005	< 0.001	< 0.001
	MW6C-ROX-071123	7/11/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW6C-ROX-101023	10/10/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010 UJ	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.025	< 0.0010	< 0.0050	< 0.0010 UJ	< 0.0010

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	Carbon tetrachloride	Chloroform	Chloromethane	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	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]	0.005 [1]	0.07 [1]			0.0002 [1]	0.07 [1]	0.7 [1]	0.7 [1]	19000 [3]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																				
MW-06D	MW6D-ROX-011123	1/11/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000031	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW6D-ROX-071223	7/12/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW6D-ROX-100923	10/9/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-07	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	< 50	< 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	< 25	< 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	< 25	< 1	< 5	< 1	0.43 J
	MW7-ROX-071323	7/13/2023	< 130	490	< 5	< 130	< 5	< 5	< 5	< 5	< 5	< 5	< 5 UJ	< 5	< 0.000030	< 5	< 5	< 5	< 130	< 5	< 25	< 5	< 5
	MW7-ROX-071323-DUP	7/13/2023	< 130	490	< 5	< 130	< 5	< 5	< 5	< 5	< 5	< 5	< 5 UJ	< 5	< 0.000030	< 5	< 5	< 5	< 130	< 5	< 25	< 5	< 5
	MW7-ROX-102023	10/20/2023	< 130	1400	< 5	< 130	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.000030	< 5	< 5	< 5	< 130	< 5	< 25	< 5	< 5
	MW7-ROX-102023-DUP	10/20/2023	< 130	1200	< 5	< 130	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.000030	< 5	< 5	< 5	< 130	< 5	< 25	< 5	< 5
MW-08	MW8-ROX-010923	1/9/2023	< 25 UJ	390	< 1 UJ	< 25 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1	< 1 UJ	< 1 UJ	< 1 UJ	0.000028 J*+ J	< 1 UJ	< 1 UJ	< 1 UJ	< 25	< 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	< 1 UJ	< 1 UJ	< 1 UJ	0.000028 J*+ J	< 1 UJ	< 1 UJ	< 1 UJ	< 25	< 1 UJ	< 5 UJ	< 1 UJ	< 1 UJ
MW-09	MW9-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000031	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW9-ROX-071823	7/18/2023	< 0.025	0.0038	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW9-ROX-101623	10/16/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-10	MW10-ROX-011223	1/12/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW10-ROX-071823	7/18/2023	< 0.025	0.00063 J	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW10-ROX-101323	10/13/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-11	MW11-ROX-011223	1/12/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW11-ROX-071223	7/12/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW11-ROX-100623	10/6/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-12	MW12-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW12-ROX-071223	7/12/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000028	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW12-ROX-101023	10/10/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0014	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-13	MW13-ROX-010923	1/9/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000031	< 0.001	< 0.001	< 0.001	< 0.025	0.0011	< 0.005	< 0.001	< 0.001
	MW13-ROX-071423	7/14/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0011	< 0.0050	< 0.0010	< 0.0010
	MW13-ROX-101823	10/18/2023	0.013 J	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000031	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00070 J	< 0.0050	< 0.0010	< 0.0010
MW-14	MW14-ROX-010923	1/9/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW14-ROX-071723	7/17/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW14-ROX-100923	10/9/2023	< 0.025 UJ	0.011	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	0.0033 F1 J
MW-16	MW16-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW16-ROX-071123	7/11/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW16-ROX-101823	10/18/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW16-ROX-101823-DUP	10/18/2023	0.011 J	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010

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	Carbon tetrachloride	Chloroform	Chloromethane	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	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]	0.005 [1]	0.07 [1]			0.0002 [1]	0.07 [1]	0.7 [1]	0.7 [1]	19000 [3]	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-011023	1/10/2023	0.029 J	0.0085	< 0.002	0.0086 J	0.0041	0.0022	0.0044	< 0.002	< 0.0020	< 0.002	< 0.002	0.0035	0.000041 *+ J	< 0.002	0.085	0.021	< 0.05	< 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	< 0.0020	< 0.002	< 0.002	0.0020	< 0.000030	< 0.002	0.082	0.02	< 0.05	< 0.002	0.067	0.036	0.018
	MW22-ROX-071323	7/13/2023	0.023 J	0.0076	< 0.0020	< 0.05	0.0019 J J	< 0.0020	0.0025	< 0.0020	< 0.0020	< 0.0020	< 0.0020 UJ	< 0.0020	< 0.000030	< 0.0020	0.031	0.013	< 0.05	< 0.0020	0.043	0.023	0.0093
	MW22-ROX-101623	10/16/2023	< 0.025	0.0061	< 0.0010	< 0.025	0.0029	0.0015	0.0043	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0019	< 0.000030	< 0.0010	0.022	0.014	< 0.025	< 0.0010	0.034	0.027	0.0088
MW-23	MW23-ROX-011023	1/10/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000031	< 0.001	< 0.001	< 0.001	< 0.025	0.00066 J	< 0.005	< 0.001	< 0.001
	MW23-ROX-071423	7/14/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000031	0.00023 J	< 0.0010	< 0.0010	< 0.025	0.00090 J	< 0.0050	< 0.0010	< 0.0010
	MW23-ROX-101023	10/10/2023	0.015 J	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-24	MW24-ROX-011223	1/12/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW24-ROX-071023	7/10/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW24-ROX-101223	10/12/2023	< 0.025	< 0.0010	< 0.0010 UJ	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-25	MW25-ROX-010923	1/9/2023	< 0.025	0.024	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	0.00037 J	< 0.005	< 0.001	< 0.001
	MW25-ROX-071323	7/13/2023	0.062	0.027	< 0.0010	0.0058 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW25-ROX-102023	10/20/2023	< 0.025	0.043	< 0.0010	< 0.025	< 0.0010	< 0.0010	0.00091 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00035 J	< 0.0050	< 0.0010	< 0.0010
MW-26	MW26-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW26-ROX-071023	7/10/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW26-ROX-100523	10/5/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-27	MW27-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	MW27-ROX-071823	7/18/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	MW27-ROX-101823	10/18/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
MW-28	MW28-ROX-010523	1/5/2023	< 0.025	0.00038 J	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	0.0019	< 0.005	< 0.001	< 0.001
	MW28-ROX-071223	7/12/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000028	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0011	< 0.0050	< 0.0010	< 0.0010
	MW28-ROX-101223	10/12/2023	0.01 J	< 0.0010	< 0.0010 UJ	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00051 J	< 0.0050	< 0.0010	< 0.0010
P-54	P54-ROX-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	P54-ROX-071223	7/12/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	P54-ROX-100623	10/6/2023	0.011 JF1 J	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
P-56	P56-ROX-010923	1/9/2023	< 0.025	< 0.001	< 0.001	< 0.025	0.00089 J	0.0016	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	0.00087 J	< 0.000029	< 0.001	0.0012	0.012	< 0.025	< 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	< 0.0010	< 0.001 UJ	< 0.001	0.0013	< 0.000029	< 0.001	0.0061	0.02	< 0.025	< 0.001	0.0059	0.024	0.0027
	P56-ROX-071023	7/10/2023	0.031	< 0.0010	< 0.0010	0.0057 J	0.00098 J J	0.0020	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0010	< 0.000030	< 0.0010	0.00083 J	0.016	< 0.025	< 0.0010	< 0.0050	0.019	0.0014
	P56-ROX-101823	10/18/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	0.0025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.00075 J	< 0.000030	< 0.0010	0.00059 J	0.011	< 0.025	< 0.0010	< 0.0050	0.014	< 0.0010

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	Carbon tetrachloride	Chloroform	Chloromethane	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	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]	0.005 [1]	0.07 [1]			0.0002 [1]	0.07 [1]	0.7 [1]	0.7 [1]	19000 [3]	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-011023	1/10/2023	0.01 J	0.05	< 0.001	0.0028 J	0.0023	0.0046	0.0054	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	0.00095 J	0.021	< 0.025	< 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	< 0.0010	< 0.001 UJ	< 0.001	< 0.001	< 0.000029	< 0.001	0.0012	0.0093	< 0.025	< 0.001	0.026	0.01	0.0023
	P57-ROX-071323	7/13/2023	< 0.05	0.21 J	< 0.0020	0.0057 J	0.0050	0.0075	0.0085	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.000029	< 0.0020	0.0028	0.032	< 0.05	< 0.0020	0.023	0.042	0.0044
	P57-ROX-071323-DUP	7/13/2023	< 0.05	0.4 J	< 0.0020	< 0.05	0.0056	0.0090	0.01	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.000029	< 0.0020	0.0044	0.038	< 0.05	< 0.0020	0.041	0.05	0.0057
	P57-ROX-101723	10/17/2023	0.017 J	0.084	< 0.0010	< 0.025	0.0031	0.0040	0.0039	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	0.0015	0.022	< 0.025	< 0.0010	0.013	0.022	0.0031
P-58	P58-ROX-041923	4/19/2023	< 25	150	< 1	< 25	< 1	< 1	< 1	< 1	< 1	< 1 UJ	< 1	< 1	< 0.000030	< 1	< 1	< 1	< 25	< 1	< 5	< 1	< 1
	P58-ROX-071823	7/18/2023	< 25	220	< 1	< 25	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.000029	< 1	< 1	< 1	< 25	< 1	< 5	< 1	< 1
	P58-ROX-071823-DUP	7/18/2023	< 25	250	< 1	< 25	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.000029	< 1	< 1	< 1	< 25	< 1	< 5	< 1	< 1
	P58-ROX-101723	10/17/2023	< 25 UJ	570	< 1 UJ	< 25 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 0.000030	< 1 UJ	< 1 UJ	< 1 UJ	< 25 UJ	< 1 UJ	< 5 UJ	< 1 UJ	< 1 UJ
P-59	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	< 0.5	< 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	< 0.5	< 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	< 0.01 UJ	< 0.01	< 0.01	< 0.000030	< 0.01	0.084	0.028	< 0.25	< 0.01	0.077	0.043	0.062
	P59-ROX-071823	7/18/2023	0.15	0.97	< 0.0050	< 0.13	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.000030	< 0.0050	0.038	0.017	< 0.13	< 0.0050	0.029	0.023	0.043
	P59-ROX-101823	10/18/2023	< 0.25	1.8	< 0.01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.000031	< 0.01	0.12	0.048	< 0.25	< 0.01	0.043 J	0.075	0.086
P-74	P74-ROX-011023	1/10/2023	< 0.025	0.0013	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001 UJ	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	P74-ROX-071223	7/12/2023	0.025	0.42	< 0.0010	0.0038 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000029	< 0.0010	0.0019	< 0.0010	< 0.025	0.0036	< 0.0050	< 0.0010	0.0040
	P74-ROX-101723	10/17/2023	0.065 J	1	< 0.0050	< 0.13	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.000030	< 0.0050	0.0055	< 0.0050	0.016 J	0.0065	< 0.025	< 0.0050	0.0086
	P74-ROX-101723-DUP	10/17/2023	0.071 J	1	< 0.0050	< 0.13	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.000030	< 0.0050	0.0050	< 0.0050	0.015 J	0.0065	< 0.025	< 0.0050	0.0091
P-93A	P93A-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001 UJ	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	P93A-ROX-071123	7/11/2023	< 0.025	0.0053	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000028	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	P93A-ROX-101823	10/18/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	0.00070 J	< 0.0010	0.0012	0.0030	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
P-93B	P93B-ROX-011123	1/11/2023	< 25 UJ	1400	< 1 UJ	< 25 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1	< 1 UJ	< 1 UJ	< 1 UJ	< 0.000029	< 1 UJ	< 1 UJ	< 1 UJ	< 25	< 1 UJ	< 5 UJ	< 1 UJ	< 1 UJ
	P93B-ROX-042023	4/20/2023	< 50	400	< 2	< 50	< 2	< 2	< 2	< 2	< 2	< 2 UJ	< 2	< 2	< 0.000031	< 2	< 2	< 2	< 50	< 2	< 10	< 2	< 2
	P93B-ROX-071823	7/18/2023	< 25 UJ	1200	< 1 UJ	< 25 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1 UJ	< 1	< 1 UJ	< 1 UJ	< 1 UJ	< 0.000030	< 1 UJ	< 1 UJ	< 1 UJ	< 25	< 1 UJ	< 5 UJ	< 1 UJ	< 1 UJ
	P93B-ROX-101923	10/19/2023	< 130	610	< 5	< 130	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 0.000030	< 5	< 5	< 5	< 130	< 5	< 25	< 5	< 5
P-93C	P93C-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001 UJ	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	0.0028	< 0.005	< 0.001	< 0.001
	P93C-ROX-071423	7/14/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0028	< 0.0050	< 0.0010	< 0.0010
	P93C-ROX-101623	10/16/2023	< 0.025	0.013	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0025	< 0.0050	< 0.0010	< 0.0010
P-93D	P93D-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000032	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	0.00083 J	< 0.005	< 0.001	0.00056 J
	P93D-ROX-071123	7/11/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000028	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00072 J	< 0.0050	< 0.0010	< 0.0010
	P93D-ROX-101623	10/16/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.00053 J	< 0.0050	< 0.0010	< 0.0010

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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	Carbon tetrachloride	Chloroform	Chloromethane	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	cis-1,2-Dichloroethene	Ethylbenzene	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	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]	0.005 [1]	0.07 [1]			0.0002 [1]	0.07 [1]	0.7 [1]	0.7 [1]	19000 [3]	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-010623	1/6/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	0.0011	< 0.005	< 0.001	< 0.001
	P114R-ROX-071423	7/14/2023	0.013 J	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0018	< 0.0050	< 0.0010	< 0.0010
	P114R-ROX-101823	10/18/2023	0.019 J	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000032	< 0.0010	< 0.0010	< 0.0010	< 0.025	0.0015	< 0.0050	< 0.0010	< 0.0010
ROST-3-MW	ROST3MW-ROX-010523	1/5/2023	< 0.025	< 0.001	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001 UJ	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	ROST3MW-ROX-071723	7/17/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	ROST3MW-ROX-071723-DUP	7/17/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	ROST3MW-ROX-100623	10/6/2023	0.038	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000029	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
ROST-4-PZ(C)	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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	< 0.001	0.00094 J	< 0.025	< 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	< 0.0010	< 0.001 UJ	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	0.00086 J	0.00056 J
	ROST4PZC-ROX-071123	7/11/2023	< 0.025	0.0022	< 0.0010	0.016 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000028	< 0.0010	0.0020	0.0030	< 0.025	< 0.0010	0.035	0.0056	0.0064
	ROST4PZ(C)-ROX-101623	10/16/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	ROST4PZ(C)-ROX-101623-DUP	10/16/2023	< 0.025	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
ROST-4-PZ(E)	ROST4PZ(E)-ROX-011023	1/10/2023	0.085	0.0043	< 0.001	0.038	0.0016	0.00082 J	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	0.00075 J	< 0.000029	< 0.001	0.033	0.0052	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	0.0091	0.0024	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000029	< 0.001	0.01	0.0026	< 0.025	< 0.001	0.027	0.0019	0.0011
	ROST4PZ(E)-ROX-071223	7/12/2023	< 0.025	0.00074 J	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.000029	< 0.0010	0.0046	0.00089 J	< 0.025	< 0.0010	0.0058	< 0.0010	< 0.0010
	ROST4PZ(E)-ROX-101323	10/13/2023	0.062	0.00061 J	< 0.0010	0.0082 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000031	< 0.0010	0.0054	0.00076 J	< 0.025	< 0.0010	0.0031 J	0.00075 J	< 0.0010
ROST-4-PZ(G)	ROST4PZ(G)-ROX-010623	1/6/2023	0.55	0.00032 J	< 0.001	< 0.025	< 0.001	< 0.001	< 0.001	< 0.001	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 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	< 0.0010	< 0.001	< 0.001	< 0.001	< 0.000030	< 0.001	< 0.001	< 0.001	< 0.025	< 0.001	< 0.005	< 0.001	< 0.001
	ROST4PZ(G)-ROX-071023	7/10/2023	0.011 J	< 0.0010	< 0.0010	0.0030 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
	ROST4PZ(G)-ROX-101223	10/12/2023	0.033	< 0.0010	< 0.0010 UJ	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.0010	< 0.000030	< 0.0010	< 0.0010	< 0.0010	< 0.025	< 0.0010	< 0.0050	< 0.0010	< 0.0010
T-12	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	< 0.25	< 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	< 0.25	< 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	< 0.01 UJ	< 0.01	< 0.01	< 0.000029	< 0.01	0.012	< 0.01	< 0.25	0.0022 J	< 0.05	< 0.01	0.026
	T12-ROX-071423	7/14/2023	< 0.25	1.5	< 0.01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.000030	< 0.01	0.011	0.0077 J	< 0.25	< 0.01	< 0.05	0.0092 J	0.031
	T12-ROX-101923	10/19/2023	< 0.25	1.5	< 0.01	< 0.25	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.000032	< 0.01	0.013	0.019	< 0.25	< 0.01	< 0.05	0.031	0.037

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)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-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	0.00018 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	< 0.00020
	MW1-ROX-071023	7/10/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW1-ROX-100523	10/5/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.017	< 0.0057	< 0.0057	< 0.00011	< 0.00011
MW-02	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	< 0.00021
	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	< 0.00020
	MW2-ROX-071823	7/18/2023	< 0.0010	0.032	0.026	0.1	0.0088	0.11	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.00020
	MW2-ROX-101323	10/13/2023	< 0.0010	0.012	0.015	0.028	0.0029 J	0.031	< 0.00099 UJ	< 0.00099 UJ	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	< 0.00020 UJ	< 0.00020
MW-03	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	< 0.00020
	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	< 0.00019
	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	< 0.00019
	MW3-ROX-071023	7/10/2023	< 0.01	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW3-ROX-101223	10/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098	< 0.0098	< 0.00020 UJ	< 0.00020
	MW3-ROX-101223-DUP	10/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0098	< 0.0098	< 0.00020 UJ	< 0.00020
MW-04	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	< 0.00020
	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	< 0.00039 UJ
	MW4-ROX-071323	7/13/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00021
	MW4-ROX-102023	10/20/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.034	< 0.011	< 0.011	< 0.00022	< 0.00022
MW-05	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	< 0.00020
	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	< 0.00019
	MW5-ROX-071723	7/17/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00021
	MW5-ROX-101623	10/16/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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 UJ	< 0.00020
MW-06A	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	< 0.00021
	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	< 0.00020
	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	< 0.00020
	MW6A-ROX-071123	7/11/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020 H UJ	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.00020 H UJ
	MW6A-ROX-101023	10/10/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	0.00026	0.00022	< 0.00019	0.000045 J	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0095	< 0.0095	< 0.00019	< 0.00019
MW-06B	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	0.00011 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	< 0.00021
	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	< 0.00020
	MW6B-ROX-071123	7/11/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021 H UJ	< 0.00021	< 0.00021 H UJ	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.00021
	MW6B-ROX-071123-DUP	7/11/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00021
	MW6B-ROX-101023	10/10/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	0.00011 J	0.00010 J	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028	< 0.0094	< 0.0094	< 0.00019	< 0.00019
MW-06C	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	< 0.00020
	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	< 0.00020
	MW6C-ROX-071123	7/11/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW6C-ROX-101023	10/10/2023	< 0.0010	< 0.0010 UJ	< 0.0010 UJ	< 0.0050	< 0.0050 UJ	< 0.01	< 0.00019	< 0.00019	< 0.00019	0.000043 J	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028	< 0.0095	< 0.0095	< 0.00019	< 0.00019

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)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-06D	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	< 0.00021
	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	< 0.00019
	MW6D-ROX-071223	7/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW6D-ROX-100923	10/9/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
MW-07	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	< 0.00020
	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	< 0.00020
	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	< 0.00020
	MW7-ROX-071323	7/13/2023	< 5	< 5	< 5	< 25	< 25	< 50	0.00016 J	< 0.00021	0.000055 J	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.03	< 0.011	< 0.011	< 0.00021	< 0.00021
	MW7-ROX-071323-DUP	7/13/2023	< 5	< 5	< 5	< 25	< 25	< 50	< 0.00020	< 0.00020	0.000049 J	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	< 0.00020	< 0.00020
	MW7-ROX-102023	10/20/2023	< 5	< 5	< 5	< 25	< 25	< 50	< 0.00022	0.00015 J	0.000087 J	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.033	< 0.011	< 0.011	< 0.00022	< 0.00022
	MW7-ROX-102023-DUP	10/20/2023	< 5	< 5	< 5	< 25	< 25	< 50	< 0.00022	0.00016 J	0.000058 J	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.033	< 0.011	< 0.011	< 0.00022	< 0.00022
MW-08	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	< 0.00019
	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	< 0.00020
MW-09	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	< 0.00021
	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	< 0.00019
	MW9-ROX-071823	7/18/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW9-ROX-101623	10/16/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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 UJ	< 0.00020
MW-10	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	< 0.00021
	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	< 0.00020
	MW10-ROX-071823	7/18/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW10-ROX-101323	10/13/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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 UJ	< 0.00020
MW-11	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	< 0.00021
	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	< 0.00020
	MW11-ROX-071223	7/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW11-ROX-100623	10/6/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.017	< 0.0058	< 0.0058	< 0.00012	< 0.00012
MW-12	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	< 0.00019
	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	< 0.00020
	MW12-ROX-071223	7/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW12-ROX-101023	10/10/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	0.000052 J	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028	< 0.0094	< 0.0094	< 0.00019	< 0.00019
MW-13	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	< 0.00019
	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	< 0.00020
	MW13-ROX-071423	7/14/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00099 UJ	< 0.00099 UJ	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	< 0.00020	< 0.00020
	MW13-ROX-101823	10/18/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	0.00034	< 0.00020	0.00010 J	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	< 0.00020	< 0.00020
MW-14	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	< 0.00019
	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	< 0.00019
	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	< 0.00019
	MW14-ROX-071723	7/17/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00022 UJ	< 0.00022 UJ	< 0.00022 UJ	< 0.00022 UJ	< 0.00022 UJ	< 0.00022 UJ	< 0.00022 UJ	< 0.00022 UJ		< 0.011 UJ	< 0.011 UJ	< 0.00022 UJ	< 0.00022 UJ
	MW14-ROX-100923	10/9/2023	< 0.0010	< 0.0010	< 0.0010	0.00066 J	< 0.0050	< 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	< 0.00020
MW-16	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	< 0.00021
	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	< 0.00020
	MW16-ROX-071123	7/11/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW16-ROX-101823	10/18/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW16-ROX-101823-DUP	10/18/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0098	< 0.0098	< 0.00020	< 0.00020

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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)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-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	< 0.00019
	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	< 0.00020
	MW22-ROX-071323	7/13/2023	< 0.002	0.071	0.029	0.17	0.0065 J	0.17	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.00020
	MW22-ROX-101623	10/16/2023	< 0.0010	0.049	0.035	0.13	0.0061	0.14	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098	< 0.0098	< 0.00020 UJ	< 0.00020
MW-23	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	< 0.00021
	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	< 0.00020
	MW23-ROX-071423	7/14/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW23-ROX-101023	10/10/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	0.000046 JB	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0095	< 0.0095	< 0.00019	< 0.00019
MW-24	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	0.000063 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	< 0.00019
	MW24-ROX-071023	7/10/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	MW24-ROX-101223	10/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	0.00012 J	< 0.00020	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098	< 0.0098	< 0.00020 UJ	< 0.00020
MW-25	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	< 0.00021
	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	< 0.00020
	MW25-ROX-071323	7/13/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00021
	MW25-ROX-102023	10/20/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.033	< 0.011	< 0.011	< 0.00022	< 0.00022
MW-26	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	< 0.00020
	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	< 0.00019
	MW26-ROX-071023	7/10/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00019
	MW26-ROX-100523	10/5/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.017	< 0.0057	< 0.0057	< 0.00011	< 0.00011
MW-27	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	< 0.00020
	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	< 0.00020
	MW27-ROX-071823	7/18/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.031	< 0.01	0.00026 J	< 0.00021	< 0.00021
	MW27-ROX-101823	10/18/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
MW-28	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	< 0.00020
	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	< 0.00020
	MW28-ROX-071223	7/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00019
	MW28-ROX-101223	10/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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 UJ	< 0.00020
P-54	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	< 0.00020
	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	< 0.00020
	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	< 0.00019
	P54-ROX-071223	7/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	P54-ROX-100623	10/6/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.000036 J	< 0.00011	< 0.00011	< 0.017	< 0.0057	< 0.0057	< 0.00011	< 0.00011
P-56	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	< 0.00019
	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	< 0.00020
	P56-ROX-071023	7/10/2023		0.021	0.0068	0.039	0.0011 J	0.04	0.00044	< 0.00020	0.000091 J	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.00020
	P56-ROX-101823	10/18/2023	< 0.0010	< 0.0010	< 0.0010	0.0015 J	< 0.0050	< 0.01	0.00043	< 0.00021	0.000072 J	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.00021

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)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-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	< 0.00019
	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	< 0.00020
	P57-ROX-071323	7/13/2023	< 0.0020 U	< 0.0020	< 0.0020	0.0015 J	< 0.01	< 0.02	0.00021 J	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.00022	< 0.033	< 0.011	< 0.011	< 0.00022	< 0.00022
	P57-ROX-071323-DUP	7/13/2023	< 0.0020	< 0.0020	< 0.0020	0.0019 J	< 0.01	< 0.02	0.00022	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	< 0.00020	< 0.00020
	P57-ROX-101723	10/17/2023	< 0.0010	< 0.0010	< 0.0010	0.00075 J	< 0.0050	< 0.01	0.00022	< 0.00020	0.00014 J	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	< 0.00020	< 0.00020
P-58	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	< 0.00020
	P58-ROX-071823	7/18/2023	< 1	< 1	< 1	< 5	< 5	< 10	0.00062	< 0.00020	0.00019 J	0.00014 J	0.000099 J	0.000053 J	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	0.00014 J	< 0.00020
	P58-ROX-071823-DUP	7/18/2023	< 1	< 1	< 1	< 5	< 5	< 10	0.00053	< 0.00020	0.000097 J	0.000065 J	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098	< 0.0098	< 0.00020	< 0.00020
	P58-ROX-101723	10/17/2023	< 1 UJ	< 1 UJ	< 1 UJ	< 5 UJ	< 5 UJ	< 10 UJ	0.00046	< 0.00020	0.00018 J	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	0.000043 J	< 0.00020
P-59	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	< 0.00019
	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	< 0.00019
	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	< 0.00099
	P59-ROX-071823	7/18/2023	< 0.0050	0.0090	0.0095	0.052	< 0.025	0.054	0.00039	< 0.00020	< 0.00020	0.000091 J	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.031	< 0.01	< 0.01	0.000082 J	< 0.00020
	P59-ROX-101823	10/18/2023	< 0.01	0.037	0.031	0.12	< 0.05	0.12	0.00056	< 0.00021	0.00029	< 0.00021 U	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	0.000068 J	< 0.00021
P-74	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	< 0.00019
	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	< 0.00020
	P74-ROX-071223	7/12/2023	< 0.0010	0.0016	< 0.0010	0.0064	0.00068 J	0.0071 J	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.00020
	P74-ROX-101723	10/17/2023	< 0.0050	< 0.0050	< 0.0050	0.011 J	< 0.025	0.011 J	< 0.00020	0.000075 J	< 0.00020	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098	< 0.0098	< 0.00020	< 0.00020
	P74-ROX-101723-DUP	10/17/2023	< 0.0050	< 0.0050	< 0.0050	0.01 J	< 0.025	0.01 J	< 0.00020 H UJ	< 0.00020 H UJ	< 0.00020 H UJ	0.00019 J H J	0.000091 J H J	0.00015 J H J	0.000048 J H J	0.000092 J H J	< 0.03	< 0.0098 H UJ	< 0.0099	0.000096 J H J	0.00011 J H J
P-93A	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	< 0.00019
	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	< 0.00020
	P93A-ROX-071123	7/11/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00021
	P93A-ROX-101823	10/18/2023	0.00047 J	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.031	< 0.01	< 0.01	< 0.00020	< 0.00020
P-93B	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	< 0.00019
	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	< 0.00020
	P93B-ROX-071823	7/18/2023	< 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	< 0.00020
	P93B-ROX-101923	10/19/2023	< 5	< 5	< 5	< 25	< 25	< 50	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.032	< 0.011	< 0.011	< 0.00021	< 0.00021
P-93C	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	< 0.00019
	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	< 0.00020
	P93C-ROX-071423	7/14/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00021
	P93C-ROX-101623	10/16/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00021	0.00018 J	< 0.00021	< 0.00020 U	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.00021
P-93D	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	< 0.029	< 0.0094	< 0.0094	0.00021	< 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	< 0.00020
	P93D-ROX-071123	7/11/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	P93D-ROX-101623	10/16/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.031	< 0.01	< 0.01	< 0.00020 U	< 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)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-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	< 0.00019
	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	< 0.00020
	P114R-ROX-071423	7/14/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	0.00048	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.031	< 0.0099	< 0.0099	< 0.00020	< 0.00020
	P114R-ROX-101823	10/18/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	0.00099	< 0.00020	0.000085 J	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0099 H UJ	< 0.0098	< 0.00020	< 0.00020
ROST-3-MW	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	< 0.00021
	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	< 0.00020
	ROST3MW-ROX-071723	7/17/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00021
	ROST3MW-ROX-071723-DUP	7/17/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	ROST3MW-ROX-100623	10/6/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00011	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.000024 J	< 0.00011	< 0.00011	< 0.017	< 0.0057	< 0.0057	< 0.00011	< 0.00011
ROST-4-PZ(C)	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	< 0.00021 UJ	< 0.031	< 0.01	< 0.01	< 0.00021	< 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	< 0.00019
	ROST4PZC-ROX-071123	7/11/2023	< 0.0010	0.0057	0.00067 J	0.023	0.0017 J	0.024	0.00069	< 0.00021	0.00032	0.000036 J	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.031	< 0.01	< 0.01	< 0.00021	< 0.00021
	ROST4PZ(C)-ROX-101623	10/16/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	0.00057	< 0.00019	0.00025	< 0.00019 U	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0097	< 0.0097	< 0.00019	< 0.00019
	ROST4PZ(C)-ROX-101623-DUP	10/16/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	0.00060	< 0.00019	0.00024	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0096	< 0.0096	< 0.00019 UJ	< 0.00019
ROST-4-PZ(E)	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	< 0.00019
	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	< 0.00020
	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	< 0.00019
	ROST4PZ(E)-ROX-071223	7/12/2023	< 0.0010	0.016	< 0.0010	0.0063	0.0012 J	0.0075 J	0.0013	< 0.00020	0.0010	0.000067 J	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	0.000042 J	< 0.00020
	ROST4PZ(E)-ROX-101323	10/13/2023	< 0.0010	0.01	< 0.0010	0.0048 J	< 0.0050	0.0053 J	0.00048	< 0.00020	0.00082	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098	< 0.0098	< 0.00020 U	< 0.00020
ROST-4-PZ(G)	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	< 0.00019
	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	< 0.00020
	ROST4PZ(G)-ROX-071023	7/10/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 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	< 0.00020
	ROST4PZ(G)-ROX-101223	10/12/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099	< 0.0099	< 0.00020 UJ	< 0.00020
T-12	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	< 0.00019
	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	< 0.00019
	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	< 0.00020
	T12-ROX-071423	7/14/2023	< 0.01	< 0.01	< 0.01	0.028 J	< 0.05	0.028 J	0.00024	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01	< 0.01	< 0.00020	< 0.00020
	T12-ROX-101923	10/19/2023	< 0.01	< 0.01	< 0.01	0.042 J	< 0.05	0.045 J	0.00029	< 0.00020	0.00014 J	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098	< 0.0098	< 0.00020	< 0.00020

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			SVOCs																		
			Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl 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	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		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]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
MW-01	MW1-ROX-011323	1/13/2023	< 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	< 0.021	0.000080 J	< 0.01	0.00014 J
	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	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW1-ROX-071023	7/10/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099	< 0.00020 UJ
	MW1-ROX-100523	10/5/2023	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	0.000049 J	< 0.00011	< 0.0057	< 0.0057	< 0.00011	< 0.00011	< 0.00011	< 0.0057	< 0.011 UJ	< 0.0057	< 0.011	< 0.00011	< 0.0057 UJ	< 0.00011
MW-02	MW2-ROX-011323	1/13/2023	< 0.011	0.00060 J	< 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	< 0.021	0.000039 J	< 0.011	< 0.00021
	MW2-ROX-041823	4/18/2023	< 0.0098	< 0.0098 U	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW2-ROX-071823	7/18/2023	< 0.01	0.00062 J	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	0.0090	0.017	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW2-ROX-101323	10/13/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099 UJ	< 0.00020	< 0.00099 UJ	< 0.0099	< 0.0099	< 0.00020	0.0082	0.015	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099	< 0.00020
MW-03	MW3-ROX-011123	1/11/2023	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW3-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW3-ROX-041723	4/17/2023	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00019
	MW3-ROX-041723-DUP	4/17/2023	< 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	< 0.019	< 0.00019	< 0.0096	< 0.00019
	MW3-ROX-071023	7/10/2023	< 0.01	0.00065 J	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020 UJ	< 0.00020 UJ	< 0.01	< 0.01	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020 UJ
	MW3-ROX-101223	10/12/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098 UJ	< 0.00020	< 0.00020	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW3-ROX-101223-DUP	10/12/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098 UJ	< 0.00020	< 0.00020	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020
MW-04	MW4-ROX-010923	1/9/2023	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW4-ROX-040723	4/7/2023	< 0.02	< 0.02 U	< 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	< 0.039	< 0.00039 UJ	< 0.02	< 0.00039 UJ
	MW4-ROX-071323	7/13/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0010	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.02	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021 UJ
	MW4-ROX-102023	10/20/2023	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.00022	< 0.00022	< 0.011	< 0.011	< 0.00022	< 0.00022	< 0.00022	< 0.011	< 0.022	< 0.011	< 0.022	< 0.00022	< 0.011	< 0.00022
MW-05	MW5-ROX-011023	1/10/2023	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW5-ROX-041423	4/14/2023	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00019
	MW5-ROX-071723	7/17/2023	< 0.01	0.00027 J	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	0.00017 J	0.00026	< 0.01	< 0.019	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW5-ROX-101623	10/16/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 UJ	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020
MW-06A	MW6A-ROX-011123	1/11/2023	< 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	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW6A-ROX-041123	4/11/2023	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW6A-ROX-041123-DUP	4/11/2023	< 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	< 0.02	< 0.00020	< 0.0099	< 0.00020
	MW6A-ROX-071123	7/11/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020 H UJ	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020 UJ
	MW6A-ROX-101023	10/10/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019 U	< 0.00019	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.019	< 0.00019	< 0.0095	< 0.00019
MW-06B	MW6B-ROX-011123	1/11/2023	< 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	< 0.021	< 0.00021	< 0.011	0.00017 J
	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	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW6B-ROX-011123-DUP-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6B-ROX-041123	4/11/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099	< 0.00020
	MW6B-ROX-071123	7/11/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021 H UJ	< 0.00021	< 0.00021	< 0.01	< 0.02	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021 UJ
	MW6B-ROX-071123-DUP	7/11/2023	< 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	< 0.02	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021 UJ
	MW6B-ROX-101023	10/10/2023	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019 U	< 0.00019	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.019	< 0.00019	< 0.0094	< 0.00019
MW-06C	MW6C-ROX-011123	1/11/2023	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW6C-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6C-ROX-041123	4/11/2023	< 0.01	< 0.01 U	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW6C-ROX-071123	7/11/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020 UJ	< 0.00020 UJ	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020 UJ
	MW6C-ROX-101023	10/10/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019 U	< 0.00019	< 0.0095	< 0.0095	0.000032 J	< 0.00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.019	< 0.00019	< 0.0095	< 0.00019

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-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3&4-Methylphenol	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		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]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
MW-06D	MW6D-ROX-011123	1/11/2023	< 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	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW6D-ROX-011123-PAH	1/11/2023	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	MW6D-ROX-041123	4/11/2023	< 0.0097	< 0.0097 U	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.00019	< 0.0097	< 0.019	< 0.0097	< 0.019	< 0.00019	< 0.0097	< 0.00019
	MW6D-ROX-071223	7/12/2023	< 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	< 0.019	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020 UJ
	MW6D-ROX-100923	10/9/2023	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
MW-07	MW7-ROX-010923	1/9/2023	< 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	< 0.02	0.00012 J	0.034	< 0.0002 U
	MW7-ROX-040723	4/7/2023	< 0.01	0.00042 J	< 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	< 0.02	< 0.00020	0.082 J	< 0.00020
	MW7-ROX-040723-DUP	4/7/2023	< 0.01	0.00073 J	< 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	< 0.02	< 0.00020	0.13 J	< 0.00020
	MW7-ROX-071323	7/13/2023	< 0.011	0.00044 J	< 0.011	< 0.011	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	0.00088	0.0013	< 0.011	< 0.02	< 0.011	< 0.021	0.00011 J	0.12 J	< 0.00021 UJ
	MW7-ROX-071323-DUP	7/13/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.01	< 0.00020	0.000095 J	< 0.01	< 0.01	< 0.00020	0.00087	0.0013	< 0.0099	< 0.02	< 0.0099	< 0.02	0.00011 J	0.084 J	< 0.00020 UJ
	MW7-ROX-102023	10/20/2023	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.00022 U	< 0.00022	< 0.011	< 0.011	< 0.00022	0.0011	0.0015	< 0.011	0.00055 J	< 0.011	< 0.022	0.00013 J	0.11	< 0.00022
	MW7-ROX-102023-DUP	10/20/2023	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.00022	< 0.00022	< 0.011	< 0.011	< 0.00022	0.0011	0.0015	< 0.011	0.00045 J	< 0.011	< 0.022	0.00014 J	0.082	< 0.00022
MW-08	MW8-ROX-010923	1/9/2023	0.00042 J	< 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	< 0.019	0.00018 J	0.27	< 0.00019
	MW8-ROX-010923-DUP	1/9/2023	< 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	< 0.02	0.00024	0.23	< 0.00020
MW-09	MW9-ROX-010523	1/5/2023	< 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	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW9-ROX-041023	4/10/2023	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00019
	MW9-ROX-071823	7/18/2023	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW9-ROX-101623	10/16/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099 UJ	< 0.00020	< 0.00020	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099	< 0.00020
MW-10	MW10-ROX-011223	1/12/2023	< 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	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW10-ROX-040623	4/6/2023	< 0.01	0.00033 J	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW10-ROX-071823	7/18/2023	< 0.0098	0.00031 J	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW10-ROX-101323	10/13/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099 UJ	< 0.00020	< 0.00020	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099	< 0.00020
MW-11	MW11-ROX-011223	1/12/2023	< 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	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW11-ROX-040623	4/6/2023	< 0.0098	0.00044 J	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW11-ROX-071223	7/12/2023	< 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	< 0.02	< 0.00020	< 0.0099	< 0.00020 UJ
	MW11-ROX-100623	10/6/2023	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.0058	< 0.00012	< 0.00012	< 0.0058	< 0.0058	< 0.00012	< 0.00012 UJ	< 0.00012 UJ	< 0.0058	< 0.012 UJ	< 0.0058	< 0.012	< 0.00012	< 0.0058 UJ	< 0.00012
MW-12	MW12-ROX-010623	1/6/2023	< 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	< 0.019	< 0.00019	< 0.0095	< 0.00019
	MW12-ROX-040723	4/7/2023	< 0.0098	0.00064 J	< 0.0098 UJ	< 0.0098	0.0027 J	< 0.00020	< 0.00020	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.02 UJ	< 0.0098	< 0.02	< 0.00020	< 0.0098 UJ	< 0.00020
	MW12-ROX-071223	7/12/2023	< 0.01	0.00078 J	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020 UJ
	MW12-ROX-101023	10/10/2023	< 0.0094	0.00028 J	< 0.0094	0.00049 J	< 0.0094	< 0.00019 U	< 0.00019	< 0.0094	< 0.0094	0.000073 J	< 0.00019	< 0.00019	< 0.0094	< 0.019	< 0.0094	< 0.019	< 0.00019	< 0.0094	< 0.00019
MW-13	MW13-ROX-010923	1/9/2023	< 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	< 0.019	< 0.00019	< 0.0096	< 0.00019
	MW13-ROX-041323	4/13/2023	< 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	< 0.02	< 0.00020	< 0.0099	< 0.00020
	MW13-ROX-071423	7/14/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00099 UJ	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099 UJ	< 0.00020
	MW13-ROX-101823	10/18/2023	< 0.0099	< 0.0099	< 0.0099 UJ	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.00020	< 0.0099 UJ	< 0.02 UJ	< 0.0099	< 0.02 UJ	< 0.00020	< 0.0099 UJ	< 0.00020
MW-14	MW14-ROX-010923	1/9/2023	< 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	< 0.019	< 0.00019	< 0.0095	< 0.00019
	MW14-ROX-010923-DUP	1/9/2023	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00033 U
	MW14-ROX-041223	4/12/2023	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00019
	MW14-ROX-071723	7/17/2023	< 0.011 UJ	< 0.011 UJ		< 0.011 UJ	< 0.0097 UJ	< 0.00022 UJ	< 0.00022 UJ	< 0.0097 UJ	< 0.0097 UJ	< 0.00022 UJ	< 0.00022 UJ	< 0.00022 UJ	< 0.011		< 0.011	< 0.022	< 0.00022 UJ		< 0.00022 UJ
	MW14-ROX-100923	10/9/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	0.0018 J	0.0011 J	< 0.0098	< 0.02	< 0.00020	0.0047 J	< 0.00020
MW-16	MW16-ROX-010523	1/5/2023	< 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	< 0.021	< 0.00021	< 0.011	< 0.00021
	MW16-ROX-041023	4/10/2023	< 0.0098	0.00043 J	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW16-ROX-071123	7/11/2023	< 0.0099	0.00061 J	< 0.0099	< 0.0099	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099	< 0.00020 UJ
	MW16-ROX-101823	10/18/2023	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW16-ROX-101823-DUP	10/18/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020 U	< 0.00020	< 0.0098	< 0.0098	< 0.00020 U	< 0.00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020

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-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3&4-Methylphenol	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		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]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	Sample ID	Sample Date	Analytical Results (mg/L)																		
MW-22	MW22-ROX-011023	1/10/2023	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00019
	MW22-ROX-041823	4/18/2023	< 0.0098	0.00069 J	0.0043 J	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0.0098	< 0.00020	0.01	0.011	< 0.0098	< 0.02	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW22-ROX-071323	7/13/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	0.0059	0.0073	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW22-ROX-101623	10/16/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098 UJ	< 0.00020	0.00014 J	< 0.0098	< 0.0098	< 0.00020	0.0037	0.0039	< 0.0098	< 0.02	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020
MW-23	MW23-ROX-011023	1/10/2023	< 0.01	0.00093 J	< 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	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW23-ROX-041223	4/12/2023	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW23-ROX-071423	7/14/2023	< 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	< 0.02	< 0.00020	< 0.0099	< 0.00020
	MW23-ROX-101023	10/10/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019 U	< 0.00019	< 0.0095	< 0.0095	0.000044 J	< 0.00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.019	< 0.00019	< 0.0095	< 0.00019
MW-24	MW24-ROX-011223	1/12/2023	< 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	< 0.021	0.000066 J	< 0.011	< 0.00021
	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	< 0.00019	< 0.00019	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.00019	< 0.0095	< 0.019	< 0.0095	< 0.019	< 0.00019	< 0.0095	< 0.00019
	MW24-ROX-071023	7/10/2023	< 0.0098	< 0.0098 U	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.019	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020 UJ
	MW24-ROX-101223	10/12/2023	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
MW-25	MW25-ROX-010923	1/9/2023	< 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	< 0.021	< 0.00021	< 0.01	< 0.00021 U
	MW25-ROX-040723	4/7/2023	< 0.01	0.00062 J	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW25-ROX-071323	7/13/2023	< 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	< 0.02	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021 UJ
	MW25-ROX-102023	10/20/2023	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.00022	< 0.00022	< 0.011	< 0.011	< 0.00022	< 0.00022	< 0.00022	< 0.011	< 0.022	< 0.011	< 0.022	< 0.00022	< 0.011	< 0.00022
MW-26	MW26-ROX-010623	1/6/2023	< 0.01	0.00067 J	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	MW26-ROX-041023	4/10/2023	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00019
	MW26-ROX-071023	7/10/2023	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00019 UJ
	MW26-ROX-100523	10/5/2023	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.00011	< 0.00011	< 0.0057	< 0.0057	< 0.00011	< 0.00011	< 0.00011	< 0.0057	< 0.011 UJ	< 0.0057	< 0.011	< 0.00011	< 0.0057 UJ	< 0.00011
MW-27	MW27-ROX-010623	1/6/2023	< 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	< 0.02	< 0.00020	< 0.0099	< 0.00020
	MW27-ROX-041023	4/10/2023	< 0.0098	0.00031 J	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW27-ROX-071823	7/18/2023	< 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	< 0.02	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021
	MW27-ROX-101823	10/18/2023	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
MW-28	MW28-ROX-010523	1/5/2023	< 0.0098	0.0010 J	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW28-ROX-041423	4/14/2023	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	MW28-ROX-071223	7/12/2023	< 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	< 0.02	< 0.0097	< 0.019	< 0.00019	< 0.0097	< 0.00019 UJ
	MW28-ROX-101223	10/12/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 UJ	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020
P-54	P54-ROX-010623	1/6/2023	< 0.01	0.00064 J	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	P54-ROX-041223	4/12/2023	< 0.0099	< 0.0099 U	< 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	< 0.02	< 0.00020	< 0.0099	< 0.00020
	P54-ROX-041223-DUP	4/12/2023	< 0.0097	< 0.0097 U	< 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	< 0.019	< 0.00019	< 0.0097	< 0.00019
	P54-ROX-071223	7/12/2023	< 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	< 0.019	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020 UJ
	P54-ROX-100623	10/6/2023	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.00011	< 0.00011	< 0.0057	< 0.0057	0.000020 J	< 0.00011 UJ	< 0.00011 UJ	< 0.0057	< 0.011 UJ	< 0.0057	< 0.011	< 0.00011	< 0.0057 UJ	< 0.00011
P-56	P56-ROX-010923	1/9/2023	0.00066 J	< 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	< 0.019	0.0011	< 0.0097	< 0.00019 U
	P56-ROX-042023	4/20/2023	0.00047 J	< 0.01 U	< 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	< 0.02	0.0011	< 0.01	< 0.00020
	P56-ROX-071023	7/10/2023	0.00049 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	0.00022	< 0.01	< 0.01	< 0.00020	0.0088	0.0074	< 0.01	< 0.02	< 0.01	< 0.02	0.00063	< 0.01	< 0.00020 UJ
	P56-ROX-101823	10/18/2023	0.00025 J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021	0.00023	< 0.01	< 0.01	< 0.00021	0.0032	0.0017	< 0.01	< 0.021	< 0.01	< 0.021	0.00036	< 0.01	< 0.00021

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SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

			SVOCs																	
			Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl 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	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		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]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
P-57	P57-ROX-011023	1/10/2023	0.00077 J	0.00091 J	< 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	< 0.019	0.00045	0.0071 J J	< 0.00019
	P57-ROX-041923	4/19/2023	0.00048 J	< 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	< 0.02	0.00045	0.0069 J	< 0.00020
	P57-ROX-071323	7/13/2023	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.00022	0.00033	< 0.011	< 0.011	< 0.00022	0.018	0.022	< 0.011	< 0.02	< 0.011	< 0.022	0.00030	0.0079 J	< 0.00022
	P57-ROX-071323-DUP	7/13/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	0.00041	< 0.0099	< 0.0099	< 0.00020	0.022	0.026	< 0.0099	< 0.02	< 0.0099	< 0.02	0.00034	0.0072 J	< 0.00020
	P57-ROX-101723	10/17/2023	0.00051 J	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020 U	0.00038	< 0.0099	< 0.0099	< 0.00020 U	0.021	0.014	< 0.0099	< 0.02	< 0.0099	< 0.02	0.00033	0.0061 J	< 0.00020
P-58	P58-ROX-041923	4/19/2023	0.0018 J	< 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	< 0.02	0.0018	0.72	0.00076
	P58-ROX-071823	7/18/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.000069 J	0.0014	< 0.01	< 0.01	< 0.00020	0.065 J	0.034	< 0.01	< 0.02	< 0.01	< 0.02	0.0012	0.51 J	0.00032
	P58-ROX-071823-DUP	7/18/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	0.0011	< 0.0098	< 0.0098	< 0.00020	0.038 J	0.027	< 0.0098	< 0.02	< 0.0098	< 0.02	0.00080	0.25 J	0.000069 J
	P58-ROX-101723	10/17/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020 U	0.0010	< 0.0099	< 0.0099	< 0.00020 U	0.035	0.025	< 0.0099	< 0.02	0.00044 J	< 0.02	0.00079	0.22	0.00013 J
P-59	P59-ROX-011123	1/11/2023	< 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	< 0.019	0.00092 J	0.035 J	0.00037 J
	P59-ROX-011123-DUP	1/11/2023	< 0.0096 UJ	< 0.0096 UJ	< 0.0096 UJ	< 0.0096	< 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	< 0.019 UJ	< 0.0096	< 0.019	0.00037 J	0.0025 J J	0.00019 J
	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	< 0.00099	< 0.00099	< 0.02	< 0.02	< 0.00099	0.0099	0.014	< 0.02	< 0.04	< 0.02	< 0.04	< 0.00099	0.016 J	< 0.00099
	P59-ROX-071823	7/18/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	0.000086 J	0.00022	< 0.01	< 0.01	< 0.00020	0.0099	0.013	< 0.01	< 0.04	< 0.01	< 0.02	0.00059	< 0.01	0.00029
	P59-ROX-101823	10/18/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00021 U	0.00040	< 0.01	< 0.01	< 0.00021	0.0098	0.013	< 0.01	< 0.021	< 0.01	0.0088 J*1	0.00065	0.013	0.00043
P-74	P74-ROX-011023	1/10/2023	< 0.0096	0.00031 J	< 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	< 0.019	< 0.00019	< 0.0096	0.000044 J
	P74-ROX-041723	4/17/2023	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	P74-ROX-071223	7/12/2023	< 0.01	0.0010 J	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	0.00020	0.00017 J	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020 UJ
	P74-ROX-101723	10/17/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020 U	< 0.00020	< 0.0098	< 0.0098	< 0.00020 U	0.00043	0.00042	< 0.0098	0.0014 J	< 0.0098	< 0.02	< 0.00020	0.02	< 0.00020
	P74-ROX-101723-DUP	10/17/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020 H UJ	< 0.00020 H UJ	< 0.0099	< 0.0099	0.00011 J H J	0.00027 H J	0.00026 H J	< 0.0099	0.0024 J	< 0.0099	< 0.02	< 0.00020 H UJ	0.023	< 0.00020 H UJ
P-93A	P93A-ROX-010523	1/5/2023	< 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	< 0.019	< 0.00019	< 0.0096	< 0.00019
	P93A-ROX-010523-PAH	1/5/2023	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	P93A-ROX-041923	4/19/2023	< 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	< 0.02	< 0.00020	< 0.0099	< 0.00020
	P93A-ROX-071123	7/11/2023	< 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	< 0.02	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021 UJ
	P93A-ROX-101823	10/18/2023	< 0.01	0.00034 J	< 0.01	< 0.01	< 0.01	< 0.00020 U	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020
P-93B	P93B-ROX-011123	1/11/2023	< 0.0096	< 0.0096	0.0045 J	< 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	< 0.019	< 0.00019	0.31	< 0.00019
	P93B-ROX-042023	4/20/2023	< 0.0099	< 0.0099 U	0.0036 J	< 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	< 0.02	< 0.00020	0.38	< 0.00020
	P93B-ROX-071823	7/18/2023	< 0.01	< 0.01	0.0036 J	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	0.000085 J	0.000090 J	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	0.24	< 0.00020
	P93B-ROX-101923	10/19/2023	< 0.011	< 0.011	< 0.011	< 0.011	< 0.011	< 0.00021 U	< 0.00021	< 0.011	< 0.011	< 0.00021	0.00015 J	0.00014 J	< 0.011	< 0.021	< 0.011	< 0.021	< 0.00021	0.2	< 0.00021
P-93C	P93C-ROX-010523	1/5/2023	< 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	< 0.019	< 0.00019	< 0.0097	0.000072 J
	P93C-ROX-041923	4/19/2023	< 0.01	< 0.01	< 0.01	< 0.01 U	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020
	P93C-ROX-071423	7/14/2023	< 0.01	0.00029 J	< 0.01	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.02	< 0.01	< 0.021	< 0.00021	< 0.01 UJ	< 0.00021
	P93C-ROX-101623	10/16/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 UJ	< 0.00021	< 0.00021	< 0.01	< 0.01	< 0.00021	< 0.00021	< 0.00021	< 0.01	< 0.021	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021
P-93D	P93D-ROX-010523	1/5/2023	< 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	< 0.019	< 0.00019	< 0.0094	0.00015 J
	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	< 0.00020	< 0.00020	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099	< 0.00020
	P93D-ROX-071123	7/11/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020 UJ	< 0.00020 UJ	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	< 0.00020 UJ
	P93D-ROX-101623	10/16/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01 UJ	< 0.00020 U	< 0.00020	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.02	< 0.01	< 0.02	< 0.00020	< 0.01	0.000043 J

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-octyl phthalate	Fluoranthene	Fluorene	Hexachlorobenzene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3&4-Methylphenol	N-Nitrosodiphenylamine	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)			0.007 [3]	5.6 [1]	0.14 [2]		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]	0.0032 [2]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
P-114R	P114R-ROX-010623	1/6/2023	< 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	< 0.019	< 0.00019	< 0.0097	0.00018 J
	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	< 0.00020	< 0.00020	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020
	P114R-ROX-071423	7/14/2023	< 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		< 0.0099	< 0.02	< 0.00020	< 0.0099 UJ	< 0.00020
	P114R-ROX-101823	10/18/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020 U	< 0.00020	< 0.0098	< 0.0098	< 0.00020	0.00025	< 0.00020	< 0.0098	< 0.02	< 0.0098	< 0.02	< 0.00020	< 0.0098	< 0.00020
ROST-3-MW	ROST3MW-ROX-010523	1/5/2023	< 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	< 0.021	< 0.00021	< 0.01	< 0.00021
	ROST3MW-ROX-041123	4/11/2023	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	ROST3MW-ROX-071723	7/17/2023	< 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	< 0.02	< 0.01	< 0.021	< 0.00021	< 0.01	< 0.00021
	ROST3MW-ROX-071723-DUP	7/17/2023	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020
	ROST3MW-ROX-100623	10/6/2023	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.0057	< 0.00011	< 0.00011	< 0.0057	< 0.0057	< 0.00011	0.000072 J	< 0.00011	< 0.0057	< 0.011 UJ	< 0.0057	< 0.011	< 0.00011	< 0.0057 UJ	< 0.00011
ROST-4-PZ(C)	ROST4PZ(C)-ROX-011323	1/13/2023	0.00041 J J	< 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	< 0.021	0.0024	< 0.01	0.000092 J
	ROST4PZ(C)-ROX-041723	4/17/2023	< 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	< 0.019	0.00069	< 0.0096	0.00025
	ROST4PZC-ROX-071123	7/11/2023	0.00060 J	< 0.01	< 0.01	< 0.01	< 0.01	0.00011 J	0.00059	< 0.01	< 0.01	< 0.00021	0.014	0.0016	< 0.01	< 0.019	< 0.01	< 0.021	0.0015	< 0.01	0.000070 J J
	ROST4PZ(C)-ROX-101623	10/16/2023	0.00054 J	< 0.0097	< 0.0097	< 0.0097	< 0.0097 UJ	< 0.00019 U	0.00057	< 0.0097	< 0.0097	< 0.00019	0.0081	0.00018 J	< 0.0097	< 0.019	< 0.0097	< 0.019	0.0010	< 0.0097	< 0.00019
	ROST4PZ(C)-ROX-101623-DUP	10/16/2023	0.00060 J	< 0.0096	< 0.0096	< 0.0096	< 0.0096 UJ	< 0.00019	0.00061	< 0.0096	< 0.0096	< 0.00019	0.0094	0.00028	< 0.0096	< 0.019	< 0.0096	< 0.019	0.0012	< 0.0096	< 0.00019
ROST-4-PZ(E)	ROST4PZ(E)-ROX-011023	1/10/2023	0.0030 J	< 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	< 0.019	0.0085	< 0.0095	0.00070
	ROST4PZ(E)-ROX-041823	4/18/2023	0.0014 J	< 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	< 0.02	0.0047	< 0.0098	0.00042
	ROST4PZ(E)-ROX-041823-DUP	4/18/2023	< 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	< 0.019	0.0039	< 0.0097	0.00029
	ROST4PZ(E)-ROX-071223	7/12/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	0.00026	0.0011	< 0.0099	< 0.0099	< 0.00020	0.02	0.0041	< 0.0099	< 0.019	< 0.0099	< 0.02	0.0051	< 0.0099	0.00048
	ROST4PZ(E)-ROX-101323	10/13/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098 UJ	< 0.00020	0.00059 B	< 0.0098	< 0.0098	< 0.00020	0.0079	0.0032	< 0.0098	< 0.02	< 0.0098	< 0.02	0.0042	< 0.0098	0.00013 J
ROST-4-PZ(G)	ROST4PZ(G)-ROX-010623	1/6/2023	< 0.0097	0.00030 J	< 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	< 0.019	0.000037 J	< 0.0097	< 0.00019
	ROST4PZ(G)-ROX-041423	4/14/2023	< 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	< 0.02	< 0.00020	< 0.0098	< 0.00020
	ROST4PZ(G)-ROX-071023	7/10/2023	< 0.01	0.00029 J	< 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	< 0.02	< 0.00020	< 0.01	< 0.00020 UJ
	ROST4PZ(G)-ROX-101223	10/12/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099 UJ	< 0.00020	< 0.00020	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.02	< 0.0099	< 0.02	< 0.00020	< 0.0099	< 0.00020
T-12	T12-ROX-011123	1/11/2023	< 0.0095	< 0.0095	0.0039 J J	< 0.0095	< 0.0095	< 0.00019	0.00037 J	< 0.0095	0.0054 J	< 0.00019	0.022	0.032	< 0.0095	< 0.019 UJ	< 0.0095	< 0.019	0.00045	0.023 J	< 0.00019
	T12-ROX-011123-DUP	1/11/2023	< 0.0095	< 0.0095	0.0042 J	< 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	< 0.019	0.00048	0.056 J	0.000051 J J
	T12-ROX-042023	4/20/2023	< 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	< 0.02	0.00048	0.036	< 0.00020
	T12-ROX-071423	7/14/2023	< 0.01	0.0011 J	< 0.01	< 0.01	< 0.01	< 0.00020	0.00023	< 0.01	< 0.01	< 0.00020	0.015	0.023	< 0.01	< 0.02	< 0.01	< 0.02	0.00042	0.05 J	< 0.00020
	T12-ROX-101923	10/19/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020 U	0.00029	< 0.0098	< 0.0098	< 0.00020	0.016	0.022	< 0.0098	0.00065 J	< 0.0098	< 0.02	0.00050	0.049	< 0.00020

Notes:

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

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

3 Denotes screening criteria source from IL EPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 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:

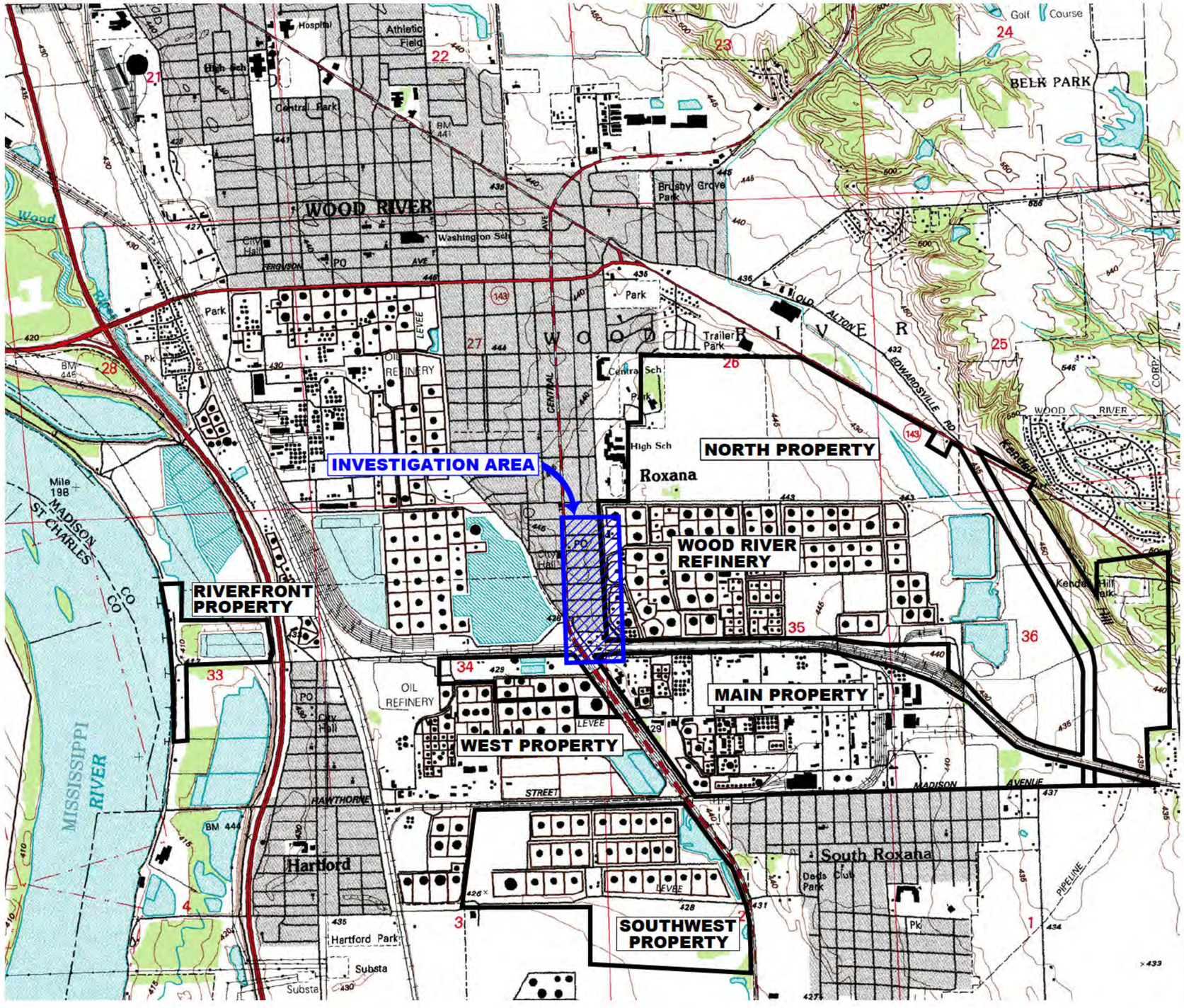
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

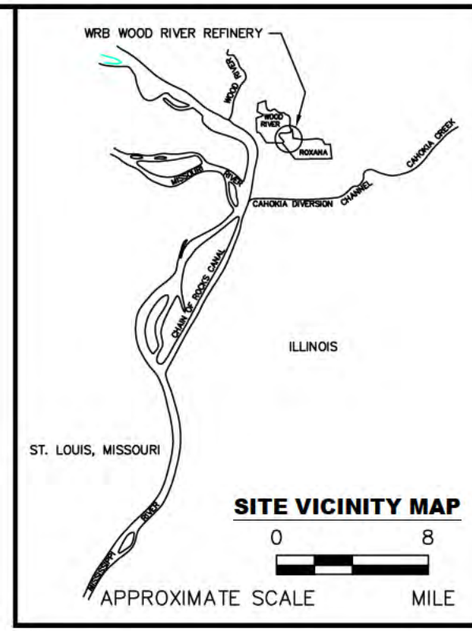
Inward Kriging / Boundary Cut-off – This method of Kriging limits the horizontal extent of data modeling to the extent of the data on the x/y plane in a convex hull.

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 January 2024 DSGN. BY:mar CHKD. BY:wmp	Investigation Area Location Map
	FIG. NO. 1

File: C:\USERS\LUNDSETV\ACOM\QDS DB SERVICES - DB CAD PROJECTS\QDS AMERICAS\SHELL\ILLINOIS\60697537\60697537-ROXANA-GENERAL_AEC-ROXANA-GI\ROXANA 4023.DW RPT\WORKSPACE\FIGURE 1 INVESTIGATION AREA LOCATION MAP.DWG Last edited: 08/24/23 ● 4:02 AM ● 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 4Q23 GW RPT\WORKSPACE\FIGURE 2 GROUNDWATER MONITORING WELL SAMPLING LOCATIONS.DWG Last edited: Aug. 24, 23 @ 4:04 AM 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
VILLAGE OF ROXANA
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
2ND STREET
1ST STREET
RAND AVENUE
BP
NORTH PROPERTY
MAIN PROPERTY
WEST PROPERTY
1986 APPROXIMATE BENZENE RELEASE SITE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

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)*
ROST-4-PZ(F)
P-60
P-68*
ROST-4-PZ(G)*
P-60-13
MW-11*
P-54*
MW-17
T-12*
MW-24*
MW-22*
P-69
MW-18
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*
T-6
MW-26*
MW-21
P-57*
MW-4*
MW-3*
P-93A*
P-93B*
P-93C*
P-93D*
MW-25*
P-73
MW-5*
MW-7*
MW-23*
MW-8
P-58*
P-66*
P-75
MW-13*
MW-6A
MW-6B*
MW-6C*
MW-6D*
MW-14*
P-114R*
A-28
A-33
A-34
T-24
A-27
P-74
A-22
F-76
F-77
F-78
F-73
F-74
F-75

0 200
SCALE FEET
N

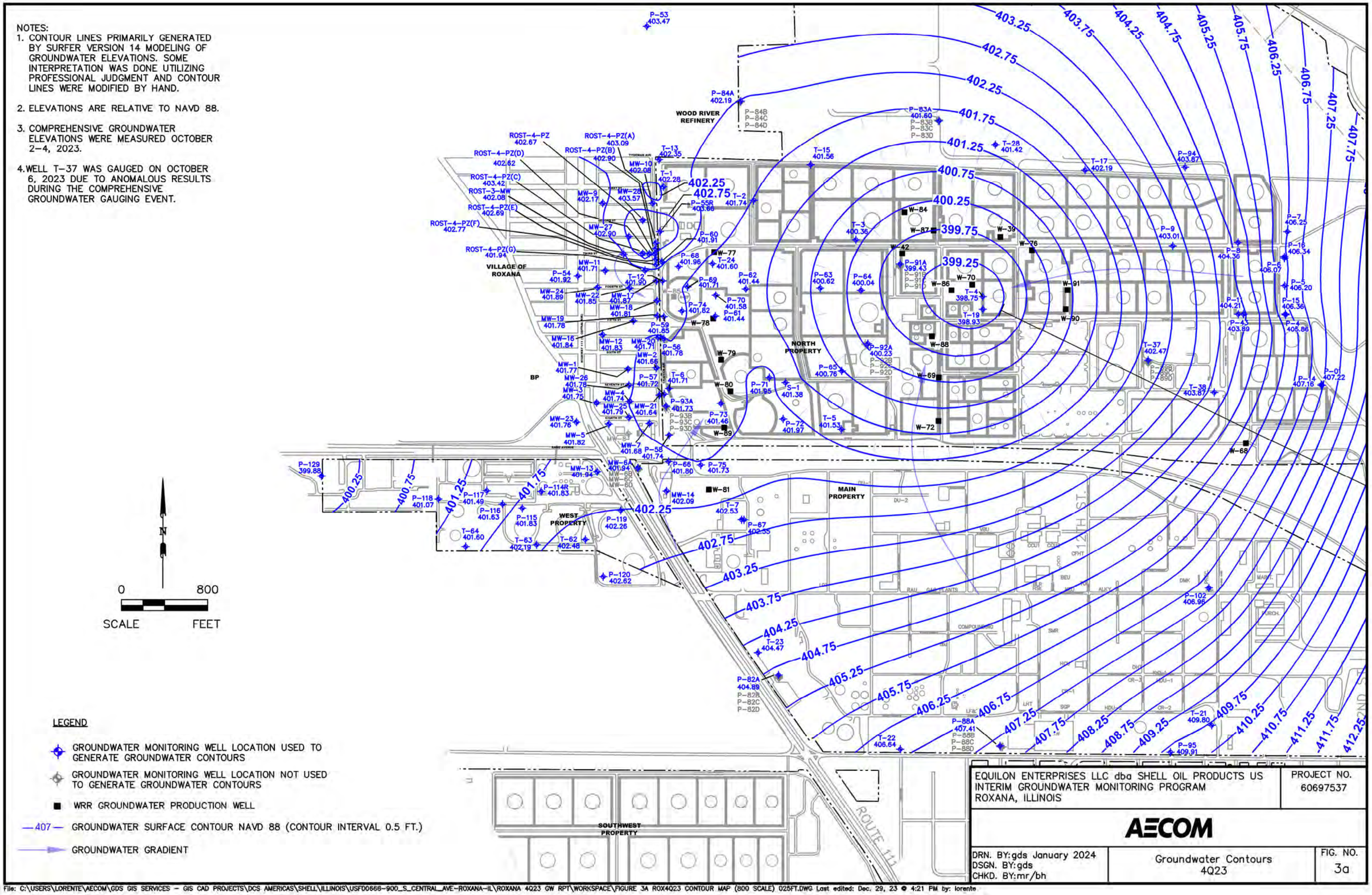
EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY:gds January 2024 DSGN. BY:mr CHKD. BY:wmp	Roxana Interim Groundwater Monitoring Well Locations	FIG. NO. 2

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 OCTOBER 2–4, 2023.

4. WELL T–37 WAS GAUGED ON OCTOBER 6, 2023 DUE TO ANOMALOUS RESULTS DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.



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 January 2024 DSGN. BY:gds CHKD. BY:mr/bh	Groundwater Contours 4Q23	FIG. NO. 3a

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES – GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USFD0868–900_S_CENTRAL_AVE–ROXANA–IL\ROXANA 4Q23 GW RPT\WORKSPACE\FIGURE 3A ROX4Q23 CONTOUR MAP (800 SCALE) 025FT.DWG Last edited: Dec. 29, 23 @ 4:21 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 4Q23 GW RPT\WORKSPACE\FIGURE 3B GW CONTOURS 4Q23 WF_025FT.DWG Last edited: Dec. 14, 23 @ 1:52 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
- –402.25– 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 OCTOBER 2–4, 2023.

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

402.25
402.75
401.75
401.25
402.25
402.75
403.25

T-13 402.35
T-1 402.28
T-2 401.66
MW-9 402.17
MW-10 402.08
ROST-4-PZ(A) 403.09
ROST-4-PZ(B) 402.9
MW-28 403.57
MW-27 402.90
P-55R 403.66
ROST-4-PZ(D) 402.62
ROST-4-PZ(C) 403.42
ROST-4-PZ 402.67
ROST-3-MW 402.08
W-77
P-60 401.91
ROST-4-PZ(E) 402.69
ROST-4-PZ(F)
P-68 401.96
T-24 401.60
P-54 401.92
MW-11 401.71
ROST-4-PZ(G) 401.94
MW-17 401.87
T-12 401.90
P-62 401.44
MW-24 401.89
MW-22 401.85
P-69 401.71
W-85
P-70 401.58
MW-18 401.81
P-74 401.82
P-59 401.85
W-78
P-61 401.44
MW-19 401.78
MW-16 401.84
P-56 401.78
MW-12 401.83
MW-20 401.71
MW-2 401.66
W-79
MW-1 401.77
T-6 401.71
S-1 401.38
P-71 401.95
W-80
MW-26 401.78
MW-4 401.74
MW-21 401.64
P-57 401.72
MW-3 401.75
P-93A 401.73
P-93B
P-93C
P-93D
P-73 401.46
MW-25 401.79
MW-23 401.76
MW-5 401.82
MW-7 401.68
P-72 401.97
W-89
P-58 401.74
MW-8
MW-6A 401.94
MW-6B
MW-6C
MW-6D
P-66 401.80
P-75 401.73
MW-13 401.94
MW-14 402.09
W-81
P-117 401.49
P-114R 401.83
P-116 401.63
P-115 401.83
P-119 402.26
P-67 402.55
T-7 402.53
T-64 401.60
T-63 402.19
T-62 402.48

A-32 A-31 A-58 A-57 A-3 A-28 A-33 A-37 A-27 A-35 A-16 F-50 F-76 F-77 A-30 F-78 A-22 A-29 F-73 F-74 F-75 A-147

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 January 2024 DSGN. BY:gds CHKD. BY:mr/bh	Groundwater Contours 4Q23– West Fenceline	FIG. NO. 3b

File: C:\USERS\TAWASEG\AECOM\EC GIS SERVICES - DC3 AMERICAS\SHELL\ILLINOIS\USF00088-900_3_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q23 GW RPT\WORKSPACE\FIGURE 4A THICKNESS OF LNAPL (WEST FENCLINE) 4Q23.DWG Last edited: Dec. 14, 23 @ 1:56 PM by: tonsmeg

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 JULY OCTOBER 2–4, 2023.

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

P-84A P-84B P-84C P-84D
T-13 T-1 T-2 T-12 T-24 T-6 T-7
A-32 A-31 A-58 A-57 A-34 A-28 A-33 A-37 A-27 A-35 A-16 A-30 A-29 A-22
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-55R 0.01 0.02*
P-60 0.01 P-68 0.06*
P-69 W-85 P-70 P-74 P-61 R-78 W-78 P-59 P-56 P-54 P-57 P-93A P-93B P-93C P-93D P-58 P-66 1.44 1.0 P-75 P-71 0.01 S-1 0.04 P-72 P-73 P-62 1.0 1.06*
R-77 W-77 R-79 W-79 R-80 W-80 R-89 W-89 R-81 W-81
F-50 F-76 F-77 F-78 F-73 F-74 F-75
P-117 P-114R P-116 P-115 P-119

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 60697537

AECOM

DRN. BY:gds January 2024
DSGN. BY:mr
CHKD. BY:bh

4Q23 Thickness of LNAPL – West Fenceline

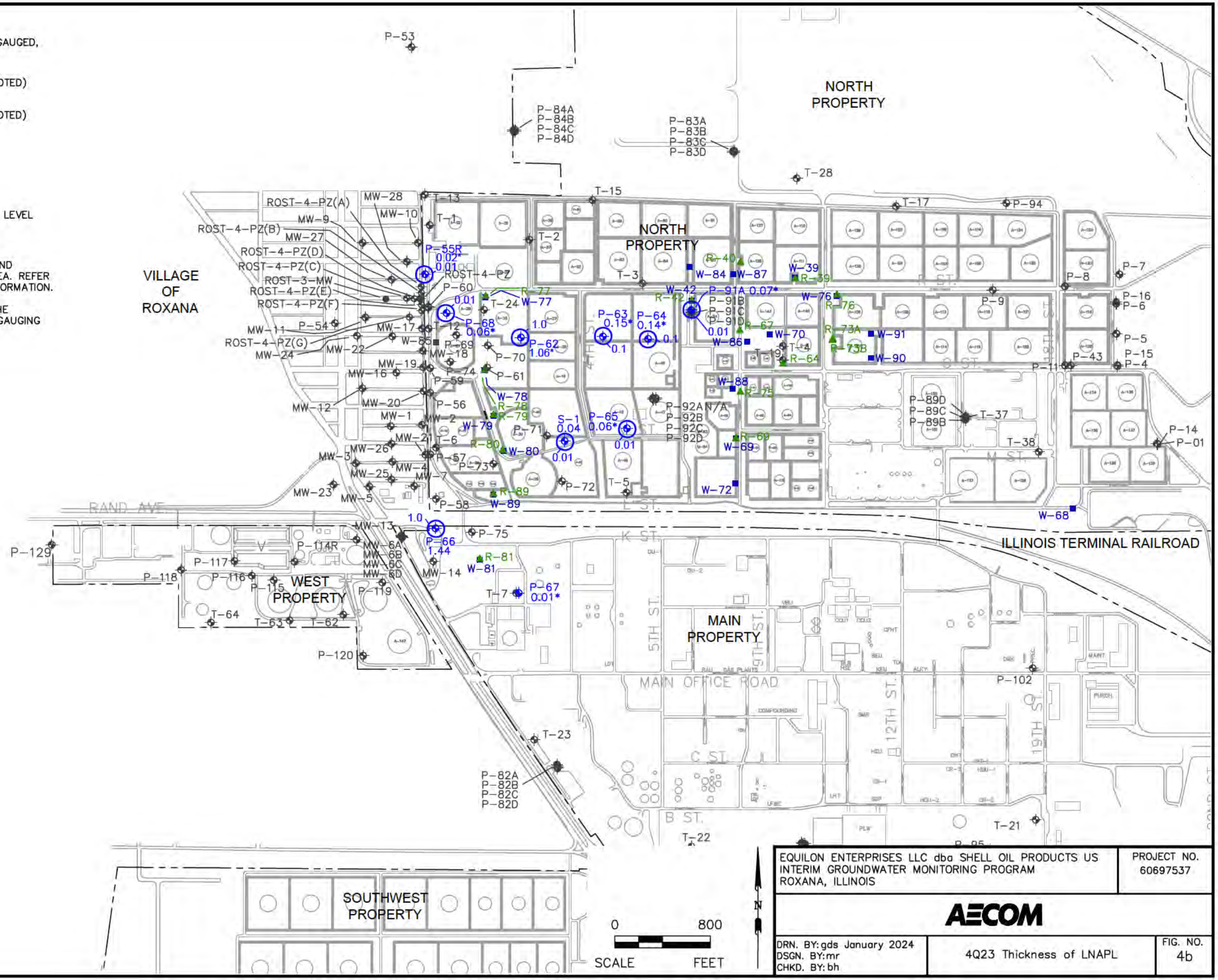
FIG. NO. 4a

0 300
SCALE FEET
N

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 OCTOBER 2-4, 2023.



EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY: gds January 2024 DSGN. BY: mr CHKD. BY: bh	4Q23 Thickness of LNAPL	FIG. NO. 4b

File: C:\USERS\TAWSEB\AECOM\EG GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\60700668-800_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q23 GW MPR\WORKSPACE\FIGURE 4B THICKNESS OF LNAPL (REFINERY) 4Q23.DWG Last edited: Dec. 14, 23 @ 2:03 PM by: timsteg

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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
Tetrachloroethene	0.005
bis(2-Ethylhexyl)phthalate	0.0006
Pentachlorophenol	0.001
Phenol	0.1

3. J = THE RESULT IS ESTIMATED.
4. *1 = LCS/LCSD RPD EXCEEEDS CONTROL LIMITS.
5. MULTIPLE RESULTS (e.g., 1,400 / 1,200) 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 4Q23 DUE TO THE PRESENCE OF LNAPL.
8. DATA FROM THE PAH 8270_LL/SIM CONFIRMATION RE-ANALYSIS WAS USED FOR WELL P-74; SEE TABLE 3 FOR ORIGINAL AND CONFIRMATION PAH 8270_LL/SIM RESULTS.
9. DATA FROM THE BIS(2-ETHYLHEXYL)PHTHALATE CONFIRMATION RE-ANALYSIS WAS USED FOR WELL P-114R; SEE TABLE 3 FOR ORIGINAL AND CONFIRMATION BIS(2-ETHYLHEXYL)PHTHALATE RESULTS.

MW-9 MW-10 SECOND ST MW-28 P-55R 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 MW-18 MW-19 P-59 P-61 FIFTH ST MW-16 MW-12 VILLAGE OF ROXANA MW-20 P-56 HIGHWAY 111 (S. CENTRAL AVE) MW-1 MW-2 SEVENTH ST MW-26 MW-21 T-6 P-57 P-93A P-93B P-93C P-93D MW-4 MW-3 EIGHTH ST MW-5 MW-25 MW-7 MW-8 MW-23 1986 APPROXIMATE BENZENE RELEASE SITE RAND AVENUE P-58 2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE P-66 P-75 MW-6A MW-6B MW-6C MW-6D WEST PROPERTY MW-13 P-114R MW-14 NORTH PROPERTY A-34 A-33 WOOD RIVER REFINERY F-78 A-22 P-73 F-73 F-74 F-75 MAIN PROPERTY CHAFFER AVE 1ST STREET 2ND STREET

Sample Location	T-12
Sampled 10/19/2023	Result (mg/L)
Benzene	1.5

Sample Location	MW-22
Sampled 10/16/2023	Result (mg/L)
Benzene	0.0061

Sample Location	P-74
Sampled 10/17/2023	Result (mg/L)
Benzene	1.0 / 1.0
bis(2-Ethylhexyl)phthalate	<0.0098 / **0.028**

Sample Location	P-59
Sampled 10/18/2023	Result (mg/L)
Benzene	1.8
Pentachlorophenol	0.0088 J *1

Sample Location	P-93A	P-93B	P-93C
Sampled 10/18, 10/18, 10/16/2023	Result (mg/L)	Result (mg/L)	Result (mg/L)
Benzene		610	0.013
Tetrachloroethene	0.0065		
Phenol		0.2	

Sample Location	MW-7
Sampled 10/20/2023	Result (mg/L)
Benzene	1400 / 1200
Phenol	**0.11** / 0.082

Sample Location	MW-25
Sampled 10/20/2023	Result (mg/L)
Benzene	0.043

Sample Location	P-57
Sampled 10/17/2023	Result (mg/L)
Benzene	0.084

Sample Location	P-58
Sampled 10/17/2023	Result (mg/L)
Benzene	570
Phenol	0.22

Sample Location	MW-14
Sampled 10/9/2023	Result (mg/L)
Benzene	0.011

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 January 2024
DSGN. BY:mr
CHKD. BY:bh

4Q23 Groundwater Monitoring Well Analytical Exceedances

FIG. NO. 5

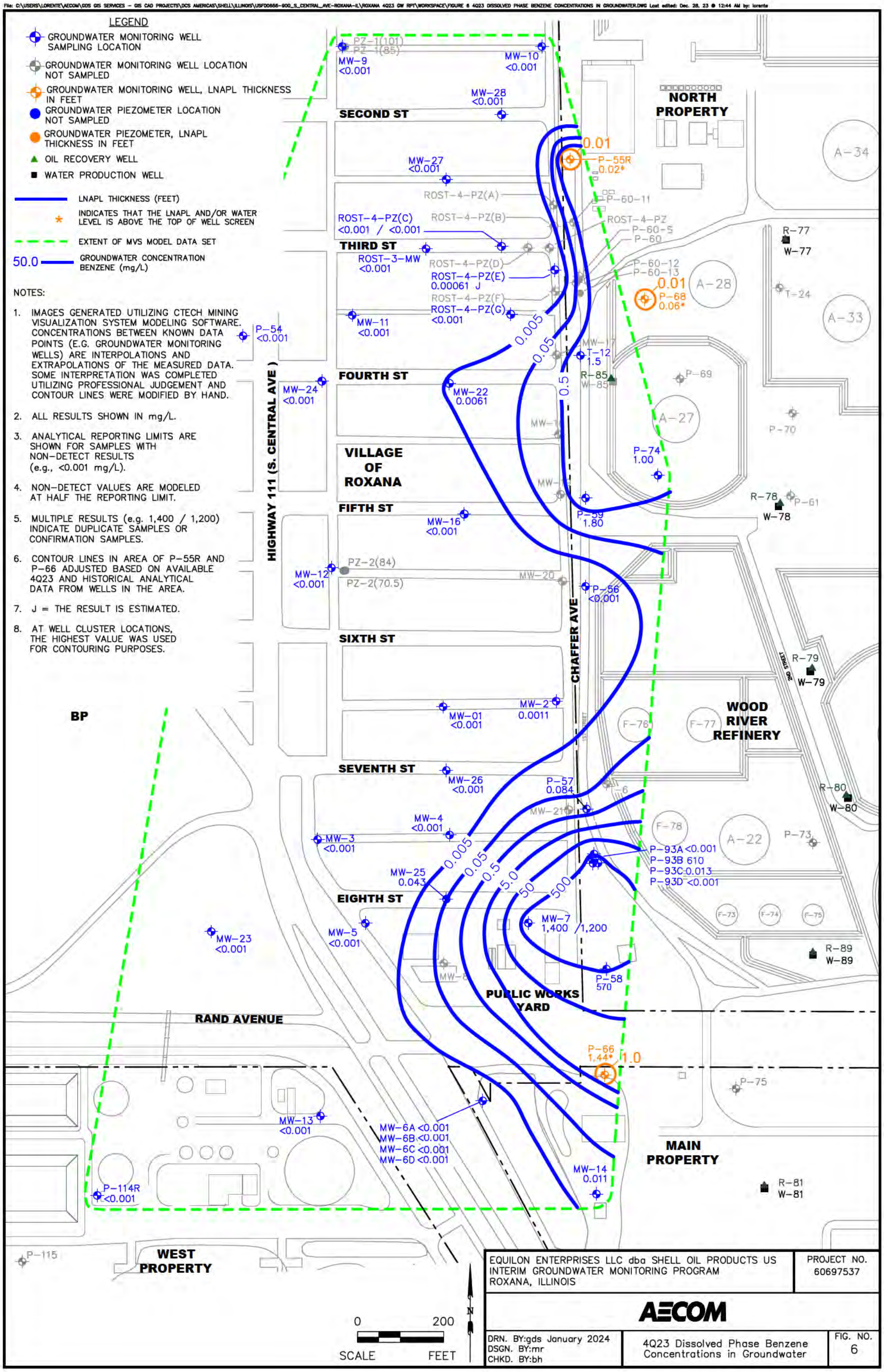
File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00686-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q23 GW RPT\WORKSPACE\FIGURE 6 4Q23 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GROUNDWATER.DWG Last edited: Dec. 28, 23 @ 12:44 AM by: lorente

LEGEND

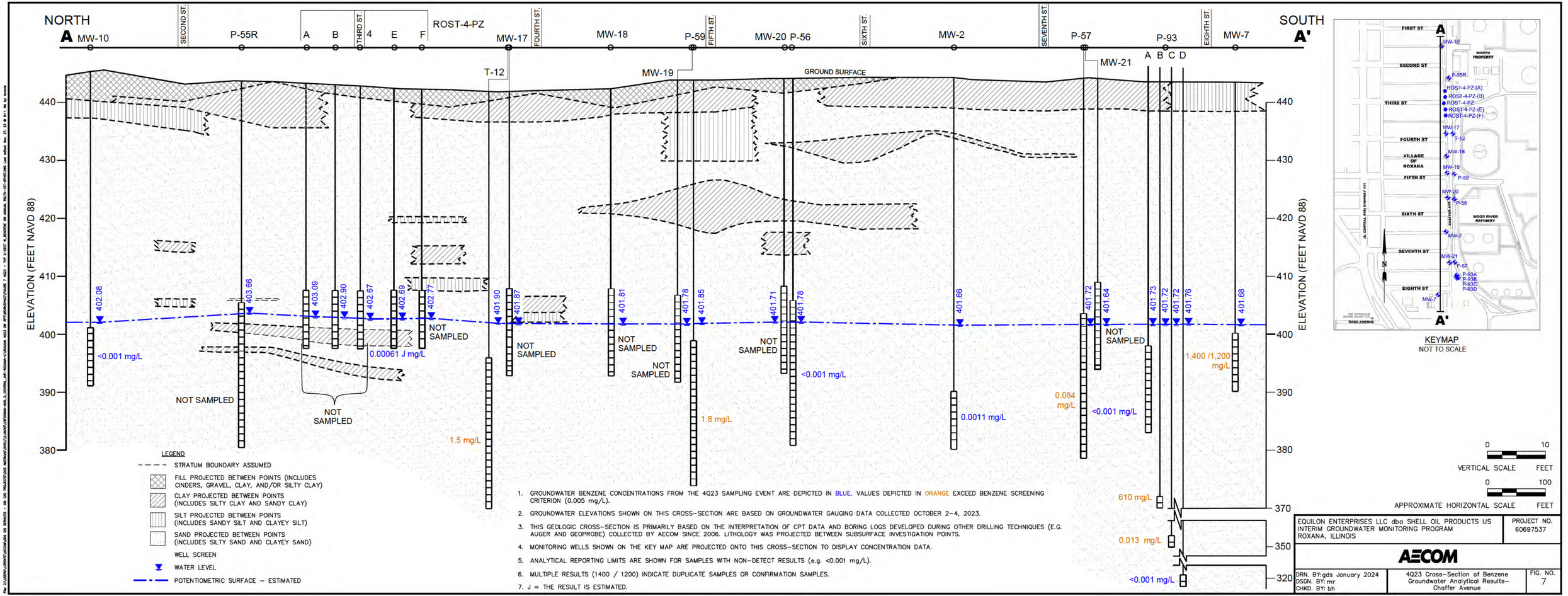
- GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION NOT SAMPLED
- GROUNDWATER MONITORING WELL, LNAPL THICKNESS IN FEET
- GROUNDWATER PIEZOMETER LOCATION NOT SAMPLED
- GROUNDWATER PIEZOMETER, LNAPL THICKNESS IN FEET
- OIL RECOVERY WELL
- WATER PRODUCTION WELL
- LNAPL 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. 1,400 / 1,200) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
6. CONTOUR LINES IN AREA OF P-55R AND P-66 ADJUSTED BASED ON AVAILABLE 4Q23 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.



EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60697537
AECOM	
DRN. BY:gds January 2024 DSGN. BY:mr CHKD. BY:bh	4Q23 Dissolved Phase Benzene Concentrations in Groundwater — FIG. NO. 6



KEYMAP
NOT TO SCALE

1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 4Q23 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 OCTOBER 2–4, 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 (1400 / 1200) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
7. J = THE RESULT IS ESTIMATED.

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

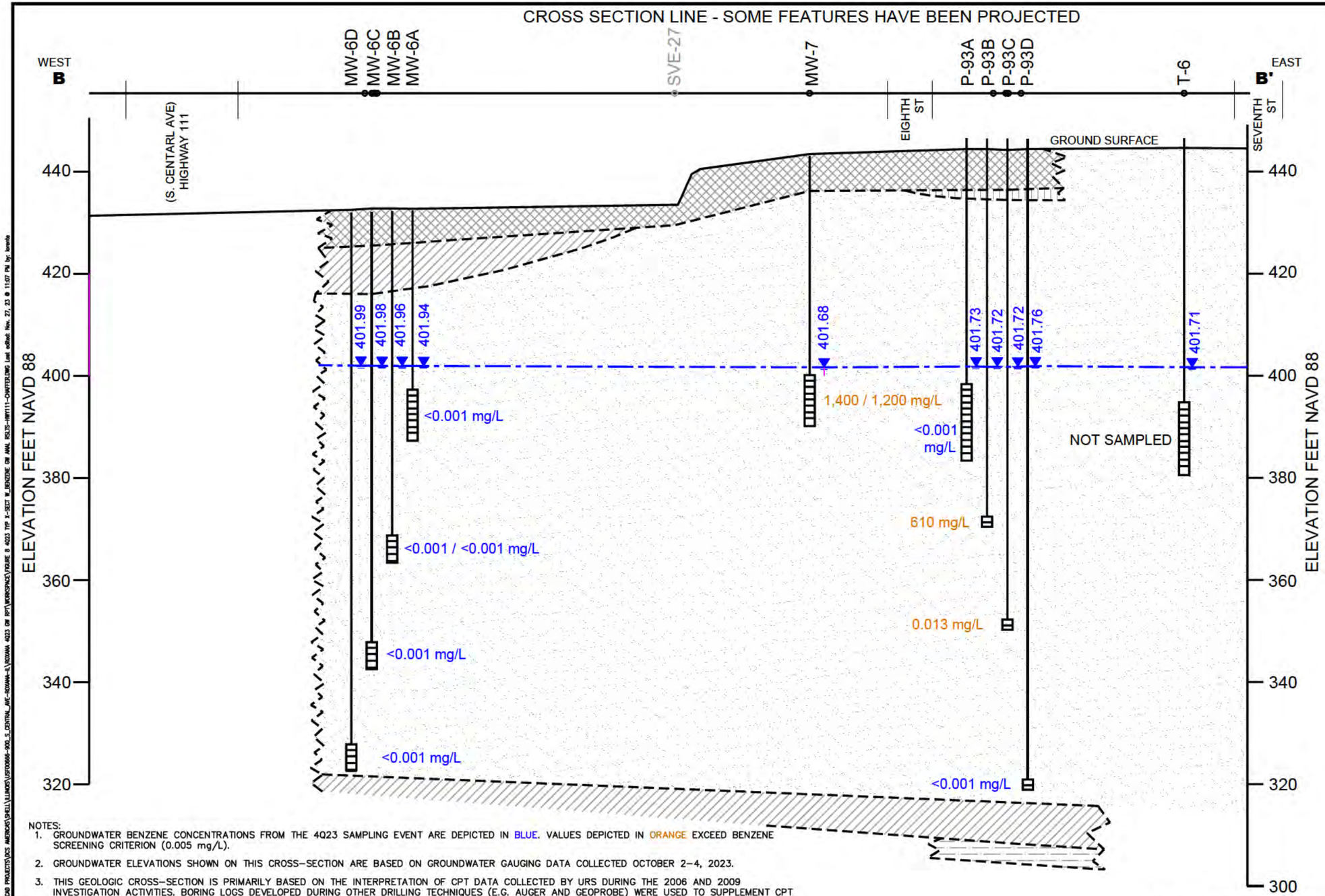
PROJECT NO. 60697537

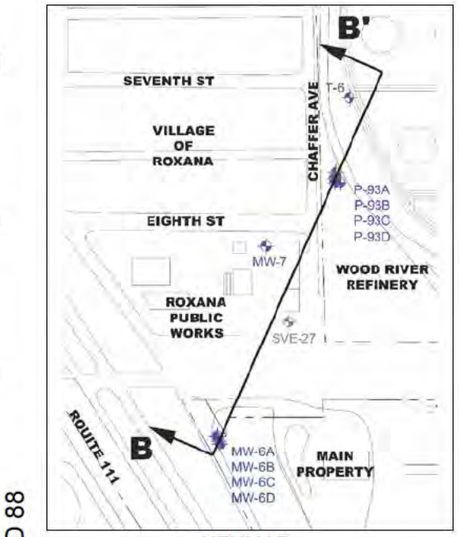
AECOM

DRN. BY: gds January 2024
DSGN. BY: mr
CHKD. BY: bh

4Q23 Cross-Section of Benzene Groundwater Analytical Results–Chaffer Avenue

FIG. NO. 7


CROSS SECTION LINE - SOME FEATURES HAVE BEEN PROJECTED



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 4Q23 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 OCTOBER 2-4, 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 1400 / 1200) 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 January 2024 DSGN. BY:mr CHKD. BY:bh	4Q23 Cross-Section of Benzene Groundwater Analytical Results– Roxana Public Works Yard
	FIG. NO. 8

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 (FPWY) Class V Injection Well Inventory Form for the PWY SEE system.

On April 4, 2023, IEPA approved with conditions the FPWY 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.

On July 6, 2023, AECOM, on behalf of Shell, requested the due dates of Roxana Interim Groundwater Monitoring Reports be pushed back approximately two weeks to allow for more time for adequate compilation and quality review of the analytical samples and site data after the end of each quarter prior to report submittals.

On July 6, 2023, AECOM, on behalf of Shell, also submitted a notification of water production well W-85 damage and subsequent outage. The notice included a proposal of a replacement water production well location(s) and costs.

On August 1, 2023, IEPA responded to the AECOM letter dated July 6, 2023, *Notice of Water Production Well W-85 Damage*, requesting the frequency for groundwater monitoring, well gauging, and reporting increased to a monthly schedule until a replacement for W-85 is installed and "capable of operating and contributing to the required combined minimum pumping rate of 3,000 gallons per minute."

On August 3, 2023, AECOM, on behalf of Shell, submitted a response to the IEPA letter dated May 5, 2023. The May 5, 2023, letter was in response to the Final Design Report and Construction Work Plan (FDRCWP) dated December

16, 2023; as well as a smaller submittal with additional information supplementing the FDRCWP, dated January 30, 2023.

On August 10, 2023, a virtual meeting was held between IEPA, Shell, and AECOM to clarify and discuss the conditions of the IEPA August 1, 2023 letter.

On August 11, 2023, AECOM on behalf of Shell, submitted a Class 1* Permit Modification in accordance with Condition IV(K)(2) of Shell's RCRA Post-Closure Permit, issued September 23, 2010, and most recently modified October 31, 2022. The Class 1* Permit Modification included further discussion of well W-85 notification timeline, W-85 removal, and proposal for new water production well W-92.

Appendix B

Low Flow Groundwater Sampling Data Sheets

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJenkins CMcDavid

DATE: 10/5/23 WEATHER: RAIN 65°

MONITORING WELL ID: MW-1 SAMPLE ID: MW1 - ROX - 100523

INITIAL DATA

Well Diameter):	2 in
Total Well Depth (btoc):	59.13 ft
Depth to Water (btoc):	41.13 ft
Depth to LNAPL/DNAPL (btoc):	NP ft
Depth to Top of Screen (btoc):	48.80 ft
Screen Length:	10 ft
Water Column Height (not including NAPL):	15.00 ft

IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 53.80 ft btoc

IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc

IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc

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	1205	41.15	CLEAR	none	18.6	3.56	0.856 mS/cm uS/cm	6.69	127.87	9.23
300	1206	41.15			18.6	3.42	0.854 mS/cm uS/cm	6.70	124.68	8.38
600	1207	41.15			18.7	2.30	0.854 mS/cm uS/cm	6.71	122.03	7.04
900	1208				18.6	2.19	0.854 mS/cm uS/cm	6.72	119.69	5.94
1200	1209				18.5	2.09	0.853 mS/cm uS/cm	6.73	116.31	6.20
1500	1210				18.7	2.07	0.853 mS/cm uS/cm	6.74	113.76	5.85
1800	1211				18.7	1.95	0.852 mS/cm uS/cm	6.75	111.15	5.60
2100	1212				18.8	1.83	0.852 mS/cm uS/cm	6.75	108.51	5.79
2400	1213				18.8	1.83	0.851 mS/cm uS/cm	6.75	106.37	6.18
2700	1214				18.8	1.79	0.851 mS/cm uS/cm	6.75	104.51	7.05
							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 AM 10/5/23

Start Time: 1205 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS -- 21368/463177

Stop Time: 1214 Average Purge Rate (mL/min): 300 Date Calibrated: 10/5/23

SAMPLING DATA

Sample Date: 10/5/23 Sample Time: 1220 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJenkins

DATE: 10-13-23 WEATHER: light rain 67°

MONITORING WELL ID: MW-2 SAMPLE ID: MW2-ROX-101323

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): 43.40 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): NR 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 (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 112.9 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 16.80 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	43.43	clear	strong HC	19.0	0.77	0.937 mS/cm uS/cm	7.23	-97.04	27.72
300	1337	43.43			19.1	0.70	0.937 mS/cm uS/cm	7.22	-104.31	26.73
600	1338	43.43			19.2	0.65	0.939 mS/cm uS/cm	7.22	-111.96	25.91
900	1339				19.2	0.62	0.939 mS/cm uS/cm	7.22	-119.21	25.21
1200	1340				19.4	0.58	0.939 mS/cm uS/cm	7.21	-126.76	24.01
1500	1341				19.4	0.56	0.940 mS/cm uS/cm	7.21	-133.22	23.41
1800	1342				19.4	0.54	0.940 mS/cm uS/cm	7.21	-139.63	29.95
2100	1343				19.5	0.52	0.940 mS/cm uS/cm	7.21	-146.83	20.22
2400	1344				19.5	0.51	0.940 mS/cm uS/cm	7.22	-151.93	19.78
							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 10/13/23

Start Time: 1336 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS - 50108/210771

Stop Time: 1344 Average Purge Rate (mL/min): 300 Date Calibrated: 10/13/23

SAMPLING DATA

Sample Date: 10/13/23 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: 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M.Massa, T.Jenkins, C.McDavid

DATE: 10-12-23 WEATHER: clear 70°F

MONITORING WELL ID: MW-3 SAMPLE ID: MW3-ROX-101223

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 39.67 (CM) 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): 28.63 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~~36.82~~ (CM) ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NL 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): 16.37 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

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	1108	28.65	clear	V-slight	19.9	0.83	1.019 (mS/cm) uS/cm	6.92	-93.24	0.07
300	1109	28.65	↓	↓	19.9	0.73	1.019 (mS/cm) uS/cm	6.93	-102.35	0.24
600	1110	28.65			19.9	0.66	1.020 (mS/cm) uS/cm	6.93	-109.65	0.34
900	1111	↓			20.0	0.62	1.020 (mS/cm) uS/cm	6.94	-115.65	0.03
1200	1112				20.0	0.59	1.020 (mS/cm) uS/cm	6.95	-120.38	0.02
							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			

CM 10-12-23

Start Time: 11:08 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 11:12 Average Purge Rate (mL/min): 300 Date Calibrated: 10-12-23

SAMPLING DATA

Sample Date: 10-12-23 Sample Time: 11:20 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 [X] Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J.Mayer, T.Jenkins, C.McDaniel

DATE: 10-20-23 WEATHER: clear, 55°F

MONITORING WELL ID: MW-4 SAMPLE ID: MW4-ROX-102023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 50.06 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): 39.78 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): NP 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 15.61 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	0930	39.78	Clear	moderate	18.4	0.61	0.953 (mS/cm) uS/cm	6.64	46.95	1.01
300	0931	39.78	↓	↓	18.4	0.60	0.953 (mS/cm) uS/cm	6.66	44.23	0.93
600	0932	39.78			18.3	0.60	0.954 (mS/cm) uS/cm	6.67	41.16	1.35
900	0933	↓			18.3	0.59	0.952 (mS/cm) uS/cm	6.68	38.47	0.69
1200	0934				18.3	0.58	0.953 (mS/cm) uS/cm	6.69	35.63	0.54
							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			

CM-DANIEL 10-20-23

Start Time: 09:30 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077

Stop Time: 09:34 Average Purge Rate (mL/min): 300 Date Calibrated: 10-20-23

SAMPLING DATA

Sample Date: 10-20-23 Sample Time: 09:45 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: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa Tomkins

DATE: 10/16/23 WEATHER: clear 51°

MONITORING WELL ID: MW-5 SAMPLE ID: MW5-ROX-101623

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): 28.41 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): NR 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): 15.89 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	1033	28.44	clear	mod. HC	17.8	0.90	1.172 mS/cm uS/cm	6.20	11.40	0.00
300	1034	28.43			17.9	0.80	1.176 mS/cm uS/cm	6.25	3.61	0.00
600	1035	28.43			18.0	0.71	1.179 mS/cm uS/cm	6.29	-5.16	0.00
900	1036	28.43			18.1	0.66	1.181 mS/cm uS/cm	6.33	-13.39	0.00
1200	1037	↓	↓	↓	18.1	0.63	1.182 mS/cm uS/cm	6.36	-21.38	0.00
1500	1038				18.1	0.60	1.184 mS/cm uS/cm	6.39	-28.20	0.00
1800	1039				18.2	0.58	1.185 mS/cm uS/cm	6.41	-34.09	0.00
2100	1040				18.1	0.56	1.187 mS/cm uS/cm	6.44	-39.24	0.00
							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 10/16/23

Start Time: 1033 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 1040 Average Purge Rate (mL/min): 300 Date Calibrated: 10/16/23

SAMPLING DATA

Sample Date: 10/16/23 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 ☒ Initials: MM

COMMENTS:

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

Estimated Total Purge Volume: 2160 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M.Massa, C.Mcnand

DATE: 10-10-23 WEATHER: 45°F clear

MONITORING WELL ID: MW-6A SAMPLE ID: MW6A-ROX-101023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 32.35 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): 30.42 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): ND 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): 13.76 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	0945	30.44	Sl. Cloudy	none	19.3	0.95	0.908 (mS/cm) uS/cm	6.79	-13.24	27.33
300	0946	30.44	↓	↓	19.5	0.81	0.910 (mS/cm) uS/cm	6.80	-18.11	22.88
600	0947	30.44	↓	↓	19.6	0.73	0.911 (mS/cm) uS/cm	6.90	-21.79	19.00
900	0948	↓	↓	↓	19.5	0.69	0.912 (mS/cm) uS/cm	6.80	-24.91	16.44
1200	0949	↓	↓	↓	19.6	0.65	0.912 (mS/cm) uS/cm	6.79	-27.45	13.99
							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			

CMcDonnell 10-10-23

Start Time: 09:45 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 09:49 Average Purge Rate (mL/min): 300 Date Calibrated: 10-10-23

SAMPLING DATA

Sample Date: 10-10-23 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: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M.Massa, C.McDavid

DATE: 10-10-23 WEATHER: 53°F clear

MONITORING WELL ID: MW-6B SAMPLE ID: MW6B-ROX-101023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 66.55 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): 30.98 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): NL 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): 38.40 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	1030	30.50	clear	none	19.4	0.89	0.799 mS/cm uS/cm	7.01	-22.38	10.39
300	1031	30.50			19.4	0.81	0.802 mS/cm uS/cm	7.01	-30.84	5.42
600	1032	30.50			19.4	0.72	0.806 mS/cm uS/cm	7.02	-40.00	5.73
900	1033	↓			19.4	0.67	0.810 mS/cm uS/cm	7.03	-45.35	4.51
1200	1034				19.5	0.63	0.813 mS/cm uS/cm	7.03	-51.90	3.83
1500	1035				19.5	0.61	0.814 mS/cm uS/cm	7.03	-57.38	3.32
							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			

MW-6B 10/10/23

Start Time: 1030 Elapsed Time (min): Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 1035 Average Purge Rate (mL/min): 300 Date Calibrated: 10-10-23

SAMPLING DATA

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

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

VOA Vials, No Headspace [X] Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M.Massa, C.McDavid

DATE: 10-10-23 WEATHER: 45°F clear

MONITORING WELL ID: MW-6C SAMPLE ID: MW6C-ROX-101023

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 81.45 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): 30.27 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): ND 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 60.01 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	0949	30.27	clear	none	18.1	0.91	0.803 (mS/cm) uS/cm	6.75	-10.30	19.09
300	0950	30.27			18.1	0.86	0.806 (mS/cm) uS/cm	6.79	-25.25	18.26
600	0951	30.27			18.1	0.81	0.808 (mS/cm) uS/cm	6.82	-38.00	19.70
900	0952				18.1	0.76	0.811 (mS/cm) uS/cm	6.85	-49.01	20.76
1200	0953				18.1	0.73	0.813 (mS/cm) uS/cm	6.87	-58.37	21.38
1500	0954				18.2	0.70	0.812 (mS/cm) uS/cm	6.88	-66.41	22.79
1800	0955				18.4	0.65	0.815 (mS/cm) uS/cm	6.90	-73.99	24.80
2100	0956				18.4	0.63	0.816 (mS/cm) uS/cm	6.91	-79.10	25.97
2400	0957				18.4	0.59	0.816 (mS/cm) uS/cm	6.92	-84.37	27.31
							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			

CALIBRATED 10-10-23

Start Time: 09:49 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 50109/21077

Stop Time: 08:57 Average Purge Rate (mL/min): 300 Date Calibrated: 10-10-23

SAMPLING DATA

Sample Date: 10-10-23 Sample Time: 09:10 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: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M. Massa, T. Jenkins, C. McDavid

DATE: 10-9-23 WEATHER: 65°F clear

MONITORING WELL ID: MW-6D SAMPLE ID: MW6D-ROX-100923

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): 30.00 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): ND 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): 80.05 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	13:26	30.0	clear	none	19.1	1.03	1.289 mS/cm uS/cm	6.95	-20.62	28.85
300	13:27	30.0	↓	↓	19.1	0.86	1.282 mS/cm uS/cm	6.97	-34.62	21.20
600	13:28	30.0	↓	↓	19.2	0.78	1.273 mS/cm uS/cm	6.99	-46.22	20.15
900	13:29	↓	↓	↓	19.2	0.73	1.267 mS/cm uS/cm	7.00	-56.13	15.76
1200	13:30	↓	↓	↓	19.3	0.69	1.259 mS/cm uS/cm	7.01	-64.96	13.30
1500	13:31	↓	↓	↓	19.3	0.65	1.254 mS/cm uS/cm	7.02	-71.48	10.33
1800	13:32	↓	↓	↓	19.5	0.63	1.248 mS/cm uS/cm	7.03	-77.85	8.15
2100	13:33	↓	↓	↓	19.4	0.60	1.248 mS/cm uS/cm	7.03	-83.34	9.02
							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			

CMcDavid 10-9-23

Start Time: 13:26 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 50108 / 21077

Stop Time: 13:33 Average Purge Rate (mL/min): 300 Date Calibrated: 10-9-23

SAMPLING DATA

Sample Date: 10-9-23 Sample Time: 13:40 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J. Mayer, T. Jenkins, C. McDavid

DATE: 10-20-23 WEATHER: Clear, 61°F

MONITORING WELL ID: MW-7 SAMPLE ID: MW-ROX-102023

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): 41.73 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): NL 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 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

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	1117	41.75	clear	none	18.9	0.98	1.123 (mS/cm) uS/cm	6.67	22.74	0
300	1118	41.75			19.1	0.81	1.123 (mS/cm) uS/cm	6.66	20.28	0
600	1119	41.75			19.2	0.70	1.122 (mS/cm) uS/cm	6.66	19.28	0
900	1120				19.2	0.606	1.122 (mS/cm) uS/cm	6.67	16.44	0
1200	1121				19.3	0.61	1.119 (mS/cm) uS/cm	6.67	14.95	0
1500	1122				19.4	0.58	1.115 (mS/cm) uS/cm	6.68	12.36	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			

CM 10-20-23

Start Time: 11:17 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 50109/210771

Stop Time: 11:22 Average Purge Rate (mL/min): 300 Date Calibrated: 10-20-23

SAMPLING DATA

Sample Date: 10-20-23 Sample Time: 11:30 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 [X] Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJenkins

DATE: 10-16-23 WEATHER: clear 53°

MONITORING WELL ID: MW-9 SAMPLE ID: MW9-ROX-101623

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): 43.35 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): ND 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): 13.02 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	1150	43.39	clear	none	17.5	1.05	1.018 mS/cm uS/cm	6.71	-39.55	0.00
300	1151	43.36			17.7	0.84	~~0.846~~ mS/cm uS/cm	6.70	-41.49	0.00
600	1152	43.36			17.9	0.73	~~1.018~~ mS/cm uS/cm	6.71	-43.34	0.00
900	1153	43.36			18.0	0.68	1.020 mS/cm uS/cm	6.71	-44.75	0.00
1200	1154	↓			18.0	0.64	1.019 mS/cm uS/cm	6.72	-46.33	0.00
1500	1155	↓	↓	↓	18.2	0.61	1.019 mS/cm uS/cm	6.72	-47.62	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 10/16/23

Start Time: 1150 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077

Stop Time: 1155 Average Purge Rate (mL/min): 300 Date Calibrated: 10/16/23

SAMPLING DATA

Sample Date: 10-16-23 Sample Time: 1200 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJenkins

DATE: 10/13/23 WEATHER: overcast 62°

MONITORING WELL ID: MW-10 SAMPLE ID: MW10-BOX-101323

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): 43.05 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		Wellbore PID/FID Reading: 0.0 ppm	
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 (WHIEVER IS DEEPER): — ft btoc		
Screen Length: 10 ft			
Water Column Height (not including NAPL): 11.71 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	0932	43.06	Clear	none	18.5	1.10	1.419 ~~mS/cm~~ uS/cm	6.55	-2.47	29.76
300	0933	43.06			18.7	0.93	1.420 ~~mS/cm~~ uS/cm	6.61	-20.02	27.28
600	0934	43.06			18.8	0.83	1.421 ~~mS/cm~~ uS/cm	6.64	-32.44	24.53
900	0935				18.9	0.75	1.422 ~~mS/cm~~ uS/cm	6.67	-43.81	23.28
1200	0936				19.1	0.70	1.422 ~~mS/cm~~ uS/cm	6.69	-52.51	23.57
1500	0937				19.2	0.67	1.424 ~~mS/cm~~ uS/cm	6.71	-60.56	22.64
1800	0938				19.2	0.63	1.426 ~~mS/cm~~ uS/cm	6.73	-67.28	21.86
2100	0939				19.2	0.60	1.428 ~~mS/cm~~ uS/cm	6.75	-72.84	20.80
2400	0940				19.3	0.58	1.430 ~~mS/cm~~ uS/cm	6.76	-77.60	19.63
							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 10/13/23

Start Time: 0932 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS - 50108/210771

Stop Time: 0940 Average Purge Rate (mL/min): 300 Date Calibrated: 10/13/23

SAMPLING DATA

Sample Date: 10/13/23 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 ☑ 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJenkins CMcDavid

DATE: 10/6/23 WEATHER: clear 56°

MONITORING WELL ID: MW-11 SAMPLE ID: MW11-ROX-100623

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): 40.75 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): 41.66 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: 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): 11.24 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

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	0933	40.78	clear	none	17.1	0.85	1.387 mS/cm uS/cm	6.50	38.07	0.0
300	0934	40.78			17.3	0.77	1.391 mS/cm uS/cm	6.54	24.85	0.57
600	0935	40.78			17.3	0.70	1.393 mS/cm uS/cm	6.58	14.16	0.82
900	0936	↓	↓	↓	17.4	0.67	1.390 mS/cm uS/cm	6.60	5.46	1.61
1200	0937				17.5	0.64	1.384 mS/cm uS/cm	6.62	-1.93	2.18
1500	0938				17.5	0.62	1.392 mS/cm uS/cm	6.63	-7.40	1.62
1800	0939				17.5	0.61	1.395 mS/cm uS/cm	6.64	-12.31	1.61
							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 10/6/23

Start Time: 0933 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS - 50108/21770

Stop Time: 0939 Average Purge Rate (mL/min): 300 Date Calibrated: 10/6/23

SAMPLING DATA

Sample Date: 10/6/23 Sample Time: 0945 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mnasha McDavid

DATE: 10/10/23 WEATHER: clear 65°

MONITORING WELL ID: MW-12 SAMPLE ID: MW12-Rox-101023

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
Total Well Depth (btoc): 52.25 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to Water (btoc): 40.96 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): NR 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): 41.92 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): 11.29 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

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1332	40.93	clear	none	18.9	1.64	0.846 mS/cm uS/cm	6.89	45.71	1.86
300	1333	40.98			19.0	1.17	0.850 mS/cm uS/cm	6.88	44.11	1.16
600	1334	40.98			19.1	0.940	0.855 mS/cm uS/cm	6.87	42.87	0.76
900	1335	↓	↓	↓	19.2	0.81	0.858 mS/cm uS/cm	6.86	42.06	0.64
1200	1336				19.2	0.73	0.861 mS/cm uS/cm	6.86	41.45	0.50
1500	1337				19.2	0.68	0.862 mS/cm uS/cm	6.86	41.04	0.49
1800	1338				19.3	0.63	0.862 mS/cm uS/cm	6.86	40.61	0.64
							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			

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)

MM 10/10/23

Start Time: 1332 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077I

Stop Time: 1338 Average Purge Rate (mL/min): 300 Date Calibrated: 10/10/23

SAMPLING DATA

Sample Date: 10/10/23 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: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Massa Jenkins

DATE: 10-18-23 WEATHER: partly cloudy 61°

MONITORING WELL ID: MW-13 SAMPLE ID: MW13-Rox-101823

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): 35.05 ft	
Depth to Water (btoc): 28.48 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 31.77 ft btoc
Depth to LNAPL/DNAPL (btoc): NA 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
Screen Length: 10 ft	
Water Column Height (not including NAPL): 6.57 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	1205	28.49	clear	mod. HC	20.4	1.09	1.274 mS/cm uS/cm	5.96	43.97	6.03
300	1206	28.49			20.6	0.87	1.263 mS/cm uS/cm	6.03	33.00	4.85
600	1207	28.49			20.7	0.73	1.250 mS/cm uS/cm	6.08	23.59	4.12
900	1208				20.7	0.66	1.240 mS/cm uS/cm	6.12	15.18	3.74
1200	1209				20.7	0.62	1.232 mS/cm uS/cm	6.16	7.52	3.79
1500	1210				20.7	0.59	1.225 mS/cm uS/cm	6.19	0.44	3.38
1800	1211				20.7	0.57	1.220 mS/cm uS/cm	6.21	-6.02	2.76
2100	1212				20.7	0.55	1.215 mS/cm uS/cm	6.23	-12.47	2.01
2400	1213				20.7	0.54	1.209 mS/cm uS/cm	6.25	-18.65	1.72
							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 10/18/23

Start Time: 1205 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS - 50108/210771

Stop Time: 1213 Average Purge Rate (mL/min): 300 Date Calibrated: 10/18/23

SAMPLING DATA

Sample Date: 10-18-23 Sample Time: 1220 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSA, T. Jenkins, C. McDavid

DATE: 10-9-23 WEATHER: clear 47°F

MONITORING WELL ID: MW-14 SAMPLE ID: MW14-RAX-100923

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 32.47	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 35.60 CM ft		Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): No 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: 35.6 (CM) 36.5 ppm
Depth to Top of Screen (btoc): 33.42 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
Screen Length: 10 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	
Water Column Height (not including NAPL): 11.53 ft		

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	11:20	32.50	slightly cloudy	slight	19.3	0.82	1.022 (mS/cm) uS/cm	6.74	-64.41	38.25
300	11:21	32.50	↓	↓	19.4	0.70	1.023 (mS/cm) uS/cm	6.74	-69.40	33.70
600	11:22	32.50	↓	↓	19.4	0.64	1.024 (mS/cm) uS/cm	6.74	-71.71	29.71
900	11:23	↓	↓	↓	19.4	0.59	1.025 (mS/cm) uS/cm	6.74	-74.71	27.71
1200	11:24	↓	↓	↓	19.5	0.57	1.026 (mS/cm) uS/cm	6.75	-76.88	25.36
							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			

CM/David 10-9-23

Start Time: 11:20 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS - 50109/210771

Stop Time: 11:24 Average Purge Rate (mL/min): 300 Date Calibrated: 10-9-23

SAMPLING DATA

Sample Date: 10-9-23 Sample Time: 11:30 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mmassa Tjenkins

DATE: 10-18-23 WEATHER: partly cloudy 55°

MONITORING WELL ID: MW-16 SAMPLE ID: MW16-ROX-101823

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): 42.17 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.96 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NL 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): 5.58 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	1011	42.20	clear	none	17.7	1.26	0.805 mS/cm uS/cm	6.62	99.05	0.25
300	1012	42.20			17.9	1.01	0.806 mS/cm uS/cm	6.59	97.86	0.00
600	1013	42.20			18.1	0.90	0.806 mS/cm uS/cm	6.56	95.90	0.00
900	1014	↓			18.3	0.81	0.807 mS/cm uS/cm	6.54	93.49	0.00
1200	1015				18.5	0.75	0.806 mS/cm uS/cm	6.53	91.11	0.00
1500	1016				18.6	0.71	0.806 mS/cm uS/cm	6.54	89.08	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 10/18/23

Start Time: 1011 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077I

Stop Time: 1016 Average Purge Rate (mL/min): 300 Date Calibrated: 10/18/23

SAMPLING DATA

Sample Date: 10-18-23 Sample Time: 1020 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mmassa Tjenkins

DATE: 10-16-23 WEATHER: clear 59°

MONITORING WELL ID: MW-22 SAMPLE ID: MW22-AOX-101623

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): 40.85 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.79 ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): ND 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): 7.83 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	1314	40.93	clear	Mod. HC	18.5	1.03	1.307 mS/cm uS/cm	6.66	-29.78	0.00
300	1315	40.88			18.7	0.87	1.308 mS/cm uS/cm	6.68	-35.04	0.00
600	1316	40.85			18.9	0.77	1.309 mS/cm uS/cm	6.70	-41.00	0.00
900	1317	40.85			19.0	0.70	1.308 mS/cm uS/cm	6.73	-47.24	0.00
1200	1318	40.85			19.1	0.66	1.307 mS/cm uS/cm	6.75	-52.76	0.00
1500	1319	↓	↓	↓	19.2	0.63	1.307 mS/cm uS/cm	6.77	-57.24	0.00
							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			

Start Time: 1314 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21771

Stop Time: 1319 Average Purge Rate (mL/min): 300 Date Calibrated: 10/10/23

SAMPLING DATA

Sample Date: 10-16-23 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: m

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mmassa CMcDavid

DATE: 10/10/23 WEATHER: clear 64°

MONITORING WELL ID: MW-23 SAMPLE ID: MW23-ROX-101023

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): 39.27 ft	
Depth to Water (btoc): 29.85 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 34.56 ft btoc
Depth to LNAPL/DNAPL (btoc): NR 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
Screen Length: 10 ft	
Water Column Height (not including NAPL): 9.42 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	1245	29.86	Slight cloudy	none	18.9	0.89	1.127 mS/cm uS/cm	6.39	-6.33	22.79
300	1246	29.86			18.9	0.97	1.131 mS/cm uS/cm	6.39	-14.06	19.13
600	1247	29.86			19.1	0.67	1.132 mS/cm uS/cm	6.40	-21.50	15.14
900	1248	↓	↓	↓	19.1	0.63	1.135 mS/cm uS/cm	6.40	-27.98	17.17
1200	1249				19.1	0.59	1.140 mS/cm uS/cm	6.40	-33.78	15.64
							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			

10/10/23

Start Time: 1245 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077

Stop Time: 1249 Average Purge Rate (mL/min): 300 Date Calibrated: 10/10/23

SAMPLING DATA

Sample Date: 10/10/23 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 ☒ 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M. Mussa, T. Jenkins, C. McDavid

DATE: 10-12-23 WEATHER: 56°F clear

MONITORING WELL ID: MW-24 SAMPLE ID: MW24-ROX-101223

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): 41.93 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 45.90 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NP 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): 7.93 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	0859	41.92	clear	none	18.1	1.13	1.763 (mS/cm) uS/cm	6.54	152.50	5.06
300	0900	41.96	↓	↓	18.3	0.91	1.763 (mS/cm) uS/cm	6.60	150.07	3.08
600	0901	41.96			18.5	0.81	1.764 (mS/cm) uS/cm	6.63	148.94	2.48
900	0902	41.96			18.6	0.74	1.763 (mS/cm) uS/cm	6.64	148.23	1.65
1200	0903	↓			18.7	0.71	1.763 (mS/cm) uS/cm	6.65	147.60	1.17
							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			

CALIBRATED 10-12-23

Start Time: 09:59 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 09:03 Average Purge Rate (mL/min): 300 Date Calibrated: 10-12-23

SAMPLING DATA

Sample Date: 10-12-23 Sample Time: 09:10 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒. Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J.Mayer, T. Jenkins, C.McDavid

DATE: 10-20-23 WEATHER: clear, 59°F

MONITORING WELL ID: MW-25 SAMPLE ID: MW25-ROX-1020-23

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): 36.92 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 41.38 ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NL 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 90.7 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 8.92 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	1020	36.92	clear	strong	18.6	1.70	0.882 (mS/cm) uS/cm	6.64	23.33	39.35
300	1021	36.92			18.9	1.15	0.890 (mS/cm) uS/cm	6.65	20.30	33.23
600	1022	36.92			18.9	0.93	0.894 (mS/cm) uS/cm	6.66	17.54	31.89
900	1023	↓			18.9	0.84	0.897 (mS/cm) uS/cm	6.67	15.01	29.16
1200	1024				19.1	0.79	0.897 (mS/cm) uS/cm	6.68	12.45	25.14
1500	1025				19.1	0.75	0.898 (mS/cm) uS/cm	6.68	9.98	22.65
							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			
							mS/cm uS/cm			

Completed 10-20-23

Start Time: 10:20 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 10:25 Average Purge Rate (mL/min): 300 Date Calibrated: 10-20-23

SAMPLING DATA

Sample Date: 10-20-23 Sample Time: 10:35 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: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mirassa Jenkins & McDavid

DATE: 10/5/23 WEATHER: RAIN 67°

MONITORING WELL ID: MW-26 SAMPLE ID: MW-26-ROX-100523

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): 39.50 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.95 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: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 8.90 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	1324	39.51	Clear	None	19.6	2.96	1.166 mS/cm uS/cm	6.69	112.40	5.96
300	1325	39.51			19.6	2.70	1.167 mS/cm uS/cm	6.70	112.31	4.48
600	1326	39.51			19.7	2.57	1.167 mS/cm uS/cm	6.70	112.20	4.77
900	1327				19.7	2.46	1.168 mS/cm uS/cm	6.70	112.03	4.80
1200	1328				19.8	2.35	1.164 mS/cm uS/cm	6.70	111.96	5.17
1500	1329				19.9	2.23	1.166 mS/cm uS/cm	6.70	111.79	5.20
1800	1330				20.0	2.17	1.167 mS/cm uS/cm	6.71	111.65	4.28
2100	1331				20.0	2.10	1.167 mS/cm uS/cm	6.71	111.48	3.66
2400	1332				20.1	2.04	1.167 mS/cm uS/cm	6.71	111.36	3.31
2700	1333				20.0	1.98	1.167 mS/cm uS/cm	6.71	111.19	2.17
3000	1334				19.8	1.95	1.167 mS/cm uS/cm	6.72	111.12	1.71
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 10/5/23

Start Time: 1324 Elapsed Time (min): 10 Water Quality Meter ID & SN: YSI ProDSS - 21136B / 463177

Stop Time: 1334 Average Purge Rate (mL/min): 300 Date Calibrated: 10/5/23

SAMPLING DATA

Sample Date: 10/5/23 Sample Time: 1340 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: 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: 3000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mmassa Jenkins

DATE: 10/18/23 WEATHER: partly cloudy 50°

MONITORING WELL ID: MW-27 SAMPLE ID: MW27-ROX-101823

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): 50.04 ft	
Depth to Water (btoc): 41.91 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 45.48 ft btoc
Depth to LNAPL/DNAPL (btoc): NR 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
Screen Length: 10 ft	
Water Column Height (not including NAPL): 9.13 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

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	0918	41.05	clear	none	16.5	2.59	0.725 ~~mS/cm~~ uS/cm	6.38	99.30	1.05
300	0919	41.05	↓	↓	16.5	2.53	0.731 ~~mS/cm~~ uS/cm	6.44	98.98	1.38
600	0920	41.05	↓	↓	16.6	2.46	0.733 ~~mS/cm~~ uS/cm	6.49	98.17	1.03
900	0921	↓	↓	↓	16.7	2.38	0.734 ~~mS/cm~~ uS/cm	6.53	99.58	0.37
1200	0922	↓	↓	↓	16.7	2.30	0.736 ~~mS/cm~~ uS/cm	6.56	97.07	0.00
1500	0923	↓	↓	↓	16.9	2.24	0.737 ~~mS/cm~~ uS/cm	6.58	96.79	0.00
1800	0924	↓	↓	↓	16.9	2.22	0.741 ~~mS/cm~~ uS/cm	6.60	96.44	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			

MM 10/18/23

Start Time: 0918 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077

Stop Time: 0924 Average Purge Rate (mL/min): 300 Date Calibrated: 10/18/23

SAMPLING DATA

Sample Date: 10-18-23 Sample Time: 0930 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 4Q23 GW **PROJECT NUMBER:** 60697537 - 3.4.1/2/3 **FIELD PERSONNEL:** M. Massa, T. Jenkins, C. McDavid

DATE: 10-12-23 **WEATHER:** clear 76°F

MONITORING WELL ID: MW-28 **SAMPLE ID:** MW28-ROX-101223

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): 43.86 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.00 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		Ambient PID/FID Reading: 0.0 ppm
Depth to Top of Screen (btoc): 33.61 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	
Screen Length: 10 ft		Wellbore PID/FID Reading: 0.0 ppm
Water Column Height (not including NAPL): 3.86 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): 41.0 ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	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	1321	40.03	clear	none	19.9	0.96	1.231 mS/cm uS/cm	6.81	40.74	11.16
300	1322	40.03	↓	↓	19.9	0.81	1.248 mS/cm uS/cm	6.79	34.29	8.21
600	1323	40.03	↓	↓	20.0	0.74	1.267 mS/cm uS/cm	6.77	28.05	6.35
900	1324	↓	↓	↓	20.2	0.69	1.276 mS/cm uS/cm	6.77	21.78	4.92
1200	1325	↓	↓	↓	20.3	0.66	1.282 mS/cm uS/cm	6.76	16.06	3.90
							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			

CMcDavid 10-12-23

Start Time: 13:21 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 13:25 Average Purge Rate (mL/min): 300 Date Calibrated: 10-12-23

SAMPLING DATA

Sample Date: 10-12-23 Sample Time: 13:30 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: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M Mavis, T Jenkins, C McDaniel

DATE: 10-6-23 WEATHER: 67°F cloudy

MONITORING WELL ID: P-54 SAMPLE ID: P54-RIX-100623.

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): 63.00 ft	
Depth to Water (btoc): 40.59 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to LNAPL/DNAPL (btoc): NR 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): 45.59 ft btoc
Screen Length: 25 ft	
Water Column Height (not including NAPL): 22.41 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	1301	40.59	clear	none	18.7	4.50	1.278 (mS/cm) uS/cm	6.86	95.05	2.30
300	1302	40.59	↓	↓	18.8	4.42	1.281 (mS/cm) uS/cm	6.810	94.80	2.14
600	1303	40.59	↓	↓	18.8	4.36	1.281 (mS/cm) uS/cm	6.810	94.62	1.93
900	1304	↓	↓	↓	19.0	4.33	1.282 (mS/cm) uS/cm	6.810	94.50	1.64
1200	1305	↓	↓	↓	19.0	4.31	1.282 (mS/cm) uS/cm	6.810	94.47	1.89
1500	1306	↓	↓	↓	19.1	4.28	1.283 (mS/cm) uS/cm	6.816	94.48	1.35
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
					10-06-23		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			

CM

Start Time: 13:01 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS - 50108/21770

Stop Time: 13:06 Average Purge Rate (mL/min): 300 Date Calibrated: 10/6/23

SAMPLING DATA

Sample Date: 10-6-23 Sample Time: 1310 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: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMagsa Tjenkins

DATE: 10-17-23 WEATHER: clear 65°

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): 40.83 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): 40.85 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 (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 104.7 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.98 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)
							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			

MMM 10/17/23

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

Well NS due to presence of DNAPL

Estimated Total Purge Volume: mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J.Mayer, C.McDavid

DATE: 10-18-23 WEATHER: cloudy, 57°F

MONITORING WELL ID: P56 SAMPLE ID: ~~P56-WRK-101823~~ (CM) P56-ROX-101823

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): 44.94 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): NL 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 (WHICHEVER IS DEEPER): 49.94 ft btoc	Wellbore PID/FID Reading: 3.2 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 20.88 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	1107	44.97	clear	moderate	19.9	0.51	1.212 (mS/cm) uS/cm	7.23	-110.77	1.93
300	1108	44.97	↓	↓	20.1	0.45	1.212 (mS/cm) uS/cm	7.24	-115.93	1.11
600	1109	44.97	↓	↓	20.2	0.39	1.213 (mS/cm) uS/cm	7.25	-120.98	0.30
900	1110	↓	↓	↓	20.3	0.34	1.213 (mS/cm) uS/cm	7.26	-125.09	2.29
1200	1111	↓	↓	↓	20.4	0.31	1.213 (mS/cm) uS/cm	7.27	-128.04	5.49
							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			

CMcDavid 10-18-23

Start Time: 11:07 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 21B052/21B082

Stop Time: 11:11 Average Purge Rate (mL/min): 300 Date Calibrated: 10-18-23

SAMPLING DATA

Sample Date: 10-18-23 Sample Time: 11:15 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mmassa Tjenkins

DATE: 10-17-23 WEATHER: clear 44°

MONITORING WELL ID: P-57 SAMPLE ID: P57-ROX-101723

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): 45.85 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 50.02 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 (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 8.24 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) (STABLE: over 4 readings)	DO (mg/L) (Monitor Temp. +/-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	0917	46.21	clear	mod. HC	18.0	0.98	0.991 mS/cm uS/cm	5.93	74.35	0.00
300	0918	46.21			18.2	0.85	0.993 mS/cm uS/cm	6.02	65.63	0.00
600	0919	46.25			18.4	0.75	0.995 mS/cm uS/cm	6.08	57.35	0.00
900	0920	46.27			18.5	0.69	0.996 mS/cm uS/cm	6.14	48.78	0.00
1200	0921	46.28			18.6	0.65	0.996 mS/cm uS/cm	6.17	41.94	0.00
1500	0922	46.30			18.6	0.62	0.997 mS/cm uS/cm	6.23	34.03	0.00
1800	0923	46.30			18.9	0.59	0.998 mS/cm uS/cm	6.26	26.33	0.00
2100	0924	46.30			19.0	0.57	0.998 mS/cm uS/cm	6.30	18.67	0.00
2400	0925				19.3	0.56	0.999 mS/cm uS/cm	6.34	10.40	0.00
2700	0926				19.3	0.54	1.002 mS/cm uS/cm	6.36	3.74	0.00
3000	0927				19.3	0.53	1.004 mS/cm uS/cm	6.39	-4.00	0.00
3300	0928				19.1	0.52	1.005 mS/cm uS/cm	6.42	-10.69	0.00
3600	0929				19.0	0.51	1.006 mS/cm uS/cm	6.45	-17.30	0.00
3900	0930				19.1	0.51	1.006 mS/cm uS/cm	6.47	-23.89	0.00
			MM 10/17/23				mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0917 Elapsed Time (min): 13 Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 0930 Average Purge Rate (mL/min): 300 Date Calibrated: 10-17-23

SAMPLING DATA

Sample Date: 10-17-23 Sample Time: 0935 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: 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: 3900 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJenkins

DATE: 10-17-23 WEATHER: Clear 56°

MONITORING WELL ID: P-58 SAMPLE ID: P58-ROX-101723

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	
Depth to Water (btoc): 43.68 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to LNAPL/DNAPL (btoc): NP ft	
Depth to Top of Screen (btoc): 40.21 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 48.68 ft btoc
Screen Length: 25 ft	
Water Column Height (not including NAPL): 21.53 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	1203	43.85	clear	Strong HC	20.6	0.88	1.484 (mS/cm) uS/cm	6.46	-10.54	10.0
300	1204	43.85			20.7	0.72	1.488 (mS/cm) uS/cm	6.49	-21.17	9.5
600	1205	43.85			20.8	0.65	1.490 (mS/cm) uS/cm	6.51	-30.65	8.9
900	1206				20.7	0.60	1.495 (mS/cm) uS/cm	6.53	-40.30	8.6
1200	1207				20.7	0.57	1.495 (mS/cm) uS/cm	6.55	-48.37	8.5
1500	1208				20.9	0.54	1.494 (mS/cm) uS/cm	6.57	-55.21	10.8
1800	1209				21.0	0.52	1.497 (mS/cm) uS/cm	6.58	-62.49	12.0
2100	1210				21.3	0.49	1.498 (mS/cm) uS/cm	6.60	-70.65	14.6
2400	1211				21.3	0.48	1.500 (mS/cm) uS/cm	6.61	-74.73	16.5
							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 10/19/23

Start Time: 1203 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077I

Stop Time: 1211 Average Purge Rate (mL/min): 300 Date Calibrated: 10-17-23

SAMPLING DATA

Sample Date: 10-17-23 Sample Time: 1215 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J.Mayer, C.Menard

DATE: 10-18-23 WEATHER: partly cloudy, 68°F

MONITORING WELL ID: P-59 SAMPLE ID: P59-ROX-101823

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): 72.91 ft	
Depth to Water (btoc): 45.63 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to LNAPL/DNAPL (btoc): NA 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 (WHICHEVER IS DEEPER): 52.91 ft btoc
Screen Length: 25 ft	
Water Column Height (not including NAPL): 27.28 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: 347.3 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	1246	45.64	clear	slight	22.6	1.79	1.495 (mS/cm) uS/cm	6.72	-102.49	0
300	1247	45.64			22.6	0.93	1.500 (mS/cm) uS/cm	6.71	-105.12	0
600	1248	45.64			22.6	0.64	1.503 (mS/cm) uS/cm	6.71	-105.97	0
900	1249	↓			22.5	0.50	1.504 (mS/cm) uS/cm	6.71	-106.34	0
1200	1250				22.5	0.40	1.503 (mS/cm) uS/cm	6.71	-107.07	0
1500	1251				22.6	0.33	1.501 (mS/cm) uS/cm	6.71	-107.56	0
1800	1252				22.8	0.29	1.500 (mS/cm) uS/cm	6.71	-108.28	0
2100	1253	↓	↓	↓	23.0	0.25	1.500 (mS/cm) uS/cm	6.70	-108.90	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			

CM 10-18-23

Start Time: 12:46 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 21805212180 52

Stop Time: 12:53 Average Purge Rate (mL/min): 300 Date Calibrated: 10-18-23

SAMPLING DATA

Sample Date: 10-18-23 Sample Time: 1300 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M.Massa, T.Jenkins, C.McDavid

DATE: 10-9-23 WEATHER: 62°F clear

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): 36.32 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): 34.60 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: 0.0 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 23.40 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)
							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			

CMcDavid 10-9-23

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: ~~EB~~ MS

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mmassa Tjenking

DATE: 10-17-23 WEATHER: clear 64°

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): 43.93 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): 43.88 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: 214.5 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 24.83 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			

MM 10/17/23

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Mmassa Tomkins

DATE: 10-17-23 WEATHER: Clear 51°

MONITORING WELL ID: P-74 SAMPLE ID: P74-Rox-101723

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): 41.95 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): NR 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: 13.5 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 26.88 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	1043	42.08	Clear	Strong HC	18.7	0.93	0.545 ~~mS/cm~~ uS/cm	6.17	11.65	0.00
300	1044	42.08	↓	↓	19.0	0.76	0.558 ~~mS/cm~~ uS/cm	6.16	12.41	0.00
600	1045	42.08	↓	↓	19.1	0.69	0.568 ~~mS/cm~~ uS/cm	6.16	12.47	0.00
900	1046	↓	↓	↓	19.2	0.63	0.576 ~~mS/cm~~ uS/cm	6.16	12.04	0.00
1200	1047	↓	↓	↓	19.3	0.61	0.583 ~~mS/cm~~ uS/cm	6.16	11.13	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			
							~~mS/cm~~ uS/cm			

mm 10/17/23

Start Time: 1043 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077I

Stop Time: 1047 Average Purge Rate (mL/min): 300 Date Calibrated: 10/17/23

SAMPLING DATA

Sample Date: 10-17-23 Sample Time: 1050 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J. Mayer, C. McDavid

DATE: 10-18-23 WEATHER: partly cloudy, 64°F

MONITORING WELL ID: P-93A SAMPLE ID: P93A-ROX-101823

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): 43.95 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 48.45 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NL 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 (WHIEVER IS DEEPER): ___ ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.24 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

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	1154	43.95	clear	none	19.2	1.11	1.211 (mS/cm) uS/cm	6.81	17.98	~~7.3~~ 0
300	1155	43.93	↓	↓	19.5	0.63	1.209 (mS/cm) uS/cm	6.81	27.87	0
600	1156	43.90			19.7	0.53	1.209 (mS/cm) uS/cm	6.81	35.99	0
900	1157	43.90			19.9	0.48	1.208 (mS/cm) uS/cm	6.81	42.02	0
1200	1158	43.90			20.0	0.43	1.208 (mS/cm) uS/cm	6.81	46.42	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			
							mS/cm uS/cm			

CMcDavid 10-19-23

Start Time: 11:54 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 21H0T2/21H092

Stop Time: 11:58 Average Purge Rate (mL/min): 300 Date Calibrated: 10-19-23

SAMPLING DATA

Sample Date: 10-18-23 Sample Time: 12:05 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: cm

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 4Q23 GW **PROJECT NUMBER:** 60697537 - 3.4.1/2/3 **FIELD PERSONNEL:** J. Mayer, C. McDavid, T. Jenkins

DATE: 10-19-23 **WEATHER:** cloudy, 64°F

MONITORING WELL ID: P-93B **SAMPLE ID:** P93B-ROX-101923

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): 76.78 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 45.17 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): 74.78 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): 31.61 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): 75.78 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	1203	45.20	clear	strong	18.1	1.00	1.363 mS/cm uS/cm	6.88	-122.02	5.90
200	1204	45.20	↓	↓	18.2	0.63	1.382 mS/cm uS/cm	6.87	-125.67	4.02
600	1205	45.20	↓	↓	18.2	0.47	1.414 mS/cm uS/cm	6.86	-127.83	1.62
900	1206	↓	↓	↓	18.2	0.37	1.426 mS/cm uS/cm	6.86	-129.04	0.46
1200	1207	↓	↓	↓	18.2	0.30	1.431 mS/cm uS/cm	6.85	-129.90	0
1500	1208	↓	↓	↓	18.3	0.26	1.435 mS/cm uS/cm	6.85	-130.65	0
1800	1209	↓	↓	↓	18.3	0.23	1.438 mS/cm uS/cm	6.85	-131.21	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			

CMcDavid 10-19-23

Start Time: 12:03 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 218052/218082

Stop Time: 12:09 Average Purge Rate (mL/min): 300 Date Calibrated: 10-19-23

SAMPLING DATA

Sample Date: 10-19-23 Sample Time: 12:15 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: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J. Mayer, C. McDavid

DATE: 10-16-23 WEATHER: clear 61°F

MONITORING WELL ID: P-93C SAMPLE ID: P93C-ROX-101623

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 95.38 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): 45.07 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
Depth to LNAPL/DNAPL (btoc): NL ft		Ambient PID/FID Reading: 0.0 ppm
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 (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 52.81 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

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	1321	45.08	clear	slight	18.8	0.53	1.071 mS/cm uS/cm	7.03	-104.47	21.71
300	1322	45.08	↓	↓	18.9	0.50	1.071 mS/cm uS/cm	7.03	-101.22	20.80
600	1323	45.08	↓	↓	19.0	0.48	1.071 mS/cm uS/cm	7.03	-98.90	19.64
900	1324	↓	↓	↓	19.1	0.46	1.069 mS/cm uS/cm	7.02	-96.62	18.88
1200	1325	↓	↓	↓	19.1	0.43	1.069 mS/cm uS/cm	7.03	-95.38	17.25
							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			

CMD and 10-16-23

Start Time: 13:21 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 21805212180822

Stop Time: 13:25 Average Purge Rate (mL/min): 300 Date Calibrated: 10-16-23

SAMPLING DATA

Sample Date: 10-16-23 Sample Time: 13:35 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace [X] Initials: cm

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J. Mayer, C. McDavid

DATE: 10-16-23 WEATHER: Clear, 59° F

MONITORING WELL ID: P-93D SAMPLE ID: P93D-ROX-101623, P93D-WRR-101623

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): 45.43 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): NA 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 (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 2 ft			
Water Column Height (not including NAPL): 82.48 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc (CM)		
	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 WW 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	1232	N/A	clear	none	18.5	0.67	0.941 (mS/cm) uS/cm	7.15	-94.59	0
300	1233	N/A	↓	↓	18.5	0.47	0.943 (mS/cm) uS/cm	7.15	-100.20	0
600	1234	N/A			18.5	0.35	0.943 (mS/cm) uS/cm	7.16	-98.93	0
900	1235	N/A			18.5	0.27	0.944 (mS/cm) uS/cm	7.16	-95.04	0
1200	1236	N/A			18.7	0.24	0.941 (mS/cm) uS/cm	7.16	-91.60	0
1500	1237	N/A			18.7	0.21	0.944 (mS/cm) uS/cm	7.16	-89.26	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			

CM DAM 10-16-23

Start Time: 12:32 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 21B052/21B092

Stop Time: 12:37 Average Purge Rate (mL/min): 300 Date Calibrated: 10-16-23

SAMPLING DATA

Sample Date: 10-16-23 Sample Time: 12:45 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: Marissa Tenkins

DATE: 10-18-23 WEATHER: partly cloudy 70°

MONITORING WELL ID: P-114R SAMPLE ID: P114R-ROX-101823

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): 33.31 ft	
Depth to Water (btoc): 27.70 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 30.51 ft btoc
Depth to LNAPL/DNAPL (btoc): NL 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 (WHIEVER IS DEEPER): — ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 5.61 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

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: 25.9 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	1310	27.78	Cloudy	Strong HC	22.2	0.84	0.866 mS/cm uS/cm	6.29	-21.50	1050
300	1311	27.75			22.2	0.74	0.866 mS/cm uS/cm	6.31	-29.44	103.1
600	1312	27.75			22.2	0.67	0.865 mS/cm uS/cm	6.33 @ -44.74 -37.13		99.6
900	1313	27.75			22.2	0.63	0.865 mS/cm uS/cm	6.35	-44.74	97.4
1200	1314				22.2	0.58	0.864 mS/cm uS/cm	6.37	-51.85	90.8
1500	1315				22.2	0.55	0.863 mS/cm uS/cm	6.39	-58.54	85.7
1800	1316				22.3	0.53	0.862 mS/cm uS/cm	6.41	-64.69	79.1
2100	1317				22.3	0.51	0.861 mS/cm uS/cm	6.42	-70.49	76.2
2400	1318				22.4	0.50	0.860 mS/cm uS/cm	6.43	-76.22	71.2
2700	1319				22.4	0.49	0.860 mS/cm uS/cm	6.45	-81.10	63.0
3000	1320				22.4	0.47	0.860 mS/cm uS/cm	6.46	-85.93	58.4
3300	1321				22.4	0.46	0.860 mS/cm uS/cm	6.48	-90.90	50.1
3600	1322				22.5	0.46	0.860 mS/cm uS/cm	6.49	-94.74	44.7
3900	1323				22.5	0.45	0.860 mS/cm uS/cm	6.50	-99.24	38.89
							mS/cm uS/cm			
							mS/cm uS/cm			

10/18/23

Start Time: 1310 Elapsed Time (min): 13 Water Quality Meter ID & SN: YSI ProDSS -- 50108/210771

Stop Time: 1323 Average Purge Rate (mL/min): 300 Date Calibrated: 10/18/23

SAMPLING DATA

Sample Date: 10-18-23 Sample Time: 1330 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: MT

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M.Massa, T. Jenkins, C.McDavid

DATE: 10-06-23 WEATHER: 61° clear

MONITORING WELL ID: ROST-3-MW SAMPLE ID: ROST3MW-RMX-100623

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): 40.50 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.28 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NA ft		
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: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 7.56 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

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	1042	40.60	clear	slight	17.8	0.79	1.121 (mS/cm) uS/cm	6.75	-74.82	8.61
300	1043	40.60	↓	↓	17.9	0.73	1.123 (mS/cm) uS/cm	6.75	-80.97	6.81
600	1044	40.60			18.0	0.69	1.124 (mS/cm) uS/cm	6.76	-85.86	7.51
900	1045	↓			18.0	0.65	1.124 (mS/cm) uS/cm	6.76	-89.23	6.73
1200	1046				18.1	0.63	1.123 (mS/cm) uS/cm	6.76	-92.31	7.44
							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			

CM 10-06-23

Start Time: 1042 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS - 50108/21770

Stop Time: 1046 Average Purge Rate (mL/min): 300 Date Calibrated: 10/6/23

SAMPLING DATA

Sample Date: 10-06-23 Sample Time: 1050 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TDerking

DATE: 10/16/23 WEATHER: clear 46°

MONITORING WELL ID: ROST-4-PZ(C) SAMPLE ID: ROST4PZC-ROX-101623

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): 45.20 ft	
Depth to Water (btoc): 40.72 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.97 ft btoc
Depth to LNAPL/DNAPL (btoc): NR 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 (WHIEVER IS DEEPER): — ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 4.47 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

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 (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	0923	41.17	Clear	Mod. HC	16.4	0.98	1.151 mS/cm uS/cm	6.50	62.36	4.08
300	0924	41.17	↓	↓	16.8	0.85	1.153 mS/cm uS/cm	6.52	57.27	3.01
600	0925	41.15			17.0	0.76	1.154 mS/cm uS/cm	6.53	52.10	2.06
900	0926	41.15			17.3	0.69	1.155 mS/cm uS/cm	6.54	47.41	1.21
1200	0927	41.15			17.4	0.64	1.156 mS/cm uS/cm	6.56	43.33	0.39
1500	0928	↓			17.6	0.61	1.158 mS/cm uS/cm	6.57	39.01	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 10/16/23

Start Time: 0923 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21077

Stop Time: 0928 Average Purge Rate (mL/min): 300 Date Calibrated: 10/16/23

SAMPLING DATA

Sample Date: 10/16/23 Sample Time: 0935 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: 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: 1900 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJenkins

DATE: 10/13/23 WEATHER: overcast 65°

MONITORING WELL ID: ROST-4-PZ(E) SAMPLE ID: ROST4PZE-ROX-101323

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): 45.00 ft	
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
Depth to LNAPL/DNAPL (btoc): NL 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 (WHIEVER IS DEEPER): — ft btoc
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

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	1041	39.78	clear	none	19.5	0.87	1.747 (mS/cm) uS/cm	6.73	30.57	10.42
300	1042	39.75	↓	↓	19.7	0.82	1.763 (mS/cm) uS/cm	6.73	21.69	8.25
600	1043	39.75	↓	↓	19.8	0.78	1.787 (mS/cm) uS/cm	6.73	10.89	8.09
900	1044	39.75	↓	↓	19.8	0.76	1.798 (mS/cm) uS/cm	6.73	3.83	9.45
1200	1045	↓	↓	↓	19.8	0.74	1.815 (mS/cm) uS/cm	6.74	-4.49	8.11
1500	1046	↓	↓	↓	19.8	0.73	1.831 (mS/cm) uS/cm	6.74	-10.66	7.44
1800	1047	↓	↓	↓	19.8	0.71	1.847 (mS/cm) uS/cm	6.74	-16.63	5.98
2100	1048	↓	↓	↓	19.8	0.70	1.857 (mS/cm) uS/cm	6.74	-21.85	4.80
							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 10/13/23

Start Time: 1041 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 50108/21071

Stop Time: 1048 Average Purge Rate (mL/min): 300 Date Calibrated: 10/13/23

SAMPLING DATA

Sample Date: 10/13/23 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: 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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: M. Massa, T. Jenkins, C. McDavid

DATE: 10-12-23 WEATHER: clear 65°F

MONITORING WELL ID: ROST-4-PZ(G) SAMPLE ID: ROST4PZG-ROX-10123

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): 44.53 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.59 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.56 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NL 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 3.94 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): 41.59 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	1005	40.64	clear	moderate	19.3	1.00	1.335 (mS/cm) uS/cm	6.90	-25.82	2.37
300	1006	40.64	↓	↓	19.6	0.96	1.337 (mS/cm) uS/cm	6.91	-39.53	1.56
600	1007	40.64			19.9	0.74	1.341 (mS/cm) uS/cm	6.91	-55.18	0.51
900	1008	↓			20.0	0.72	1.341 (mS/cm) uS/cm	6.91	-58.25	0.46
1200	1009				20.1	0.67	1.345 (mS/cm) uS/cm	6.92	-66.26	0
1500	1010				20.2	0.63	1.347 (mS/cm) uS/cm	6.92	-73.40	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			

CM updated 10-12-23

Start Time: 10:05 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 50108 / 21077

Stop Time: 10:10 Average Purge Rate (mL/min): 300 Date Calibrated: 10-12-23

SAMPLING DATA

Sample Date: 10-12-23 Sample Time: 10:15 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: CM

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 4Q23 GW PROJECT NUMBER: 60697537 - 3.4.1/2/3 FIELD PERSONNEL: J.Mayer, T. Jenkins, C.Mcdavid

DATE: 10-19-23 WEATHER: cloudy, 62°F

MONITORING WELL ID: T-12 SAMPLE ID: T12-ROX-101923

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): 43.47 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): NL 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): 29.36 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: 1.1 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	1106	43.50	clear	moderate	20.3	0.81	2.007 (mS/cm) uS/cm	6.84	-134.09	3.47
300	1107	43.50			20.5	0.63	2.007 (mS/cm) uS/cm	6.84	-135.57	3.93
600	1108	43.50			20.5	0.45	2.009 (mS/cm) uS/cm	6.83	-136.45	2.85
900	1109	↓			20.5	0.36	2.009 (mS/cm) uS/cm	6.83	-137.27	2.62
1200	1110				20.6	0.31	2.009 (mS/cm) uS/cm	6.83	-137.94	2.61
1500	1111				20.6	0.28	2.010 (mS/cm) uS/cm	6.83	-138.55	2.35
							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			

cmcdavid 10-19-23

Start Time: 11:06 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 21805212 18082

Stop Time: 11:11 Average Purge Rate (mL/min): 300 Date Calibrated: 10-19-23

SAMPLING DATA

Sample Date: 10-19-23 Sample Time: 11:20 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 200 QA/QCSamples: none

VOA Vials, No Headspace ☒ Initials: CM

COMMENTS:

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

Estimated Total Purge Volume: 1500 mL

Appendix C

Data Review Forms and Laboratory Analytical Reports

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-244629-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/11/2023

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

Sample Identification	Sample Identification
TB-ROX-100523-8260	TB-ROX-100523-8011
MW1-ROX-100523-EB	MW1-ROX-100523
MW26-ROX-100523	

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, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several VOC MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in sample MW26-ROX-100523. The continuing calibration verifications (CCV) for several analytes 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 400-645827/1002	VOCs	Acetone	**246**	NA	43-160
LCS 400-645827/1002	VOCs	2-Butanone (MEK)	**184**	NA	61-145
LCS 400-645827/1002	VOCs	2-Hexanone	**150**	NA	65-137
LCS 400-645827/1002	VOCs	Tetrachloroethene	**140**	NA	65-130
LCS 400-646119/1002	VOCs	Acetone	**301**	NA	43-160
LCS 400-646119/1002	VOCs	2-Butanone (MEK)	**225**	NA	61-145
LCS 400-646119/1002	VOCs	2-Hexanone	**195**	NA	65-137
LCS 400-646119/1002	VOCs	4-Methyl-2-pentanone (MIBK)	**145**	NA	69 - 138
LCS 400-646119/1002	VOCs	Tetrachloroethene	**141**	NA	65 - 130
LCS/LCSD 400-644642/4-A/5-A	SVOCs	Benzenethiol	**2/2**	18	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-100523	SVOCs	Benzenethiol	**UJ**
MW26-ROX-100523	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?

Yes, although not requested, sample MW26-ROX-100523 was spiked and duplicated for VOCs.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW26-ROX-100523 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW26-ROX-100523 MS/MSD	VOCs	Hexachlorobutadiene	84/56	**40**	31-49/36
MW26-ROX-100523 MS/MSD	VOCs	n-Butylbenzene	83/59	**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
MW26-ROX-100523	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 multiple analytes were outside evaluation criteria, biased low. Benzenethiol in samples MW1-ROX-100523 and MW26-ROX-100523 was previously qualified in Section 5.0 of this data review due to LCS/LCSD outside evaluation criteria; no further qualification is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-100523	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
MW26-ROX-100523	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
MW26-ROX-100523	VOCs	Trichlorofluoromethane	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-100523	SVOCs	1,4-Dioxane	UJ
MW1-ROX-100523	SVOCs	Pyridine	UJ
MW1-ROX-100523	SVOCs	Phenol	UJ
MW1-ROX-100523	SVOCs	Bis(2-chloroethyl)ether	UJ
MW1-ROX-100523	SVOCs	3 & 4 Methylphenol	UJ
MW1-ROX-100523	SVOCs	N-Nitrosodi-n-propylamine	UJ
MW1-ROX-100523	SVOCs	Isophorone	UJ
MW1-ROX-100523	SVOCs	Bis(2-chloroethoxy)methane	UJ
MW1-ROX-100523	SVOCs	Hexachlorocyclopentadiene	UJ
MW1-ROX-100523	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW26-ROX-100523	SVOCs	1,4-Dioxane	UJ
MW26-ROX-100523	SVOCs	Pyridine	UJ
MW26-ROX-100523	SVOCs	Phenol	UJ
MW26-ROX-100523	SVOCs	Bis(2-chloroethyl)ether	UJ
MW26-ROX-100523	SVOCs	3 & 4 Methylphenol	UJ
MW26-ROX-100523	SVOCs	N-Nitrosodi-n-propylamine	UJ
MW26-ROX-100523	SVOCs	Isophorone	UJ
MW26-ROX-100523	SVOCs	Bis(2-chloroethoxy)methane	UJ
MW26-ROX-100523	SVOCs	Hexachlorocyclopentadiene	UJ
MW26-ROX-100523	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	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 10/20/2023 2:30:44 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-244629-1

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

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Job ID: 400-244629-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-244629-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/6/2023 9:58 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 2.0°C and 2.3°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-645827 recovered outside acceptance criteria, low biased, for 1,1,2,2-Tetrachloroethane. 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 8260D: The continuing calibration verification (CCV) associated with batch 400-645827 recovered above the upper control limit for 2-Butanone (MEK), 2-Hexanone, Acetone, Chloromethane, Tetrachloroethene and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: 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-100523-8260 (400-244629-1), MW1-ROX-100523-EB (400-244629-3) and MW1-ROX-100523 (400-244629-4). 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 8260D: The laboratory control sample (LCS) for analytical batch 400-645827 recovered outside control limits for the following analytes: 2-Butanone (MEK), 2-Hexanone, 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 8260D: The initial calibration verification (ICV) analyzed in batch 400-627009 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646119 recovered above the upper control limit for 2-Butanone (MEK), 2-Hexanone, Acetone, Tetrachloroethene and Trichloroethene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646119 recovered outside acceptance criteria, low biased, for 1,1,2,2-Tetrachloroethane and Trichlorofluoromethane. 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-646119 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-646119 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Job ID: 400-244629-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 400-646119 was outside control limits. Sample matrix interference is suspected.

Method 8260D: The laboratory control sample (LCS) for analytical batch 400-646119 recovered outside control limits for the following analytes: 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), 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 8260D: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following sample was received preserved with hydrochloric acid: MW26-ROX-100523 (400-244629-5). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades 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 8270E: The continuing calibration verification (CCV) associated with batch 400-645101 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 8270E: The continuing calibration verification (CCV) associated with batch 400-645101 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, 3 & 4 Methylphenol, 1,2-Diphenylhydrazine (as Azobenzene), Bis(2-chloroethoxy)methane, Bis(2-chloroethyl)ether, Hexachlorocyclopentadiene, Isophorone, N-Nitrosodi-n-propylamine, Phenol and Pyridine. 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 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-644642 and analytical batch 400-645101 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 8270E: The surrogate recovery for the LCS associated with preparation batch 400-644642 and analytical batch 400-645101 was outside the upper control limits.

Method 8270E: The surrogate recovery for the LCSD associated with preparation batch 400-644642 and analytical batch 400-645101 was outside the upper control limits.

Method 8270E: The initial calibration verification (ICV) analyzed in batch 400-641702 was outside method criteria for the following analyte(s): Aniline, 2,4-Dimethylphenol and Hexachlorocyclopentadiene. 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 Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-644694 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.

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: 400-244629-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-244629-1	TB-ROX-100523-8260	Water	10/05/23 12:00	10/06/23 09:58
400-244629-2	TB-ROX-100523-8011	Water	10/05/23 12:00	10/06/23 09:58
400-244629-3	MW1-ROX-100523-EB	Water	10/05/23 11:00	10/06/23 09:58
400-244629-4	MW1-ROX-100523	Water	10/05/23 12:20	10/06/23 09:58
400-244629-5	MW26-ROX-100523	Water	10/05/23 13:40	10/06/23 09:58

Detection Summary

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

Job ID: 400-244629-1

Client Sample ID: TB-ROX-100523-8260 — Lab Sample ID: 400-244629-1

No Detections.

Client Sample ID: TB-ROX-100523-8011 — Lab Sample ID: 400-244629-2

No Detections.

Client Sample ID: MW1-ROX-100523-EB — Lab Sample ID: 400-244629-3

No Detections.

Client Sample ID: MW1-ROX-100523 — Lab Sample ID: 400-244629-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.049	J	0.11	0.019	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW26-ROX-100523 — Lab Sample ID: 400-244629-5

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-244629-1

Client Sample ID: TB-ROX-100523-8260
Date Collected: 10/05/23 12:00
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/17/23 15:45	1
Acrolein	ND		20	3.3	ug/L			10/17/23 15:45	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 15:45	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 15:45	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 15:45	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 15:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 15:45	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 15:45	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 15:45	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/17/23 15:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 15:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 15:45	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 15:45	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 15:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/17/23 15:45	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 15:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 15:45	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 15:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 15:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 15:45	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 15:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 15:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 15:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 15:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 15:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 15:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 15:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 15:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 15:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 15:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 15:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 15:45	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 15:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 15:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 15:45	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/17/23 15:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 15:45	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 15:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 15:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 15:45	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 15:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 15:45	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 15:45	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 15:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 15:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 15:45	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 15:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 15:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/17/23 15:45	1

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

Job ID: 400-244629-1

Client Sample ID: TB-ROX-100523-8260
Date Collected: 10/05/23 12:00
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 15:45	1
Styrene	ND		1.0	1.0	ug/L			10/17/23 15:45	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 15:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 15:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 15:45	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/17/23 15:45	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 15:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 15:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 15:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 15:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 15:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 15:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 15:45	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 15:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 15:45	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 15:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 15:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 15:45	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 15:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 15:45	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*10/17/23 15:45*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*10/17/23 15:45*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/17/23 15:45*	*1*

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

Job ID: 400-244629-1

Client Sample ID: TB-ROX-100523-8011
Date Collected: 10/05/23 12:00
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-2
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-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		10/09/23 10:30	10/09/23 15:17	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		10/09/23 10:30	10/09/23 15:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*51 - 149*	*10/09/23 10:30*	*10/09/23 15:17*	*1*

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

Job ID: 400-244629-1

Client Sample ID: MW1-ROX-100523-EB
Date Collected: 10/05/23 11:00
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/17/23 16:10	1
Acrolein	ND		20	3.3	ug/L			10/17/23 16:10	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 16:10	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 16:10	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 16:10	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 16:10	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 16:10	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 16:10	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 16:10	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/17/23 16:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 16:10	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 16:10	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 16:10	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 16:10	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/17/23 16:10	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 16:10	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 16:10	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 16:10	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 16:10	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 16:10	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 16:10	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 16:10	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 16:10	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 16:10	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 16:10	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 16:10	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 16:10	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 16:10	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 16:10	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 16:10	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 16:10	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 16:10	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 16:10	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 16:10	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 16:10	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/17/23 16:10	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 16:10	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 16:10	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 16:10	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 16:10	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 16:10	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 16:10	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 16:10	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 16:10	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 16:10	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 16:10	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 16:10	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 16:10	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/17/23 16:10	1

Client Sample ID: MW1-ROX-100523-EB

Lab Sample ID: 400-244629-3

Date Collected: 10/05/23 11:00

Matrix: Water

Date Received: 10/06/23 09:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 16:10	1
Styrene	ND		1.0	1.0	ug/L			10/17/23 16:10	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 16:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 16:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 16:10	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/17/23 16:10	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 16:10	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 16:10	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 16:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 16:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 16:10	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 16:10	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 16:10	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 16:10	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 16:10	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 16:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 16:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 16:10	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 16:10	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 16:10	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 130*		*10/17/23 16:10*	*1*
Dibromofluoromethane	*92*		*75 - 126*		*10/17/23 16:10*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/17/23 16:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.11	0.056	ug/L		10/09/23 10:10	10/12/23 15:16	1
Acenaphthylene	ND		0.11	0.025	ug/L		10/09/23 10:10	10/12/23 15:16	1
Anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 15:16	1
Benzo[a]anthracene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:16	1
Benzo[a]pyrene	ND		0.11	0.036	ug/L		10/09/23 10:10	10/12/23 15:16	1
Benzo[b]fluoranthene	ND		0.11	0.021	ug/L		10/09/23 10:10	10/12/23 15:16	1
Benzo[g,h,i]perylene	ND		0.11	0.015	ug/L		10/09/23 10:10	10/12/23 15:16	1
Benzo[k]fluoranthene	ND		0.11	0.035	ug/L		10/09/23 10:10	10/12/23 15:16	1
Chrysene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:16	1
Dibenz(a,h)anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 15:16	1
Fluoranthene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:16	1
Fluorene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 15:16	1
Indeno[1,2,3-cd]pyrene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:16	1
Phenanthrene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 15:16	1
Pyrene	ND		0.11	0.022	ug/L		10/09/23 10:10	10/12/23 15:16	1
1-Methylnaphthalene	ND		0.11	0.046	ug/L		10/09/23 10:10	10/12/23 15:16	1
2-Methylnaphthalene	ND		0.11	0.038	ug/L		10/09/23 10:10	10/12/23 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*68*		*18 - 147*	*10/09/23 10:10*	*10/12/23 15:16*	*1*
2-Fluorobiphenyl	*67*		*15 - 128*	*10/09/23 10:10*	*10/12/23 15:16*	*1*

Client Sample ID: MW1-ROX-100523-EB
Date Collected: 10/05/23 11:00
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*61*		*10 - 144*	*10/09/23 10:10*	*10/12/23 15:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 23:02	1
Benzenethiol	ND	*-	5.7	0.97	ug/L		10/09/23 10:10	10/11/23 23:02	1
Benzoic acid	ND		17	4.2	ug/L		10/09/23 10:10	10/11/23 23:02	1
Benzyl alcohol	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:02	1
Bis(2-chloroethoxy)methane	ND		5.7	0.091	ug/L		10/09/23 10:10	10/11/23 23:02	1
Bis(2-chloroethyl)ether	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:02	1
bis (2-chloroisopropyl) ether	ND		5.7	0.091	ug/L		10/09/23 10:10	10/11/23 23:02	1
Bis(2-ethylhexyl) phthalate	ND		5.7	2.8	ug/L		10/09/23 10:10	10/11/23 23:02	1
4-Bromophenyl phenyl ether	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 23:02	1
Butyl benzyl phthalate	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 23:02	1
4-Chloroaniline	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 23:02	1
4-Chloro-3-methylphenol	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 23:02	1
2-Chloronaphthalene	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 23:02	1
2-Chlorophenol	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 23:02	1
4-Chlorophenyl phenyl ether	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:02	1
Dibenz[a,h]acridine	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:02	1
Dibenzofuran	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:02	1
3,3'-Dichlorobenzidine	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:02	1
2,4-Dichlorophenol	ND		5.7	1.7	ug/L		10/09/23 10:10	10/11/23 23:02	1
Diethyl phthalate	ND		5.7	0.14	ug/L		10/09/23 10:10	10/11/23 23:02	1
2,4-Dimethylphenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:02	1
Dimethyl phthalate	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:02	1
Di-n-butyl phthalate	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:02	1
4,6-Dinitro-ortho-cresol	ND		5.7	0.91	ug/L		10/09/23 10:10	10/11/23 23:02	1
2,4-Dinitrophenol	ND		17	1.9	ug/L		10/09/23 10:10	10/11/23 23:02	1
2,4-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:02	1
2,6-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:02	1
Di-n-octyl phthalate	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:02	1
1,4-Dioxane	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:02	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:02	1
Hexachlorobenzene	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:02	1
Hexachlorocyclopentadiene	ND		11	1.5	ug/L		10/09/23 10:10	10/11/23 23:02	1
Hexachloroethane	ND		5.7	2.4	ug/L		10/09/23 10:10	10/11/23 23:02	1
Indene	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:02	1
Isophorone	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 23:02	1
2-Methylphenol	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 23:02	1
3 & 4 Methylphenol	ND		11	0.22	ug/L		10/09/23 10:10	10/11/23 23:02	1
2-Nitroaniline	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 23:02	1
3-Nitroaniline	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 23:02	1
4-Nitroaniline	ND		5.7	0.85	ug/L		10/09/23 10:10	10/11/23 23:02	1
Nitrobenzene	ND		5.7	0.074	ug/L		10/09/23 10:10	10/11/23 23:02	1
2-Nitrophenol	ND		5.7	3.0	ug/L		10/09/23 10:10	10/11/23 23:02	1
4-Nitrophenol	ND		5.7	1.2	ug/L		10/09/23 10:10	10/11/23 23:02	1
N-Nitrosodimethylamine	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:02	1

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

Job ID: 400-244629-1

Client Sample ID: MW1-ROX-100523-EB

Date Collected: 10/05/23 11:00
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 23:02	1
N-Nitrosodiphenylamine	ND		5.7	0.10	ug/L		10/09/23 10:10	10/11/23 23:02	1
Pentachlorophenol	ND		11	0.80	ug/L		10/09/23 10:10	10/11/23 23:02	1
Phenol	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:02	1
Pyridine	ND		5.7	1.8	ug/L		10/09/23 10:10	10/11/23 23:02	1
Quinoline	ND		5.7	2.6	ug/L		10/09/23 10:10	10/11/23 23:02	1
2,4,5-Trichlorophenol	ND		5.7	2.1	ug/L		10/09/23 10:10	10/11/23 23:02	1
2,4,6-Trichlorophenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*10/09/23 10:10*	*10/11/23 23:02*	*1*
2-Fluorophenol	*22*		*13 - 113*	*10/09/23 10:10*	*10/11/23 23:02*	*1*
Nitrobenzene-d5	*53*		*36 - 126*	*10/09/23 10:10*	*10/11/23 23:02*	*1*
Phenol-d5	*36*		*17 - 127*	*10/09/23 10:10*	*10/11/23 23:02*	*1*
Terphenyl-d14	*83*		*44 - 149*	*10/09/23 10:10*	*10/11/23 23:02*	*1*
2,4,6-Tribromophenol	*63*		*26 - 150*	*10/09/23 10:10*	*10/11/23 23:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/09/23 10:30	10/09/23 15:38	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/09/23 10:30	10/09/23 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*51 - 149*	*10/09/23 10:30*	*10/09/23 15:38*	*1*

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

Job ID: 400-244629-1

Client Sample ID: MW1-ROX-100523
Date Collected: 10/05/23 12:20
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/17/23 19:07	1
Acrolein	ND		20	3.3	ug/L			10/17/23 19:07	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 19:07	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 19:07	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 19:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 19:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 19:07	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 19:07	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 19:07	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/17/23 19:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 19:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 19:07	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 19:07	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 19:07	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/17/23 19:07	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 19:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 19:07	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 19:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 19:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 19:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 19:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 19:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 19:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 19:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 19:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 19:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 19:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 19:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 19:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 19:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 19:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 19:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 19:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 19:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 19:07	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/17/23 19:07	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 19:07	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 19:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 19:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 19:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 19:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 19:07	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 19:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 19:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 19:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 19:07	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 19:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 19:07	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/17/23 19:07	1

Client Sample ID: MW1-ROX-100523
Date Collected: 10/05/23 12:20
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 19:07	1
Styrene	ND		1.0	1.0	ug/L			10/17/23 19:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 19:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 19:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 19:07	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/17/23 19:07	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 19:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 19:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 19:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 19:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 19:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 19:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 19:07	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 19:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 19:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 19:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 19:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 19:07	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 19:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 19:07	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 130*		*10/17/23 19:07*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*10/17/23 19:07*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/17/23 19:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.11	0.056	ug/L		10/09/23 10:10	10/12/23 15:37	1
Acenaphthylene	ND		0.11	0.025	ug/L		10/09/23 10:10	10/12/23 15:37	1
Anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 15:37	1
Benzo[a]anthracene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:37	1
Benzo[a]pyrene	ND		0.11	0.036	ug/L		10/09/23 10:10	10/12/23 15:37	1
Benzo[b]fluoranthene	ND		0.11	0.021	ug/L		10/09/23 10:10	10/12/23 15:37	1
Benzo[g,h,i]perylene	ND		0.11	0.015	ug/L		10/09/23 10:10	10/12/23 15:37	1
Benzo[k]fluoranthene	ND		0.11	0.035	ug/L		10/09/23 10:10	10/12/23 15:37	1
Chrysene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:37	1
Dibenz(a,h)anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 15:37	1
Fluoranthene	**0.049**	**J**	0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:37	1
Fluorene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 15:37	1
Indeno[1,2,3-cd]pyrene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:37	1
Phenanthrene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 15:37	1
Pyrene	ND		0.11	0.022	ug/L		10/09/23 10:10	10/12/23 15:37	1
1-Methylnaphthalene	ND		0.11	0.045	ug/L		10/09/23 10:10	10/12/23 15:37	1
2-Methylnaphthalene	ND		0.11	0.038	ug/L		10/09/23 10:10	10/12/23 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*18 - 147*	*10/09/23 10:10*	*10/12/23 15:37*	*1*
2-Fluorobiphenyl	*69*		*15 - 128*	*10/09/23 10:10*	*10/12/23 15:37*	*1*

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

Job ID: 400-244629-1

Client Sample ID: MW1-ROX-100523
Date Collected: 10/05/23 12:20
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*63*		*10 - 144*	*10/09/23 10:10*	*10/12/23 15:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 23:28	1
Benzenethiol	ND	*-	5.7	0.97	ug/L		10/09/23 10:10	10/11/23 23:28	1
Benzoic acid	ND		17	4.2	ug/L		10/09/23 10:10	10/11/23 23:28	1
Benzyl alcohol	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:28	1
Bis(2-chloroethoxy)methane	ND		5.7	0.091	ug/L		10/09/23 10:10	10/11/23 23:28	1
Bis(2-chloroethyl)ether	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:28	1
bis (2-chloroisopropyl) ether	ND		5.7	0.091	ug/L		10/09/23 10:10	10/11/23 23:28	1
Bis(2-ethylhexyl) phthalate	ND		5.7	2.8	ug/L		10/09/23 10:10	10/11/23 23:28	1
4-Bromophenyl phenyl ether	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 23:28	1
Butyl benzyl phthalate	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 23:28	1
4-Chloroaniline	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 23:28	1
4-Chloro-3-methylphenol	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 23:28	1
2-Chloronaphthalene	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 23:28	1
2-Chlorophenol	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 23:28	1
4-Chlorophenyl phenyl ether	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:28	1
Dibenz[a,h]acridine	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:28	1
Dibenzofuran	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:28	1
3,3'-Dichlorobenzidine	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:28	1
2,4-Dichlorophenol	ND		5.7	1.7	ug/L		10/09/23 10:10	10/11/23 23:28	1
Diethyl phthalate	ND		5.7	0.14	ug/L		10/09/23 10:10	10/11/23 23:28	1
2,4-Dimethylphenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:28	1
Dimethyl phthalate	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:28	1
Di-n-butyl phthalate	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:28	1
4,6-Dinitro-ortho-cresol	ND		5.7	0.91	ug/L		10/09/23 10:10	10/11/23 23:28	1
2,4-Dinitrophenol	ND		17	1.9	ug/L		10/09/23 10:10	10/11/23 23:28	1
2,4-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:28	1
2,6-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:28	1
Di-n-octyl phthalate	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:28	1
1,4-Dioxane	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:28	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:28	1
Hexachlorobenzene	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:28	1
Hexachlorocyclopentadiene	ND		11	1.5	ug/L		10/09/23 10:10	10/11/23 23:28	1
Hexachloroethane	ND		5.7	2.4	ug/L		10/09/23 10:10	10/11/23 23:28	1
Indene	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:28	1
Isophorone	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 23:28	1
2-Methylphenol	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 23:28	1
3 & 4 Methylphenol	ND		11	0.22	ug/L		10/09/23 10:10	10/11/23 23:28	1
2-Nitroaniline	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 23:28	1
3-Nitroaniline	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 23:28	1
4-Nitroaniline	ND		5.7	0.85	ug/L		10/09/23 10:10	10/11/23 23:28	1
Nitrobenzene	ND		5.7	0.074	ug/L		10/09/23 10:10	10/11/23 23:28	1
2-Nitrophenol	ND		5.7	3.0	ug/L		10/09/23 10:10	10/11/23 23:28	1
4-Nitrophenol	ND		5.7	1.2	ug/L		10/09/23 10:10	10/11/23 23:28	1
N-Nitrosodimethylamine	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:28	1

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

Job ID: 400-244629-1

Client Sample ID: MW1-ROX-100523
Date Collected: 10/05/23 12:20
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 23:28	1
N-Nitrosodiphenylamine	ND		5.7	0.10	ug/L		10/09/23 10:10	10/11/23 23:28	1
Pentachlorophenol	ND		11	0.80	ug/L		10/09/23 10:10	10/11/23 23:28	1
Phenol	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:28	1
Pyridine	ND		5.7	1.8	ug/L		10/09/23 10:10	10/11/23 23:28	1
Quinoline	ND		5.7	2.6	ug/L		10/09/23 10:10	10/11/23 23:28	1
2,4,5-Trichlorophenol	ND		5.7	2.1	ug/L		10/09/23 10:10	10/11/23 23:28	1
2,4,6-Trichlorophenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/09/23 10:10*	*10/11/23 23:28*	*1*
2-Fluorophenol	*34*		*13 - 113*	*10/09/23 10:10*	*10/11/23 23:28*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*10/09/23 10:10*	*10/11/23 23:28*	*1*
Phenol-d5	*45*		*17 - 127*	*10/09/23 10:10*	*10/11/23 23:28*	*1*
Terphenyl-d14	*95*		*44 - 149*	*10/09/23 10:10*	*10/11/23 23:28*	*1*
2,4,6-Tribromophenol	*76*		*26 - 150*	*10/09/23 10:10*	*10/11/23 23:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/09/23 10:30	10/09/23 15:59	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/09/23 10:30	10/09/23 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*51 - 149*	*10/09/23 10:30*	*10/09/23 15:59*	*1*

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

Job ID: 400-244629-1

Client Sample ID: MW26-ROX-100523
Date Collected: 10/05/23 13:40
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/18/23 16:35	1
Acrolein	ND		20	3.3	ug/L			10/18/23 16:35	1
Acrylonitrile	ND		10	2.8	ug/L			10/18/23 16:35	1
Benzene	ND		1.0	0.50	ug/L			10/18/23 16:35	1
Bromobenzene	ND		1.0	0.54	ug/L			10/18/23 16:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/18/23 16:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/18/23 16:35	1
Bromoform	ND		5.0	0.25	ug/L			10/18/23 16:35	1
Bromomethane	ND		1.0	0.98	ug/L			10/18/23 16:35	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/18/23 16:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/18/23 16:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/18/23 16:35	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/18/23 16:35	1
Chloroethane	ND		1.0	0.76	ug/L			10/18/23 16:35	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			10/18/23 16:35	1
Chloroform	ND		1.0	0.90	ug/L			10/18/23 16:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/18/23 16:35	1
Chloromethane	ND		1.0	0.90	ug/L			10/18/23 16:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/18/23 16:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/18/23 16:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/18/23 16:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/18/23 16:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/18/23 16:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/18/23 16:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/18/23 16:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/18/23 16:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/18/23 16:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/18/23 16:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/18/23 16:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/18/23 16:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/18/23 16:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/18/23 16:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/18/23 16:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/18/23 16:35	1
Hexachlorobutadiene	ND	F2	5.0	0.90	ug/L			10/18/23 16:35	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/18/23 16:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/18/23 16:35	1
Methylene bromide	ND		5.0	0.22	ug/L			10/18/23 16:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/18/23 16:35	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			10/18/23 16:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/18/23 16:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/18/23 16:35	1
Naphthalene	ND		5.0	3.0	ug/L			10/18/23 16:35	1
n-Butylbenzene	ND	F2	1.0	0.76	ug/L			10/18/23 16:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/18/23 16:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/18/23 16:35	1
o-Xylene	ND		5.0	0.60	ug/L			10/18/23 16:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/18/23 16:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/18/23 16:35	1

Client Sample ID: MW26-ROX-100523

Lab Sample ID: 400-244629-5

Date Collected: 10/05/23 13:40

Matrix: Water

Date Received: 10/06/23 09:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/18/23 16:35	1
Styrene	ND		1.0	1.0	ug/L			10/18/23 16:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/18/23 16:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/18/23 16:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/18/23 16:35	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/18/23 16:35	1
Toluene	ND		1.0	0.90	ug/L			10/18/23 16:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/18/23 16:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/18/23 16:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/18/23 16:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/18/23 16:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/18/23 16:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/18/23 16:35	1
Trichloroethene	ND		1.0	0.15	ug/L			10/18/23 16:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/18/23 16:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/18/23 16:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/18/23 16:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/18/23 16:35	1
Vinyl acetate	ND		25	0.93	ug/L			10/18/23 16:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/18/23 16:35	1
Xylenes, Total	ND		10	1.6	ug/L			10/18/23 16:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 130*		*10/18/23 16:35*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*10/18/23 16:35*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/18/23 16:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.11	0.056	ug/L		10/09/23 10:10	10/12/23 15:58	1
Acenaphthylene	ND		0.11	0.025	ug/L		10/09/23 10:10	10/12/23 15:58	1
Anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 15:58	1
Benzo[a]anthracene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:58	1
Benzo[a]pyrene	ND		0.11	0.036	ug/L		10/09/23 10:10	10/12/23 15:58	1
Benzo[b]fluoranthene	ND		0.11	0.021	ug/L		10/09/23 10:10	10/12/23 15:58	1
Benzo[g,h,i]perylene	ND		0.11	0.015	ug/L		10/09/23 10:10	10/12/23 15:58	1
Benzo[k]fluoranthene	ND		0.11	0.035	ug/L		10/09/23 10:10	10/12/23 15:58	1
Chrysene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:58	1
Dibenz(a,h)anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 15:58	1
Fluoranthene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:58	1
Fluorene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 15:58	1
Indeno[1,2,3-cd]pyrene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 15:58	1
Phenanthrene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 15:58	1
Pyrene	ND		0.11	0.022	ug/L		10/09/23 10:10	10/12/23 15:58	1
1-Methylnaphthalene	ND		0.11	0.046	ug/L		10/09/23 10:10	10/12/23 15:58	1
2-Methylnaphthalene	ND		0.11	0.038	ug/L		10/09/23 10:10	10/12/23 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*18 - 147*	*10/09/23 10:10*	*10/12/23 15:58*	*1*
2-Fluorobiphenyl	*68*		*15 - 128*	*10/09/23 10:10*	*10/12/23 15:58*	*1*

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

Job ID: 400-244629-1

Client Sample ID: MW26-ROX-100523
Date Collected: 10/05/23 13:40
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*63*		*10 - 144*	*10/09/23 10:10*	*10/12/23 15:58*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 23:53	1
Benzenethiol	ND	*-	5.7	0.97	ug/L		10/09/23 10:10	10/11/23 23:53	1
Benzoic acid	ND		17	4.2	ug/L		10/09/23 10:10	10/11/23 23:53	1
Benzyl alcohol	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:53	1
Bis(2-chloroethoxy)methane	ND		5.7	0.091	ug/L		10/09/23 10:10	10/11/23 23:53	1
Bis(2-chloroethyl)ether	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:53	1
bis (2-chloroisopropyl) ether	ND		5.7	0.091	ug/L		10/09/23 10:10	10/11/23 23:53	1
Bis(2-ethylhexyl) phthalate	ND		5.7	2.8	ug/L		10/09/23 10:10	10/11/23 23:53	1
4-Bromophenyl phenyl ether	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 23:53	1
Butyl benzyl phthalate	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 23:53	1
4-Chloroaniline	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 23:53	1
4-Chloro-3-methylphenol	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 23:53	1
2-Chloronaphthalene	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 23:53	1
2-Chlorophenol	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 23:53	1
4-Chlorophenyl phenyl ether	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:53	1
Dibenz[a,h]acridine	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:53	1
Dibenzofuran	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:53	1
3,3'-Dichlorobenzidine	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:53	1
2,4-Dichlorophenol	ND		5.7	1.7	ug/L		10/09/23 10:10	10/11/23 23:53	1
Diethyl phthalate	ND		5.7	0.14	ug/L		10/09/23 10:10	10/11/23 23:53	1
2,4-Dimethylphenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:53	1
Dimethyl phthalate	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:53	1
Di-n-butyl phthalate	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:53	1
4,6-Dinitro-ortho-cresol	ND		5.7	0.91	ug/L		10/09/23 10:10	10/11/23 23:53	1
2,4-Dinitrophenol	ND		17	1.9	ug/L		10/09/23 10:10	10/11/23 23:53	1
2,4-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:53	1
2,6-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 23:53	1
Di-n-octyl phthalate	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:53	1
1,4-Dioxane	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:53	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:53	1
Hexachlorobenzene	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 23:53	1
Hexachlorocyclopentadiene	ND		11	1.5	ug/L		10/09/23 10:10	10/11/23 23:53	1
Hexachloroethane	ND		5.7	2.4	ug/L		10/09/23 10:10	10/11/23 23:53	1
Indene	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 23:53	1
Isophorone	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 23:53	1
2-Methylphenol	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 23:53	1
3 & 4 Methylphenol	ND		11	0.22	ug/L		10/09/23 10:10	10/11/23 23:53	1
2-Nitroaniline	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 23:53	1
3-Nitroaniline	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 23:53	1
4-Nitroaniline	ND		5.7	0.85	ug/L		10/09/23 10:10	10/11/23 23:53	1
Nitrobenzene	ND		5.7	0.074	ug/L		10/09/23 10:10	10/11/23 23:53	1
2-Nitrophenol	ND		5.7	3.0	ug/L		10/09/23 10:10	10/11/23 23:53	1
4-Nitrophenol	ND		5.7	1.2	ug/L		10/09/23 10:10	10/11/23 23:53	1
N-Nitrosodimethylamine	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:53	1

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

Job ID: 400-244629-1

Client Sample ID: MW26-ROX-100523

Lab Sample ID: 400-244629-5

Date Collected: 10/05/23 13:40

Matrix: Water

Date Received: 10/06/23 09:58

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 23:53	1
N-Nitrosodiphenylamine	ND		5.7	0.10	ug/L		10/09/23 10:10	10/11/23 23:53	1
Pentachlorophenol	ND		11	0.80	ug/L		10/09/23 10:10	10/11/23 23:53	1
Phenol	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 23:53	1
Pyridine	ND		5.7	1.8	ug/L		10/09/23 10:10	10/11/23 23:53	1
Quinoline	ND		5.7	2.6	ug/L		10/09/23 10:10	10/11/23 23:53	1
2,4,5-Trichlorophenol	ND		5.7	2.1	ug/L		10/09/23 10:10	10/11/23 23:53	1
2,4,6-Trichlorophenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/09/23 10:10*	*10/11/23 23:53*	*1*
2-Fluorophenol	*18*		*13 - 113*	*10/09/23 10:10*	*10/11/23 23:53*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*10/09/23 10:10*	*10/11/23 23:53*	*1*
Phenol-d5	*34*		*17 - 127*	*10/09/23 10:10*	*10/11/23 23:53*	*1*
Terphenyl-d14	*98*		*44 - 149*	*10/09/23 10:10*	*10/11/23 23:53*	*1*
2,4,6-Tribromophenol	*57*		*26 - 150*	*10/09/23 10:10*	*10/11/23 23:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/09/23 10:30	10/09/23 16:20	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/09/23 10:30	10/09/23 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*10/09/23 10:30*	*10/09/23 16:20*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-244629-1
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.
F2	MS/MSD RPD exceeds control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
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: 400-244629-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-244629-1	TB-ROX-100523-8260	103	93	106
400-244629-3	MW1-ROX-100523-EB	101	92	106
400-244629-4	MW1-ROX-100523	100	91	106
400-244629-5	MW26-ROX-100523	102	93	106
400-244629-5 MS	MW26-ROX-100523	101	92	104
400-244629-5 MSD	MW26-ROX-100523	103	85	104
LCS 400-645827/1002	Lab Control Sample	103	95	105
LCS 400-646119/1002	Lab Control Sample	101	94	95
MB 400-645827/4	Method Blank	103	97	107
MB 400-646119/4	Method Blank	102	99	107

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-244629-3	MW1-ROX-100523-EB	69	22	53	36	83	63
400-244629-4	MW1-ROX-100523	79	34	61	45	95	76
400-244629-5	MW26-ROX-100523	79	18	64	34	98	57
LCS 400-644642/2-A	Lab Control Sample	78	36	77	52	84	86
LCS 400-644642/4-A	Lab Control Sample	84	37	64	51	92	84
LCSD 400-644642/5-A	Lab Control Sample Dup	85	33	66	51	99	67
MB 400-644642/1-A	Method Blank	79	26	62	41	90	79

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-244629-3	MW1-ROX-100523-EB	68	67	61
400-244629-4	MW1-ROX-100523	69	69	63
400-244629-5	MW26-ROX-100523	70	68	63
LCS 400-644642/6-A	Lab Control Sample	65	66	63
LCSD 400-644642/7-A	Lab Control Sample Dup	70	70	66
MB 400-644642/1-A	Method Blank	71	69	65

Surrogate Legend

Surrogate Summary

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

Job ID: 400-244629-1

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-244629-2	TB-ROX-100523-8011	90
400-244629-3	MW1-ROX-100523-EB	90
400-244629-4	MW1-ROX-100523	90
400-244629-5	MW26-ROX-100523	101
LCS 400-644646/2-A	Lab Control Sample	101
LCSD 400-644646/3-A	Lab Control Sample Dup	95
MB 400-644646/1-A	Method Blank	84

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-244629-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-244629-1

Client Sample ID: TB-ROX-100523-8260
Lab Sample ID: 400-244629-1
Date Collected: 10/05/23 12:00
Matrix: Water
Date Received: 10/06/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	645827	10/17/23 15:45	BPO	EET PEN

Client Sample ID: TB-ROX-100523-8011
Lab Sample ID: 400-244629-2
Date Collected: 10/05/23 12:00
Matrix: Water
Date Received: 10/06/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.6 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 15:17	PG	EET PEN

Client Sample ID: MW1-ROX-100523-EB
Lab Sample ID: 400-244629-3
Date Collected: 10/05/23 11:00
Matrix: Water
Date Received: 10/06/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	645827	10/17/23 16:10	BPO	EET PEN
Total/NA	Prep	3520C			439 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 23:02	S1B	EET PEN
Total/NA	Prep	3520C			439 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 15:16	S1B	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 15:38	PG	EET PEN

Client Sample ID: MW1-ROX-100523
Lab Sample ID: 400-244629-4
Date Collected: 10/05/23 12:20
Matrix: Water
Date Received: 10/06/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	645827	10/17/23 19:07	BPO	EET PEN
Total/NA	Prep	3520C			439.6 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 23:28	S1B	EET PEN
Total/NA	Prep	3520C			439.6 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 15:37	S1B	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 15:59	PG	EET PEN

Client Sample ID: MW26-ROX-100523
Lab Sample ID: 400-244629-5
Date Collected: 10/05/23 13:40
Matrix: Water
Date Received: 10/06/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646119	10/18/23 16:35	CAR	EET PEN
Total/NA	Prep	3520C			439 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 23:53	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244629-1

Client Sample ID: MW26-ROX-100523
Date Collected: 10/05/23 13:40
Date Received: 10/06/23 09:58

Lab Sample ID: 400-244629-5
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			439 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 15:58	S1B	EET PEN
Total/NA	Prep	8011			34.8 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 16:20	PG	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-644642/1-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 18:18	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 11:57	S1B	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-644646/1-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	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 14:15	PG	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-645827/4
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	8260D		1	5 mL	5 mL	645827	10/17/23 11:23	BPO	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-646119/4
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	8260D		1	5 mL	5 mL	646119	10/18/23 12:59	CAR	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-644642/2-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 18:44	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244629-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-644642/4-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 19:10	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-644642/6-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 12:18	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-644646/2-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	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 14:36	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645827/1002
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	8260D		1	5 mL	5 mL	645827	10/17/23 10:15	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646119/1002
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	8260D		1	5 mL	5 mL	646119	10/18/23 11:54	CAR	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-644642/5-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 19:36	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-244629-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-644642/7-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 16:19	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-644646/3-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	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 14:57	PG	EET PEN

Client Sample ID: MW26-ROX-100523
Lab Sample ID: 400-244629-5 MS
Date Collected: 10/05/23 13:40
Matrix: Water
Date Received: 10/06/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646119	10/18/23 15:19	CAR	EET PEN

Client Sample ID: MW26-ROX-100523
Lab Sample ID: 400-244629-5 MSD
Date Collected: 10/05/23 13:40
Matrix: Water
Date Received: 10/06/23 09:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646119	10/18/23 15:44	CAR	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 645827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244629-1	TB-ROX-100523-8260	Total/NA	Water	8260D	
400-244629-3	MW1-ROX-100523-EB	Total/NA	Water	8260D	
400-244629-4	MW1-ROX-100523	Total/NA	Water	8260D	
MB 400-645827/4	Method Blank	Total/NA	Water	8260D	
LCS 400-645827/1002	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 646119

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244629-5	MW26-ROX-100523	Total/NA	Water	8260D	
MB 400-646119/4	Method Blank	Total/NA	Water	8260D	
LCS 400-646119/1002	Lab Control Sample	Total/NA	Water	8260D	
400-244629-5 MS	MW26-ROX-100523	Total/NA	Water	8260D	
400-244629-5 MSD	MW26-ROX-100523	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 644642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244629-3	MW1-ROX-100523-EB	Total/NA	Water	3520C	
400-244629-4	MW1-ROX-100523	Total/NA	Water	3520C	
400-244629-5	MW26-ROX-100523	Total/NA	Water	3520C	
MB 400-644642/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-644642/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-644642/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-644642/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-644642/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-644642/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 645101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244629-3	MW1-ROX-100523-EB	Total/NA	Water	8270E	644642
400-244629-4	MW1-ROX-100523	Total/NA	Water	8270E	644642
400-244629-5	MW26-ROX-100523	Total/NA	Water	8270E	644642
MB 400-644642/1-A	Method Blank	Total/NA	Water	8270E	644642
LCS 400-644642/2-A	Lab Control Sample	Total/NA	Water	8270E	644642
LCS 400-644642/4-A	Lab Control Sample	Total/NA	Water	8270E	644642
LCSD 400-644642/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	644642

Analysis Batch: 645209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244629-3	MW1-ROX-100523-EB	Total/NA	Water	8270E SIM	644642
400-244629-4	MW1-ROX-100523	Total/NA	Water	8270E SIM	644642
400-244629-5	MW26-ROX-100523	Total/NA	Water	8270E SIM	644642
MB 400-644642/1-A	Method Blank	Total/NA	Water	8270E SIM	644642
LCS 400-644642/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	644642
LCSD 400-644642/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	644642

GC Semi VOA

Prep Batch: 644646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244629-2	TB-ROX-100523-8011	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 644646 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244629-3	MW1-ROX-100523-EB	Total/NA	Water	8011	
400-244629-4	MW1-ROX-100523	Total/NA	Water	8011	
400-244629-5	MW26-ROX-100523	Total/NA	Water	8011	
MB 400-644646/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-644646/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-644646/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 644694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244629-2	TB-ROX-100523-8011	Total/NA	Water	8011	644646
400-244629-3	MW1-ROX-100523-EB	Total/NA	Water	8011	644646
400-244629-4	MW1-ROX-100523	Total/NA	Water	8011	644646
400-244629-5	MW26-ROX-100523	Total/NA	Water	8011	644646
MB 400-644646/1-A	Method Blank	Total/NA	Water	8011	644646
LCS 400-644646/2-A	Lab Control Sample	Total/NA	Water	8011	644646
LCSD 400-644646/3-A	Lab Control Sample Dup	Total/NA	Water	8011	644646

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-645827/4
Matrix: Water
Analysis Batch: 645827

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			10/17/23 11:23	1
Acrolein	ND		20	3.3	ug/L			10/17/23 11:23	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 11:23	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 11:23	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 11:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 11:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 11:23	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 11:23	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 11:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/17/23 11:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 11:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 11:23	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 11:23	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 11:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/17/23 11:23	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 11:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 11:23	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 11:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 11:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 11:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 11:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 11:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 11:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 11:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 11:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 11:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 11:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 11:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 11:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 11:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 11:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 11:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 11:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 11:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 11:23	1
2-Hexanone	ND		25	1.4	ug/L			10/17/23 11:23	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 11:23	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 11:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 11:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 11:23	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 11:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 11:23	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 11:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 11:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 11:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 11:23	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 11:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 11:23	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-645827/4
Matrix: Water
Analysis Batch: 645827

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			10/17/23 11:23	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 11:23	1
Styrene	ND		1.0	1.0	ug/L			10/17/23 11:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 11:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 11:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 11:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/17/23 11:23	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 11:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 11:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 11:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 11:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 11:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 11:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 11:23	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 11:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 11:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 11:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 11:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 11:23	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 11:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 11:23	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 11:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*10/17/23 11:23*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*10/17/23 11:23*	*1*
Toluene-d8 (Surr)	*107*		*64 - 132*		*10/17/23 11:23*	*1*

Lab Sample ID: LCS 400-645827/1002
Matrix: Water
Analysis Batch: 645827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	493	*+	ug/L		246	43 - 160
Acrolein	500	508		ug/L		102	38 - 160
Acrylonitrile	500	455		ug/L		91	64 - 142
Benzene	50.0	49.4		ug/L		99	70 - 130
Bromobenzene	50.0	48.2		ug/L		96	70 - 132
Bromochloromethane	50.0	40.8		ug/L		82	70 - 130
Bromodichloromethane	50.0	53.9		ug/L		108	67 - 133
Bromoform	50.0	42.0		ug/L		84	57 - 140
Bromomethane	50.0	57.5		ug/L		115	10 - 160
2-Butanone (MEK)	200	367	*+	ug/L		184	61 - 145
Carbon disulfide	50.0	39.2		ug/L		78	61 - 137
Carbon tetrachloride	50.0	47.7		ug/L		95	61 - 137
Chlorobenzene	50.0	51.2		ug/L		102	70 - 130
Chloroethane	50.0	52.5		ug/L		105	55 - 141
2-Chloroethyl vinyl ether	50.0	67.2		ug/L		134	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-645827/1002
Matrix: Water
Analysis Batch: 645827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	47.0		ug/L		94	69 - 130
1-Chlorohexane	50.0	53.7		ug/L		107	69 - 130
Chloromethane	50.0	63.9		ug/L		128	58 - 137
cis-1,2-Dichloroethene	50.0	47.7		ug/L		95	68 - 130
cis-1,3-Dichloropropene	50.0	52.7		ug/L		105	69 - 132
Dibromochloromethane	50.0	47.8		ug/L		96	67 - 135
1,2-Dichlorobenzene	50.0	50.2		ug/L		100	67 - 130
1,3-Dichlorobenzene	50.0	51.1		ug/L		102	70 - 130
1,4-Dichlorobenzene	50.0	51.6		ug/L		103	70 - 130
Dichlorodifluoromethane	50.0	67.5		ug/L		135	41 - 146
1,1-Dichloroethane	50.0	46.9		ug/L		94	70 - 130
1,2-Dichloroethane	50.0	48.5		ug/L		97	69 - 130
1,1-Dichloroethene	50.0	43.7		ug/L		87	63 - 134
1,2-Dichloropropane	50.0	54.3		ug/L		109	70 - 130
1,3-Dichloropropane	50.0	51.9		ug/L		104	70 - 130
2,2-Dichloropropane	50.0	43.7		ug/L		87	52 - 135
1,1-Dichloropropene	50.0	48.6		ug/L		97	70 - 130
Ethylbenzene	50.0	53.5		ug/L		107	70 - 130
Ethyl methacrylate	50.0	49.2		ug/L		98	68 - 130
Hexachlorobutadiene	50.0	58.1		ug/L		116	53 - 140
2-Hexanone	200	300	*+	ug/L		150	65 - 137
Isopropylbenzene	50.0	53.3		ug/L		107	70 - 130
Methylene bromide	50.0	52.6		ug/L		105	70 - 130
Methylene Chloride	50.0	43.5		ug/L		87	66 - 135
4-Methyl-2-pentanone (MIBK)	200	230		ug/L		115	69 - 138
Methyl tert-butyl ether	50.0	42.7		ug/L		85	66 - 130
m-Xylene & p-Xylene	50.0	53.4		ug/L		107	70 - 130
Naphthalene	50.0	50.3		ug/L		101	47 - 149
n-Butylbenzene	50.0	57.9		ug/L		116	67 - 130
N-Propylbenzene	50.0	54.3		ug/L		109	70 - 130
o-Chlorotoluene	50.0	54.7		ug/L		109	70 - 130
o-Xylene	50.0	51.9		ug/L		104	70 - 130
p-Chlorotoluene	50.0	54.5		ug/L		109	70 - 130
p-Isopropyltoluene	50.0	54.8		ug/L		110	65 - 130
sec-Butylbenzene	50.0	54.6		ug/L		109	66 - 130
Styrene	50.0	48.1		ug/L		96	70 - 130
tert-Butylbenzene	50.0	53.4		ug/L		107	64 - 139
1,1,1,2-Tetrachloroethane	50.0	48.5		ug/L		97	67 - 131
1,1,2,2-Tetrachloroethane	50.0	36.9		ug/L		74	70 - 131
Tetrachloroethene	50.0	70.1	*+	ug/L		140	65 - 130
Toluene	50.0	52.7		ug/L		105	70 - 130
trans-1,2-Dichloroethene	50.0	43.6		ug/L		87	70 - 130
trans-1,3-Dichloropropene	50.0	47.2		ug/L		94	63 - 130
1,2,3-Trichlorobenzene	50.0	50.3		ug/L		101	60 - 138
1,2,4-Trichlorobenzene	50.0	50.1		ug/L		100	60 - 140
1,1,1-Trichloroethane	50.0	46.6		ug/L		93	68 - 130
1,1,2-Trichloroethane	50.0	51.2		ug/L		102	70 - 130
Trichloroethene	50.0	56.0		ug/L		112	70 - 130
Trichlorofluoromethane	50.0	45.4		ug/L		91	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-645827/1002
Matrix: Water
Analysis Batch: 645827

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	48.2		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	53.3		ug/L		107	70 - 130
1,3,5-Trimethylbenzene	50.0	53.4		ug/L		107	69 - 130
Vinyl acetate	100	105		ug/L		105	26 - 160
Vinyl chloride	50.0	60.9		ug/L		122	59 - 136
Xylenes, Total	100	105		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*72 - 130*
Dibromofluoromethane	*95*		*75 - 126*
Toluene-d8 (Surr)	*105*		*64 - 132*

Lab Sample ID: MB 400-646119/4
Matrix: Water
Analysis Batch: 646119

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			10/18/23 12:59	1
Acrolein	ND		20	3.3	ug/L			10/18/23 12:59	1
Acrylonitrile	ND		10	2.8	ug/L			10/18/23 12:59	1
Benzene	ND		1.0	0.50	ug/L			10/18/23 12:59	1
Bromobenzene	ND		1.0	0.54	ug/L			10/18/23 12:59	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/18/23 12:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/18/23 12:59	1
Bromoform	ND		5.0	0.25	ug/L			10/18/23 12:59	1
Bromomethane	ND		1.0	0.98	ug/L			10/18/23 12:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/18/23 12:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/18/23 12:59	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/18/23 12:59	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/18/23 12:59	1
Chloroethane	ND		1.0	0.76	ug/L			10/18/23 12:59	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/18/23 12:59	1
Chloroform	ND		1.0	0.90	ug/L			10/18/23 12:59	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/18/23 12:59	1
Chloromethane	ND		1.0	0.90	ug/L			10/18/23 12:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/18/23 12:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/18/23 12:59	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/18/23 12:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/18/23 12:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/18/23 12:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/18/23 12:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/18/23 12:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/18/23 12:59	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/18/23 12:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/18/23 12:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/18/23 12:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/18/23 12:59	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/18/23 12:59	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646119/4
Matrix: Water
Analysis Batch: 646119

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/18/23 12:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/18/23 12:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/18/23 12:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/18/23 12:59	1
2-Hexanone	ND		25	1.4	ug/L			10/18/23 12:59	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/18/23 12:59	1
Methylene bromide	ND		5.0	0.22	ug/L			10/18/23 12:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/18/23 12:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/18/23 12:59	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/18/23 12:59	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/18/23 12:59	1
Naphthalene	ND		5.0	3.0	ug/L			10/18/23 12:59	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/18/23 12:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/18/23 12:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/18/23 12:59	1
o-Xylene	ND		5.0	0.60	ug/L			10/18/23 12:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/18/23 12:59	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/18/23 12:59	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/18/23 12:59	1
Styrene	ND		1.0	1.0	ug/L			10/18/23 12:59	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/18/23 12:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/18/23 12:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/18/23 12:59	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/18/23 12:59	1
Toluene	ND		1.0	0.90	ug/L			10/18/23 12:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/18/23 12:59	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/18/23 12:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/18/23 12:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/18/23 12:59	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/18/23 12:59	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/18/23 12:59	1
Trichloroethene	ND		1.0	0.15	ug/L			10/18/23 12:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/18/23 12:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/18/23 12:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/18/23 12:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/18/23 12:59	1
Vinyl acetate	ND		25	0.93	ug/L			10/18/23 12:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/18/23 12:59	1
Xylenes, Total	ND		10	1.6	ug/L			10/18/23 12:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 130*		*10/18/23 12:59*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*10/18/23 12:59*	*1*
Toluene-d8 (Surr)	*107*		*64 - 132*		*10/18/23 12:59*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646119/1002
Matrix: Water
Analysis Batch: 646119

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	602	*+	ug/L		301	43 - 160
Acrolein	500	452		ug/L		90	38 - 160
Acrylonitrile	500	556		ug/L		111	64 - 142
Benzene	50.0	50.7		ug/L		101	70 - 130
Bromobenzene	50.0	48.0		ug/L		96	70 - 132
Bromochloromethane	50.0	43.4		ug/L		87	70 - 130
Bromodichloromethane	50.0	56.1		ug/L		112	67 - 133
Bromoform	50.0	46.9		ug/L		94	57 - 140
Bromomethane	50.0	50.3		ug/L		101	10 - 160
2-Butanone (MEK)	200	450	*+	ug/L		225	61 - 145
Carbon disulfide	50.0	40.0		ug/L		80	61 - 137
Carbon tetrachloride	50.0	49.4		ug/L		99	61 - 137
Chlorobenzene	50.0	51.8		ug/L		104	70 - 130
Chloroethane	50.0	42.5		ug/L		85	55 - 141
2-Chloroethyl vinyl ether	50.0	60.0		ug/L		120	10 - 160
Chloroform	50.0	49.1		ug/L		98	69 - 130
1-Chlorohexane	50.0	52.6		ug/L		105	69 - 130
Chloromethane	50.0	48.1		ug/L		96	58 - 137
cis-1,2-Dichloroethene	50.0	49.6		ug/L		99	68 - 130
cis-1,3-Dichloropropene	50.0	55.0		ug/L		110	69 - 132
Dibromochloromethane	50.0	51.9		ug/L		104	67 - 135
1,2-Dichlorobenzene	50.0	50.6		ug/L		101	67 - 130
1,3-Dichlorobenzene	50.0	50.4		ug/L		101	70 - 130
1,4-Dichlorobenzene	50.0	50.7		ug/L		101	70 - 130
Dichlorodifluoromethane	50.0	43.6		ug/L		87	41 - 146
1,1-Dichloroethane	50.0	49.3		ug/L		99	70 - 130
1,2-Dichloroethane	50.0	52.2		ug/L		104	69 - 130
1,1-Dichloroethene	50.0	44.0		ug/L		88	63 - 134
1,2-Dichloropropane	50.0	57.1		ug/L		114	70 - 130
1,3-Dichloropropane	50.0	55.1		ug/L		110	70 - 130
2,2-Dichloropropane	50.0	44.3		ug/L		89	52 - 135
1,1-Dichloropropene	50.0	49.7		ug/L		99	70 - 130
Ethylbenzene	50.0	51.8		ug/L		104	70 - 130
Ethyl methacrylate	50.0	52.7		ug/L		105	68 - 130
Hexachlorobutadiene	50.0	56.3		ug/L		113	53 - 140
2-Hexanone	200	390	*+	ug/L		195	65 - 137
Isopropylbenzene	50.0	51.5		ug/L		103	70 - 130
Methylene bromide	50.0	56.2		ug/L		112	70 - 130
Methylene Chloride	50.0	46.2		ug/L		92	66 - 135
4-Methyl-2-pentanone (MIBK)	200	291	*+	ug/L		145	69 - 138
Methyl tert-butyl ether	50.0	47.5		ug/L		95	66 - 130
m-Xylene & p-Xylene	50.0	51.8		ug/L		104	70 - 130
Naphthalene	50.0	51.8		ug/L		104	47 - 149
n-Butylbenzene	50.0	55.1		ug/L		110	67 - 130
N-Propylbenzene	50.0	52.3		ug/L		105	70 - 130
o-Chlorotoluene	50.0	52.1		ug/L		104	70 - 130
o-Xylene	50.0	51.1		ug/L		102	70 - 130
p-Chlorotoluene	50.0	53.6		ug/L		107	70 - 130

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646119/1002
Matrix: Water
Analysis Batch: 646119

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	50.0	53.3		ug/L		107	65 - 130
sec-Butylbenzene	50.0	53.1		ug/L		106	66 - 130
Styrene	50.0	48.0		ug/L		96	70 - 130
tert-Butylbenzene	50.0	52.1		ug/L		104	64 - 139
1,1,1,2-Tetrachloroethane	50.0	49.9		ug/L		100	67 - 131
1,1,2,2-Tetrachloroethane	50.0	35.8		ug/L		72	70 - 131
Tetrachloroethene	50.0	70.7	*+	ug/L		141	65 - 130
Toluene	50.0	49.7		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	45.6		ug/L		91	70 - 130
trans-1,3-Dichloropropene	50.0	49.7		ug/L		99	63 - 130
1,2,3-Trichlorobenzene	50.0	50.4		ug/L		101	60 - 138
1,2,4-Trichlorobenzene	50.0	49.1		ug/L		98	60 - 140
1,1,1-Trichloroethane	50.0	48.1		ug/L		96	68 - 130
1,1,2-Trichloroethane	50.0	55.5		ug/L		111	70 - 130
Trichloroethene	50.0	60.1		ug/L		120	70 - 130
Trichlorofluoromethane	50.0	34.4		ug/L		69	65 - 138
1,2,3-Trichloropropane	50.0	54.9		ug/L		110	70 - 130
1,2,4-Trimethylbenzene	50.0	52.9		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	50.0	52.2		ug/L		104	69 - 130
Vinyl acetate	100	95.2		ug/L		95	26 - 160
Vinyl chloride	50.0	45.5		ug/L		91	59 - 136
Xylenes, Total	100	103		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*72 - 130*
Dibromofluoromethane	*94*		*75 - 126*
Toluene-d8 (Surr)	*95*		*64 - 132*

Lab Sample ID: 400-244629-5 MS
Matrix: Water
Analysis Batch: 646119

Client Sample ID: MW26-ROX-100523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND	*+	200	194		ug/L		97	43 - 150
Acrolein	ND		500	435		ug/L		87	38 - 150
Acrylonitrile	ND		500	512		ug/L		102	62 - 149
Benzene	ND		50.0	47.6		ug/L		95	56 - 142
Bromobenzene	ND		50.0	43.4		ug/L		87	59 - 136
Bromochloromethane	ND		50.0	41.8		ug/L		84	64 - 140
Bromodichloromethane	ND		50.0	54.4		ug/L		109	59 - 143
Bromoform	ND		50.0	41.7		ug/L		83	50 - 140
Bromomethane	ND		50.0	50.7		ug/L		101	10 - 150
2-Butanone (MEK)	ND	*+	200	209		ug/L		104	55 - 150
Carbon disulfide	ND		50.0	36.4		ug/L		73	48 - 150
Carbon tetrachloride	ND		50.0	45.5		ug/L		91	55 - 145
Chlorobenzene	ND		50.0	47.4		ug/L		95	64 - 130
Chloroethane	ND		50.0	41.3		ug/L		83	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244629-5 MS
Matrix: Water
Analysis Batch: 646119

Client Sample ID: MW26-ROX-100523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	ND		50.0	46.9		ug/L		94	60 - 141
1-Chlorohexane	ND		50.0	43.5		ug/L		87	56 - 136
Chloromethane	ND		50.0	46.3		ug/L		93	49 - 148
cis-1,2-Dichloroethene	ND		50.0	47.3		ug/L		95	59 - 143
cis-1,3-Dichloropropene	ND		50.0	50.7		ug/L		101	57 - 140
Dibromochloromethane	ND		50.0	48.3		ug/L		97	56 - 143
1,2-Dichlorobenzene	ND		50.0	45.0		ug/L		90	52 - 137
1,3-Dichlorobenzene	ND		50.0	43.2		ug/L		86	54 - 135
1,4-Dichlorobenzene	ND		50.0	43.5		ug/L		87	53 - 135
Dichlorodifluoromethane	ND		50.0	42.1		ug/L		84	16 - 150
1,1-Dichloroethane	ND		50.0	46.5		ug/L		93	61 - 144
1,2-Dichloroethane	ND		50.0	50.2		ug/L		100	60 - 141
1,1-Dichloroethene	ND		50.0	41.3		ug/L		83	54 - 147
1,2-Dichloropropane	ND		50.0	57.2		ug/L		114	66 - 137
1,3-Dichloropropane	ND		50.0	52.0		ug/L		104	66 - 133
2,2-Dichloropropane	ND		50.0	41.4		ug/L		83	42 - 144
1,1-Dichloropropene	ND		50.0	45.7		ug/L		91	65 - 136
Ethylbenzene	ND		50.0	46.4		ug/L		93	58 - 131
Ethyl methacrylate	ND		50.0	48.9		ug/L		98	64 - 130
Hexachlorobutadiene	ND	F2	50.0	41.8		ug/L		84	31 - 149
2-Hexanone	ND	*+	200	206		ug/L		103	65 - 140
Isopropylbenzene	ND		50.0	44.2		ug/L		88	56 - 133
Methylene bromide	ND		50.0	56.3		ug/L		113	63 - 138
Methylene Chloride	ND		50.0	43.9		ug/L		88	60 - 146
4-Methyl-2-pentanone (MIBK)	ND	*+	200	232		ug/L		116	63 - 146
Methyl tert-butyl ether	ND		50.0	44.7		ug/L		89	59 - 137
m-Xylene & p-Xylene	ND		50.0	46.5		ug/L		93	57 - 130
Naphthalene	ND		50.0	46.7		ug/L		93	25 - 150
n-Butylbenzene	ND	F2	50.0	41.6		ug/L		83	41 - 142
N-Propylbenzene	ND		50.0	43.6		ug/L		87	51 - 138
o-Chlorotoluene	ND		50.0	44.9		ug/L		90	53 - 134
o-Xylene	ND		50.0	45.5		ug/L		91	61 - 130
p-Chlorotoluene	ND		50.0	45.9		ug/L		92	54 - 133
p-Isopropyltoluene	ND		50.0	41.9		ug/L		84	48 - 139
sec-Butylbenzene	ND		50.0	42.5		ug/L		85	50 - 138
Styrene	ND		50.0	43.0		ug/L		86	58 - 131
tert-Butylbenzene	ND		50.0	43.4		ug/L		87	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	46.3		ug/L		93	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	36.7		ug/L		73	66 - 135
Tetrachloroethene	ND	*+	50.0	59.7		ug/L		119	52 - 133
Toluene	ND		50.0	48.3		ug/L		97	65 - 130
trans-1,2-Dichloroethene	ND		50.0	42.2		ug/L		84	61 - 143
trans-1,3-Dichloropropene	ND		50.0	45.7		ug/L		91	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	44.2		ug/L		88	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	41.1		ug/L		82	39 - 148
1,1,1-Trichloroethane	ND		50.0	44.8		ug/L		90	57 - 142
1,1,2-Trichloroethane	ND		50.0	52.4		ug/L		105	66 - 131
Trichloroethene	ND		50.0	58.8		ug/L		118	64 - 136
Trichlorofluoromethane	ND		50.0	32.9		ug/L		66	54 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244629-5 MS
Matrix: Water
Analysis Batch: 646119

Client Sample ID: MW26-ROX-100523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	ND		50.0	50.7		ug/L		101	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	44.2		ug/L		88	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	43.9		ug/L		88	52 - 135
Vinyl acetate	ND		100	88.2		ug/L		88	26 - 150
Vinyl chloride	ND		50.0	44.2		ug/L		88	46 - 150
Xylenes, Total	ND		100	92.0		ug/L		92	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*72 - 130*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*104*		*64 - 132*

Lab Sample ID: 400-244629-5 MSD
Matrix: Water
Analysis Batch: 646119

Client Sample ID: MW26-ROX-100523
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	187		ug/L		94	43 - 150	4	30
Acrolein	ND		500	401		ug/L		80	38 - 150	8	31
Acrylonitrile	ND		500	483		ug/L		97	62 - 149	6	30
Benzene	ND		50.0	43.0		ug/L		86	56 - 142	10	30
Bromobenzene	ND		50.0	39.6		ug/L		79	59 - 136	9	30
Bromochloromethane	ND		50.0	37.7		ug/L		75	64 - 140	10	30
Bromodichloromethane	ND		50.0	49.7		ug/L		99	59 - 143	9	30
Bromoform	ND		50.0	42.1		ug/L		84	50 - 140	1	30
Bromomethane	ND		50.0	44.1		ug/L		88	10 - 150	14	50
2-Butanone (MEK)	ND	*+	200	193		ug/L		97	55 - 150	8	30
Carbon disulfide	ND		50.0	33.5		ug/L		67	48 - 150	8	30
Carbon tetrachloride	ND		50.0	40.5		ug/L		81	55 - 145	12	30
Chlorobenzene	ND		50.0	43.5		ug/L		87	64 - 130	9	30
Chloroethane	ND		50.0	37.0		ug/L		74	50 - 150	11	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	43.0		ug/L		86	60 - 141	9	30
1-Chlorohexane	ND		50.0	37.8		ug/L		76	56 - 136	14	30
Chloromethane	ND		50.0	42.9		ug/L		86	49 - 148	8	31
cis-1,2-Dichloroethene	ND		50.0	42.9		ug/L		86	59 - 143	10	30
cis-1,3-Dichloropropene	ND		50.0	46.3		ug/L		93	57 - 140	9	30
Dibromochloromethane	ND		50.0	47.4		ug/L		95	56 - 143	2	30
1,2-Dichlorobenzene	ND		50.0	39.1		ug/L		78	52 - 137	14	30
1,3-Dichlorobenzene	ND		50.0	36.6		ug/L		73	54 - 135	17	30
1,4-Dichlorobenzene	ND		50.0	36.8		ug/L		74	53 - 135	17	30
Dichlorodifluoromethane	ND		50.0	38.7		ug/L		77	16 - 150	8	31
1,1-Dichloroethane	ND		50.0	42.9		ug/L		86	61 - 144	8	30
1,2-Dichloroethane	ND		50.0	46.1		ug/L		92	60 - 141	8	30
1,1-Dichloroethene	ND		50.0	38.1		ug/L		76	54 - 147	8	30
1,2-Dichloropropane	ND		50.0	51.8		ug/L		104	66 - 137	10	30
1,3-Dichloropropane	ND		50.0	51.8		ug/L		104	66 - 133	0	30
2,2-Dichloropropane	ND		50.0	38.3		ug/L		77	42 - 144	8	31

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244629-5 MSD
Matrix: Water
Analysis Batch: 646119

Client Sample ID: MW26-ROX-100523
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloropropene	ND		50.0	41.0		ug/L		82	65 - 136	11	30
Ethylbenzene	ND		50.0	40.8		ug/L		82	58 - 131	13	30
Ethyl methacrylate	ND		50.0	50.7		ug/L		101	64 - 130	4	30
Hexachlorobutadiene	ND	F2	50.0	27.8	F2	ug/L		56	31 - 149	40	36
2-Hexanone	ND	*+	200	216		ug/L		108	65 - 140	4	30
Isopropylbenzene	ND		50.0	36.8		ug/L		74	56 - 133	18	30
Methylene bromide	ND		50.0	51.3		ug/L		103	63 - 138	9	30
Methylene Chloride	ND		50.0	40.5		ug/L		81	60 - 146	8	32
4-Methyl-2-pentanone (MIBK)	ND	*+	200	223		ug/L		111	63 - 146	4	30
Methyl tert-butyl ether	ND		50.0	43.0		ug/L		86	59 - 137	4	30
m-Xylene & p-Xylene	ND		50.0	39.5		ug/L		79	57 - 130	16	30
Naphthalene	ND		50.0	46.2		ug/L		92	25 - 150	1	30
n-Butylbenzene	ND	F2	50.0	29.6	F2	ug/L		59	41 - 142	34	31
N-Propylbenzene	ND		50.0	34.8		ug/L		70	51 - 138	22	30
o-Chlorotoluene	ND		50.0	37.9		ug/L		76	53 - 134	17	30
o-Xylene	ND		50.0	40.5		ug/L		81	61 - 130	12	30
p-Chlorotoluene	ND		50.0	38.0		ug/L		76	54 - 133	19	30
p-Isopropyltoluene	ND		50.0	31.3		ug/L		63	48 - 139	29	30
sec-Butylbenzene	ND		50.0	32.9		ug/L		66	50 - 138	26	30
Styrene	ND		50.0	38.2		ug/L		76	58 - 131	12	30
tert-Butylbenzene	ND		50.0	35.5		ug/L		71	54 - 146	20	30
1,1,1,2-Tetrachloroethane	ND		50.0	44.3		ug/L		89	59 - 137	4	30
1,1,2,2-Tetrachloroethane	ND		50.0	38.1		ug/L		76	66 - 135	4	30
Tetrachloroethene	ND	*+	50.0	53.8		ug/L		108	52 - 133	10	30
Toluene	ND		50.0	45.5		ug/L		91	65 - 130	6	30
trans-1,2-Dichloroethene	ND		50.0	38.0		ug/L		76	61 - 143	11	30
trans-1,3-Dichloropropene	ND		50.0	45.6		ug/L		91	53 - 133	0	30
1,2,3-Trichlorobenzene	ND		50.0	39.3		ug/L		79	43 - 145	12	30
1,2,4-Trichlorobenzene	ND		50.0	34.6		ug/L		69	39 - 148	17	30
1,1,1-Trichloroethane	ND		50.0	40.7		ug/L		81	57 - 142	10	30
1,1,2-Trichloroethane	ND		50.0	52.4		ug/L		105	66 - 131	0	30
Trichloroethene	ND		50.0	52.1		ug/L		104	64 - 136	12	30
Trichlorofluoromethane	ND		50.0	29.9		ug/L		60	54 - 150	10	30
1,2,3-Trichloropropane	ND		50.0	51.1		ug/L		102	65 - 133	1	30
1,2,4-Trimethylbenzene	ND		50.0	36.2		ug/L		72	50 - 139	20	30
1,3,5-Trimethylbenzene	ND		50.0	35.9		ug/L		72	52 - 135	20	30
Vinyl acetate	ND		100	78.9		ug/L		79	26 - 150	11	33
Vinyl chloride	ND		50.0	40.1		ug/L		80	46 - 150	10	30
Xylenes, Total	ND		100	80.0		ug/L		80	59 - 130	14	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*72 - 130*
Dibromofluoromethane	*85*		*75 - 126*
Toluene-d8 (Surr)	*104*		*64 - 132*

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

Lab Sample ID: MB 400-644642/1-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/09/23 10:09	10/11/23 18:18	1
Benzenethiol	ND		10	1.7	ug/L		10/09/23 10:09	10/11/23 18:18	1
Benzoic acid	ND		30	7.3	ug/L		10/09/23 10:09	10/11/23 18:18	1
Benzyl alcohol	ND		10	2.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/09/23 10:09	10/11/23 18:18	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/09/23 10:09	10/11/23 18:18	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/09/23 10:09	10/11/23 18:18	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/09/23 10:09	10/11/23 18:18	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Chloroaniline	ND		10	3.4	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Chlorophenol	ND		10	2.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Dibenzofuran	ND		10	0.17	ug/L		10/09/23 10:09	10/11/23 18:18	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Diethyl phthalate	ND		10	0.24	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/09/23 10:09	10/11/23 18:18	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/09/23 10:09	10/11/23 18:18	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/09/23 10:09	10/11/23 18:18	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/09/23 10:09	10/11/23 18:18	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/09/23 10:09	10/11/23 18:18	1
1,4-Dioxane	ND		10	1.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/09/23 10:09	10/11/23 18:18	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/09/23 10:09	10/11/23 18:18	1
Hexachloroethane	ND		10	4.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
Indene	ND		10	1.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Isophorone	ND		10	0.14	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Methylphenol	ND		10	1.8	ug/L		10/09/23 10:09	10/11/23 18:18	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Nitroaniline	ND		10	2.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
3-Nitroaniline	ND		10	1.8	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Nitroaniline	ND		10	1.5	ug/L		10/09/23 10:09	10/11/23 18:18	1
Nitrobenzene	ND		10	0.13	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Nitrophenol	ND		10	5.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Nitrophenol	ND		10	2.1	ug/L		10/09/23 10:09	10/11/23 18:18	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/09/23 10:09	10/11/23 18:18	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/09/23 10:09	10/11/23 18:18	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/09/23 10:09	10/11/23 18:18	1
Pentachlorophenol	ND		20	1.4	ug/L		10/09/23 10:09	10/11/23 18:18	1
Phenol	ND		10	2.6	ug/L		10/09/23 10:09	10/11/23 18:18	1

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

Lab Sample ID: MB 400-644642/1-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
Quinoline	ND		10	4.5	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/09/23 10:09	10/11/23 18:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
2-Fluorophenol	*26*		*13 - 113*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
Nitrobenzene-d5	*62*		*36 - 126*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
Phenol-d5	*41*		*17 - 127*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
Terphenyl-d14	*90*		*44 - 149*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*10/09/23 10:09*	*10/11/23 18:18*	*1*

Lab Sample ID: LCS 400-644642/2-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	66.6		ug/L		56	21 - 120
Benzoic acid	522	203		ug/L		39	10 - 144
Benzyl alcohol	120	86.9		ug/L		72	28 - 120
Bis(2-chloroethoxy)methane	120	68.0		ug/L		57	47 - 120
Bis(2-chloroethyl)ether	120	79.5		ug/L		66	44 - 120
bis (2-chloroisopropyl) ether	120	58.1		ug/L		48	33 - 121
Bis(2-ethylhexyl) phthalate	120	99.1		ug/L		83	52 - 147
4-Bromophenyl phenyl ether	120	106		ug/L		88	54 - 122
Butyl benzyl phthalate	120	99.4		ug/L		83	54 - 133
4-Chloroaniline	120	77.6		ug/L		65	26 - 120
4-Chloro-3-methylphenol	120	92.5		ug/L		77	48 - 131
2-Chloronaphthalene	120	100		ug/L		83	52 - 121
2-Chlorophenol	120	73.7		ug/L		61	40 - 120
4-Chlorophenyl phenyl ether	120	101		ug/L		84	56 - 125
Dibenz[a,h]acridine	120	102		ug/L		85	31 - 150
Dibenzofuran	120	93.3		ug/L		78	56 - 122
3,3'-Dichlorobenzidine	160	136		ug/L		85	36 - 132
2,4-Dichlorophenol	120	88.3		ug/L		74	49 - 120
Diethyl phthalate	120	111		ug/L		93	50 - 137
2,4-Dimethylphenol	120	94.4		ug/L		79	48 - 120
Dimethyl phthalate	120	95.0		ug/L		79	57 - 124
Di-n-butyl phthalate	120	108		ug/L		90	58 - 126
4,6-Dinitro-ortho-cresol	240	223		ug/L		93	23 - 148
2,4-Dinitrophenol	240	191		ug/L		80	10 - 150
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142
2,6-Dinitrotoluene	120	96.8		ug/L		81	55 - 130
Di-n-octyl phthalate	120	103		ug/L		86	57 - 138
1,4-Dioxane	120	44.8		ug/L		37	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	86.1		ug/L		72	45 - 124
Hexachlorobenzene	120	108		ug/L		90	52 - 129

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

Lab Sample ID: LCS 400-644642/2-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	120	61.1		ug/L		51	10 - 134
Hexachloroethane	120	86.5		ug/L		72	20 - 120
Indene	120	72.8		ug/L		61	49 - 120
Isophorone	120	73.1		ug/L		61	48 - 120
2-Methylphenol	120	84.9		ug/L		71	46 - 124
3 & 4 Methylphenol	120	84.0		ug/L		70	45 - 120
2-Nitroaniline	120	90.3		ug/L		75	51 - 145
3-Nitroaniline	120	83.1		ug/L		69	37 - 127
4-Nitroaniline	120	107		ug/L		89	36 - 137
Nitrobenzene	120	72.9		ug/L		61	45 - 120
2-Nitrophenol	120	91.0		ug/L		76	40 - 124
4-Nitrophenol	240	272		ug/L		113	23 - 146
N-Nitrosodimethylamine	120	104		ug/L		86	29 - 137
N-Nitrosodi-n-propylamine	120	88.8		ug/L		74	45 - 120
N-Nitrosodiphenylamine	119	98.1		ug/L		82	54 - 120
Pentachlorophenol	240	198		ug/L		82	31 - 130
Phenol	120	64.1		ug/L		53	11 - 120
Pyridine	240	114		ug/L		47	16 - 120
Quinoline	120	88.8		ug/L		74	49 - 130
2,4,5-Trichlorophenol	120	103		ug/L		86	51 - 136
2,4,6-Trichlorophenol	120	97.7		ug/L		81	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*52*		*17 - 127*
Terphenyl-d14	*84*		*44 - 149*
2,4,6-Tribromophenol	*86*		*26 - 150*

Lab Sample ID: LCS 400-644642/4-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	2.29	J *-	ug/L		2	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*51*		*17 - 127*
Terphenyl-d14	*92*		*44 - 149*
2,4,6-Tribromophenol	*84*		*26 - 150*

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

Lab Sample ID: LCSD 400-644642/5-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 644642

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	1.92	J *-	ug/L		2	10 - 120	18	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*66*		*36 - 126*
Phenol-d5	*51*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*67*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-644642/1-A
Matrix: Water
Analysis Batch: 645209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/09/23 10:09	10/12/23 11:57	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/09/23 10:09	10/12/23 11:57	1
Anthracene	ND		0.20	0.047	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/09/23 10:09	10/12/23 11:57	1
Chrysene	ND		0.20	0.033	ug/L		10/09/23 10:09	10/12/23 11:57	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/09/23 10:09	10/12/23 11:57	1
Fluoranthene	ND		0.20	0.034	ug/L		10/09/23 10:09	10/12/23 11:57	1
Fluorene	ND		0.20	0.089	ug/L		10/09/23 10:09	10/12/23 11:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/09/23 10:09	10/12/23 11:57	1
Phenanthrene	ND		0.20	0.090	ug/L		10/09/23 10:09	10/12/23 11:57	1
Pyrene	ND		0.20	0.039	ug/L		10/09/23 10:09	10/12/23 11:57	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/09/23 10:09	10/12/23 11:57	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/09/23 10:09	10/12/23 11:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*71*		*18 - 147*	*10/09/23 10:09*	*10/12/23 11:57*	*1*
2-Fluorobiphenyl	*69*		*15 - 128*	*10/09/23 10:09*	*10/12/23 11:57*	*1*
Nitrobenzene-d5	*65*		*10 - 144*	*10/09/23 10:09*	*10/12/23 11:57*	*1*

Lab Sample ID: LCS 400-644642/6-A
Matrix: Water
Analysis Batch: 645209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			2.00	1.67		ug/L		84	40 - 140		
Acenaphthylene			2.00	1.66		ug/L		83	40 - 140		
Anthracene			2.00	1.60		ug/L		80	40 - 140		

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-644642/6-A
Matrix: Water
Analysis Batch: 645209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzo[a]anthracene			2.00	1.75		ug/L		87	40 - 140		
Benzo[a]pyrene			2.00	1.39		ug/L		69	40 - 140		
Benzo[b]fluoranthene			2.00	1.35		ug/L		67	40 - 140		
Benzo[g,h,i]perylene			2.00	1.52		ug/L		76	40 - 140		
Benzo[k]fluoranthene			2.00	1.27		ug/L		63	40 - 140		
Chrysene			2.00	1.63		ug/L		81	40 - 140		
Dibenz(a,h)anthracene			2.00	1.64		ug/L		82	40 - 140		
Fluoranthene			2.00	1.75		ug/L		87	40 - 140		
Fluorene			2.00	1.75		ug/L		88	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	1.59		ug/L		80	40 - 140		
Phenanthrene			2.00	1.58		ug/L		79	40 - 140		
Pyrene			2.00	1.55		ug/L		78	40 - 140		
1-Methylnaphthalene			2.00	1.68		ug/L		84	40 - 140		
2-Methylnaphthalene			2.00	1.68		ug/L		84	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*65*		*18 - 147*
2-Fluorobiphenyl	*66*		*15 - 128*
Nitrobenzene-d5	*63*		*10 - 144*

Lab Sample ID: LCSD 400-644642/7-A
Matrix: Water
Analysis Batch: 645209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 644642

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.72		ug/L		86	40 - 140	3	40
Acenaphthylene			2.00	1.74		ug/L		87	40 - 140	5	40
Anthracene			2.00	1.81		ug/L		90	40 - 140	12	40
Benzo[a]anthracene			2.00	1.79		ug/L		90	40 - 140	3	40
Benzo[a]pyrene			2.00	1.51		ug/L		76	40 - 140	9	40
Benzo[b]fluoranthene			2.00	1.38		ug/L		69	40 - 140	2	40
Benzo[g,h,i]perylene			2.00	1.67		ug/L		83	40 - 140	9	40
Benzo[k]fluoranthene			2.00	1.43		ug/L		71	40 - 140	12	40
Chrysene			2.00	1.74		ug/L		87	40 - 140	7	40
Dibenz(a,h)anthracene			2.00	1.77		ug/L		89	40 - 140	8	40
Fluoranthene			2.00	1.84		ug/L		92	40 - 140	5	40
Fluorene			2.00	1.79		ug/L		90	40 - 140	2	40
Indeno[1,2,3-cd]pyrene			2.00	1.73		ug/L		86	40 - 140	8	40
Phenanthrene			2.00	1.71		ug/L		86	40 - 140	8	40
Pyrene			2.00	1.62		ug/L		81	40 - 140	5	40
1-Methylnaphthalene			2.00	1.78		ug/L		89	40 - 140	5	40
2-Methylnaphthalene			2.00	1.82		ug/L		91	40 - 140	8	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*70*		*18 - 147*
2-Fluorobiphenyl	*70*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-644646/1-A
Matrix: Water
Analysis Batch: 644694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644646

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/09/23 10:30	10/09/23 14:15	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/09/23 10:30	10/09/23 14:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*51 - 149*	*10/09/23 10:30*	*10/09/23 14:15*	*1*

Lab Sample ID: LCS 400-644646/2-A
Matrix: Water
Analysis Batch: 644694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644646

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.108		ug/L		108	60 - 140		
1,2-Dibromoethane			0.101	0.109		ug/L		108	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*51 - 149*

Lab Sample ID: LCSD 400-644646/3-A
Matrix: Water
Analysis Batch: 644694

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 644646

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.107		ug/L		107	60 - 140	1	30
1,2-Dibromoethane			0.101	0.103		ug/L		103	60 - 140	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*51 149*

LAB (LOCATION)

Shell Oil Products US Chain Of Custody Record

AECOM

☐ ACCUTEST (_____ 400-244629 COC

☐ 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: 10/5/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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, C. McDavid

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; foredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.4.2

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 8270 SIMS
	TB-ROX-100523-8260	10/5/2023	0000	Water	2					2	X			
	TB-ROX-100523-8011	10/5/2023	0000	Water	2					2		X		
	MW1-ROX-100523-EB	10/5/2023	1100	Water	6			2		8	X	X	X	X
	MW1-ROX-100523	10/5/2023	1220	Water	6			2		8	X	X	X	X
	MW26-ROX-100523	10/5/2023	1340	Water	6			2		8	X	X	X	X

10/5/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time:
MARY MASSA	FEDEX: 6339 6595 2745, 6339 6595 2756	10/5/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date	Time:
	T. Earnest 2.3 °C IR8 2.0 °C IR8	10/6/23	0850
Relinquished by: (Signature)	Received by: (Signature)	Date	Time

Version: 27Sep23

CUSTODY SEALS: 2364009, 236008, 2364011, 2364010

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10/20/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-244629-1

Login Number: 244629 **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	2.3°C, 2.0°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: 400-244629-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-244680-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/11/2023

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

Sample Identification	Sample Identification
TB-ROX-100623-8260	TB-ROX-100623-8011
MW11-ROX-100623	ROST3MW-ROX-100623
P54-ROX-100623	

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 the LCS/LCSD recoveries for benzenethiol were outside evaluation criteria. Several VOC, SVOC, and PAH MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in samples MW11-ROX-100623 and P54-ROX-100623. The continuing calibration verifications (CCV) for several analytes 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 400-644642/4-A/5-A	SVOCs	Benzenethiol	**2/2**	18	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
MW11-ROX-100623	SVOCs	Benzenethiol	**UJ**
ROST3MW-ROX-100623	SVOCs	Benzenethiol	**UJ**
P54-ROX-100623	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?

Yes, samples MW11-ROX-100623 and P54-ROX-100623 were 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
MW11-ROX-100623 MS/MSD	VOCs	Acetone	**184/218**	17	43-150/30
MW11-ROX-100623 MS/MSD	VOCs	2-Butanone (MEK)	144/**168**	16	55-150/30
MW11-ROX-100623 MS/MSD	VOCs	2-Chloroethyl vinyl ether	26/**5**	**139**	10-150/50
MW11-ROX-100623 MS/MSD	SVOCs	1,4-Dioxane	**34/35**	1	50-150/40
MW11-ROX-100623 MS/MSD	PAHs	1-Methylnaphthalene	**48/40**	17	50–150/40
MW11-ROX-100623 MS/MSD	PAHs	2-Methylnaphthalene	**49/40**	18	50–150/40
P54-ROX-100623 MS/MSD	VOCs	Acetone	**196/190**	**3**	43-150/30
P54-ROX-100623 MS/MSD	VOCs	2-Butanone (MEK)	**152/154**	1	55-150/30

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
P54-ROX-100623 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
P54-ROX-100623 MS/MSD	SVOCs	1,4-Dioxane	**36/48**	28	50-150/40
P54-ROX-100623 MS/MSD	SVOCs	Quinoline	67/**40**	51	51-120/40
P54-ROX-100623 MS/MSD	PAHs	1-Methylnaphthalene	**43**/64	39	50–150/40
P54-ROX-100623 MS/MSD	PAHs	2-Methylnaphthalene	**43**/64	40	50–150/40
P54-ROX-100623 MS/MSD	PAHs	Dibenz(a,h)anthracene	57/88	**42**	50–150/40

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
MW11-ROX-100623	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW11-ROX-100623	SVOCs	1,4-Dioxane	**UJ**
MW11-ROX-100623	PAHs	1-Methylnaphthalene	**UJ**
MW11-ROX-100623	PAHs	2-Methylnaphthalene	**UJ**
P54-ROX-100623	VOCs	Acetone	**J**
P54-ROX-100623	VOCs	2-Chloroethyl vinyl ether	**UJ**
P54-ROX-100623	SVOCs	1,4-Dioxane	**UJ**
P54-ROX-100623	SVOCs	Quinoline	**UJ**
P54-ROX-100623	PAHs	1-Methylnaphthalene	**UJ**
P54-ROX-100623	PAHs	2-Methylnaphthalene	**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 multiple analytes were outside evaluation criteria, biased low. Acetone in sample P54-ROX-100623 and 1,4-dioxane in samples MW11-ROX-100623 and P54-ROX-100623 were previously qualified in Section 7.0 of this data review due to MS/MSD recoveries outside evaluation criteria; no further qualification of data is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW11-ROX-100623	SVOCs	Pyridine	**UJ**
MW11-ROX-100623	SVOCs	Phenol	**UJ**
MW11-ROX-100623	SVOCs	Bis(2-chloroethyl)ether	**UJ**
MW11-ROX-100623	SVOCs	3 & 4 Methylphenol	**UJ**
MW11-ROX-100623	SVOCs	N-Nitrosodi-n-propylamine	**UJ**
MW11-ROX-100623	SVOCs	Isophorone	**UJ**
MW11-ROX-100623	SVOCs	Bis(2-chloroethoxy)methane	**UJ**
MW11-ROX-100623	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW11-ROX-100623	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
ROST3MW-ROX-100623	SVOCs	1,4-Dioxane	**UJ**
ROST3MW-ROX-100623	SVOCs	Pyridine	**UJ**
ROST3MW-ROX-100623	SVOCs	Phenol	**UJ**
ROST3MW-ROX-100623	SVOCs	Bis(2-chloroethyl)ether	**UJ**
ROST3MW-ROX-100623	SVOCs	3 & 4 Methylphenol	**UJ**
ROST3MW-ROX-100623	SVOCs	N-Nitrosodi-n-propylamine	**UJ**
ROST3MW-ROX-100623	SVOCs	Isophorone	**UJ**
ROST3MW-ROX-100623	SVOCs	Bis(2-chloroethoxy)methane	**UJ**
ROST3MW-ROX-100623	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST3MW-ROX-100623	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
P54-ROX-100623	SVOCs	Pyridine	**UJ**
P54-ROX-100623	SVOCs	Phenol	**UJ**
P54-ROX-100623	SVOCs	Bis(2-chloroethyl)ether	**UJ**
P54-ROX-100623	SVOCs	3 & 4 Methylphenol	**UJ**
P54-ROX-100623	SVOCs	N-Nitrosodi-n-propylamine	**UJ**
P54-ROX-100623	SVOCs	Isophorone	**UJ**
P54-ROX-100623	SVOCs	Bis(2-chloroethoxy)methane	**UJ**
P54-ROX-100623	SVOCs	Hexachlorocyclopentadiene	**UJ**
P54-ROX-100623	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**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 10/23/2023 4:12:18 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-244680-1

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.

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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

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Job ID: 400-244680-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-244680-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/7/2023 7:46 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 1.2°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-645916 recovered above the upper control limit for Vinyl acetate and Acetone. The samples associated with this CCV were below the reporting limit or not reported for the affected analytes; therefore, the data have been reported.

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-645916 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-645916 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-645916 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 400-645916 was outside control limits. Sample matrix interference is suspected.

Method 8260D: 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-100623-8260 (400-244680-1), MW11-ROX-100623 (400-244680-3) and P54-ROX-100623 (400-244680-5). 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 8260D: The initial calibration verification (ICV) analyzed in batch 400-645025 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646459 recovered outside acceptance criteria, low biased, for Bromoform, Chlorodibromomethane, trans-1,3-Dichloropropene, Carbon tetrachloride, 1,1,2,2-Tetrachloroethane, Dichlorobromomethane, Styrene. and 1,1,1,2-Tetrachloroethane. 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.

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

GC/MS Semi VOA

Job ID: 400-244680-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-645101 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 8270E: The continuing calibration verification (CCV) associated with batch 400-645101 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, 3 & 4 Methylphenol, 1,2-Diphenylhydrazine (as Azobenzene), Bis(2-chloroethoxy)methane, Bis(2-chloroethyl)ether, Hexachlorocyclopentadiene, Isophorone, N-Nitrosodi-n-propylamine, Phenol and Pyridine. 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 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-644642 and analytical batch 400-645101 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 8270E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-644642 and analytical batch 400-645101 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 8270E: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 400-644642 and analytical batch 400-645101 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-641702 was outside method criteria for the following analyte(s): Aniline, 2,4-Dimethylphenol and Hexachlorocyclopentadiene. 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 Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-644694 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 400-644694 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.

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: 400-244680-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-244680-1	TB-ROX-100623-8260	Water	10/06/23 12:00	10/07/23 07:46
400-244680-2	TB-ROX-100623-8011	Water	10/06/23 12:00	10/07/23 07:46
400-244680-3	MW11-ROX-100623	Water	10/06/23 09:45	10/07/23 07:46
400-244680-4	ROST3MW-ROX-100623	Water	10/06/23 10:50	10/07/23 07:46
400-244680-5	P54-ROX-100623	Water	10/06/23 13:10	10/07/23 07:46

Detection Summary

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

Job ID: 400-244680-1

Client Sample ID: TB-ROX-100623-8260 — Lab Sample ID: 400-244680-1

No Detections.

Client Sample ID: TB-ROX-100623-8011 — Lab Sample ID: 400-244680-2

No Detections.

Client Sample ID: MW11-ROX-100623 — Lab Sample ID: 400-244680-3

No Detections.

Client Sample ID: ROST3MW-ROX-100623 — Lab Sample ID: 400-244680-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone - RA	38		25	10	ug/L	1		8260D	Total/NA
Benzo[b]fluoranthene	0.024	J	0.11	0.021	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.072	J	0.11	0.046	ug/L	1		8270E SIM	Total/NA

Client Sample ID: P54-ROX-100623 — Lab Sample ID: 400-244680-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11	J F1	25	10	ug/L	1		8260D	Total/NA
Benzo[b]fluoranthene	0.036	J	0.11	0.021	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.020	J	0.11	0.020	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-244680-1

Client Sample ID: TB-ROX-100623-8260
Date Collected: 10/06/23 12:00
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/17/23 21:22	1
Acrolein	ND		20	3.3	ug/L			10/17/23 21:22	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 21:22	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 21:22	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 21:22	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 21:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 21:22	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 21:22	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 21:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/17/23 21:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 21:22	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 21:22	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 21:22	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 21:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/17/23 21:22	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 21:22	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 21:22	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 21:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 21:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 21:22	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 21:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 21:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 21:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 21:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 21:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 21:22	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 21:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 21:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 21:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 21:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 21:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 21:22	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 21:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 21:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 21:22	1
2-Hexanone	ND		25	1.4	ug/L			10/17/23 21:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 21:22	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 21:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 21:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 21:22	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 21:22	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 21:22	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 21:22	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 21:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 21:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 21:22	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 21:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 21:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/17/23 21:22	1

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

Job ID: 400-244680-1

Client Sample ID: TB-ROX-100623-8260
Date Collected: 10/06/23 12:00
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 21:22	1
Styrene	ND		1.0	1.0	ug/L			10/17/23 21:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 21:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 21:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 21:22	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/17/23 21:22	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 21:22	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 21:22	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 21:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 21:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 21:22	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 21:22	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 21:22	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 21:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 21:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 21:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 21:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 21:22	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 21:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 21:22	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 130*		*10/17/23 21:22*	*1*
Dibromofluoromethane	*114*		*75 - 126*		*10/17/23 21:22*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/17/23 21:22*	*1*

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

Job ID: 400-244680-1

Client Sample ID: TB-ROX-100623-8011
Date Collected: 10/06/23 12:00
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-2
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-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		10/09/23 10:30	10/09/23 16:41	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		10/09/23 10:30	10/09/23 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*10/09/23 10:30*	*10/09/23 16:41*	*1*

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

Job ID: 400-244680-1

Client Sample ID: MW11-ROX-100623
Date Collected: 10/06/23 09:45
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	F1	25	10	ug/L			10/17/23 16:43	1
Acrolein	ND		20	3.3	ug/L			10/17/23 16:43	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 16:43	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 16:43	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 16:43	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 16:43	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 16:43	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 16:43	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 16:43	1
2-Butanone (MEK)	ND	F1	25	2.6	ug/L			10/17/23 16:43	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 16:43	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 16:43	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 16:43	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 16:43	1
2-Chloroethyl vinyl ether	ND	F2 F1	5.0	2.0	ug/L			10/17/23 16:43	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 16:43	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 16:43	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 16:43	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 16:43	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 16:43	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 16:43	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 16:43	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 16:43	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 16:43	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 16:43	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 16:43	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 16:43	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 16:43	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 16:43	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 16:43	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 16:43	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 16:43	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 16:43	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 16:43	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 16:43	1
2-Hexanone	ND		25	1.4	ug/L			10/17/23 16:43	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 16:43	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 16:43	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 16:43	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 16:43	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 16:43	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 16:43	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 16:43	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 16:43	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 16:43	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 16:43	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 16:43	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 16:43	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/17/23 16:43	1

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

Job ID: 400-244680-1

Client Sample ID: MW11-ROX-100623
Date Collected: 10/06/23 09:45
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 16:43	1
Styrene	ND		1.0	1.0	ug/L			10/17/23 16:43	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 16:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 16:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 16:43	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/17/23 16:43	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 16:43	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 16:43	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 16:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 16:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 16:43	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 16:43	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 16:43	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 16:43	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 16:43	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 16:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 16:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 16:43	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 16:43	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 16:43	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 130*		*10/17/23 16:43*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*10/17/23 16:43*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*10/17/23 16:43*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.12	0.057	ug/L		10/09/23 10:10	10/12/23 14:14	1
Acenaphthylene	ND		0.12	0.025	ug/L		10/09/23 10:10	10/12/23 14:14	1
Anthracene	ND		0.12	0.027	ug/L		10/09/23 10:10	10/12/23 14:14	1
Benzo[a]anthracene	ND		0.12	0.020	ug/L		10/09/23 10:10	10/12/23 14:14	1
Benzo[a]pyrene	ND		0.12	0.037	ug/L		10/09/23 10:10	10/12/23 14:14	1
Benzo[b]fluoranthene	ND		0.12	0.021	ug/L		10/09/23 10:10	10/12/23 14:14	1
Benzo[g,h,i]perylene	ND		0.12	0.016	ug/L		10/09/23 10:10	10/12/23 14:14	1
Benzo[k]fluoranthene	ND		0.12	0.036	ug/L		10/09/23 10:10	10/12/23 14:14	1
Chrysene	ND		0.12	0.019	ug/L		10/09/23 10:10	10/12/23 14:14	1
Dibenz(a,h)anthracene	ND		0.12	0.028	ug/L		10/09/23 10:10	10/12/23 14:14	1
Fluoranthene	ND		0.12	0.020	ug/L		10/09/23 10:10	10/12/23 14:14	1
Fluorene	ND		0.12	0.051	ug/L		10/09/23 10:10	10/12/23 14:14	1
Indeno[1,2,3-cd]pyrene	ND		0.12	0.020	ug/L		10/09/23 10:10	10/12/23 14:14	1
Phenanthrene	ND		0.12	0.052	ug/L		10/09/23 10:10	10/12/23 14:14	1
Pyrene	ND		0.12	0.023	ug/L		10/09/23 10:10	10/12/23 14:14	1
1-Methylnaphthalene	ND	F1	0.12	0.046	ug/L		10/09/23 10:10	10/12/23 14:14	1
2-Methylnaphthalene	ND	F1	0.12	0.038	ug/L		10/09/23 10:10	10/12/23 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*18 - 147*	*10/09/23 10:10*	*10/12/23 14:14*	*1*
2-Fluorobiphenyl	*68*		*15 - 128*	*10/09/23 10:10*	*10/12/23 14:14*	*1*

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

Job ID: 400-244680-1

Client Sample ID: MW11-ROX-100623

Date Collected: 10/06/23 09:45
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-3

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*63*		*10 - 144*	*10/09/23 10:10*	*10/12/23 14:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		5.8	2.2	ug/L		10/09/23 10:10	10/11/23 21:45	1
Benzenethiol	ND	*-	5.8	0.98	ug/L		10/09/23 10:10	10/11/23 21:45	1
Benzoic acid	ND		17	4.2	ug/L		10/09/23 10:10	10/11/23 21:45	1
Benzyl alcohol	ND		5.8	1.2	ug/L		10/09/23 10:10	10/11/23 21:45	1
Bis(2-chloroethoxy)methane	ND		5.8	0.093	ug/L		10/09/23 10:10	10/11/23 21:45	1
Bis(2-chloroethyl)ether	ND		5.8	1.6	ug/L		10/09/23 10:10	10/11/23 21:45	1
bis (2-chloroisopropyl) ether	ND		5.8	0.093	ug/L		10/09/23 10:10	10/11/23 21:45	1
Bis(2-ethylhexyl) phthalate	ND		5.8	2.9	ug/L		10/09/23 10:10	10/11/23 21:45	1
4-Bromophenyl phenyl ether	ND		5.8	0.12	ug/L		10/09/23 10:10	10/11/23 21:45	1
Butyl benzyl phthalate	ND		5.8	0.11	ug/L		10/09/23 10:10	10/11/23 21:45	1
4-Chloroaniline	ND		5.8	2.0	ug/L		10/09/23 10:10	10/11/23 21:45	1
4-Chloro-3-methylphenol	ND		5.8	2.2	ug/L		10/09/23 10:10	10/11/23 21:45	1
2-Chloronaphthalene	ND		5.8	0.081	ug/L		10/09/23 10:10	10/11/23 21:45	1
2-Chlorophenol	ND		5.8	1.3	ug/L		10/09/23 10:10	10/11/23 21:45	1
4-Chlorophenyl phenyl ether	ND		5.8	1.2	ug/L		10/09/23 10:10	10/11/23 21:45	1
Dibenz[a,h]acridine	ND		5.8	0.58	ug/L		10/09/23 10:10	10/11/23 21:45	1
Dibenzofuran	ND		5.8	0.098	ug/L		10/09/23 10:10	10/11/23 21:45	1
3,3'-Dichlorobenzidine	ND		5.8	1.5	ug/L		10/09/23 10:10	10/11/23 21:45	1
2,4-Dichlorophenol	ND		5.8	1.7	ug/L		10/09/23 10:10	10/11/23 21:45	1
Diethyl phthalate	ND		5.8	0.14	ug/L		10/09/23 10:10	10/11/23 21:45	1
2,4-Dimethylphenol	ND		5.8	2.0	ug/L		10/09/23 10:10	10/11/23 21:45	1
Dimethyl phthalate	ND		5.8	0.098	ug/L		10/09/23 10:10	10/11/23 21:45	1
Di-n-butyl phthalate	ND		5.8	1.6	ug/L		10/09/23 10:10	10/11/23 21:45	1
4,6-Dinitro-ortho-cresol	ND		5.8	0.93	ug/L		10/09/23 10:10	10/11/23 21:45	1
2,4-Dinitrophenol	ND		17	2.0	ug/L		10/09/23 10:10	10/11/23 21:45	1
2,4-Dinitrotoluene	ND		5.8	1.1	ug/L		10/09/23 10:10	10/11/23 21:45	1
2,6-Dinitrotoluene	ND		5.8	1.1	ug/L		10/09/23 10:10	10/11/23 21:45	1
Di-n-octyl phthalate	ND		5.8	0.098	ug/L		10/09/23 10:10	10/11/23 21:45	1
1,4-Dioxane	ND	F1	5.8	0.58	ug/L		10/09/23 10:10	10/11/23 21:45	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		5.8	0.58	ug/L		10/09/23 10:10	10/11/23 21:45	1
Hexachlorobenzene	ND		5.8	0.098	ug/L		10/09/23 10:10	10/11/23 21:45	1
Hexachlorocyclopentadiene	ND		12	1.5	ug/L		10/09/23 10:10	10/11/23 21:45	1
Hexachloroethane	ND		5.8	2.4	ug/L		10/09/23 10:10	10/11/23 21:45	1
Indene	ND		5.8	0.58	ug/L		10/09/23 10:10	10/11/23 21:45	1
Isophorone	ND		5.8	0.081	ug/L		10/09/23 10:10	10/11/23 21:45	1
2-Methylphenol	ND		5.8	1.0	ug/L		10/09/23 10:10	10/11/23 21:45	1
3 & 4 Methylphenol	ND		12	0.23	ug/L		10/09/23 10:10	10/11/23 21:45	1
2-Nitroaniline	ND		5.8	1.3	ug/L		10/09/23 10:10	10/11/23 21:45	1
3-Nitroaniline	ND		5.8	1.0	ug/L		10/09/23 10:10	10/11/23 21:45	1
4-Nitroaniline	ND		5.8	0.87	ug/L		10/09/23 10:10	10/11/23 21:45	1
Nitrobenzene	ND		5.8	0.075	ug/L		10/09/23 10:10	10/11/23 21:45	1
2-Nitrophenol	ND		5.8	3.0	ug/L		10/09/23 10:10	10/11/23 21:45	1
4-Nitrophenol	ND		5.8	1.2	ug/L		10/09/23 10:10	10/11/23 21:45	1
N-Nitrosodimethylamine	ND		5.8	2.0	ug/L		10/09/23 10:10	10/11/23 21:45	1

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

Job ID: 400-244680-1

Client Sample ID: MW11-ROX-100623

Date Collected: 10/06/23 09:45
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.8	1.9	ug/L		10/09/23 10:10	10/11/23 21:45	1
N-Nitrosodiphenylamine	ND		5.8	0.10	ug/L		10/09/23 10:10	10/11/23 21:45	1
Pentachlorophenol	ND		12	0.81	ug/L		10/09/23 10:10	10/11/23 21:45	1
Phenol	ND		5.8	1.5	ug/L		10/09/23 10:10	10/11/23 21:45	1
Pyridine	ND		5.8	1.9	ug/L		10/09/23 10:10	10/11/23 21:45	1
Quinoline	ND		5.8	2.6	ug/L		10/09/23 10:10	10/11/23 21:45	1
2,4,5-Trichlorophenol	ND		5.8	2.1	ug/L		10/09/23 10:10	10/11/23 21:45	1
2,4,6-Trichlorophenol	ND		5.8	2.0	ug/L		10/09/23 10:10	10/11/23 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/09/23 10:10*	*10/11/23 21:45*	*1*
2-Fluorophenol	*37*		*13 - 113*	*10/09/23 10:10*	*10/11/23 21:45*	*1*
Nitrobenzene-d5	*57*		*36 - 126*	*10/09/23 10:10*	*10/11/23 21:45*	*1*
Phenol-d5	*45*		*17 - 127*	*10/09/23 10:10*	*10/11/23 21:45*	*1*
Terphenyl-d14	*93*		*44 - 149*	*10/09/23 10:10*	*10/11/23 21:45*	*1*
2,4,6-Tribromophenol	*76*		*26 - 150*	*10/09/23 10:10*	*10/11/23 21:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		10/09/23 10:30	10/09/23 17:02	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/09/23 10:30	10/09/23 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*10/09/23 10:30*	*10/09/23 17:02*	*1*

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

Job ID: 400-244680-1

Client Sample ID: ROST3MW-ROX-100623
Date Collected: 10/06/23 10:50
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		20	3.3	ug/L			10/17/23 21:40	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 21:40	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 21:40	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 21:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 21:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 21:40	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 21:40	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 21:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/17/23 21:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 21:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 21:40	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 21:40	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 21:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/17/23 21:40	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 21:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 21:40	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 21:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 21:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 21:40	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 21:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 21:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 21:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 21:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 21:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 21:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 21:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 21:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 21:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 21:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 21:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 21:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 21:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 21:40	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 21:40	1
2-Hexanone	ND		25	1.4	ug/L			10/17/23 21:40	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 21:40	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 21:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 21:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 21:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 21:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 21:40	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 21:40	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 21:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 21:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 21:40	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 21:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 21:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/17/23 21:40	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 21:40	1

Client Sample ID: ROST3MW-ROX-100623
Date Collected: 10/06/23 10:50
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			10/17/23 21:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 21:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 21:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 21:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/17/23 21:40	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 21:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 21:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 21:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 21:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 21:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 21:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 21:40	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 21:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 21:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 21:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 21:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 21:40	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 21:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 21:40	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 130*		*10/17/23 21:40*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*10/17/23 21:40*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*10/17/23 21:40*	*1*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**38**		25	10	ug/L			10/20/23 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 130*		*10/20/23 13:27*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*10/20/23 13:27*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*10/20/23 13:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.11	0.057	ug/L		10/09/23 10:10	10/12/23 14:55	1
Acenaphthylene	ND		0.11	0.025	ug/L		10/09/23 10:10	10/12/23 14:55	1
Anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 14:55	1
Benzo[a]anthracene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 14:55	1
Benzo[a]pyrene	ND		0.11	0.037	ug/L		10/09/23 10:10	10/12/23 14:55	1
Benzo[b]fluoranthene	**0.024**	**J**	0.11	0.021	ug/L		10/09/23 10:10	10/12/23 14:55	1
Benzo[g,h,i]perylene	ND		0.11	0.015	ug/L		10/09/23 10:10	10/12/23 14:55	1
Benzo[k]fluoranthene	ND		0.11	0.035	ug/L		10/09/23 10:10	10/12/23 14:55	1
Chrysene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 14:55	1
Dibenz(a,h)anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 14:55	1
Fluoranthene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 14:55	1
Fluorene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 14:55	1
Indeno[1,2,3-cd]pyrene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 14:55	1

Client Sample ID: ROST3MW-ROX-100623
Date Collected: 10/06/23 10:50
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 14:55	1
Pyrene	ND		0.11	0.022	ug/L		10/09/23 10:10	10/12/23 14:55	1
1-Methylnaphthalene	**0.072**	**J**	0.11	0.046	ug/L		10/09/23 10:10	10/12/23 14:55	1
2-Methylnaphthalene	ND		0.11	0.038	ug/L		10/09/23 10:10	10/12/23 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*66*		*18 - 147*	*10/09/23 10:10*	*10/12/23 14:55*	*1*
2-Fluorobiphenyl	*63*		*15 - 128*	*10/09/23 10:10*	*10/12/23 14:55*	*1*
Nitrobenzene-d5	*61*		*10 - 144*	*10/09/23 10:10*	*10/12/23 14:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 22:36	1
Benzenethiol	ND	*-	5.7	0.97	ug/L		10/09/23 10:10	10/11/23 22:36	1
Benzoic acid	ND		17	4.2	ug/L		10/09/23 10:10	10/11/23 22:36	1
Benzyl alcohol	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 22:36	1
Bis(2-chloroethoxy)methane	ND		5.7	0.091	ug/L		10/09/23 10:10	10/11/23 22:36	1
Bis(2-chloroethyl)ether	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 22:36	1
bis (2-chloroisopropyl) ether	ND		5.7	0.091	ug/L		10/09/23 10:10	10/11/23 22:36	1
Bis(2-ethylhexyl) phthalate	ND		5.7	2.9	ug/L		10/09/23 10:10	10/11/23 22:36	1
4-Bromophenyl phenyl ether	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 22:36	1
Butyl benzyl phthalate	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 22:36	1
4-Chloroaniline	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 22:36	1
4-Chloro-3-methylphenol	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 22:36	1
2-Chloronaphthalene	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 22:36	1
2-Chlorophenol	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 22:36	1
4-Chlorophenyl phenyl ether	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 22:36	1
Dibenz[a,h]acridine	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 22:36	1
Dibenzofuran	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 22:36	1
3,3'-Dichlorobenzidine	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 22:36	1
2,4-Dichlorophenol	ND		5.7	1.7	ug/L		10/09/23 10:10	10/11/23 22:36	1
Diethyl phthalate	ND		5.7	0.14	ug/L		10/09/23 10:10	10/11/23 22:36	1
2,4-Dimethylphenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 22:36	1
Dimethyl phthalate	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 22:36	1
Di-n-butyl phthalate	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 22:36	1
4,6-Dinitro-ortho-cresol	ND		5.7	0.91	ug/L		10/09/23 10:10	10/11/23 22:36	1
2,4-Dinitrophenol	ND		17	1.9	ug/L		10/09/23 10:10	10/11/23 22:36	1
2,4-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 22:36	1
2,6-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 22:36	1
Di-n-octyl phthalate	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 22:36	1
1,4-Dioxane	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 22:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 22:36	1
Hexachlorobenzene	ND		5.7	0.097	ug/L		10/09/23 10:10	10/11/23 22:36	1
Hexachlorocyclopentadiene	ND		11	1.5	ug/L		10/09/23 10:10	10/11/23 22:36	1
Hexachloroethane	ND		5.7	2.4	ug/L		10/09/23 10:10	10/11/23 22:36	1
Indene	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 22:36	1
Isophorone	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 22:36	1
2-Methylphenol	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 22:36	1
3 & 4 Methylphenol	ND		11	0.22	ug/L		10/09/23 10:10	10/11/23 22:36	1

Client Sample ID: ROST3MW-ROX-100623
Date Collected: 10/06/23 10:50
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 22:36	1
3-Nitroaniline	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 22:36	1
4-Nitroaniline	ND		5.7	0.86	ug/L		10/09/23 10:10	10/11/23 22:36	1
Nitrobenzene	ND		5.7	0.074	ug/L		10/09/23 10:10	10/11/23 22:36	1
2-Nitrophenol	ND		5.7	3.0	ug/L		10/09/23 10:10	10/11/23 22:36	1
4-Nitrophenol	ND		5.7	1.2	ug/L		10/09/23 10:10	10/11/23 22:36	1
N-Nitrosodimethylamine	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 22:36	1
N-Nitrosodi-n-propylamine	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 22:36	1
N-Nitrosodiphenylamine	ND		5.7	0.10	ug/L		10/09/23 10:10	10/11/23 22:36	1
Pentachlorophenol	ND		11	0.80	ug/L		10/09/23 10:10	10/11/23 22:36	1
Phenol	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 22:36	1
Pyridine	ND		5.7	1.8	ug/L		10/09/23 10:10	10/11/23 22:36	1
Quinoline	ND		5.7	2.6	ug/L		10/09/23 10:10	10/11/23 22:36	1
2,4,5-Trichlorophenol	ND		5.7	2.1	ug/L		10/09/23 10:10	10/11/23 22:36	1
2,4,6-Trichlorophenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*10/09/23 10:10*	*10/11/23 22:36*	*1*
2-Fluorophenol	*30*		*13 - 113*	*10/09/23 10:10*	*10/11/23 22:36*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*10/09/23 10:10*	*10/11/23 22:36*	*1*
Phenol-d5	*47*		*17 - 127*	*10/09/23 10:10*	*10/11/23 22:36*	*1*
Terphenyl-d14	*94*		*44 - 149*	*10/09/23 10:10*	*10/11/23 22:36*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*10/09/23 10:10*	*10/11/23 22:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		10/09/23 10:30	10/09/23 18:25	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/09/23 10:30	10/09/23 18:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*51 - 149*	*10/09/23 10:30*	*10/09/23 18:25*	*1*

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

Job ID: 400-244680-1

Client Sample ID: P54-ROX-100623
Date Collected: 10/06/23 13:10
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**11**	**J F1**	25	10	ug/L			10/17/23 17:02	1
Acrolein	ND		20	3.3	ug/L			10/17/23 17:02	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 17:02	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 17:02	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 17:02	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 17:02	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 17:02	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 17:02	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 17:02	1
2-Butanone (MEK)	ND	F1	25	2.6	ug/L			10/17/23 17:02	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 17:02	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 17:02	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 17:02	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 17:02	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			10/17/23 17:02	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 17:02	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 17:02	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 17:02	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 17:02	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 17:02	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 17:02	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 17:02	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 17:02	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 17:02	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 17:02	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 17:02	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 17:02	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 17:02	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 17:02	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 17:02	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 17:02	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 17:02	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 17:02	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 17:02	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 17:02	1
2-Hexanone	ND		25	1.4	ug/L			10/17/23 17:02	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 17:02	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 17:02	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 17:02	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 17:02	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 17:02	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 17:02	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 17:02	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 17:02	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 17:02	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 17:02	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 17:02	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 17:02	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/17/23 17:02	1

Client Sample ID: P54-ROX-100623
Date Collected: 10/06/23 13:10
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 17:02	1
Styrene	ND		1.0	1.0	ug/L			10/17/23 17:02	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 17:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 17:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 17:02	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/17/23 17:02	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 17:02	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 17:02	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 17:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 17:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 17:02	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 17:02	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 17:02	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 17:02	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 17:02	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 17:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 17:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 17:02	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 17:02	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 17:02	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 130*		*10/17/23 17:02*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*10/17/23 17:02*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/17/23 17:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.11	0.057	ug/L		10/09/23 10:10	10/12/23 14:35	1
Acenaphthylene	ND		0.11	0.025	ug/L		10/09/23 10:10	10/12/23 14:35	1
Anthracene	ND		0.11	0.027	ug/L		10/09/23 10:10	10/12/23 14:35	1
Benzo[a]anthracene	ND		0.11	0.020	ug/L		10/09/23 10:10	10/12/23 14:35	1
Benzo[a]pyrene	ND		0.11	0.037	ug/L		10/09/23 10:10	10/12/23 14:35	1
Benzo[b]fluoranthene	**0.036**	**J**	0.11	0.021	ug/L		10/09/23 10:10	10/12/23 14:35	1
Benzo[g,h,i]perylene	ND		0.11	0.015	ug/L		10/09/23 10:10	10/12/23 14:35	1
Benzo[k]fluoranthene	ND		0.11	0.036	ug/L		10/09/23 10:10	10/12/23 14:35	1
Chrysene	ND		0.11	0.019	ug/L		10/09/23 10:10	10/12/23 14:35	1
Dibenz(a,h)anthracene	ND		0.11	0.028	ug/L		10/09/23 10:10	10/12/23 14:35	1
Fluoranthene	ND		0.11	0.020	ug/L		10/09/23 10:10	10/12/23 14:35	1
Fluorene	ND		0.11	0.051	ug/L		10/09/23 10:10	10/12/23 14:35	1
Indeno[1,2,3-cd]pyrene	**0.020**	**J**	0.11	0.020	ug/L		10/09/23 10:10	10/12/23 14:35	1
Phenanthrene	ND		0.11	0.052	ug/L		10/09/23 10:10	10/12/23 14:35	1
Pyrene	ND		0.11	0.022	ug/L		10/09/23 10:10	10/12/23 14:35	1
1-Methylnaphthalene	ND	F1	0.11	0.046	ug/L		10/09/23 10:10	10/12/23 14:35	1
2-Methylnaphthalene	ND	F1	0.11	0.038	ug/L		10/09/23 10:10	10/12/23 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*71*		*18 - 147*	*10/09/23 10:10*	*10/12/23 14:35*	*1*
2-Fluorobiphenyl	*66*		*15 - 128*	*10/09/23 10:10*	*10/12/23 14:35*	*1*

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

Job ID: 400-244680-1

Client Sample ID: P54-ROX-100623
Date Collected: 10/06/23 13:10
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	54		10 - 144	10/09/23 10:10	10/12/23 14:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 22:10	1
Benzenethiol	ND	*-	5.7	0.98	ug/L		10/09/23 10:10	10/11/23 22:10	1
Benzoic acid	ND		17	4.2	ug/L		10/09/23 10:10	10/11/23 22:10	1
Benzyl alcohol	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 22:10	1
Bis(2-chloroethoxy)methane	ND		5.7	0.092	ug/L		10/09/23 10:10	10/11/23 22:10	1
Bis(2-chloroethyl)ether	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 22:10	1
bis (2-chloroisopropyl) ether	ND		5.7	0.092	ug/L		10/09/23 10:10	10/11/23 22:10	1
Bis(2-ethylhexyl) phthalate	ND		5.7	2.9	ug/L		10/09/23 10:10	10/11/23 22:10	1
4-Bromophenyl phenyl ether	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 22:10	1
Butyl benzyl phthalate	ND		5.7	0.11	ug/L		10/09/23 10:10	10/11/23 22:10	1
4-Chloroaniline	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 22:10	1
4-Chloro-3-methylphenol	ND		5.7	2.2	ug/L		10/09/23 10:10	10/11/23 22:10	1
2-Chloronaphthalene	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 22:10	1
2-Chlorophenol	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 22:10	1
4-Chlorophenyl phenyl ether	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 22:10	1
Dibenz[a,h]acridine	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 22:10	1
Dibenzofuran	ND		5.7	0.098	ug/L		10/09/23 10:10	10/11/23 22:10	1
3,3'-Dichlorobenzidine	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 22:10	1
2,4-Dichlorophenol	ND		5.7	1.7	ug/L		10/09/23 10:10	10/11/23 22:10	1
Diethyl phthalate	ND		5.7	0.14	ug/L		10/09/23 10:10	10/11/23 22:10	1
2,4-Dimethylphenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 22:10	1
Dimethyl phthalate	ND		5.7	0.098	ug/L		10/09/23 10:10	10/11/23 22:10	1
Di-n-butyl phthalate	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 22:10	1
4,6-Dinitro-ortho-cresol	ND		5.7	0.92	ug/L		10/09/23 10:10	10/11/23 22:10	1
2,4-Dinitrophenol	ND		17	2.0	ug/L		10/09/23 10:10	10/11/23 22:10	1
2,4-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 22:10	1
2,6-Dinitrotoluene	ND		5.7	1.1	ug/L		10/09/23 10:10	10/11/23 22:10	1
Di-n-octyl phthalate	ND		5.7	0.098	ug/L		10/09/23 10:10	10/11/23 22:10	1
1,4-Dioxane	ND	F1	5.7	0.57	ug/L		10/09/23 10:10	10/11/23 22:10	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 22:10	1
Hexachlorobenzene	ND		5.7	0.098	ug/L		10/09/23 10:10	10/11/23 22:10	1
Hexachlorocyclopentadiene	ND		11	1.5	ug/L		10/09/23 10:10	10/11/23 22:10	1
Hexachloroethane	ND		5.7	2.4	ug/L		10/09/23 10:10	10/11/23 22:10	1
Indene	ND		5.7	0.57	ug/L		10/09/23 10:10	10/11/23 22:10	1
Isophorone	ND		5.7	0.080	ug/L		10/09/23 10:10	10/11/23 22:10	1
2-Methylphenol	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 22:10	1
3 & 4 Methylphenol	ND		11	0.22	ug/L		10/09/23 10:10	10/11/23 22:10	1
2-Nitroaniline	ND		5.7	1.3	ug/L		10/09/23 10:10	10/11/23 22:10	1
3-Nitroaniline	ND		5.7	1.0	ug/L		10/09/23 10:10	10/11/23 22:10	1
4-Nitroaniline	ND		5.7	0.86	ug/L		10/09/23 10:10	10/11/23 22:10	1
Nitrobenzene	ND		5.7	0.075	ug/L		10/09/23 10:10	10/11/23 22:10	1
2-Nitrophenol	ND		5.7	3.0	ug/L		10/09/23 10:10	10/11/23 22:10	1
4-Nitrophenol	ND		5.7	1.2	ug/L		10/09/23 10:10	10/11/23 22:10	1
N-Nitrosodimethylamine	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 22:10	1

Client Sample ID: P54-ROX-100623

Date Collected: 10/06/23 13:10
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.7	1.9	ug/L		10/09/23 10:10	10/11/23 22:10	1
N-Nitrosodiphenylamine	ND		5.7	0.10	ug/L		10/09/23 10:10	10/11/23 22:10	1
Pentachlorophenol	ND		11	0.80	ug/L		10/09/23 10:10	10/11/23 22:10	1
Phenol	ND		5.7	1.5	ug/L		10/09/23 10:10	10/11/23 22:10	1
Pyridine	ND		5.7	1.8	ug/L		10/09/23 10:10	10/11/23 22:10	1
Quinoline	ND	F2 F1	5.7	2.6	ug/L		10/09/23 10:10	10/11/23 22:10	1
2,4,5-Trichlorophenol	ND		5.7	2.1	ug/L		10/09/23 10:10	10/11/23 22:10	1
2,4,6-Trichlorophenol	ND		5.7	2.0	ug/L		10/09/23 10:10	10/11/23 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*10/09/23 10:10*	*10/11/23 22:10*	*1*
2-Fluorophenol	*25*		*13 - 113*	*10/09/23 10:10*	*10/11/23 22:10*	*1*
Nitrobenzene-d5	*56*		*36 - 126*	*10/09/23 10:10*	*10/11/23 22:10*	*1*
Phenol-d5	*39*		*17 - 127*	*10/09/23 10:10*	*10/11/23 22:10*	*1*
Terphenyl-d14	*91*		*44 - 149*	*10/09/23 10:10*	*10/11/23 22:10*	*1*
2,4,6-Tribromophenol	*64*		*26 - 150*	*10/09/23 10:10*	*10/11/23 22:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/09/23 10:30	10/09/23 18:46	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/09/23 10:30	10/09/23 18:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*10/09/23 10:30*	*10/09/23 18:46*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-244680-1
Project/Site: ROXANA QUARTERLY GW

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.
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.

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: 400-244680-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-244680-1	TB-ROX-100623-8260	95	114	99
400-244680-3	MW11-ROX-100623	99	113	100
400-244680-3 MS	MW11-ROX-100623	98	108	100
400-244680-3 MSD	MW11-ROX-100623	98	109	99
400-244680-4	ROST3MW-ROX-100623	97	107	101
400-244680-4 - RA	ROST3MW-ROX-100623	96	105	103
400-244680-5	P54-ROX-100623	96	111	99
400-244680-5 MS	P54-ROX-100623	98	111	101
400-244680-5 MSD	P54-ROX-100623	98	108	100
LCS 400-645916/1008	Lab Control Sample	103	103	100
LCS 400-646459/1001	Lab Control Sample	98	106	100
MB 400-645916/32	Method Blank	99	112	99
MB 400-646459/3	Method Blank	94	104	99

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-244680-3	MW11-ROX-100623	79	37	57	45	93	76
400-244680-3 MS	MW11-ROX-100623	70	23	72	44	76	81
400-244680-3 MSD	MW11-ROX-100623	66	27	68	44	77	77
400-244680-4	ROST3MW-ROX-100623	82	30	68	47	94	79
400-244680-5	P54-ROX-100623	73	25	56	39	91	64
400-244680-5 MS	P54-ROX-100623	68	38	70	53	75	79
400-244680-5 MSD	P54-ROX-100623	77	34	73	46	86	90
LCS 400-644642/2-A	Lab Control Sample	78	36	77	52	84	86
LCS 400-644642/4-A	Lab Control Sample	84	37	64	51	92	84
LCSD 400-644642/5-A	Lab Control Sample Dup	85	33	66	51	99	67
MB 400-644642/1-A	Method Blank	79	26	62	41	90	79

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: 400-244680-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-244680-3	MW11-ROX-100623	69	68	63
400-244680-3 MS	MW11-ROX-100623	66	65	46
400-244680-3 MSD	MW11-ROX-100623	58	64	40
400-244680-4	ROST3MW-ROX-100623	66	63	61
400-244680-5	P54-ROX-100623	71	66	54
400-244680-5 MS	P54-ROX-100623	60	66	41
400-244680-5 MSD	P54-ROX-100623	67	73	53
LCS 400-644642/6-A	Lab Control Sample	65	66	63
LCSD 400-644642/7-A	Lab Control Sample Dup	70	70	66
MB 400-644642/1-A	Method Blank	71	69	65

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-244680-2	TB-ROX-100623-8011	98
400-244680-3	MW11-ROX-100623	96
400-244680-3 MS	MW11-ROX-100623	98
400-244680-3 MSD	MW11-ROX-100623	92
400-244680-4	ROST3MW-ROX-100623	88
400-244680-5	P54-ROX-100623	98
400-244680-5 MS	P54-ROX-100623	97
400-244680-5 MSD	P54-ROX-100623	103
LCS 400-644646/2-A	Lab Control Sample	101
LCSD 400-644646/3-A	Lab Control Sample Dup	95
MB 400-644646/1-A	Method Blank	84

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-244680-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-244680-1

Client Sample ID: TB-ROX-100623-8260
Date Collected: 10/06/23 12:00
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-1
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	8260D		1	5 mL	5 mL	645916	10/17/23 21:22	CAR	EET PEN

Client Sample ID: TB-ROX-100623-8011
Date Collected: 10/06/23 12:00
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-2
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			34 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 16:41	PG	EET PEN

Client Sample ID: MW11-ROX-100623
Date Collected: 10/06/23 09:45
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-3
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	8260D		1	5 mL	5 mL	645916	10/17/23 16:43	CAR	EET PEN
Total/NA	Prep	3520C			432.2 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 21:45	S1B	EET PEN
Total/NA	Prep	3520C			432.2 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 14:14	S1B	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 17:02	PG	EET PEN

Client Sample ID: ROST3MW-ROX-100623
Date Collected: 10/06/23 10:50
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-4
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	8260D		1	5 mL	5 mL	645916	10/17/23 21:40	CAR	EET PEN
Total/NA	Analysis	8260D	RA	1	5 mL	5 mL	646459	10/20/23 13:27	BPO	EET PEN
Total/NA	Prep	3520C			438 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 22:36	S1B	EET PEN
Total/NA	Prep	3520C			438 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 14:55	S1B	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 18:25	PG	EET PEN

Client Sample ID: P54-ROX-100623
Date Collected: 10/06/23 13:10
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-5
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	8260D		1	5 mL	5 mL	645916	10/17/23 17:02	CAR	EET PEN
Total/NA	Prep	3520C			435.8 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 22:10	S1B	EET PEN

Client Sample ID: P54-ROX-100623

Lab Sample ID: 400-244680-5

Date Collected: 10/06/23 13:10

Matrix: Water

Date Received: 10/07/23 07:46

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			435.8 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 14:35	S1B	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 18:46	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-644642/1-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 18:18	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 11:57	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-644646/1-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	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 14:15	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645916/32

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	8260D		1	5 mL	5 mL	645916	10/17/23 15:57	CAR	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646459/3

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	8260D		1	5 mL	5 mL	646459	10/20/23 11:52	BPO	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-644642/2-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 18:44	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244680-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-644642/4-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 19:10	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-644642/6-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 12:18	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-644646/2-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	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 14:36	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645916/1008
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	8260D		1	5 mL	5 mL	645916	10/17/23 15:01	CAR	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646459/1001
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	8260D		1	5 mL	5 mL	646459	10/20/23 10:54	BPO	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-644642/5-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 19:36	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244680-1

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-644642/7-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	644642	10/09/23 10:09	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645209	10/12/23 16:19	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-644646/3-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	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 14:57	PG	EET PEN

Client Sample ID: MW11-ROX-100623
Date Collected: 10/06/23 09:45
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-3 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	8260D		1	5 mL	5 mL	645916	10/17/23 18:53	CAR	EET PEN
Total/NA	Prep	3520C			431.6 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 20:02	S1B	EET PEN
Total/NA	Prep	3520C			431.6 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	645209	10/12/23 12:51	S1B	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 17:23	PG	EET PEN

Client Sample ID: MW11-ROX-100623
Date Collected: 10/06/23 09:45
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-3 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	8260D		1	5 mL	5 mL	645916	10/17/23 19:12	CAR	EET PEN
Total/NA	Prep	3520C			430.6 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 20:28	S1B	EET PEN
Total/NA	Prep	3520C			430.6 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	645400	10/13/23 12:17	S1B	EET PEN
Total/NA	Prep	8011			33.3 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 18:04	PG	EET PEN

Client Sample ID: P54-ROX-100623
Date Collected: 10/06/23 13:10
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-5 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	8260D		1	5 mL	5 mL	645916	10/17/23 19:30	CAR	EET PEN
Total/NA	Prep	3520C			433.4 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 20:54	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244680-1

Client Sample ID: P54-ROX-100623
Date Collected: 10/06/23 13:10
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-5 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	Prep	3520C			433.4 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	645400	10/13/23 12:38	S1B	EET PEN
Total/NA	Prep	8011			35.6 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 19:07	PG	EET PEN

Client Sample ID: P54-ROX-100623
Date Collected: 10/06/23 13:10
Date Received: 10/07/23 07:46

Lab Sample ID: 400-244680-5 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	8260D		1	5 mL	5 mL	645916	10/17/23 19:49	CAR	EET PEN
Total/NA	Prep	3520C			435.2 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645101	10/11/23 21:19	S1B	EET PEN
Total/NA	Prep	3520C			435.2 mL	1 mL	644642	10/09/23 10:10	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	645209	10/12/23 13:53	S1B	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	644646	10/09/23 10:30	PG	EET PEN
Total/NA	Analysis	8011		1			644694	10/09/23 19:28	PG	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 645916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244680-1	TB-ROX-100623-8260	Total/NA	Water	8260D	
400-244680-3	MW11-ROX-100623	Total/NA	Water	8260D	
400-244680-4	ROST3MW-ROX-100623	Total/NA	Water	8260D	
400-244680-5	P54-ROX-100623	Total/NA	Water	8260D	
MB 400-645916/32	Method Blank	Total/NA	Water	8260D	
LCS 400-645916/1008	Lab Control Sample	Total/NA	Water	8260D	
400-244680-3 MS	MW11-ROX-100623	Total/NA	Water	8260D	
400-244680-3 MSD	MW11-ROX-100623	Total/NA	Water	8260D	
400-244680-5 MS	P54-ROX-100623	Total/NA	Water	8260D	
400-244680-5 MSD	P54-ROX-100623	Total/NA	Water	8260D	

Analysis Batch: 646459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244680-4 - RA	ROST3MW-ROX-100623	Total/NA	Water	8260D	
MB 400-646459/3	Method Blank	Total/NA	Water	8260D	
LCS 400-646459/1001	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 644642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244680-3	MW11-ROX-100623	Total/NA	Water	3520C	
400-244680-4	ROST3MW-ROX-100623	Total/NA	Water	3520C	
400-244680-5	P54-ROX-100623	Total/NA	Water	3520C	
MB 400-644642/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-644642/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-644642/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-644642/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-644642/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-644642/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-244680-3 MS	MW11-ROX-100623	Total/NA	Water	3520C	
400-244680-3 MSD	MW11-ROX-100623	Total/NA	Water	3520C	
400-244680-5 MS	P54-ROX-100623	Total/NA	Water	3520C	
400-244680-5 MSD	P54-ROX-100623	Total/NA	Water	3520C	

Analysis Batch: 645101

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244680-3	MW11-ROX-100623	Total/NA	Water	8270E	644642
400-244680-4	ROST3MW-ROX-100623	Total/NA	Water	8270E	644642
400-244680-5	P54-ROX-100623	Total/NA	Water	8270E	644642
MB 400-644642/1-A	Method Blank	Total/NA	Water	8270E	644642
LCS 400-644642/2-A	Lab Control Sample	Total/NA	Water	8270E	644642
LCS 400-644642/4-A	Lab Control Sample	Total/NA	Water	8270E	644642
LCSD 400-644642/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	644642
400-244680-3 MS	MW11-ROX-100623	Total/NA	Water	8270E	644642
400-244680-3 MSD	MW11-ROX-100623	Total/NA	Water	8270E	644642
400-244680-5 MS	P54-ROX-100623	Total/NA	Water	8270E	644642
400-244680-5 MSD	P54-ROX-100623	Total/NA	Water	8270E	644642

GC/MS Semi VOA

Analysis Batch: 645209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244680-3	MW11-ROX-100623	Total/NA	Water	8270E SIM	644642
400-244680-4	ROST3MW-ROX-100623	Total/NA	Water	8270E SIM	644642
400-244680-5	P54-ROX-100623	Total/NA	Water	8270E SIM	644642
MB 400-644642/1-A	Method Blank	Total/NA	Water	8270E SIM	644642
LCS 400-644642/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	644642
LCSD 400-644642/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	644642
400-244680-3 MS	MW11-ROX-100623	Total/NA	Water	8270E SIM	644642
400-244680-5 MSD	P54-ROX-100623	Total/NA	Water	8270E SIM	644642

Analysis Batch: 645400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244680-3 MSD	MW11-ROX-100623	Total/NA	Water	8270E SIM	644642
400-244680-5 MS	P54-ROX-100623	Total/NA	Water	8270E SIM	644642

GC Semi VOA

Prep Batch: 644646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244680-2	TB-ROX-100623-8011	Total/NA	Water	8011	
400-244680-3	MW11-ROX-100623	Total/NA	Water	8011	
400-244680-4	ROST3MW-ROX-100623	Total/NA	Water	8011	
400-244680-5	P54-ROX-100623	Total/NA	Water	8011	
MB 400-644646/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-644646/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-644646/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-244680-3 MS	MW11-ROX-100623	Total/NA	Water	8011	
400-244680-3 MSD	MW11-ROX-100623	Total/NA	Water	8011	
400-244680-5 MS	P54-ROX-100623	Total/NA	Water	8011	
400-244680-5 MSD	P54-ROX-100623	Total/NA	Water	8011	

Analysis Batch: 644694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244680-2	TB-ROX-100623-8011	Total/NA	Water	8011	644646
400-244680-3	MW11-ROX-100623	Total/NA	Water	8011	644646
400-244680-4	ROST3MW-ROX-100623	Total/NA	Water	8011	644646
400-244680-5	P54-ROX-100623	Total/NA	Water	8011	644646
MB 400-644646/1-A	Method Blank	Total/NA	Water	8011	644646
LCS 400-644646/2-A	Lab Control Sample	Total/NA	Water	8011	644646
LCSD 400-644646/3-A	Lab Control Sample Dup	Total/NA	Water	8011	644646
400-244680-3 MS	MW11-ROX-100623	Total/NA	Water	8011	644646
400-244680-3 MSD	MW11-ROX-100623	Total/NA	Water	8011	644646
400-244680-5 MS	P54-ROX-100623	Total/NA	Water	8011	644646
400-244680-5 MSD	P54-ROX-100623	Total/NA	Water	8011	644646

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-645916/32
Matrix: Water
Analysis Batch: 645916

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			10/17/23 15:57	1
Acrolein	ND		20	3.3	ug/L			10/17/23 15:57	1
Acrylonitrile	ND		10	2.8	ug/L			10/17/23 15:57	1
Benzene	ND		1.0	0.50	ug/L			10/17/23 15:57	1
Bromobenzene	ND		1.0	0.54	ug/L			10/17/23 15:57	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/17/23 15:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/17/23 15:57	1
Bromoform	ND		5.0	0.25	ug/L			10/17/23 15:57	1
Bromomethane	ND		1.0	0.98	ug/L			10/17/23 15:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/17/23 15:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/17/23 15:57	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/17/23 15:57	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/17/23 15:57	1
Chloroethane	ND		1.0	0.76	ug/L			10/17/23 15:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/17/23 15:57	1
Chloroform	ND		1.0	0.90	ug/L			10/17/23 15:57	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/17/23 15:57	1
Chloromethane	ND		1.0	0.90	ug/L			10/17/23 15:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/17/23 15:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/17/23 15:57	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/17/23 15:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/17/23 15:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/17/23 15:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/17/23 15:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/17/23 15:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/17/23 15:57	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/17/23 15:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 15:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 15:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 15:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/17/23 15:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/17/23 15:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/17/23 15:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/17/23 15:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/17/23 15:57	1
2-Hexanone	ND		25	1.4	ug/L			10/17/23 15:57	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/17/23 15:57	1
Methylene bromide	ND		5.0	0.22	ug/L			10/17/23 15:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/17/23 15:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/17/23 15:57	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/17/23 15:57	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/17/23 15:57	1
Naphthalene	ND		5.0	3.0	ug/L			10/17/23 15:57	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/17/23 15:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/17/23 15:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/17/23 15:57	1
o-Xylene	ND		5.0	0.60	ug/L			10/17/23 15:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/17/23 15:57	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-645916/32
Matrix: Water
Analysis Batch: 645916

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			10/17/23 15:57	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/17/23 15:57	1
Styrene	ND		1.0	1.0	ug/L			10/17/23 15:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/17/23 15:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/17/23 15:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/17/23 15:57	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/17/23 15:57	1
Toluene	ND		1.0	0.90	ug/L			10/17/23 15:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/17/23 15:57	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/17/23 15:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/17/23 15:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/17/23 15:57	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/17/23 15:57	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/17/23 15:57	1
Trichloroethene	ND		1.0	0.15	ug/L			10/17/23 15:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/17/23 15:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/17/23 15:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/17/23 15:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/17/23 15:57	1
Vinyl acetate	ND		25	0.93	ug/L			10/17/23 15:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/17/23 15:57	1
Xylenes, Total	ND		10	1.6	ug/L			10/17/23 15:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 130*		*10/17/23 15:57*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*10/17/23 15:57*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/17/23 15:57*	*1*

Lab Sample ID: LCS 400-645916/1008
Matrix: Water
Analysis Batch: 645916

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	320		ug/L		160	43 - 160
Acrolein	500	468		ug/L		94	38 - 160
Acrylonitrile	500	492		ug/L		98	64 - 142
Benzene	50.0	46.8		ug/L		94	70 - 130
Bromobenzene	50.0	47.5		ug/L		95	70 - 132
Bromochloromethane	50.0	46.2		ug/L		92	70 - 130
Bromodichloromethane	50.0	48.0		ug/L		96	67 - 133
Bromoform	50.0	47.4		ug/L		95	57 - 140
Bromomethane	50.0	42.4		ug/L		85	10 - 160
2-Butanone (MEK)	200	221		ug/L		111	61 - 145
Carbon disulfide	50.0	48.0		ug/L		96	61 - 137
Carbon tetrachloride	50.0	45.9		ug/L		92	61 - 137
Chlorobenzene	50.0	47.0		ug/L		94	70 - 130
Chloroethane	50.0	44.6		ug/L		89	55 - 141
2-Chloroethyl vinyl ether	50.0	60.6		ug/L		121	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-645916/1008
Matrix: Water
Analysis Batch: 645916

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	47.6		ug/L		95	69 - 130
1-Chlorohexane	50.0	49.9		ug/L		100	69 - 130
Chloromethane	50.0	49.6		ug/L		99	58 - 137
cis-1,2-Dichloroethene	50.0	48.8		ug/L		98	68 - 130
cis-1,3-Dichloropropene	50.0	49.1		ug/L		98	69 - 132
Dibromochloromethane	50.0	46.6		ug/L		93	67 - 135
1,2-Dichlorobenzene	50.0	48.5		ug/L		97	67 - 130
1,3-Dichlorobenzene	50.0	49.0		ug/L		98	70 - 130
1,4-Dichlorobenzene	50.0	48.2		ug/L		96	70 - 130
Dichlorodifluoromethane	50.0	44.7		ug/L		89	41 - 146
1,1-Dichloroethane	50.0	47.6		ug/L		95	70 - 130
1,2-Dichloroethane	50.0	48.9		ug/L		98	69 - 130
1,1-Dichloroethene	50.0	46.1		ug/L		92	63 - 134
1,2-Dichloropropane	50.0	48.7		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	49.2		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	46.5		ug/L		93	52 - 135
1,1-Dichloropropene	50.0	48.2		ug/L		96	70 - 130
Ethylbenzene	50.0	48.3		ug/L		97	70 - 130
Ethyl methacrylate	50.0	50.4		ug/L		101	68 - 130
Hexachlorobutadiene	50.0	49.8		ug/L		100	53 - 140
2-Hexanone	200	234		ug/L		117	65 - 137
Isopropylbenzene	50.0	49.7		ug/L		99	70 - 130
Methylene bromide	50.0	47.6		ug/L		95	70 - 130
Methylene Chloride	50.0	48.4		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	223		ug/L		111	69 - 138
Methyl tert-butyl ether	50.0	49.2		ug/L		98	66 - 130
m-Xylene & p-Xylene	50.0	49.1		ug/L		98	70 - 130
Naphthalene	50.0	47.9		ug/L		96	47 - 149
n-Butylbenzene	50.0	54.7		ug/L		109	67 - 130
N-Propylbenzene	50.0	49.7		ug/L		99	70 - 130
o-Chlorotoluene	50.0	50.8		ug/L		102	70 - 130
o-Xylene	50.0	48.9		ug/L		98	70 - 130
p-Chlorotoluene	50.0	51.3		ug/L		103	70 - 130
p-Isopropyltoluene	50.0	52.4		ug/L		105	65 - 130
sec-Butylbenzene	50.0	52.0		ug/L		104	66 - 130
Styrene	50.0	47.6		ug/L		95	70 - 130
tert-Butylbenzene	50.0	50.1		ug/L		100	64 - 139
1,1,1,2-Tetrachloroethane	50.0	45.0		ug/L		90	67 - 131
1,1,2,2-Tetrachloroethane	50.0	49.6		ug/L		99	70 - 131
Tetrachloroethene	50.0	43.2		ug/L		86	65 - 130
Toluene	50.0	46.0		ug/L		92	70 - 130
trans-1,2-Dichloroethene	50.0	47.4		ug/L		95	70 - 130
trans-1,3-Dichloropropene	50.0	49.1		ug/L		98	63 - 130
1,2,3-Trichlorobenzene	50.0	48.2		ug/L		96	60 - 138
1,2,4-Trichlorobenzene	50.0	49.6		ug/L		99	60 - 140
1,1,1-Trichloroethane	50.0	46.2		ug/L		92	68 - 130
1,1,2-Trichloroethane	50.0	49.2		ug/L		98	70 - 130
Trichloroethene	50.0	45.8		ug/L		92	70 - 130
Trichlorofluoromethane	50.0	46.9		ug/L		94	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-645916/1008
Matrix: Water
Analysis Batch: 645916

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	49.1		ug/L		98	70 - 130
1,2,4-Trimethylbenzene	50.0	51.7		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	50.0	52.0		ug/L		104	69 - 130
Vinyl acetate	100	131		ug/L		131	26 - 160
Vinyl chloride	50.0	50.3		ug/L		101	59 - 136
Xylenes, Total	100	98.0		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*72 - 130*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: 400-244680-3 MS
Matrix: Water
Analysis Batch: 645916

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND	F1	100	184	F1	ug/L		184	43 - 150
Acrolein	ND		500	513		ug/L		103	38 - 150
Acrylonitrile	ND		250	268		ug/L		107	62 - 149
Benzene	ND		25.0	23.6		ug/L		94	56 - 142
Bromobenzene	ND		25.0	22.7		ug/L		91	59 - 136
Bromochloromethane	ND		25.0	24.1		ug/L		97	64 - 140
Bromodichloromethane	ND		25.0	21.8		ug/L		87	59 - 143
Bromoform	ND		25.0	19.0		ug/L		76	50 - 140
Bromomethane	ND		50.0	44.1		ug/L		88	10 - 150
2-Butanone (MEK)	ND	F1	100	144		ug/L		144	55 - 150
Carbon disulfide	ND		25.0	25.8		ug/L		103	48 - 150
Carbon tetrachloride	ND		25.0	22.9		ug/L		92	55 - 145
Chlorobenzene	ND		25.0	23.9		ug/L		96	64 - 130
Chloroethane	ND		50.0	53.4		ug/L		107	50 - 150
2-Chloroethyl vinyl ether	ND	F2 F1	50.0	12.9		ug/L		26	10 - 150
Chloroform	ND		25.0	24.6		ug/L		99	60 - 141
1-Chlorohexane	ND		25.0	25.6		ug/L		103	56 - 136
Chloromethane	ND		50.0	51.1		ug/L		102	49 - 148
cis-1,2-Dichloroethene	ND		25.0	25.4		ug/L		102	59 - 143
cis-1,3-Dichloropropene	ND		25.0	22.5		ug/L		90	57 - 140
Dibromochloromethane	ND		25.0	20.2		ug/L		81	56 - 143
1,2-Dichlorobenzene	ND		25.0	23.8		ug/L		95	52 - 137
1,3-Dichlorobenzene	ND		25.0	23.9		ug/L		95	54 - 135
1,4-Dichlorobenzene	ND		25.0	23.8		ug/L		95	53 - 135
Dichlorodifluoromethane	ND		50.0	48.1		ug/L		96	16 - 150
1,1-Dichloroethane	ND		25.0	25.1		ug/L		101	61 - 144
1,2-Dichloroethane	ND		25.0	24.9		ug/L		100	60 - 141
1,1-Dichloroethene	ND		25.0	25.2		ug/L		101	54 - 147
1,2-Dichloropropane	ND		25.0	24.3		ug/L		97	66 - 137
1,3-Dichloropropane	ND		25.0	23.2		ug/L		93	66 - 133
2,2-Dichloropropane	ND		25.0	23.6		ug/L		94	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244680-3 MS
Matrix: Water
Analysis Batch: 645916

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	ND		25.0	23.9		ug/L		96	65 - 136
Ethylbenzene	ND		25.0	25.7		ug/L		103	58 - 131
Ethyl methacrylate	ND		25.0	23.0		ug/L		92	64 - 130
Hexachlorobutadiene	ND		25.0	24.7		ug/L		99	31 - 149
2-Hexanone	ND		100	105		ug/L		105	65 - 140
Isopropylbenzene	ND		25.0	25.5		ug/L		102	56 - 133
Methylene bromide	ND		25.0	24.4		ug/L		98	63 - 138
Methylene Chloride	ND		25.0	25.6		ug/L		102	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		100	105		ug/L		105	63 - 146
Methyl tert-butyl ether	ND		25.0	23.6		ug/L		94	59 - 137
m-Xylene & p-Xylene	ND		25.0	27.4		ug/L		110	57 - 130
Naphthalene	ND		25.0	23.5		ug/L		94	25 - 150
n-Butylbenzene	ND		25.0	32.6		ug/L		131	41 - 142
N-Propylbenzene	ND		25.0	24.5		ug/L		98	51 - 138
o-Chlorotoluene	ND		25.0	29.2		ug/L		117	53 - 134
o-Xylene	ND		25.0	25.4		ug/L		102	61 - 130
p-Chlorotoluene	ND		25.0	24.6		ug/L		98	54 - 133
p-Isopropyltoluene	ND		25.0	25.5		ug/L		102	48 - 139
sec-Butylbenzene	ND		25.0	25.3		ug/L		101	50 - 138
Styrene	ND		25.0	23.5		ug/L		94	58 - 131
tert-Butylbenzene	ND		25.0	24.6		ug/L		98	54 - 146
1,1,1,2-Tetrachloroethane	ND		25.0	20.5		ug/L		82	59 - 137
1,1,2,2-Tetrachloroethane	ND		25.0	21.6		ug/L		87	66 - 135
Tetrachloroethene	ND		25.0	21.8		ug/L		87	52 - 133
Toluene	ND		25.0	23.4		ug/L		93	65 - 130
trans-1,2-Dichloroethene	ND		25.0	24.5		ug/L		98	61 - 143
trans-1,3-Dichloropropene	ND		25.0	22.1		ug/L		88	53 - 133
1,2,3-Trichlorobenzene	ND		25.0	24.2		ug/L		97	43 - 145
1,2,4-Trichlorobenzene	ND		25.0	24.9		ug/L		100	39 - 148
1,1,1-Trichloroethane	ND		25.0	23.3		ug/L		93	57 - 142
1,1,2-Trichloroethane	ND		25.0	22.7		ug/L		91	66 - 131
Trichloroethene	ND		25.0	22.6		ug/L		90	64 - 136
Trichlorofluoromethane	ND		50.0	49.8		ug/L		100	54 - 150
1,2,3-Trichloropropane	ND		25.0	21.7		ug/L		87	65 - 133
1,2,4-Trimethylbenzene	ND		25.0	26.1		ug/L		104	50 - 139
1,3,5-Trimethylbenzene	ND		25.0	25.9		ug/L		104	52 - 135
Vinyl acetate	ND		100	126		ug/L		126	26 - 150
Vinyl chloride	ND		50.0	53.3		ug/L		107	46 - 150
Xylenes, Total	ND		50.0	52.8		ug/L		106	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 130*
Dibromofluoromethane	*108*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244680-3 MSD
Matrix: Water
Analysis Batch: 645916

Client Sample ID: MW11-ROX-100623
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	100	218	F1	ug/L		218	43 - 150	17	30
Acrolein	ND		500	529		ug/L		106	38 - 150	3	31
Acrylonitrile	ND		250	297		ug/L		119	62 - 149	10	30
Benzene	ND		25.0	26.1		ug/L		105	56 - 142	10	30
Bromobenzene	ND		25.0	25.0		ug/L		100	59 - 136	9	30
Bromochloromethane	ND		25.0	26.2		ug/L		105	64 - 140	8	30
Bromodichloromethane	ND		25.0	24.5		ug/L		98	59 - 143	12	30
Bromoform	ND		25.0	21.3		ug/L		85	50 - 140	12	30
Bromomethane	ND		50.0	44.8		ug/L		90	10 - 150	2	50
2-Butanone (MEK)	ND	F1	100	168	F1	ug/L		168	55 - 150	16	30
Carbon disulfide	ND		25.0	27.7		ug/L		111	48 - 150	7	30
Carbon tetrachloride	ND		25.0	25.6		ug/L		102	55 - 145	11	30
Chlorobenzene	ND		25.0	26.1		ug/L		105	64 - 130	9	30
Chloroethane	ND		50.0	53.3		ug/L		107	50 - 150	0	30
2-Chloroethyl vinyl ether	ND	F2 F1	50.0	2.31	J F2 F1	ug/L		5	10 - 150	139	50
Chloroform	ND		25.0	27.4		ug/L		109	60 - 141	10	30
1-Chlorohexane	ND		25.0	27.8		ug/L		111	56 - 136	8	30
Chloromethane	ND		50.0	52.0		ug/L		104	49 - 148	2	31
cis-1,2-Dichloroethene	ND		25.0	27.6		ug/L		110	59 - 143	8	30
cis-1,3-Dichloropropene	ND		25.0	24.7		ug/L		99	57 - 140	9	30
Dibromochloromethane	ND		25.0	22.6		ug/L		91	56 - 143	11	30
1,2-Dichlorobenzene	ND		25.0	25.6		ug/L		102	52 - 137	7	30
1,3-Dichlorobenzene	ND		25.0	25.9		ug/L		104	54 - 135	8	30
1,4-Dichlorobenzene	ND		25.0	25.8		ug/L		103	53 - 135	8	30
Dichlorodifluoromethane	ND		50.0	48.3		ug/L		97	16 - 150	0	31
1,1-Dichloroethane	ND		25.0	27.5		ug/L		110	61 - 144	9	30
1,2-Dichloroethane	ND		25.0	27.3		ug/L		109	60 - 141	9	30
1,1-Dichloroethene	ND		25.0	27.2		ug/L		109	54 - 147	8	30
1,2-Dichloropropane	ND		25.0	26.8		ug/L		107	66 - 137	10	30
1,3-Dichloropropane	ND		25.0	25.1		ug/L		100	66 - 133	8	30
2,2-Dichloropropane	ND		25.0	26.1		ug/L		104	42 - 144	10	31
1,1-Dichloropropene	ND		25.0	26.8		ug/L		107	65 - 136	11	30
Ethylbenzene	ND		25.0	27.3		ug/L		109	58 - 131	6	30
Ethyl methacrylate	ND		25.0	25.4		ug/L		102	64 - 130	10	30
Hexachlorobutadiene	ND		25.0	26.9		ug/L		108	31 - 149	8	36
2-Hexanone	ND		100	118		ug/L		118	65 - 140	12	30
Isopropylbenzene	ND		25.0	28.2		ug/L		113	56 - 133	10	30
Methylene bromide	ND		25.0	26.8		ug/L		107	63 - 138	9	30
Methylene Chloride	ND		25.0	27.9		ug/L		112	60 - 146	9	32
4-Methyl-2-pentanone (MIBK)	ND		100	117		ug/L		117	63 - 146	11	30
Methyl tert-butyl ether	ND		25.0	25.7		ug/L		103	59 - 137	9	30
m-Xylene & p-Xylene	ND		25.0	28.1		ug/L		112	57 - 130	2	30
Naphthalene	ND		25.0	26.0		ug/L		104	25 - 150	10	30
n-Butylbenzene	ND		25.0	34.4		ug/L		138	41 - 142	5	31
N-Propylbenzene	ND		25.0	26.6		ug/L		106	51 - 138	8	30
o-Chlorotoluene	ND		25.0	31.2		ug/L		125	53 - 134	7	30
o-Xylene	ND		25.0	27.7		ug/L		111	61 - 130	9	30
p-Chlorotoluene	ND		25.0	26.4		ug/L		106	54 - 133	7	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244680-3 MSD
Matrix: Water
Analysis Batch: 645916

Client Sample ID: MW11-ROX-100623
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		25.0	27.4		ug/L		110	48 - 139	7	30
sec-Butylbenzene	ND		25.0	27.7		ug/L		111	50 - 138	9	30
Styrene	ND		25.0	25.3		ug/L		101	58 - 131	7	30
tert-Butylbenzene	ND		25.0	26.9		ug/L		107	54 - 146	9	30
1,1,1,2-Tetrachloroethane	ND		25.0	22.9		ug/L		92	59 - 137	11	30
1,1,2,2-Tetrachloroethane	ND		25.0	24.1		ug/L		97	66 - 135	11	30
Tetrachloroethene	ND		25.0	24.6		ug/L		98	52 - 133	12	30
Toluene	ND		25.0	26.0		ug/L		104	65 - 130	11	30
trans-1,2-Dichloroethene	ND		25.0	27.3		ug/L		109	61 - 143	11	30
trans-1,3-Dichloropropene	ND		25.0	24.5		ug/L		98	53 - 133	10	30
1,2,3-Trichlorobenzene	ND		25.0	26.5		ug/L		106	43 - 145	9	30
1,2,4-Trichlorobenzene	ND		25.0	27.0		ug/L		108	39 - 148	8	30
1,1,1-Trichloroethane	ND		25.0	26.1		ug/L		104	57 - 142	11	30
1,1,2-Trichloroethane	ND		25.0	25.3		ug/L		101	66 - 131	11	30
Trichloroethene	ND		25.0	25.4		ug/L		102	64 - 136	12	30
Trichlorofluoromethane	ND		50.0	50.3		ug/L		101	54 - 150	1	30
1,2,3-Trichloropropane	ND		25.0	24.1		ug/L		96	65 - 133	10	30
1,2,4-Trimethylbenzene	ND		25.0	27.1		ug/L		108	50 - 139	4	30
1,3,5-Trimethylbenzene	ND		25.0	27.7		ug/L		111	52 - 135	6	30
Vinyl acetate	ND		100	128		ug/L		128	26 - 150	2	33
Vinyl chloride	ND		50.0	54.4		ug/L		109	46 - 150	2	30
Xylenes, Total	ND		50.0	55.8		ug/L		112	59 - 130	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 130*
Dibromofluoromethane	*109*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Lab Sample ID: 400-244680-5 MS
Matrix: Water
Analysis Batch: 645916

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	11	J F1	100	207	F1	ug/L		196	43 - 150
Acrolein	ND		500	554		ug/L		111	38 - 150
Acrylonitrile	ND		250	283		ug/L		113	62 - 149
Benzene	ND		25.0	23.9		ug/L		96	56 - 142
Bromobenzene	ND		25.0	23.5		ug/L		94	59 - 136
Bromochloromethane	ND		25.0	24.4		ug/L		98	64 - 140
Bromodichloromethane	ND		25.0	22.5		ug/L		90	59 - 143
Bromoform	ND		25.0	18.6		ug/L		74	50 - 140
Bromomethane	ND		50.0	49.3		ug/L		99	10 - 150
2-Butanone (MEK)	ND	F1	100	152	F1	ug/L		152	55 - 150
Carbon disulfide	ND		25.0	27.1		ug/L		108	48 - 150
Carbon tetrachloride	ND		25.0	23.7		ug/L		95	55 - 145
Chlorobenzene	ND		25.0	24.2		ug/L		97	64 - 130
Chloroethane	ND		50.0	57.2		ug/L		114	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244680-5 MS
Matrix: Water
Analysis Batch: 645916

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	ND		25.0	25.5		ug/L		102	60 - 141
1-Chlorohexane	ND		25.0	26.5		ug/L		106	56 - 136
Chloromethane	ND		50.0	56.1		ug/L		112	49 - 148
cis-1,2-Dichloroethene	ND		25.0	26.2		ug/L		105	59 - 143
cis-1,3-Dichloropropene	ND		25.0	21.7		ug/L		87	57 - 140
Dibromochloromethane	ND		25.0	19.6		ug/L		78	56 - 143
1,2-Dichlorobenzene	ND		25.0	24.2		ug/L		97	52 - 137
1,3-Dichlorobenzene	ND		25.0	24.6		ug/L		98	54 - 135
1,4-Dichlorobenzene	ND		25.0	24.2		ug/L		97	53 - 135
Dichlorodifluoromethane	ND		50.0	53.4		ug/L		107	16 - 150
1,1-Dichloroethane	ND		25.0	26.2		ug/L		105	61 - 144
1,2-Dichloroethane	ND		25.0	25.4		ug/L		102	60 - 141
1,1-Dichloroethene	ND		25.0	26.3		ug/L		105	54 - 147
1,2-Dichloropropane	ND		25.0	24.2		ug/L		97	66 - 137
1,3-Dichloropropane	ND		25.0	22.4		ug/L		90	66 - 133
2,2-Dichloropropane	ND		25.0	24.7		ug/L		99	42 - 144
1,1-Dichloropropene	ND		25.0	24.7		ug/L		99	65 - 136
Ethylbenzene	ND		25.0	26.1		ug/L		104	58 - 131
Ethyl methacrylate	ND		25.0	21.7		ug/L		87	64 - 130
Hexachlorobutadiene	ND		25.0	26.6		ug/L		106	31 - 149
2-Hexanone	ND		100	107		ug/L		107	65 - 140
Isopropylbenzene	ND		25.0	26.2		ug/L		105	56 - 133
Methylene bromide	ND		25.0	24.6		ug/L		98	63 - 138
Methylene Chloride	ND		25.0	26.3		ug/L		105	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		100	107		ug/L		107	63 - 146
Methyl tert-butyl ether	ND		25.0	22.9		ug/L		91	59 - 137
m-Xylene & p-Xylene	ND		25.0	26.5		ug/L		106	57 - 130
Naphthalene	ND		25.0	23.4		ug/L		94	25 - 150
n-Butylbenzene	ND		25.0	34.0		ug/L		136	41 - 142
N-Propylbenzene	ND		25.0	25.0		ug/L		100	51 - 138
o-Chlorotoluene	ND		25.0	30.1		ug/L		120	53 - 134
o-Xylene	ND		25.0	25.6		ug/L		102	61 - 130
p-Chlorotoluene	ND		25.0	25.4		ug/L		102	54 - 133
p-Isopropyltoluene	ND		25.0	27.1		ug/L		108	48 - 139
sec-Butylbenzene	ND		25.0	27.0		ug/L		108	50 - 138
Styrene	ND		25.0	23.2		ug/L		93	58 - 131
tert-Butylbenzene	ND		25.0	25.7		ug/L		103	54 - 146
1,1,1,2-Tetrachloroethane	ND		25.0	20.4		ug/L		82	59 - 137
1,1,2,2-Tetrachloroethane	ND		25.0	21.2		ug/L		85	66 - 135
Tetrachloroethene	ND		25.0	22.3		ug/L		89	52 - 133
Toluene	ND		25.0	23.8		ug/L		95	65 - 130
trans-1,2-Dichloroethene	ND		25.0	25.4		ug/L		102	61 - 143
trans-1,3-Dichloropropene	ND		25.0	20.9		ug/L		84	53 - 133
1,2,3-Trichlorobenzene	ND		25.0	24.5		ug/L		98	43 - 145
1,2,4-Trichlorobenzene	ND		25.0	24.7		ug/L		99	39 - 148
1,1,1-Trichloroethane	ND		25.0	24.5		ug/L		98	57 - 142
1,1,2-Trichloroethane	ND		25.0	22.2		ug/L		89	66 - 131
Trichloroethene	ND		25.0	23.4		ug/L		93	64 - 136
Trichlorofluoromethane	ND		50.0	55.0		ug/L		110	54 - 150

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244680-5 MS
Matrix: Water
Analysis Batch: 645916

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	ND		25.0	21.5		ug/L		86	65 - 133
1,2,4-Trimethylbenzene	ND		25.0	25.9		ug/L		104	50 - 139
1,3,5-Trimethylbenzene	ND		25.0	26.4		ug/L		106	52 - 135
Vinyl acetate	ND		100	123		ug/L		123	26 - 150
Vinyl chloride	ND		50.0	58.4		ug/L		117	46 - 150
Xylenes, Total	ND		50.0	52.1		ug/L		104	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 130*
Dibromofluoromethane	*111*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: 400-244680-5 MSD
Matrix: Water
Analysis Batch: 645916

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	11	J F1	100	201	F1	ug/L		190	43 - 150	3	30
Acrolein	ND		500	529		ug/L		106	38 - 150	5	31
Acrylonitrile	ND		250	282		ug/L		113	62 - 149	1	30
Benzene	ND		25.0	24.1		ug/L		96	56 - 142	1	30
Bromobenzene	ND		25.0	23.4		ug/L		94	59 - 136	0	30
Bromochloromethane	ND		25.0	23.9		ug/L		96	64 - 140	2	30
Bromodichloromethane	ND		25.0	22.5		ug/L		90	59 - 143	0	30
Bromoform	ND		25.0	19.8		ug/L		79	50 - 140	6	30
Bromomethane	ND		50.0	44.4		ug/L		89	10 - 150	10	50
2-Butanone (MEK)	ND	F1	100	154	F1	ug/L		154	55 - 150	1	30
Carbon disulfide	ND		25.0	26.6		ug/L		106	48 - 150	2	30
Carbon tetrachloride	ND		25.0	23.7		ug/L		95	55 - 145	0	30
Chlorobenzene	ND		25.0	24.6		ug/L		99	64 - 130	2	30
Chloroethane	ND		50.0	54.4		ug/L		109	50 - 150	5	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		25.0	25.3		ug/L		101	60 - 141	1	30
1-Chlorohexane	ND		25.0	26.9		ug/L		108	56 - 136	1	30
Chloromethane	ND		50.0	53.1		ug/L		106	49 - 148	6	31
cis-1,2-Dichloroethene	ND		25.0	25.9		ug/L		104	59 - 143	1	30
cis-1,3-Dichloropropene	ND		25.0	22.2		ug/L		89	57 - 140	2	30
Dibromochloromethane	ND		25.0	20.3		ug/L		81	56 - 143	4	30
1,2-Dichlorobenzene	ND		25.0	24.5		ug/L		98	52 - 137	1	30
1,3-Dichlorobenzene	ND		25.0	24.3		ug/L		97	54 - 135	1	30
1,4-Dichlorobenzene	ND		25.0	24.6		ug/L		98	53 - 135	1	30
Dichlorodifluoromethane	ND		50.0	50.2		ug/L		100	16 - 150	6	31
1,1-Dichloroethane	ND		25.0	25.9		ug/L		104	61 - 144	1	30
1,2-Dichloroethane	ND		25.0	25.0		ug/L		100	60 - 141	2	30
1,1-Dichloroethene	ND		25.0	26.2		ug/L		105	54 - 147	0	30
1,2-Dichloropropane	ND		25.0	24.3		ug/L		97	66 - 137	1	30
1,3-Dichloropropane	ND		25.0	23.3		ug/L		93	66 - 133	4	30
2,2-Dichloropropane	ND		25.0	24.9		ug/L		100	42 - 144	1	31

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244680-5 MSD
Matrix: Water
Analysis Batch: 645916

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloropropene	ND		25.0	24.9		ug/L		99	65 - 136	1	30
Ethylbenzene	ND		25.0	26.4		ug/L		105	58 - 131	1	30
Ethyl methacrylate	ND		25.0	23.0		ug/L		92	64 - 130	6	30
Hexachlorobutadiene	ND		25.0	26.0		ug/L		104	31 - 149	2	36
2-Hexanone	ND		100	113		ug/L		113	65 - 140	5	30
Isopropylbenzene	ND		25.0	26.7		ug/L		107	56 - 133	2	30
Methylene bromide	ND		25.0	24.3		ug/L		97	63 - 138	1	30
Methylene Chloride	ND		25.0	25.7		ug/L		103	60 - 146	2	32
4-Methyl-2-pentanone (MIBK)	ND		100	110		ug/L		110	63 - 146	3	30
Methyl tert-butyl ether	ND		25.0	23.6		ug/L		94	59 - 137	3	30
m-Xylene & p-Xylene	ND		25.0	26.7		ug/L		107	57 - 130	1	30
Naphthalene	ND		25.0	24.3		ug/L		97	25 - 150	4	30
n-Butylbenzene	ND		25.0	34.6		ug/L		138	41 - 142	2	31
N-Propylbenzene	ND		25.0	25.8		ug/L		103	51 - 138	3	30
o-Chlorotoluene	ND		25.0	30.8		ug/L		123	53 - 134	2	30
o-Xylene	ND		25.0	25.9		ug/L		103	61 - 130	1	30
p-Chlorotoluene	ND		25.0	25.7		ug/L		103	54 - 133	1	30
p-Isopropyltoluene	ND		25.0	27.0		ug/L		108	48 - 139	0	30
sec-Butylbenzene	ND		25.0	27.6		ug/L		110	50 - 138	2	30
Styrene	ND		25.0	23.6		ug/L		95	58 - 131	2	30
tert-Butylbenzene	ND		25.0	26.2		ug/L		105	54 - 146	2	30
1,1,1,2-Tetrachloroethane	ND		25.0	20.8		ug/L		83	59 - 137	2	30
1,1,2,2-Tetrachloroethane	ND		25.0	22.3		ug/L		89	66 - 135	5	30
Tetrachloroethene	ND		25.0	23.4		ug/L		94	52 - 133	5	30
Toluene	ND		25.0	24.3		ug/L		97	65 - 130	2	30
trans-1,2-Dichloroethene	ND		25.0	25.4		ug/L		101	61 - 143	0	30
trans-1,3-Dichloropropene	ND		25.0	22.5		ug/L		90	53 - 133	7	30
1,2,3-Trichlorobenzene	ND		25.0	24.8		ug/L		99	43 - 145	1	30
1,2,4-Trichlorobenzene	ND		25.0	25.1		ug/L		101	39 - 148	2	30
1,1,1-Trichloroethane	ND		25.0	24.8		ug/L		99	57 - 142	1	30
1,1,2-Trichloroethane	ND		25.0	23.3		ug/L		93	66 - 131	5	30
Trichloroethene	ND		25.0	23.8		ug/L		95	64 - 136	2	30
Trichlorofluoromethane	ND		50.0	51.9		ug/L		104	54 - 150	6	30
1,2,3-Trichloropropane	ND		25.0	23.5		ug/L		94	65 - 133	9	30
1,2,4-Trimethylbenzene	ND		25.0	25.9		ug/L		104	50 - 139	0	30
1,3,5-Trimethylbenzene	ND		25.0	26.8		ug/L		107	52 - 135	1	30
Vinyl acetate	ND		100	125		ug/L		125	26 - 150	2	33
Vinyl chloride	ND		50.0	54.7		ug/L		109	46 - 150	7	30
Xylenes, Total	ND		50.0	52.6		ug/L		105	59 - 130	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 130*
Dibromofluoromethane	*108*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646459/3
Matrix: Water
Analysis Batch: 646459

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			10/20/23 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/20/23 11:52*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/20/23 11:52*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/20/23 11:52*	*1*

Lab Sample ID: LCS 400-646459/1001
Matrix: Water
Analysis Batch: 646459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acetone			100	92.1		ug/L		92	43 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 130*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

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

Lab Sample ID: MB 400-644642/1-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/09/23 10:09	10/11/23 18:18	1
Benzenethiol	ND		10	1.7	ug/L		10/09/23 10:09	10/11/23 18:18	1
Benzoic acid	ND		30	7.3	ug/L		10/09/23 10:09	10/11/23 18:18	1
Benzyl alcohol	ND		10	2.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/09/23 10:09	10/11/23 18:18	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/09/23 10:09	10/11/23 18:18	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/09/23 10:09	10/11/23 18:18	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/09/23 10:09	10/11/23 18:18	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Chloroaniline	ND		10	3.4	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Chlorophenol	ND		10	2.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Dibenzofuran	ND		10	0.17	ug/L		10/09/23 10:09	10/11/23 18:18	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Diethyl phthalate	ND		10	0.24	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/09/23 10:09	10/11/23 18:18	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/09/23 10:09	10/11/23 18:18	1

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

Lab Sample ID: MB 400-644642/1-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/09/23 10:09	10/11/23 18:18	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/09/23 10:09	10/11/23 18:18	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/09/23 10:09	10/11/23 18:18	1
1,4-Dioxane	ND		10	1.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/09/23 10:09	10/11/23 18:18	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/09/23 10:09	10/11/23 18:18	1
Hexachloroethane	ND		10	4.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
Indene	ND		10	1.0	ug/L		10/09/23 10:09	10/11/23 18:18	1
Isophorone	ND		10	0.14	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Methylphenol	ND		10	1.8	ug/L		10/09/23 10:09	10/11/23 18:18	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Nitroaniline	ND		10	2.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
3-Nitroaniline	ND		10	1.8	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Nitroaniline	ND		10	1.5	ug/L		10/09/23 10:09	10/11/23 18:18	1
Nitrobenzene	ND		10	0.13	ug/L		10/09/23 10:09	10/11/23 18:18	1
2-Nitrophenol	ND		10	5.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
4-Nitrophenol	ND		10	2.1	ug/L		10/09/23 10:09	10/11/23 18:18	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/09/23 10:09	10/11/23 18:18	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/09/23 10:09	10/11/23 18:18	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/09/23 10:09	10/11/23 18:18	1
Pentachlorophenol	ND		20	1.4	ug/L		10/09/23 10:09	10/11/23 18:18	1
Phenol	ND		10	2.6	ug/L		10/09/23 10:09	10/11/23 18:18	1
Pyridine	ND		10	3.2	ug/L		10/09/23 10:09	10/11/23 18:18	1
Quinoline	ND		10	4.5	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/09/23 10:09	10/11/23 18:18	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/09/23 10:09	10/11/23 18:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
2-Fluorophenol	*26*		*13 - 113*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
Nitrobenzene-d5	*62*		*36 - 126*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
Phenol-d5	*41*		*17 - 127*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
Terphenyl-d14	*90*		*44 - 149*	*10/09/23 10:09*	*10/11/23 18:18*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*10/09/23 10:09*	*10/11/23 18:18*	*1*

Lab Sample ID: LCS 400-644642/2-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	66.6		ug/L		56	21 - 120
Benzoic acid	522	203		ug/L		39	10 - 144
Benzyl alcohol	120	86.9		ug/L		72	28 - 120
Bis(2-chloroethoxy)methane	120	68.0		ug/L		57	47 - 120

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

Lab Sample ID: LCS 400-644642/2-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-chloroethyl)ether	120	79.5		ug/L		66	44 - 120
bis (2-chloroisopropyl) ether	120	58.1		ug/L		48	33 - 121
Bis(2-ethylhexyl) phthalate	120	99.1		ug/L		83	52 - 147
4-Bromophenyl phenyl ether	120	106		ug/L		88	54 - 122
Butyl benzyl phthalate	120	99.4		ug/L		83	54 - 133
4-Chloroaniline	120	77.6		ug/L		65	26 - 120
4-Chloro-3-methylphenol	120	92.5		ug/L		77	48 - 131
2-Chloronaphthalene	120	100		ug/L		83	52 - 121
2-Chlorophenol	120	73.7		ug/L		61	40 - 120
4-Chlorophenyl phenyl ether	120	101		ug/L		84	56 - 125
Dibenz[a,h]acridine	120	102		ug/L		85	31 - 150
Dibenzofuran	120	93.3		ug/L		78	56 - 122
3,3'-Dichlorobenzidine	160	136		ug/L		85	36 - 132
2,4-Dichlorophenol	120	88.3		ug/L		74	49 - 120
Diethyl phthalate	120	111		ug/L		93	50 - 137
2,4-Dimethylphenol	120	94.4		ug/L		79	48 - 120
Dimethyl phthalate	120	95.0		ug/L		79	57 - 124
Di-n-butyl phthalate	120	108		ug/L		90	58 - 126
4,6-Dinitro-ortho-cresol	240	223		ug/L		93	23 - 148
2,4-Dinitrophenol	240	191		ug/L		80	10 - 150
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142
2,6-Dinitrotoluene	120	96.8		ug/L		81	55 - 130
Di-n-octyl phthalate	120	103		ug/L		86	57 - 138
1,4-Dioxane	120	44.8		ug/L		37	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	86.1		ug/L		72	45 - 124
Hexachlorobenzene	120	108		ug/L		90	52 - 129
Hexachlorocyclopentadiene	120	61.1		ug/L		51	10 - 134
Hexachloroethane	120	86.5		ug/L		72	20 - 120
Indene	120	72.8		ug/L		61	49 - 120
Isophorone	120	73.1		ug/L		61	48 - 120
2-Methylphenol	120	84.9		ug/L		71	46 - 124
3 & 4 Methylphenol	120	84.0		ug/L		70	45 - 120
2-Nitroaniline	120	90.3		ug/L		75	51 - 145
3-Nitroaniline	120	83.1		ug/L		69	37 - 127
4-Nitroaniline	120	107		ug/L		89	36 - 137
Nitrobenzene	120	72.9		ug/L		61	45 - 120
2-Nitrophenol	120	91.0		ug/L		76	40 - 124
4-Nitrophenol	240	272		ug/L		113	23 - 146
N-Nitrosodimethylamine	120	104		ug/L		86	29 - 137
N-Nitrosodi-n-propylamine	120	88.8		ug/L		74	45 - 120
N-Nitrosodiphenylamine	119	98.1		ug/L		82	54 - 120
Pentachlorophenol	240	198		ug/L		82	31 - 130
Phenol	120	64.1		ug/L		53	11 - 120
Pyridine	240	114		ug/L		47	16 - 120
Quinoline	120	88.8		ug/L		74	49 - 130
2,4,5-Trichlorophenol	120	103		ug/L		86	51 - 136
2,4,6-Trichlorophenol	120	97.7		ug/L		81	50 - 127

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

Lab Sample ID: LCS 400-644642/2-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	78		46 - 124
2-Fluorophenol	36		13 - 113
Nitrobenzene-d5	77		36 - 126
Phenol-d5	52		17 - 127
Terphenyl-d14	84		44 - 149
2,4,6-Tribromophenol	86		26 - 150

Lab Sample ID: LCS 400-644642/4-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	2.29	J *-	ug/L		2	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	84		46 - 124
2-Fluorophenol	37		13 - 113
Nitrobenzene-d5	64		36 - 126
Phenol-d5	51		17 - 127
Terphenyl-d14	92		44 - 149
2,4,6-Tribromophenol	84		26 - 150

Lab Sample ID: LCSD 400-644642/5-A
Matrix: Water
Analysis Batch: 645101

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	1.92	J *-	ug/L		2	10 - 120	18	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	85		46 - 124
2-Fluorophenol	33		13 - 113
Nitrobenzene-d5	66		36 - 126
Phenol-d5	51		17 - 127
Terphenyl-d14	99		44 - 149
2,4,6-Tribromophenol	67		26 - 150

Lab Sample ID: 400-244680-3 MS
Matrix: Water
Analysis Batch: 645101

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		69.5	49.8		ug/L		72	10 - 120
Benzoic acid	ND		302	83.3		ug/L		28	10 - 149
Benzyl alcohol	ND		69.5	46.1		ug/L		66	33 - 120
Bis(2-chloroethoxy)methane	ND		69.5	37.9		ug/L		54	26 - 120
Bis(2-chloroethyl)ether	ND		69.5	48.0		ug/L		69	42 - 120
bis (2-chloroisopropyl) ether	ND		69.5	30.1		ug/L		43	28 - 120

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

Lab Sample ID: 400-244680-3 MS
Matrix: Water
Analysis Batch: 645101

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate	ND		69.5	52.5		ug/L		76	39 - 120
4-Bromophenyl phenyl ether	ND		69.5	55.4		ug/L		80	40 - 120
Butyl benzyl phthalate	ND		69.5	52.3		ug/L		75	45 - 120
4-Chloroaniline	ND		69.5	43.6		ug/L		63	10 - 120
4-Chloro-3-methylphenol	ND		69.5	45.6		ug/L		66	34 - 120
2-Chloronaphthalene	ND		69.5	51.5		ug/L		74	39 - 120
2-Chlorophenol	ND		69.5	32.2		ug/L		46	25 - 120
4-Chlorophenyl phenyl ether	ND		69.5	54.1		ug/L		78	44 - 120
Dibenz[a,h]acridine	ND		34.7	29.1		ug/L		84	50 - 150
Dibenzofuran	ND		69.5	51.2		ug/L		74	25 - 130
3,3'-Dichlorobenzidine	ND		92.7	64.8		ug/L		70	10 - 120
2,4-Dichlorophenol	ND		69.5	44.6		ug/L		64	31 - 120
Diethyl phthalate	ND		69.5	57.9		ug/L		83	46 - 120
2,4-Dimethylphenol	ND		69.5	51.1		ug/L		74	21 - 120
Dimethyl phthalate	ND		69.5	51.2		ug/L		74	38 - 120
Di-n-butyl phthalate	ND		69.5	55.2		ug/L		79	49 - 120
4,6-Dinitro-ortho-cresol	ND		139	114		ug/L		82	25 - 120
2,4-Dinitrophenol	ND		139	86.5		ug/L		62	15 - 140
2,4-Dinitrotoluene	ND		69.5	55.6		ug/L		80	53 - 120
2,6-Dinitrotoluene	ND		69.5	51.3		ug/L		74	43 - 120
Di-n-octyl phthalate	ND		69.5	51.6		ug/L		74	35 - 121
1,4-Dioxane	ND	F1	69.5	23.8	F1	ug/L		34	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		69.5	46.3		ug/L		67	50 - 150
Hexachlorobenzene	ND		69.5	56.8		ug/L		82	38 - 122
Hexachlorocyclopentadiene	ND		69.5	29.4		ug/L		42	10 - 120
Hexachloroethane	ND		69.5	38.9		ug/L		56	10 - 150
Indene	ND		69.5	36.5		ug/L		52	50 - 150
Isophorone	ND		69.5	40.0		ug/L		58	42 - 120
2-Methylphenol	ND		69.5	39.5		ug/L		57	28 - 120
3 & 4 Methylphenol	ND		69.5	39.2		ug/L		56	31 - 120
2-Nitroaniline	ND		69.5	48.5		ug/L		70	45 - 120
3-Nitroaniline	ND		69.5	42.8		ug/L		62	10 - 130
4-Nitroaniline	ND		69.5	56.1		ug/L		81	10 - 132
Nitrobenzene	ND		69.5	43.6		ug/L		63	39 - 120
2-Nitrophenol	ND		69.5	46.2		ug/L		67	33 - 120
4-Nitrophenol	ND		139	142		ug/L		102	10 - 120
N-Nitrosodimethylamine	ND		69.5	60.9		ug/L		88	10 - 139
N-Nitrosodi-n-propylamine	ND		69.5	44.9		ug/L		65	37 - 124
N-Nitrosodiphenylamine	ND		69.0	52.9		ug/L		77	10 - 150
Pentachlorophenol	ND		139	99.2		ug/L		71	29 - 130
Phenol	ND		69.5	29.6		ug/L		43	10 - 150
Pyridine	ND		139	61.5		ug/L		44	10 - 120
Quinoline	ND		34.7	24.2		ug/L		70	51 - 120
2,4,5-Trichlorophenol	ND		69.5	53.9		ug/L		78	34 - 120
2,4,6-Trichlorophenol	ND		69.5	50.0		ug/L		72	33 - 120

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

Lab Sample ID: 400-244680-3 MS
Matrix: Water
Analysis Batch: 645101

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*23*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*76*		*44 - 149*
2,4,6-Tribromophenol	*81*		*26 - 150*

Lab Sample ID: 400-244680-3 MSD
Matrix: Water
Analysis Batch: 645101

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		69.7	47.8		ug/L		69	10 - 120	4	63
Benzoic acid	ND		303	94.0		ug/L		31	10 - 149	12	49
Benzyl alcohol	ND		69.7	43.7		ug/L		63	33 - 120	5	37
Bis(2-chloroethoxy)methane	ND		69.7	36.6		ug/L		52	26 - 120	4	70
Bis(2-chloroethyl)ether	ND		69.7	37.6		ug/L		54	42 - 120	24	42
bis (2-chloroisopropyl) ether	ND		69.7	29.2		ug/L		42	28 - 120	3	41
Bis(2-ethylhexyl) phthalate	ND		69.7	51.0		ug/L		73	39 - 120	3	35
4-Bromophenyl phenyl ether	ND		69.7	51.5		ug/L		74	40 - 120	7	30
Butyl benzyl phthalate	ND		69.7	52.5		ug/L		75	45 - 120	0	32
4-Chloroaniline	ND		69.7	41.3		ug/L		59	10 - 120	5	94
4-Chloro-3-methylphenol	ND		69.7	44.3		ug/L		64	34 - 120	3	40
2-Chloronaphthalene	ND		69.7	49.0		ug/L		70	39 - 120	5	29
2-Chlorophenol	ND		69.7	34.7		ug/L		50	25 - 120	8	42
4-Chlorophenyl phenyl ether	ND		69.7	49.0		ug/L		70	44 - 120	10	27
Dibenz[a,h]acridine	ND		34.7	23.9		ug/L		69	50 - 150	19	40
Dibenzofuran	ND		69.7	48.8		ug/L		70	25 - 130	5	29
3,3'-Dichlorobenzidine	ND		92.9	56.5		ug/L		61	10 - 120	14	58
2,4-Dichlorophenol	ND		69.7	44.7		ug/L		64	31 - 120	0	43
Diethyl phthalate	ND		69.7	54.4		ug/L		78	46 - 120	6	40
2,4-Dimethylphenol	ND		69.7	50.9		ug/L		73	21 - 120	0	47
Dimethyl phthalate	ND		69.7	49.0		ug/L		70	38 - 120	5	36
Di-n-butyl phthalate	ND		69.7	50.9		ug/L		73	49 - 120	8	32
4,6-Dinitro-ortho-cresol	ND		139	109		ug/L		78	25 - 120	5	42
2,4-Dinitrophenol	ND		139	89.2		ug/L		64	15 - 140	3	36
2,4-Dinitrotoluene	ND		69.7	52.7		ug/L		76	53 - 120	5	28
2,6-Dinitrotoluene	ND		69.7	49.7		ug/L		71	43 - 120	3	28
Di-n-octyl phthalate	ND		69.7	48.8		ug/L		70	35 - 121	6	35
1,4-Dioxane	ND	F1	69.7	24.1	F1	ug/L		35	50 - 150	1	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		69.7	43.7		ug/L		63	50 - 150	6	40
Hexachlorobenzene	ND		69.7	53.2		ug/L		76	38 - 122	7	33
Hexachlorocyclopentadiene	ND		69.7	25.7		ug/L		37	10 - 120	14	50
Hexachloroethane	ND		69.7	38.4		ug/L		55	10 - 150	1	41
Indene	ND		69.7	34.5		ug/L		50	50 - 150	6	40
Isophorone	ND		69.7	39.5		ug/L		57	42 - 120	1	33
2-Methylphenol	ND		69.7	40.8		ug/L		59	28 - 120	3	47
3 & 4 Methylphenol	ND		69.7	39.8		ug/L		57	31 - 120	2	47

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

Lab Sample ID: 400-244680-3 MSD
Matrix: Water
Analysis Batch: 645101

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitroaniline	ND		69.7	44.7		ug/L		64	45 - 120	8	33
3-Nitroaniline	ND		69.7	37.9		ug/L		54	10 - 130	12	39
4-Nitroaniline	ND		69.7	48.9		ug/L		70	10 - 132	14	50
Nitrobenzene	ND		69.7	41.6		ug/L		60	39 - 120	5	35
2-Nitrophenol	ND		69.7	48.5		ug/L		70	33 - 120	5	43
4-Nitrophenol	ND		139	132		ug/L		94	10 - 120	8	82
N-Nitrosodimethylamine	ND		69.7	62.3		ug/L		89	10 - 139	2	62
N-Nitrosodi-n-propylamine	ND		69.7	43.0		ug/L		62	37 - 124	4	36
N-Nitrosodiphenylamine	ND		69.1	49.7		ug/L		72	10 - 150	6	34
Pentachlorophenol	ND		139	93.9		ug/L		67	29 - 130	6	42
Phenol	ND		69.7	30.4		ug/L		44	10 - 150	3	52
Pyridine	ND		139	60.0		ug/L		43	10 - 120	2	55
Quinoline	ND		34.7	23.4		ug/L		67	51 - 120	3	40
2,4,5-Trichlorophenol	ND		69.7	49.4		ug/L		71	34 - 120	9	42
2,4,6-Trichlorophenol	ND		69.7	49.5		ug/L		71	33 - 120	1	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*66*		*46 - 124*
2-Fluorophenol	*27*		*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*77*		*44 - 149*
2,4,6-Tribromophenol	*77*		*26 - 150*

Lab Sample ID: 400-244680-5 MS
Matrix: Water
Analysis Batch: 645101

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		69.2	38.5		ug/L		56	10 - 120
Benzoic acid	ND		301	113		ug/L		38	10 - 149
Benzyl alcohol	ND		69.2	46.9		ug/L		68	33 - 120
Bis(2-chloroethoxy)methane	ND		69.2	35.6		ug/L		51	26 - 120
Bis(2-chloroethyl)ether	ND		69.2	44.5		ug/L		64	42 - 120
bis (2-chloroisopropyl) ether	ND		69.2	30.7		ug/L		44	28 - 120
Bis(2-ethylhexyl) phthalate	ND		69.2	51.4		ug/L		74	39 - 120
4-Bromophenyl phenyl ether	ND		69.2	51.3		ug/L		74	40 - 120
Butyl benzyl phthalate	ND		69.2	51.7		ug/L		75	45 - 120
4-Chloroaniline	ND		69.2	38.8		ug/L		56	10 - 120
4-Chloro-3-methylphenol	ND		69.2	45.1		ug/L		65	34 - 120
2-Chloronaphthalene	ND		69.2	50.8		ug/L		73	39 - 120
2-Chlorophenol	ND		69.2	41.3		ug/L		60	25 - 120
4-Chlorophenyl phenyl ether	ND		69.2	51.6		ug/L		75	44 - 120
Dibenz[a,h]acridine	ND		34.5	24.9		ug/L		72	50 - 150
Dibenzofuran	ND		69.2	50.0		ug/L		72	25 - 130
3,3'-Dichlorobenzidine	ND		92.3	61.4		ug/L		67	10 - 120
2,4-Dichlorophenol	ND		69.2	46.1		ug/L		67	31 - 120
Diethyl phthalate	ND		69.2	56.8		ug/L		82	46 - 120

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

Lab Sample ID: 400-244680-5 MS
Matrix: Water
Analysis Batch: 645101

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dimethylphenol	ND		69.2	50.4		ug/L		73	21 - 120
Dimethyl phthalate	ND		69.2	50.2		ug/L		73	38 - 120
Di-n-butyl phthalate	ND		69.2	53.6		ug/L		77	49 - 120
4,6-Dinitro-ortho-cresol	ND		138	114		ug/L		83	25 - 120
2,4-Dinitrophenol	ND		138	95.8		ug/L		69	15 - 140
2,4-Dinitrotoluene	ND		69.2	53.2		ug/L		77	53 - 120
2,6-Dinitrotoluene	ND		69.2	50.6		ug/L		73	43 - 120
Di-n-octyl phthalate	ND		69.2	51.5		ug/L		74	35 - 121
1,4-Dioxane	ND	F1	69.2	25.0	F1	ug/L		36	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		69.2	45.0		ug/L		65	50 - 150
Hexachlorobenzene	ND		69.2	54.1		ug/L		78	38 - 122
Hexachlorocyclopentadiene	ND		69.2	31.8		ug/L		46	10 - 120
Hexachloroethane	ND		69.2	44.0		ug/L		64	10 - 150
Indene	ND		69.2	36.7		ug/L		53	50 - 150
Isophorone	ND		69.2	39.6		ug/L		57	42 - 120
2-Methylphenol	ND		69.2	45.7		ug/L		66	28 - 120
3 & 4 Methylphenol	ND		69.2	43.3		ug/L		63	31 - 120
2-Nitroaniline	ND		69.2	46.2		ug/L		67	45 - 120
3-Nitroaniline	ND		69.2	37.7		ug/L		54	10 - 130
4-Nitroaniline	ND		69.2	50.7		ug/L		73	10 - 132
Nitrobenzene	ND		69.2	42.0		ug/L		61	39 - 120
2-Nitrophenol	ND		69.2	49.3		ug/L		71	33 - 120
4-Nitrophenol	ND		138	133		ug/L		96	10 - 120
N-Nitrosodimethylamine	ND		69.2	62.7		ug/L		91	10 - 139
N-Nitrosodi-n-propylamine	ND		69.2	44.7		ug/L		65	37 - 124
N-Nitrosodiphenylamine	ND		68.7	47.8		ug/L		70	10 - 150
Pentachlorophenol	ND		138	98.3		ug/L		71	29 - 130
Phenol	ND		69.2	35.6		ug/L		51	10 - 150
Pyridine	ND		138	58.9		ug/L		43	10 - 120
Quinoline	ND	F2 F1	34.5	23.2		ug/L		67	51 - 120
2,4,5-Trichlorophenol	ND		69.2	52.1		ug/L		75	34 - 120
2,4,6-Trichlorophenol	ND		69.2	50.2		ug/L		73	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*68*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*70*		*36 - 126*
Phenol-d5	*53*		*17 - 127*
Terphenyl-d14	*75*		*44 - 149*
2,4,6-Tribromophenol	*79*		*26 - 150*

Lab Sample ID: 400-244680-5 MSD
Matrix: Water
Analysis Batch: 645101

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		68.9	37.8		ug/L		55	10 - 120	2	63
Benzoic acid	ND		300	108		ug/L		36	10 - 149	5	49

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

Lab Sample ID: 400-244680-5 MSD
Matrix: Water
Analysis Batch: 645101

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzyl alcohol	ND		68.9	46.4		ug/L		67	33 - 120	1	37
Bis(2-chloroethoxy)methane	ND		68.9	36.8		ug/L		53	26 - 120	3	70
Bis(2-chloroethyl)ether	ND		68.9	38.3		ug/L		55	42 - 120	15	42
bis (2-chloroisopropyl) ether	ND		68.9	28.3		ug/L		41	28 - 120	8	41
Bis(2-ethylhexyl) phthalate	ND		68.9	54.5		ug/L		79	39 - 120	6	35
4-Bromophenyl phenyl ether	ND		68.9	57.6		ug/L		83	40 - 120	12	30
Butyl benzyl phthalate	ND		68.9	53.7		ug/L		78	45 - 120	4	32
4-Chloroaniline	ND		68.9	44.9		ug/L		65	10 - 120	14	94
4-Chloro-3-methylphenol	ND		68.9	49.8		ug/L		72	34 - 120	10	40
2-Chloronaphthalene	ND		68.9	54.8		ug/L		79	39 - 120	7	29
2-Chlorophenol	ND		68.9	38.1		ug/L		55	25 - 120	8	42
4-Chlorophenyl phenyl ether	ND		68.9	59.9		ug/L		87	44 - 120	15	27
Dibenz[a,h]acridine	ND		34.4	28.7		ug/L		83	50 - 150	14	40
Dibenzofuran	ND		68.9	55.3		ug/L		80	25 - 130	10	29
3,3'-Dichlorobenzidine	ND		91.9	69.4		ug/L		76	10 - 120	12	58
2,4-Dichlorophenol	ND		68.9	51.8		ug/L		75	31 - 120	12	43
Diethyl phthalate	ND		68.9	61.7		ug/L		89	46 - 120	8	40
2,4-Dimethylphenol	ND		68.9	53.8		ug/L		78	21 - 120	6	47
Dimethyl phthalate	ND		68.9	54.2		ug/L		79	38 - 120	8	36
Di-n-butyl phthalate	ND		68.9	56.5		ug/L		82	49 - 120	5	32
4,6-Dinitro-ortho-cresol	ND		138	120		ug/L		87	25 - 120	5	42
2,4-Dinitrophenol	ND		138	101		ug/L		74	15 - 140	6	36
2,4-Dinitrotoluene	ND		68.9	59.3		ug/L		86	53 - 120	11	28
2,6-Dinitrotoluene	ND		68.9	55.2		ug/L		80	43 - 120	9	28
Di-n-octyl phthalate	ND		68.9	54.5		ug/L		79	35 - 121	6	35
1,4-Dioxane	ND	F1	68.9	33.0	F1	ug/L		48	50 - 150	28	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		68.9	46.0		ug/L		67	50 - 150	2	40
Hexachlorobenzene	ND		68.9	61.1		ug/L		89	38 - 122	12	33
Hexachlorocyclopentadiene	ND		68.9	29.6		ug/L		43	10 - 120	7	50
Hexachloroethane	ND		68.9	43.0		ug/L		62	10 - 150	2	41
Indene	ND		68.9	37.7		ug/L		55	50 - 150	3	40
Isophorone	ND		68.9	40.4		ug/L		59	42 - 120	2	33
2-Methylphenol	ND		68.9	43.1		ug/L		62	28 - 120	6	47
3 & 4 Methylphenol	ND		68.9	42.8		ug/L		62	31 - 120	1	47
2-Nitroaniline	ND		68.9	45.9		ug/L		67	45 - 120	1	33
3-Nitroaniline	ND		68.9	39.1		ug/L		57	10 - 130	4	39
4-Nitroaniline	ND		68.9	57.1		ug/L		83	10 - 132	12	50
Nitrobenzene	ND		68.9	42.5		ug/L		62	39 - 120	1	35
2-Nitrophenol	ND		68.9	52.5		ug/L		76	33 - 120	6	43
4-Nitrophenol	ND		138	147		ug/L		107	10 - 120	10	82
N-Nitrosodimethylamine	ND		68.9	89.7		ug/L		130	10 - 139	35	62
N-Nitrosodi-n-propylamine	ND		68.9	44.5		ug/L		65	37 - 124	1	36
N-Nitrosodiphenylamine	ND		68.4	54.6		ug/L		80	10 - 150	13	34
Pentachlorophenol	ND		138	111		ug/L		81	29 - 130	12	42
Phenol	ND		68.9	32.6		ug/L		47	10 - 150	9	52
Pyridine	ND		138	89.2		ug/L		65	10 - 120	41	55
Quinoline	ND	F2 F1	34.4	13.8	F2 F1	ug/L		40	51 - 120	51	40
2,4,5-Trichlorophenol	ND		68.9	57.5		ug/L		83	34 - 120	10	42

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

Lab Sample ID: 400-244680-5 MSD
Matrix: Water
Analysis Batch: 645101

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4,6-Trichlorophenol	ND		68.9	54.0		ug/L		78	33 - 120	7	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*34*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*46*		*17 - 127*
Terphenyl-d14	*86*		*44 - 149*
2,4,6-Tribromophenol	*90*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-644642/1-A
Matrix: Water
Analysis Batch: 645209

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644642

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/09/23 10:09	10/12/23 11:57	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/09/23 10:09	10/12/23 11:57	1
Anthracene	ND		0.20	0.047	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/09/23 10:09	10/12/23 11:57	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/09/23 10:09	10/12/23 11:57	1
Chrysene	ND		0.20	0.033	ug/L		10/09/23 10:09	10/12/23 11:57	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/09/23 10:09	10/12/23 11:57	1
Fluoranthene	ND		0.20	0.034	ug/L		10/09/23 10:09	10/12/23 11:57	1
Fluorene	ND		0.20	0.089	ug/L		10/09/23 10:09	10/12/23 11:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/09/23 10:09	10/12/23 11:57	1
Phenanthrene	ND		0.20	0.090	ug/L		10/09/23 10:09	10/12/23 11:57	1
Pyrene	ND		0.20	0.039	ug/L		10/09/23 10:09	10/12/23 11:57	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/09/23 10:09	10/12/23 11:57	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/09/23 10:09	10/12/23 11:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*71*		*18 - 147*	*10/09/23 10:09*	*10/12/23 11:57*	*1*
2-Fluorobiphenyl	*69*		*15 - 128*	*10/09/23 10:09*	*10/12/23 11:57*	*1*
Nitrobenzene-d5	*65*		*10 - 144*	*10/09/23 10:09*	*10/12/23 11:57*	*1*

Lab Sample ID: LCS 400-644642/6-A
Matrix: Water
Analysis Batch: 645209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.67		ug/L		84	40 - 140
Acenaphthylene	2.00	1.66		ug/L		83	40 - 140
Anthracene	2.00	1.60		ug/L		80	40 - 140

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-644642/6-A
Matrix: Water
Analysis Batch: 645209

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644642

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzo[a]anthracene			2.00	1.75		ug/L		87	40 - 140		
Benzo[a]pyrene			2.00	1.39		ug/L		69	40 - 140		
Benzo[b]fluoranthene			2.00	1.35		ug/L		67	40 - 140		
Benzo[g,h,i]perylene			2.00	1.52		ug/L		76	40 - 140		
Benzo[k]fluoranthene			2.00	1.27		ug/L		63	40 - 140		
Chrysene			2.00	1.63		ug/L		81	40 - 140		
Dibenz(a,h)anthracene			2.00	1.64		ug/L		82	40 - 140		
Fluoranthene			2.00	1.75		ug/L		87	40 - 140		
Fluorene			2.00	1.75		ug/L		88	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	1.59		ug/L		80	40 - 140		
Phenanthrene			2.00	1.58		ug/L		79	40 - 140		
Pyrene			2.00	1.55		ug/L		78	40 - 140		
1-Methylnaphthalene			2.00	1.68		ug/L		84	40 - 140		
2-Methylnaphthalene			2.00	1.68		ug/L		84	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*65*		*18 - 147*
2-Fluorobiphenyl	*66*		*15 - 128*
Nitrobenzene-d5	*63*		*10 - 144*

Lab Sample ID: LCSD 400-644642/7-A
Matrix: Water
Analysis Batch: 645209

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 644642

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.72		ug/L		86	40 - 140	3	40
Acenaphthylene			2.00	1.74		ug/L		87	40 - 140	5	40
Anthracene			2.00	1.81		ug/L		90	40 - 140	12	40
Benzo[a]anthracene			2.00	1.79		ug/L		90	40 - 140	3	40
Benzo[a]pyrene			2.00	1.51		ug/L		76	40 - 140	9	40
Benzo[b]fluoranthene			2.00	1.38		ug/L		69	40 - 140	2	40
Benzo[g,h,i]perylene			2.00	1.67		ug/L		83	40 - 140	9	40
Benzo[k]fluoranthene			2.00	1.43		ug/L		71	40 - 140	12	40
Chrysene			2.00	1.74		ug/L		87	40 - 140	7	40
Dibenz(a,h)anthracene			2.00	1.77		ug/L		89	40 - 140	8	40
Fluoranthene			2.00	1.84		ug/L		92	40 - 140	5	40
Fluorene			2.00	1.79		ug/L		90	40 - 140	2	40
Indeno[1,2,3-cd]pyrene			2.00	1.73		ug/L		86	40 - 140	8	40
Phenanthrene			2.00	1.71		ug/L		86	40 - 140	8	40
Pyrene			2.00	1.62		ug/L		81	40 - 140	5	40
1-Methylnaphthalene			2.00	1.78		ug/L		89	40 - 140	5	40
2-Methylnaphthalene			2.00	1.82		ug/L		91	40 - 140	8	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*70*		*18 - 147*
2-Fluorobiphenyl	*70*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 400-244680-3 MS
Matrix: Water
Analysis Batch: 645209

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		69.5	52.2		ug/L		75	50 - 150
Acenaphthylene	ND		69.5	56.6		ug/L		81	50 - 150
Anthracene	ND		69.5	55.1		ug/L		79	50 - 150
Benzo[a]anthracene	ND		69.5	57.5		ug/L		83	50 - 150
Benzo[a]pyrene	ND		69.5	50.4		ug/L		73	50 - 150
Benzo[b]fluoranthene	ND		69.5	50.7		ug/L		73	50 - 150
Benzo[g,h,i]perylene	ND		69.5	53.2		ug/L		76	50 - 150
Benzo[k]fluoranthene	ND		69.5	43.0		ug/L		62	50 - 150
Chrysene	ND		69.5	53.8		ug/L		77	50 - 150
Dibenz(a,h)anthracene	ND		69.5	56.7		ug/L		82	50 - 150
Fluoranthene	ND		69.5	56.8		ug/L		82	50 - 150
Fluorene	ND		69.5	54.9		ug/L		79	50 - 150
Indeno[1,2,3-cd]pyrene	ND		69.5	54.9		ug/L		79	50 - 150
Phenanthrene	ND		69.5	53.3		ug/L		77	50 - 150
Pyrene	ND		69.5	52.0		ug/L		75	50 - 150
1-Methylnaphthalene	ND	F1	69.5	33.3	F1	ug/L		48	50 - 150
2-Methylnaphthalene	ND	F1	69.5	33.8	F1	ug/L		49	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*66*		*18 - 147*
2-Fluorobiphenyl	*65*		*15 - 128*
Nitrobenzene-d5	*46*		*10 - 144*

Lab Sample ID: 400-244680-3 MSD
Matrix: Water
Analysis Batch: 645400

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		69.7	46.5		ug/L		67	50 - 150	11	40
Acenaphthylene	ND		69.7	48.7		ug/L		70	50 - 150	15	40
Anthracene	ND		69.7	49.5		ug/L		71	50 - 150	11	40
Benzo[a]anthracene	ND		69.7	43.5		ug/L		62	50 - 150	28	40
Benzo[a]pyrene	ND		69.7	41.8		ug/L		60	50 - 150	19	40
Benzo[b]fluoranthene	ND		69.7	39.6		ug/L		57	50 - 150	25	40
Benzo[g,h,i]perylene	ND		69.7	42.7		ug/L		61	50 - 150	22	40
Benzo[k]fluoranthene	ND		69.7	45.7		ug/L		66	50 - 150	6	40
Chrysene	ND		69.7	49.4		ug/L		71	50 - 150	8	40
Dibenz(a,h)anthracene	ND		69.7	39.5		ug/L		57	50 - 150	36	40
Fluoranthene	ND		69.7	45.5		ug/L		65	50 - 150	22	40
Fluorene	ND		69.7	40.3		ug/L		58	50 - 150	31	40
Indeno[1,2,3-cd]pyrene	ND		69.7	40.9		ug/L		59	50 - 150	29	40
Phenanthrene	ND		69.7	45.0		ug/L		65	50 - 150	17	40
Pyrene	ND		69.7	47.0		ug/L		68	50 - 150	10	40
1-Methylnaphthalene	ND	F1	69.7	28.2	F1	ug/L		40	50 - 150	17	40
2-Methylnaphthalene	ND	F1	69.7	28.1	F1	ug/L		40	50 - 150	18	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*58*		*18 - 147*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 400-244680-3 MSD
Matrix: Water
Analysis Batch: 645400

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	64		15 - 128
Nitrobenzene-d5	40		10 - 144

Lab Sample ID: 400-244680-5 MS
Matrix: Water
Analysis Batch: 645400

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		69.2	48.9		ug/L		71	50 - 150
Acenaphthylene	ND		69.2	52.0		ug/L		75	50 - 150
Anthracene	ND		69.2	51.8		ug/L		75	50 - 150
Benzo[a]anthracene	ND		69.2	46.7		ug/L		67	50 - 150
Benzo[a]pyrene	ND		69.2	42.4		ug/L		61	50 - 150
Benzo[b]fluoranthene	0.036	J	69.2	39.3		ug/L		57	50 - 150
Benzo[g,h,i]perylene	ND		69.2	38.9		ug/L		56	50 - 150
Benzo[k]fluoranthene	ND		69.2	48.3		ug/L		70	50 - 150
Chrysene	ND		69.2	50.6		ug/L		73	50 - 150
Dibenz(a,h)anthracene	ND		69.2	39.4		ug/L		57	50 - 150
Fluoranthene	ND		69.2	48.1		ug/L		69	50 - 150
Fluorene	ND		69.2	46.6		ug/L		67	50 - 150
Indeno[1,2,3-cd]pyrene	0.020	J	69.2	39.1		ug/L		56	50 - 150
Phenanthrene	ND		69.2	47.0		ug/L		68	50 - 150
Pyrene	ND		69.2	49.1		ug/L		71	50 - 150
1-Methylnaphthalene	ND	F1	69.2	29.5	F1	ug/L		43	50 - 150
2-Methylnaphthalene	ND	F1	69.2	29.8	F1	ug/L		43	50 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
Terphenyl-d14	60		18 - 147
2-Fluorobiphenyl	66		15 - 128
Nitrobenzene-d5	41		10 - 144

Lab Sample ID: 400-244680-5 MSD
Matrix: Water
Analysis Batch: 645209

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		68.9	58.3		ug/L		85	50 - 150	17	40
Acenaphthylene	ND		68.9	60.9		ug/L		88	50 - 150	16	40
Anthracene	ND		68.9	57.7		ug/L		84	50 - 150	11	40
Benzo[a]anthracene	ND		68.9	59.2		ug/L		86	50 - 150	24	40
Benzo[a]pyrene	ND		68.9	52.8		ug/L		77	50 - 150	22	40
Benzo[b]fluoranthene	0.036	J	68.9	49.9		ug/L		72	50 - 150	24	40
Benzo[g,h,i]perylene	ND		68.9	57.4		ug/L		83	50 - 150	39	40
Benzo[k]fluoranthene	ND		68.9	48.5		ug/L		70	50 - 150	0	40
Chrysene	ND		68.9	55.6		ug/L		81	50 - 150	9	40
Dibenz(a,h)anthracene	ND		68.9	60.5	F2	ug/L		88	50 - 150	42	40
Fluoranthene	ND		68.9	58.5		ug/L		85	50 - 150	20	40
Fluorene	ND		68.9	60.2		ug/L		87	50 - 150	25	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 400-244680-5 MSD
Matrix: Water
Analysis Batch: 645209

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644642

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	0.020	J	68.9	58.3		ug/L		85	50 - 150	39	40
Phenanthrene	ND		68.9	55.8		ug/L		81	50 - 150	17	40
Pyrene	ND		68.9	53.1		ug/L		77	50 - 150	8	40
1-Methylnaphthalene	ND	F1	68.9	43.9		ug/L		64	50 - 150	39	40
2-Methylnaphthalene	ND	F1	68.9	44.4		ug/L		64	50 - 150	40	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*67*		*18 - 147*
2-Fluorobiphenyl	*73*		*15 - 128*
Nitrobenzene-d5	*53*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-644646/1-A
Matrix: Water
Analysis Batch: 644694

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 644646

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/09/23 10:30	10/09/23 14:15	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/09/23 10:30	10/09/23 14:15	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*51 - 149*	*10/09/23 10:30*	*10/09/23 14:15*	*1*

Lab Sample ID: LCS 400-644646/2-A
Matrix: Water
Analysis Batch: 644694

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 644646

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.108		ug/L		108	60 - 140		
1,2-Dibromoethane			0.101	0.109		ug/L		108	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*51 - 149*

Lab Sample ID: LCSD 400-644646/3-A
Matrix: Water
Analysis Batch: 644694

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 644646

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.107		ug/L		107	60 - 140	1	30
1,2-Dibromoethane			0.101	0.103		ug/L		103	60 - 140	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-244680-3 MS
Matrix: Water
Analysis Batch: 644694

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644646

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND		0.103	0.111		ug/L		108	10 - 150
1,2-Dibromoethane	ND		0.103	0.104		ug/L		101	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*51 - 149*

Lab Sample ID: 400-244680-3 MSD
Matrix: Water
Analysis Batch: 644694

Client Sample ID: MW11-ROX-100623
Prep Type: Total/NA
Prep Batch: 644646

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND		0.106	0.115		ug/L		109	10 - 150	4	20
1,2-Dibromoethane	ND		0.106	0.107		ug/L		101	39 - 150	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*51 - 149*

Lab Sample ID: 400-244680-5 MS
Matrix: Water
Analysis Batch: 644694

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644646

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND		0.0988	0.110		ug/L		111	10 - 150
1,2-Dibromoethane	ND		0.0991	0.107		ug/L		108	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*51 149*

Lab Sample ID: 400-244680-5 MSD
Matrix: Water
Analysis Batch: 644694

Client Sample ID: P54-ROX-100623
Prep Type: Total/NA
Prep Batch: 644646

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND		0.0985	0.111		ug/L		113	10 - 150	1	20
1,2-Dibromoethane	ND		0.0988	0.108		ug/L		109	39 - 150	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*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: 10/6/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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, C McDavid

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, 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 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

400-244680 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 8270 SIMS
	TB-ROX-100623-8260	10/6/2023	0000	Water	2					2	X			
	TB-ROX-100623-8011	10/6/2023	0000	Water	2					2		X		
	MW11-ROX-100623	10/6/2023	0945	Water	6			2		8	X	X	X	X
	MW11-ROX-100623-MS	10/6/2023	0945	Water	6			2		8	X	X	X	X
	MW11-ROX-100623-MSD	10/6/2023	0945	Water	6			2		8	X	X	X	X
	ROST3MW-ROX-100623	10/6/2023	1050	Water	6			2		8	X	X	X	X
	P54-ROX-100623	10/6/2023	1310	Water	6			2		8	X	X	X	X
	P54-ROX-100623-MS	10/6/2023	1310	Water	6			2		8	X	X	X	X
	P54-ROX-100623-MSD	10/6/2023	1310	Water	6			2		8	X	X	X	X

10/6/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
MARY MASSA	FEDEX: 6339 6595 2767, 6339 6595 2778	10/6/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time
	BP	10/7/23	746
Relinquished by: (Signature)	Received by: (Signature)	Date	Time:

Version: 27Sept23

CUSTODY SEALS: 2312527, 2312526, 2312525, 2312524

1.2°C IR10

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10/23/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-244680-1

Login Number: 244680
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	1.2°C IR10
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: 400-244680-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	FLGNV23001	01-08-26
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-244733-1-Rev.1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/11/2023

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

Sample Identification	Sample Identification
TB-ROX-100923-8260	TB-ROX-100923-8011
MW14-ROX-100923-EB	MW14-ROX-100923
MW6D-ROX-100923	

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 the LCS/LCSD recoveries for benzenethiol were outside evaluation criteria. Several VOC MS/MSD recoveries were outside evaluation criteria in sample MW14-ROX-100923. The continuing calibration verifications (CCV) for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on December 11, 2023, to include missing ICVs for method 8270E.

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 400-645109/2-A/3-A	SVOCs	Benzoic acid	64/10	**148**	10–144/30
LCS/LCSD 400-645109/4-A	SVOCs	Benzenethiol	**4/4**	3	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. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-100923	SVOCs	Benzenethiol	**UJ**
MW6D-ROX-100923	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?

Yes, although not requested, sample MW14-ROX-100923 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
MW14-ROX-100923 MS/MSD	VOCs	Acetone	53/**42**	23	43-150/30
MW14-ROX-100923 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW14-ROX-100923 MS/MSD	VOCs	Toluene	**139**/114	19	65-130/30

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.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-100923	VOCs	Acetone	**UJ**
MW14-ROX-100923	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW14-ROX-100923	VOCs	Toluene	**J**

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 multiple analytes were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-100923	VOCs	1,2-Dichloroethane	**UJ**
MW14-ROX-100923	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6D-ROX-100923	VOCs	1,2-Dichloroethane	**UJ**
MW6D-ROX-100923	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 10/23/2023 8:55:53 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-244733-1

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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10/23/2023 8:55:53 AM

Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

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Receipt Checklists 48
Certification Summary 49

Job ID: 400-244733-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-244733-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/10/2023 9:01 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 1.7°C and 2.9°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646204 recovered above the upper control limit for Hexachlorobutadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646204 recovered outside acceptance criteria, low biased, for 1,2-Dichloroethane. 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-646204 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-646204 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-646204 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-633903 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 8270E: The continuing calibration verification (CCV) associated with batch 400-645446 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-645109 and analytical batch 400-645446 recovered outside control limits for the following analytes: Benzoic acid.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-645109 and analytical batch 400-645446 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has

Job ID: 400-244733-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

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 8270E: The continuing calibration verification (CCV) associated with batch 400-645446 recovered above the upper control limit for Benzoic acid and Indene. 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.

GC Semi VOA

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: 400-244733-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-244733-1	TB-ROX-100923-8260	Water	10/09/23 00:00	10/10/23 09:01
400-244733-2	TB-ROX-100923-8011	Water	10/09/23 00:00	10/10/23 09:01
400-244733-3	MW14-ROX-100923-EB	Water	10/09/23 10:20	10/10/23 09:01
400-244733-4	MW14-ROX-100923	Water	10/09/23 11:30	10/10/23 09:01
400-244733-5	MW6D-ROX-100923	Water	10/09/23 13:40	10/10/23 09:01

Detection Summary

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

Job ID: 400-244733-1

Client Sample ID: TB-ROX-100923-8260 — Lab Sample ID: 400-244733-1

No Detections.

Client Sample ID: TB-ROX-100923-8011 — Lab Sample ID: 400-244733-2

No Detections.

Client Sample ID: MW14-ROX-100923-EB — Lab Sample ID: 400-244733-3

No Detections.

Client Sample ID: MW14-ROX-100923 — Lab Sample ID: 400-244733-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	11		1.0	0.50	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	0.66	J	5.0	0.63	ug/L	1		8260D	Total/NA
Toluene	3.3	F1	1.0	0.90	ug/L	1		8260D	Total/NA
2-Methylphenol	1.8	J	9.8	1.8	ug/L	1		8270E	Total/NA
3 & 4 Methylphenol	1.1	J	20	0.38	ug/L	1		8270E	Total/NA
Phenol	4.7	J	9.8	2.5	ug/L	1		8270E	Total/NA

Client Sample ID: MW6D-ROX-100923 — Lab Sample ID: 400-244733-5

No Detections.

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-244733-1

Client Sample ID: TB-ROX-100923-8260
Date Collected: 10/09/23 00:00
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

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

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

Job ID: 400-244733-1

Client Sample ID: TB-ROX-100923-8260
Date Collected: 10/09/23 00:00
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-1
Matrix: Water

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

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*10/19/23 17:23*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*10/19/23 17:23*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/19/23 17:23*	*1*

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

Job ID: 400-244733-1

Client Sample ID: TB-ROX-100923-8011
Date Collected: 10/09/23 00:00
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/11/23 11:49	10/11/23 15:16	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/11/23 11:49	10/11/23 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*51 - 149*	*10/11/23 11:49*	*10/11/23 15:16*	*1*

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

Job ID: 400-244733-1

Client Sample ID: MW14-ROX-100923-EB
Date Collected: 10/09/23 10:20
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/19/23 17:47	1
Acrolein	ND		20	3.3	ug/L			10/19/23 17:47	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 17:47	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 17:47	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 17:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 17:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 17:47	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 17:47	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 17:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 17:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 17:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 17:47	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 17:47	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 17:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 17:47	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 17:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 17:47	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 17:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 17:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 17:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 17:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 17:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 17:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 17:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 17:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 17:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 17:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 17:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 17:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 17:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 17:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 17:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 17:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 17:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 17:47	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 17:47	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 17:47	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 17:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 17:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 17:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 17:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 17:47	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 17:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 17:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 17:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 17:47	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 17:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 17:47	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 17:47	1

Client Sample ID: MW14-ROX-100923-EB

Lab Sample ID: 400-244733-3

Date Collected: 10/09/23 10:20

Matrix: Water

Date Received: 10/10/23 09:01

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 17:47	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 17:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 17:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 17:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 17:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 17:47	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 17:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 17:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 17:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 17:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 17:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 17:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 17:47	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 17:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 17:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 17:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 17:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 17:47	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 17:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 17:47	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 130*		*10/19/23 17:47*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*10/19/23 17:47*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/19/23 17:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/11/23 14:58	10/15/23 13:31	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/11/23 14:58	10/15/23 13:31	1
Anthracene	ND		0.20	0.046	ug/L		10/11/23 14:58	10/15/23 13:31	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 13:31	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/11/23 14:58	10/15/23 13:31	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/11/23 14:58	10/15/23 13:31	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/11/23 14:58	10/15/23 13:31	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/11/23 14:58	10/15/23 13:31	1
Chrysene	ND		0.20	0.032	ug/L		10/11/23 14:58	10/15/23 13:31	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/11/23 14:58	10/15/23 13:31	1
Fluoranthene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 13:31	1
Fluorene	ND		0.20	0.087	ug/L		10/11/23 14:58	10/15/23 13:31	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 13:31	1
Phenanthrene	ND		0.20	0.088	ug/L		10/11/23 14:58	10/15/23 13:31	1
Pyrene	ND		0.20	0.038	ug/L		10/11/23 14:58	10/15/23 13:31	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/11/23 14:58	10/15/23 13:31	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/11/23 14:58	10/15/23 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*18 - 147*	*10/11/23 14:58*	*10/15/23 13:31*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*10/11/23 14:58*	*10/15/23 13:31*	*1*

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

Job ID: 400-244733-1

Client Sample ID: MW14-ROX-100923-EB
Date Collected: 10/09/23 10:20
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*65*		*10 - 144*	*10/11/23 14:58*	*10/15/23 13:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/11/23 14:58	10/13/23 19:20	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		10/11/23 14:58	10/13/23 19:20	1
Benzoic acid	ND	*1	29	7.2	ug/L		10/11/23 14:58	10/13/23 19:20	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/11/23 14:58	10/13/23 19:20	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/11/23 14:58	10/13/23 19:20	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		10/11/23 14:58	10/13/23 19:20	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/11/23 14:58	10/13/23 19:20	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/11/23 14:58	10/13/23 19:20	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/11/23 14:58	10/13/23 19:20	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/11/23 14:58	10/13/23 19:20	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/11/23 14:58	10/13/23 19:20	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/11/23 14:58	10/13/23 19:20	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/11/23 14:58	10/13/23 19:20	1
2-Chlorophenol	ND		9.8	2.2	ug/L		10/11/23 14:58	10/13/23 19:20	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/11/23 14:58	10/13/23 19:20	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 19:20	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 19:20	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		10/11/23 14:58	10/13/23 19:20	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		10/11/23 14:58	10/13/23 19:20	1
Diethyl phthalate	ND		9.8	0.24	ug/L		10/11/23 14:58	10/13/23 19:20	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 19:20	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 19:20	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		10/11/23 14:58	10/13/23 19:20	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		10/11/23 14:58	10/13/23 19:20	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		10/11/23 14:58	10/13/23 19:20	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/11/23 14:58	10/13/23 19:20	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/11/23 14:58	10/13/23 19:20	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 19:20	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 19:20	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 19:20	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 19:20	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/11/23 14:58	10/13/23 19:20	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/11/23 14:58	10/13/23 19:20	1
Indene	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 19:20	1
Isophorone	ND		9.8	0.14	ug/L		10/11/23 14:58	10/13/23 19:20	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/11/23 14:58	10/13/23 19:20	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/11/23 14:58	10/13/23 19:20	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/11/23 14:58	10/13/23 19:20	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/11/23 14:58	10/13/23 19:20	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/11/23 14:58	10/13/23 19:20	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/11/23 14:58	10/13/23 19:20	1
2-Nitrophenol	ND		9.8	5.1	ug/L		10/11/23 14:58	10/13/23 19:20	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/11/23 14:58	10/13/23 19:20	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 19:20	1

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

Job ID: 400-244733-1

Client Sample ID: MW14-ROX-100923-EB

Date Collected: 10/09/23 10:20
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-3

Matrix: Water

Method: SW846 8270E - 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		10/11/23 14:58	10/13/23 19:20	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/11/23 14:58	10/13/23 19:20	1
Pentachlorophenol	ND		20	1.4	ug/L		10/11/23 14:58	10/13/23 19:20	1
Phenol	ND		9.8	2.6	ug/L		10/11/23 14:58	10/13/23 19:20	1
Pyridine	ND		9.8	3.1	ug/L		10/11/23 14:58	10/13/23 19:20	1
Quinoline	ND		9.8	4.4	ug/L		10/11/23 14:58	10/13/23 19:20	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/11/23 14:58	10/13/23 19:20	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/11/23 14:58*	*10/13/23 19:20*	*1*
2-Fluorophenol	*37*		*13 - 113*	*10/11/23 14:58*	*10/13/23 19:20*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*10/11/23 14:58*	*10/13/23 19:20*	*1*
Phenol-d5	*62*		*17 - 127*	*10/11/23 14:58*	*10/13/23 19:20*	*1*
Terphenyl-d14	*90*		*44 - 149*	*10/11/23 14:58*	*10/13/23 19:20*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*10/11/23 14:58*	*10/13/23 19:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/11/23 11:49	10/11/23 15:37	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/11/23 11:49	10/11/23 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*10/11/23 11:49*	*10/11/23 15:37*	*1*

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

Job ID: 400-244733-1

Client Sample ID: MW14-ROX-100923

Date Collected: 10/09/23 11:30
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-4

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	F1	25	10	ug/L			10/19/23 11:11	1
Acrolein	ND		20	3.3	ug/L			10/19/23 11:11	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 11:11	1
Benzene	**11**		1.0	0.50	ug/L			10/19/23 11:11	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 11:11	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 11:11	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 11:11	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 11:11	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 11:11	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 11:11	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 11:11	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 11:11	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 11:11	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 11:11	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			10/19/23 11:11	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 11:11	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 11:11	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 11:11	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 11:11	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 11:11	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 11:11	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 11:11	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 11:11	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 11:11	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 11:11	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 11:11	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 11:11	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 11:11	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:11	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:11	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:11	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 11:11	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 11:11	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 11:11	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 11:11	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 11:11	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 11:11	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 11:11	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 11:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 11:11	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 11:11	1
m-Xylene & p-Xylene	**0.66**	**J**	5.0	0.63	ug/L			10/19/23 11:11	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 11:11	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 11:11	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 11:11	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 11:11	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 11:11	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 11:11	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 11:11	1

Client Sample ID: MW14-ROX-100923
Date Collected: 10/09/23 11:30
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 11:11	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 11:11	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 11:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 11:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 11:11	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 11:11	1
Toluene	**3.3**	**F1**	1.0	0.90	ug/L			10/19/23 11:11	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 11:11	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 11:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 11:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 11:11	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 11:11	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 11:11	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 11:11	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 11:11	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 11:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 11:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 11:11	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 11:11	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 11:11	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 11:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*10/19/23 11:11*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*10/19/23 11:11*	*1*
Toluene-d8 (Surr)	*107*		*64 - 132*		*10/19/23 11:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/11/23 14:58	10/15/23 13:52	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/11/23 14:58	10/15/23 13:52	1
Anthracene	ND		0.20	0.046	ug/L		10/11/23 14:58	10/15/23 13:52	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 13:52	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/11/23 14:58	10/15/23 13:52	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/11/23 14:58	10/15/23 13:52	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/11/23 14:58	10/15/23 13:52	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/11/23 14:58	10/15/23 13:52	1
Chrysene	ND		0.20	0.032	ug/L		10/11/23 14:58	10/15/23 13:52	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/11/23 14:58	10/15/23 13:52	1
Fluoranthene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 13:52	1
Fluorene	ND		0.20	0.087	ug/L		10/11/23 14:58	10/15/23 13:52	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 13:52	1
Phenanthrene	ND		0.20	0.088	ug/L		10/11/23 14:58	10/15/23 13:52	1
Pyrene	ND		0.20	0.038	ug/L		10/11/23 14:58	10/15/23 13:52	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		10/11/23 14:58	10/15/23 13:52	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/11/23 14:58	10/15/23 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*77*		*18 - 147*	*10/11/23 14:58*	*10/15/23 13:52*	*1*
2-Fluorobiphenyl	*69*		*15 - 128*	*10/11/23 14:58*	*10/15/23 13:52*	*1*

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

Job ID: 400-244733-1

Client Sample ID: MW14-ROX-100923
Date Collected: 10/09/23 11:30
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*63*		*10 - 144*	*10/11/23 14:58*	*10/15/23 13:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/11/23 14:58	10/13/23 19:42	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		10/11/23 14:58	10/13/23 19:42	1
Benzoic acid	ND	*1	29	7.1	ug/L		10/11/23 14:58	10/13/23 19:42	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/11/23 14:58	10/13/23 19:42	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/11/23 14:58	10/13/23 19:42	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/11/23 14:58	10/13/23 19:42	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/11/23 14:58	10/13/23 19:42	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/11/23 14:58	10/13/23 19:42	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/11/23 14:58	10/13/23 19:42	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/11/23 14:58	10/13/23 19:42	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/11/23 14:58	10/13/23 19:42	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/11/23 14:58	10/13/23 19:42	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/11/23 14:58	10/13/23 19:42	1
2-Chlorophenol	ND		9.8	2.2	ug/L		10/11/23 14:58	10/13/23 19:42	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/11/23 14:58	10/13/23 19:42	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 19:42	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 19:42	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		10/11/23 14:58	10/13/23 19:42	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		10/11/23 14:58	10/13/23 19:42	1
Diethyl phthalate	ND		9.8	0.23	ug/L		10/11/23 14:58	10/13/23 19:42	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 19:42	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 19:42	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/11/23 14:58	10/13/23 19:42	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		10/11/23 14:58	10/13/23 19:42	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		10/11/23 14:58	10/13/23 19:42	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/11/23 14:58	10/13/23 19:42	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/11/23 14:58	10/13/23 19:42	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 19:42	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 19:42	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 19:42	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 19:42	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		10/11/23 14:58	10/13/23 19:42	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/11/23 14:58	10/13/23 19:42	1
Indene	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 19:42	1
Isophorone	ND		9.8	0.14	ug/L		10/11/23 14:58	10/13/23 19:42	1
2-Methylphenol	**1.8**	**J**	9.8	1.8	ug/L		10/11/23 14:58	10/13/23 19:42	1
3 & 4 Methylphenol	**1.1**	**J**	20	0.38	ug/L		10/11/23 14:58	10/13/23 19:42	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/11/23 14:58	10/13/23 19:42	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/11/23 14:58	10/13/23 19:42	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/11/23 14:58	10/13/23 19:42	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/11/23 14:58	10/13/23 19:42	1
2-Nitrophenol	ND		9.8	5.1	ug/L		10/11/23 14:58	10/13/23 19:42	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/11/23 14:58	10/13/23 19:42	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 19:42	1

Client Sample ID: MW14-ROX-100923
Date Collected: 10/09/23 11:30
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-4
Matrix: Water

Method: SW846 8270E - 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		10/11/23 14:58	10/13/23 19:42	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/11/23 14:58	10/13/23 19:42	1
Pentachlorophenol	ND		20	1.4	ug/L		10/11/23 14:58	10/13/23 19:42	1
Phenol	**4.7**	**J**	9.8	2.5	ug/L		10/11/23 14:58	10/13/23 19:42	1
Pyridine	ND		9.8	3.1	ug/L		10/11/23 14:58	10/13/23 19:42	1
Quinoline	ND		9.8	4.4	ug/L		10/11/23 14:58	10/13/23 19:42	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/11/23 14:58	10/13/23 19:42	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*10/11/23 14:58*	*10/13/23 19:42*	*1*
2-Fluorophenol	*45*		*13 - 113*	*10/11/23 14:58*	*10/13/23 19:42*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*10/11/23 14:58*	*10/13/23 19:42*	*1*
Phenol-d5	*67*		*17 - 127*	*10/11/23 14:58*	*10/13/23 19:42*	*1*
Terphenyl-d14	*98*		*44 - 149*	*10/11/23 14:58*	*10/13/23 19:42*	*1*
2,4,6-Tribromophenol	*87*		*26 - 150*	*10/11/23 14:58*	*10/13/23 19:42*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/11/23 11:49	10/11/23 15:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/11/23 11:49	10/11/23 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*10/11/23 11:49*	*10/11/23 15:58*	*1*

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

Job ID: 400-244733-1

Client Sample ID: MW6D-ROX-100923
Date Collected: 10/09/23 13:40
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/19/23 11:35	1
Acrolein	ND		20	3.3	ug/L			10/19/23 11:35	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 11:35	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 11:35	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 11:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 11:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 11:35	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 11:35	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 11:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 11:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 11:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 11:35	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 11:35	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 11:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 11:35	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 11:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 11:35	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 11:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 11:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 11:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 11:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 11:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 11:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 11:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 11:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 11:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 11:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 11:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 11:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 11:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 11:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 11:35	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 11:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 11:35	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 11:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 11:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 11:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 11:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 11:35	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 11:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 11:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 11:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 11:35	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 11:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 11:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 11:35	1

Client Sample ID: MW6D-ROX-100923
Date Collected: 10/09/23 13:40
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 11:35	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 11:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 11:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 11:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 11:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 11:35	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 11:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 11:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 11:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 11:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 11:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 11:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 11:35	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 11:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 11:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 11:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 11:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 11:35	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 11:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 11:35	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 11:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*10/19/23 11:35*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*10/19/23 11:35*	*1*
Toluene-d8 (Surr)	*107*		*64 - 132*		*10/19/23 11:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/11/23 14:58	10/15/23 14:12	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/11/23 14:58	10/15/23 14:12	1
Anthracene	ND		0.20	0.046	ug/L		10/11/23 14:58	10/15/23 14:12	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 14:12	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/11/23 14:58	10/15/23 14:12	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/11/23 14:58	10/15/23 14:12	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/11/23 14:58	10/15/23 14:12	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/11/23 14:58	10/15/23 14:12	1
Chrysene	ND		0.20	0.032	ug/L		10/11/23 14:58	10/15/23 14:12	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/11/23 14:58	10/15/23 14:12	1
Fluoranthene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 14:12	1
Fluorene	ND		0.20	0.087	ug/L		10/11/23 14:58	10/15/23 14:12	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/11/23 14:58	10/15/23 14:12	1
Phenanthrene	ND		0.20	0.088	ug/L		10/11/23 14:58	10/15/23 14:12	1
Pyrene	ND		0.20	0.038	ug/L		10/11/23 14:58	10/15/23 14:12	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		10/11/23 14:58	10/15/23 14:12	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/11/23 14:58	10/15/23 14:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*73*		*18 - 147*	*10/11/23 14:58*	*10/15/23 14:12*	*1*
2-Fluorobiphenyl	*66*		*15 - 128*	*10/11/23 14:58*	*10/15/23 14:12*	*1*

Client Sample ID: MW6D-ROX-100923
Date Collected: 10/09/23 13:40
Date Received: 10/10/23 09:01

Lab Sample ID: 400-244733-5
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*59*		*10 - 144*	*10/11/23 14:58*	*10/15/23 14:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/11/23 14:58	10/13/23 20:03	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		10/11/23 14:58	10/13/23 20:03	1
Benzoic acid	ND	*1	29	7.1	ug/L		10/11/23 14:58	10/13/23 20:03	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/11/23 14:58	10/13/23 20:03	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/11/23 14:58	10/13/23 20:03	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/11/23 14:58	10/13/23 20:03	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/11/23 14:58	10/13/23 20:03	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/11/23 14:58	10/13/23 20:03	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/11/23 14:58	10/13/23 20:03	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/11/23 14:58	10/13/23 20:03	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/11/23 14:58	10/13/23 20:03	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/11/23 14:58	10/13/23 20:03	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/11/23 14:58	10/13/23 20:03	1
2-Chlorophenol	ND		9.8	2.2	ug/L		10/11/23 14:58	10/13/23 20:03	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/11/23 14:58	10/13/23 20:03	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 20:03	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 20:03	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		10/11/23 14:58	10/13/23 20:03	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		10/11/23 14:58	10/13/23 20:03	1
Diethyl phthalate	ND		9.8	0.23	ug/L		10/11/23 14:58	10/13/23 20:03	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 20:03	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 20:03	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/11/23 14:58	10/13/23 20:03	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		10/11/23 14:58	10/13/23 20:03	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		10/11/23 14:58	10/13/23 20:03	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/11/23 14:58	10/13/23 20:03	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/11/23 14:58	10/13/23 20:03	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 20:03	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 20:03	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 20:03	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/11/23 14:58	10/13/23 20:03	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		10/11/23 14:58	10/13/23 20:03	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/11/23 14:58	10/13/23 20:03	1
Indene	ND		9.8	0.98	ug/L		10/11/23 14:58	10/13/23 20:03	1
Isophorone	ND		9.8	0.14	ug/L		10/11/23 14:58	10/13/23 20:03	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/11/23 14:58	10/13/23 20:03	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/11/23 14:58	10/13/23 20:03	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/11/23 14:58	10/13/23 20:03	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/11/23 14:58	10/13/23 20:03	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/11/23 14:58	10/13/23 20:03	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/11/23 14:58	10/13/23 20:03	1
2-Nitrophenol	ND		9.8	5.1	ug/L		10/11/23 14:58	10/13/23 20:03	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/11/23 14:58	10/13/23 20:03	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 20:03	1

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

Job ID: 400-244733-1

Client Sample ID: MW6D-ROX-100923

Lab Sample ID: 400-244733-5

Date Collected: 10/09/23 13:40

Matrix: Water

Date Received: 10/10/23 09:01

Method: SW846 8270E - 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		10/11/23 14:58	10/13/23 20:03	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/11/23 14:58	10/13/23 20:03	1
Pentachlorophenol	ND		20	1.4	ug/L		10/11/23 14:58	10/13/23 20:03	1
Phenol	ND		9.8	2.5	ug/L		10/11/23 14:58	10/13/23 20:03	1
Pyridine	ND		9.8	3.1	ug/L		10/11/23 14:58	10/13/23 20:03	1
Quinoline	ND		9.8	4.4	ug/L		10/11/23 14:58	10/13/23 20:03	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/11/23 14:58	10/13/23 20:03	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/11/23 14:58	10/13/23 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*10/11/23 14:58*	*10/13/23 20:03*	*1*
2-Fluorophenol	*35*		*13 - 113*	*10/11/23 14:58*	*10/13/23 20:03*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*10/11/23 14:58*	*10/13/23 20:03*	*1*
Phenol-d5	*58*		*17 - 127*	*10/11/23 14:58*	*10/13/23 20:03*	*1*
Terphenyl-d14	*83*		*44 - 149*	*10/11/23 14:58*	*10/13/23 20:03*	*1*
2,4,6-Tribromophenol	*76*		*26 - 150*	*10/11/23 14:58*	*10/13/23 20:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		10/11/23 11:49	10/11/23 16:19	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/11/23 11:49	10/11/23 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*10/11/23 11:49*	*10/11/23 16:19*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-244733-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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.
*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: 400-244733-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-244733-1	TB-ROX-100923-8260	110	93	106
400-244733-3	MW14-ROX-100923-EB	108	91	106
400-244733-4	MW14-ROX-100923	109	94	107
400-244733-4 MS	MW14-ROX-100923	112	94	108
400-244733-4 MSD	MW14-ROX-100923	109	89	106
400-244733-5	MW6D-ROX-100923	109	91	107
LCS 400-646204/1002	Lab Control Sample	105	90	104
MB 400-646204/5	Method Blank	106	91	105

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-244733-3	MW14-ROX-100923-EB	79	37	74	62	90	72
400-244733-4	MW14-ROX-100923	88	45	80	67	98	87
400-244733-5	MW6D-ROX-100923	74	35	68	58	83	76
LCS 400-645109/2-A	Lab Control Sample	79	52	75	71	88	94
LCS 400-645109/4-A	Lab Control Sample	81	51	75	70	93	61
LCSD 400-645109/3-A	Lab Control Sample Dup	80	49	82	74	94	96
LCSD 400-645109/5-A	Lab Control Sample Dup	85	63	79	79	97	73
MB 400-645109/1-A	Method Blank	81	33	73	60	85	74

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-244733-3	MW14-ROX-100923-EB	87	72	65
400-244733-4	MW14-ROX-100923	77	69	63
400-244733-5	MW6D-ROX-100923	73	66	59
LCS 400-645109/6-A	Lab Control Sample	72	66	62
LCSD 400-645109/7-A	Lab Control Sample Dup	75	66	60
MB 400-645109/1-A	Method Blank	82	73	66

Surrogate Legend

TPHL = Terphenyl-d14

Surrogate Summary

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

Job ID: 400-244733-1

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-244733-2	TB-ROX-100923-8011	88
400-244733-3	MW14-ROX-100923-EB	86
400-244733-4	MW14-ROX-100923	80
400-244733-5	MW6D-ROX-100923	80
LCS 400-645079/2-A	Lab Control Sample	85
LCSD 400-645079/3-A	Lab Control Sample Dup	82
MB 400-645079/1-A	Method Blank	90

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-244733-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-244733-1

Client Sample ID: TB-ROX-100923-8260
Lab Sample ID: 400-244733-1
Date Collected: 10/09/23 00:00
Matrix: Water
Date Received: 10/10/23 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646204	10/19/23 17:23	WPD	EET PEN

Client Sample ID: TB-ROX-100923-8011
Lab Sample ID: 400-244733-2
Date Collected: 10/09/23 00:00
Matrix: Water
Date Received: 10/10/23 09:01

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	645079	10/11/23 11:49	PG	EET PEN
Total/NA	Analysis	8011		1			645056	10/11/23 15:16	PG	EET PEN

Client Sample ID: MW14-ROX-100923-EB
Lab Sample ID: 400-244733-3
Date Collected: 10/09/23 10:20
Matrix: Water
Date Received: 10/10/23 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646204	10/19/23 17:47	WPD	EET PEN
Total/NA	Prep	3520C			254.4 mL	1 mL	645109	10/11/23 14:58	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645446	10/13/23 19:20	S1B	EET PEN
Total/NA	Prep	3520C			254.4 mL	1 mL	645109	10/11/23 14:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645606	10/15/23 13:31	S1B	EET PEN
Total/NA	Prep	8011			35.3 mL	35 mL	645079	10/11/23 11:49	PG	EET PEN
Total/NA	Analysis	8011		1			645056	10/11/23 15:37	PG	EET PEN

Client Sample ID: MW14-ROX-100923
Lab Sample ID: 400-244733-4
Date Collected: 10/09/23 11:30
Matrix: Water
Date Received: 10/10/23 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646204	10/19/23 11:11	WPD	EET PEN
Total/NA	Prep	3520C			255.8 mL	1 mL	645109	10/11/23 14:58	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645446	10/13/23 19:42	S1B	EET PEN
Total/NA	Prep	3520C			255.8 mL	1 mL	645109	10/11/23 14:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645606	10/15/23 13:52	S1B	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	645079	10/11/23 11:49	PG	EET PEN
Total/NA	Analysis	8011		1			645056	10/11/23 15:58	PG	EET PEN

Client Sample ID: MW6D-ROX-100923
Lab Sample ID: 400-244733-5
Date Collected: 10/09/23 13:40
Matrix: Water
Date Received: 10/10/23 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646204	10/19/23 11:35	WPD	EET PEN
Total/NA	Prep	3520C			255.4 mL	1 mL	645109	10/11/23 14:58	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645446	10/13/23 20:03	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244733-1

Client Sample ID: MW6D-ROX-100923

Lab Sample ID: 400-244733-5

Date Collected: 10/09/23 13:40

Matrix: Water

Date Received: 10/10/23 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			255.4 mL	1 mL	645109	10/11/23 14:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645606	10/15/23 14:12	S1B	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	645079	10/11/23 11:49	PG	EET PEN
Total/NA	Analysis	8011		1			645056	10/11/23 16:19	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645079/1-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	645079	10/11/23 11:49	PG	EET PEN
Total/NA	Analysis	8011		1			645056	10/11/23 14:13	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645109/1-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	645109	10/11/23 14:57	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645446	10/13/23 17:13	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	645109	10/11/23 14:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645606	10/15/23 12:31	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646204/5

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	8260D		1	5 mL	5 mL	646204	10/19/23 08:50	WPD	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-645079/2-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	645079	10/11/23 11:49	PG	EET PEN
Total/NA	Analysis	8011		1			645056	10/11/23 14:34	PG	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-645109/2-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	645109	10/11/23 14:57	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645446	10/13/23 17:56	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244733-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645109/4-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	645109	10/11/23 14:57	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645446	10/13/23 18:38	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645109/6-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	645109	10/11/23 14:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645606	10/15/23 12:51	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646204/1002
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	8260D		1	5 mL	5 mL	646204	10/19/23 08:04	WPD	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645079/3-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	645079	10/11/23 11:49	PG	EET PEN
Total/NA	Analysis	8011		1			645056	10/11/23 14:55	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645109/3-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	645109	10/11/23 14:57	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645446	10/13/23 18:17	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645109/5-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	645109	10/11/23 14:57	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645446	10/13/23 18:59	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244733-1

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645109/7-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	645109	10/11/23 14:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	645606	10/15/23 13:11	S1B	EET PEN

Client Sample ID: MW14-ROX-100923
Lab Sample ID: 400-244733-4 MS

Date Collected: 10/09/23 11:30
Matrix: Water
Date Received: 10/10/23 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646204	10/19/23 13:06	WPD	EET PEN

Client Sample ID: MW14-ROX-100923
Lab Sample ID: 400-244733-4 MSD

Date Collected: 10/09/23 11:30
Matrix: Water
Date Received: 10/10/23 09:01

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646204	10/19/23 13:31	WPD	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244733-1	TB-ROX-100923-8260	Total/NA	Water	8260D	
400-244733-3	MW14-ROX-100923-EB	Total/NA	Water	8260D	
400-244733-4	MW14-ROX-100923	Total/NA	Water	8260D	
400-244733-5	MW6D-ROX-100923	Total/NA	Water	8260D	
MB 400-646204/5	Method Blank	Total/NA	Water	8260D	
LCS 400-646204/1002	Lab Control Sample	Total/NA	Water	8260D	
400-244733-4 MS	MW14-ROX-100923	Total/NA	Water	8260D	
400-244733-4 MSD	MW14-ROX-100923	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 645109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244733-3	MW14-ROX-100923-EB	Total/NA	Water	3520C	
400-244733-4	MW14-ROX-100923	Total/NA	Water	3520C	
400-244733-5	MW6D-ROX-100923	Total/NA	Water	3520C	
MB 400-645109/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-645109/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-645109/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-645109/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-645109/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-645109/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-645109/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 645446

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244733-3	MW14-ROX-100923-EB	Total/NA	Water	8270E	645109
400-244733-4	MW14-ROX-100923	Total/NA	Water	8270E	645109
400-244733-5	MW6D-ROX-100923	Total/NA	Water	8270E	645109
MB 400-645109/1-A	Method Blank	Total/NA	Water	8270E	645109
LCS 400-645109/2-A	Lab Control Sample	Total/NA	Water	8270E	645109
LCS 400-645109/4-A	Lab Control Sample	Total/NA	Water	8270E	645109
LCSD 400-645109/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	645109
LCSD 400-645109/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	645109

Analysis Batch: 645606

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244733-3	MW14-ROX-100923-EB	Total/NA	Water	8270E SIM	645109
400-244733-4	MW14-ROX-100923	Total/NA	Water	8270E SIM	645109
400-244733-5	MW6D-ROX-100923	Total/NA	Water	8270E SIM	645109
MB 400-645109/1-A	Method Blank	Total/NA	Water	8270E SIM	645109
LCS 400-645109/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	645109
LCSD 400-645109/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	645109

GC Semi VOA

Analysis Batch: 645056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244733-2	TB-ROX-100923-8011	Total/NA	Water	8011	645079
400-244733-3	MW14-ROX-100923-EB	Total/NA	Water	8011	645079
400-244733-4	MW14-ROX-100923	Total/NA	Water	8011	645079
400-244733-5	MW6D-ROX-100923	Total/NA	Water	8011	645079

GC Semi VOA (Continued)

Analysis Batch: 645056 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-645079/1-A	Method Blank	Total/NA	Water	8011	645079
LCS 400-645079/2-A	Lab Control Sample	Total/NA	Water	8011	645079
LCSD 400-645079/3-A	Lab Control Sample Dup	Total/NA	Water	8011	645079

Prep Batch: 645079

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244733-2	TB-ROX-100923-8011	Total/NA	Water	8011	
400-244733-3	MW14-ROX-100923-EB	Total/NA	Water	8011	
400-244733-4	MW14-ROX-100923	Total/NA	Water	8011	
400-244733-5	MW6D-ROX-100923	Total/NA	Water	8011	
MB 400-645079/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-645079/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-645079/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646204/5
Matrix: Water
Analysis Batch: 646204

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			10/19/23 08:50	1
Acrolein	ND		20	3.3	ug/L			10/19/23 08:50	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 08:50	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 08:50	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 08:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 08:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 08:50	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 08:50	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 08:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 08:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 08:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 08:50	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 08:50	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 08:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 08:50	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 08:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 08:50	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 08:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 08:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 08:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 08:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 08:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 08:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 08:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 08:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 08:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 08:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 08:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 08:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 08:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 08:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 08:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 08:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 08:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 08:50	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 08:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 08:50	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 08:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 08:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 08:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 08:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 08:50	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 08:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 08:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 08:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 08:50	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 08:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 08:50	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646204/5
Matrix: Water
Analysis Batch: 646204

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			10/19/23 08:50	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 08:50	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 08:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 08:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 08:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 08:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 08:50	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 08:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 08:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 08:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 08:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 08:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 08:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 08:50	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 08:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 08:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 08:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 08:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 08:50	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 08:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 08:50	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 08:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 130*		*10/19/23 08:50*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*10/19/23 08:50*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*10/19/23 08:50*	*1*

Lab Sample ID: LCS 400-646204/1002
Matrix: Water
Analysis Batch: 646204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	199		ug/L		99	43 - 160
Acrolein	250	254		ug/L		102	38 - 160
Acrylonitrile	500	454		ug/L		91	64 - 142
Benzene	50.0	51.8		ug/L		104	70 - 130
Bromobenzene	50.0	53.0		ug/L		106	70 - 132
Bromochloromethane	50.0	43.7		ug/L		87	70 - 130
Bromodichloromethane	50.0	46.7		ug/L		93	67 - 133
Bromoform	50.0	55.7		ug/L		111	57 - 140
Bromomethane	25.0	21.3		ug/L		85	10 - 160
2-Butanone (MEK)	200	235		ug/L		117	61 - 145
Carbon disulfide	50.0	51.9		ug/L		104	61 - 137
Carbon tetrachloride	50.0	47.7		ug/L		95	61 - 137
Chlorobenzene	50.0	51.5		ug/L		103	70 - 130
Chloroethane	25.0	22.0		ug/L		88	55 - 141
2-Chloroethyl vinyl ether	25.0	18.8		ug/L		75	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646204/1002
Matrix: Water
Analysis Batch: 646204

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	45.9		ug/L		92	69 - 130
1-Chlorohexane	50.0	55.0		ug/L		110	69 - 130
Chloromethane	25.0	24.6		ug/L		98	58 - 137
cis-1,2-Dichloroethene	50.0	49.0		ug/L		98	68 - 130
cis-1,3-Dichloropropene	50.0	49.8		ug/L		100	69 - 132
Dibromochloromethane	50.0	49.8		ug/L		100	67 - 135
1,2-Dichlorobenzene	50.0	51.5		ug/L		103	67 - 130
1,3-Dichlorobenzene	50.0	54.6		ug/L		109	70 - 130
1,4-Dichlorobenzene	50.0	53.5		ug/L		107	70 - 130
Dichlorodifluoromethane	25.0	13.7		ug/L		55	41 - 146
1,1-Dichloroethane	50.0	51.6		ug/L		103	70 - 130
1,2-Dichloroethane	50.0	39.8		ug/L		80	69 - 130
1,1-Dichloroethene	50.0	50.6		ug/L		101	63 - 134
1,2-Dichloropropane	50.0	52.3		ug/L		105	70 - 130
1,3-Dichloropropane	50.0	50.0		ug/L		100	70 - 130
2,2-Dichloropropane	50.0	48.0		ug/L		96	52 - 135
1,1-Dichloropropene	50.0	51.6		ug/L		103	70 - 130
Ethylbenzene	50.0	53.9		ug/L		108	70 - 130
Ethyl methacrylate	50.0	49.5		ug/L		99	68 - 130
Hexachlorobutadiene	50.0	68.3		ug/L		137	53 - 140
2-Hexanone	200	233		ug/L		116	65 - 137
Isopropylbenzene	50.0	51.9		ug/L		104	70 - 130
Methylene bromide	50.0	43.0		ug/L		86	70 - 130
Methylene Chloride	50.0	46.2		ug/L		92	66 - 135
4-Methyl-2-pentanone (MIBK)	200	176		ug/L		88	69 - 138
Methyl tert-butyl ether	50.0	45.6		ug/L		91	66 - 130
m-Xylene & p-Xylene	50.0	53.4		ug/L		107	70 - 130
Naphthalene	50.0	46.9		ug/L		94	47 - 149
n-Butylbenzene	50.0	53.3		ug/L		107	67 - 130
N-Propylbenzene	50.0	55.8		ug/L		112	70 - 130
o-Chlorotoluene	50.0	51.8		ug/L		104	70 - 130
o-Xylene	50.0	51.9		ug/L		104	70 - 130
p-Chlorotoluene	50.0	52.4		ug/L		105	70 - 130
p-Isopropyltoluene	50.0	55.0		ug/L		110	65 - 130
sec-Butylbenzene	50.0	54.9		ug/L		110	66 - 130
Styrene	50.0	49.6		ug/L		99	70 - 130
tert-Butylbenzene	50.0	59.2		ug/L		118	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.8		ug/L		104	67 - 131
1,1,2,2-Tetrachloroethane	50.0	50.0		ug/L		100	70 - 131
Tetrachloroethene	50.0	55.5		ug/L		111	65 - 130
Toluene	50.0	54.5		ug/L		109	70 - 130
trans-1,2-Dichloroethene	50.0	50.6		ug/L		101	70 - 130
trans-1,3-Dichloropropene	50.0	48.8		ug/L		98	63 - 130
1,2,3-Trichlorobenzene	50.0	58.4		ug/L		117	60 - 138
1,2,4-Trichlorobenzene	50.0	57.1		ug/L		114	60 - 140
1,1,1-Trichloroethane	50.0	46.8		ug/L		94	68 - 130
1,1,2-Trichloroethane	50.0	50.1		ug/L		100	70 - 130
Trichloroethene	50.0	49.6		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	21.0		ug/L		84	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646204/1002
Matrix: Water
Analysis Batch: 646204

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	45.9		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	50.0	53.0		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	50.0	54.3		ug/L		109	69 - 130
Vinyl acetate	50.0	50.9		ug/L		102	26 - 160
Vinyl chloride	25.0	23.3		ug/L		93	59 - 136
Xylenes, Total	100	105		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 130*
Dibromofluoromethane	*90*		*75 - 126*
Toluene-d8 (Surr)	*104*		*64 - 132*

Lab Sample ID: 400-244733-4 MS
Matrix: Water
Analysis Batch: 646204

Client Sample ID: MW14-ROX-100923
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND	F1	200	106		ug/L		53	43 - 150
Acrolein	ND		250	238		ug/L		95	38 - 150
Acrylonitrile	ND		500	483		ug/L		97	62 - 149
Benzene	11		50.0	59.3		ug/L		97	56 - 142
Bromobenzene	ND		50.0	52.6		ug/L		105	59 - 136
Bromochloromethane	ND		50.0	43.4		ug/L		87	64 - 140
Bromodichloromethane	ND		50.0	45.3		ug/L		91	59 - 143
Bromoform	ND		50.0	62.5		ug/L		125	50 - 140
Bromomethane	ND		25.0	17.2		ug/L		69	10 - 150
2-Butanone (MEK)	ND		200	125		ug/L		62	55 - 150
Carbon disulfide	ND		50.0	43.0		ug/L		86	48 - 150
Carbon tetrachloride	ND		50.0	43.7		ug/L		87	55 - 145
Chlorobenzene	ND		50.0	47.7		ug/L		95	64 - 130
Chloroethane	ND		25.0	19.6		ug/L		78	50 - 150
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	42.9		ug/L		86	60 - 141
1-Chlorohexane	ND		50.0	49.2		ug/L		98	56 - 136
Chloromethane	ND		25.0	22.2		ug/L		89	49 - 148
cis-1,2-Dichloroethene	ND		50.0	46.9		ug/L		94	59 - 143
cis-1,3-Dichloropropene	ND		50.0	46.0		ug/L		92	57 - 140
Dibromochloromethane	ND		50.0	50.7		ug/L		101	56 - 143
1,2-Dichlorobenzene	ND		50.0	47.6		ug/L		95	52 - 137
1,3-Dichlorobenzene	ND		50.0	48.1		ug/L		96	54 - 135
1,4-Dichlorobenzene	ND		50.0	48.0		ug/L		96	53 - 135
Dichlorodifluoromethane	ND		25.0	12.4		ug/L		50	16 - 150
1,1-Dichloroethane	ND		50.0	47.0		ug/L		94	61 - 144
1,2-Dichloroethane	ND		50.0	39.0		ug/L		78	60 - 141
1,1-Dichloroethene	ND		50.0	42.9		ug/L		86	54 - 147
1,2-Dichloropropane	ND		50.0	50.0		ug/L		100	66 - 137
1,3-Dichloropropane	ND		50.0	51.6		ug/L		103	66 - 133
2,2-Dichloropropane	ND		50.0	44.0		ug/L		88	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244733-4 MS
Matrix: Water
Analysis Batch: 646204

Client Sample ID: MW14-ROX-100923
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	46.0		ug/L		92	65 - 136
Ethylbenzene	ND		50.0	48.6		ug/L		97	58 - 131
Ethyl methacrylate	ND		50.0	51.5		ug/L		103	64 - 130
Hexachlorobutadiene	ND		50.0	49.7		ug/L		99	31 - 149
2-Hexanone	ND		200	149		ug/L		75	65 - 140
Isopropylbenzene	ND		50.0	44.7		ug/L		89	56 - 133
Methylene bromide	ND		50.0	42.5		ug/L		85	63 - 138
Methylene Chloride	ND		50.0	42.6		ug/L		85	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	178		ug/L		89	63 - 146
Methyl tert-butyl ether	ND		50.0	44.5		ug/L		89	59 - 137
m-Xylene & p-Xylene	0.66	J	50.0	49.3		ug/L		97	57 - 130
Naphthalene	ND		50.0	47.2		ug/L		94	25 - 150
n-Butylbenzene	ND		50.0	42.9		ug/L		86	41 - 142
N-Propylbenzene	ND		50.0	49.3		ug/L		99	51 - 138
o-Chlorotoluene	ND		50.0	50.6		ug/L		101	53 - 134
o-Xylene	ND		50.0	46.9		ug/L		94	61 - 130
p-Chlorotoluene	ND		50.0	48.0		ug/L		96	54 - 133
p-Isopropyltoluene	ND		50.0	45.5		ug/L		91	48 - 139
sec-Butylbenzene	ND		50.0	48.0		ug/L		96	50 - 138
Styrene	ND		50.0	44.1		ug/L		88	58 - 131
tert-Butylbenzene	ND		50.0	54.2		ug/L		108	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	50.9		ug/L		102	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	55.7		ug/L		111	66 - 135
Tetrachloroethene	ND		50.0	49.0		ug/L		98	52 - 133
Toluene	3.3	F1	50.0	72.9	F1	ug/L		139	65 - 130
trans-1,2-Dichloroethene	ND		50.0	45.8		ug/L		92	61 - 143
trans-1,3-Dichloropropene	ND		50.0	49.8		ug/L		100	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	50.0		ug/L		100	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	47.5		ug/L		95	39 - 148
1,1,1-Trichloroethane	ND		50.0	43.3		ug/L		87	57 - 142
1,1,2-Trichloroethane	ND		50.0	53.4		ug/L		107	66 - 131
Trichloroethene	ND		50.0	44.8		ug/L		90	64 - 136
Trichlorofluoromethane	ND		25.0	18.1		ug/L		72	54 - 150
1,2,3-Trichloropropane	ND		50.0	51.1		ug/L		102	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	47.3		ug/L		95	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	48.5		ug/L		97	52 - 135
Vinyl acetate	ND		50.0	50.1		ug/L		100	26 - 150
Vinyl chloride	ND		25.0	21.3		ug/L		85	46 - 150
Xylenes, Total	ND		100	96.2		ug/L		96	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*112*		*72 - 130*
Dibromofluoromethane	*94*		*75 - 126*
Toluene-d8 (Surr)	*108*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244733-4 MSD
Matrix: Water
Analysis Batch: 646204

Client Sample ID: MW14-ROX-100923
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	84.6	F1	ug/L		42	43 - 150	23	30
Acrolein	ND		250	287		ug/L		115	38 - 150	18	31
Acrylonitrile	ND		500	483		ug/L		97	62 - 149	0	30
Benzene	11		50.0	59.5		ug/L		98	56 - 142	0	30
Bromobenzene	ND		50.0	54.1		ug/L		108	59 - 136	3	30
Bromochloromethane	ND		50.0	41.8		ug/L		84	64 - 140	4	30
Bromodichloromethane	ND		50.0	44.4		ug/L		89	59 - 143	2	30
Bromoform	ND		50.0	57.7		ug/L		115	50 - 140	8	30
Bromomethane	ND		25.0	17.2		ug/L		69	10 - 150	0	50
2-Butanone (MEK)	ND		200	124		ug/L		62	55 - 150	0	30
Carbon disulfide	ND		50.0	43.8		ug/L		88	48 - 150	2	30
Carbon tetrachloride	ND		50.0	45.8		ug/L		92	55 - 145	5	30
Chlorobenzene	ND		50.0	50.4		ug/L		101	64 - 130	6	30
Chloroethane	ND		25.0	22.4		ug/L		90	50 - 150	13	30
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	43.2		ug/L		86	60 - 141	1	30
1-Chlorohexane	ND		50.0	56.0		ug/L		112	56 - 136	13	30
Chloromethane	ND		25.0	28.0		ug/L		112	49 - 148	23	31
cis-1,2-Dichloroethene	ND		50.0	46.7		ug/L		93	59 - 143	0	30
cis-1,3-Dichloropropene	ND		50.0	46.6		ug/L		93	57 - 140	1	30
Dibromochloromethane	ND		50.0	49.2		ug/L		98	56 - 143	3	30
1,2-Dichlorobenzene	ND		50.0	50.7		ug/L		101	52 - 137	6	30
1,3-Dichlorobenzene	ND		50.0	53.4		ug/L		107	54 - 135	10	30
1,4-Dichlorobenzene	ND		50.0	52.0		ug/L		104	53 - 135	8	30
Dichlorodifluoromethane	ND		25.0	15.5		ug/L		62	16 - 150	22	31
1,1-Dichloroethane	ND		50.0	46.6		ug/L		93	61 - 144	1	30
1,2-Dichloroethane	ND		50.0	37.5		ug/L		75	60 - 141	4	30
1,1-Dichloroethene	ND		50.0	45.8		ug/L		92	54 - 147	7	30
1,2-Dichloropropane	ND		50.0	49.9		ug/L		100	66 - 137	0	30
1,3-Dichloropropane	ND		50.0	49.7		ug/L		99	66 - 133	4	30
2,2-Dichloropropane	ND		50.0	44.9		ug/L		90	42 - 144	2	31
1,1-Dichloropropene	ND		50.0	48.8		ug/L		98	65 - 136	6	30
Ethylbenzene	ND		50.0	54.4		ug/L		109	58 - 131	11	30
Ethyl methacrylate	ND		50.0	49.9		ug/L		100	64 - 130	3	30
Hexachlorobutadiene	ND		50.0	62.7		ug/L		125	31 - 149	23	36
2-Hexanone	ND		200	149		ug/L		75	65 - 140	0	30
Isopropylbenzene	ND		50.0	52.6		ug/L		105	56 - 133	16	30
Methylene bromide	ND		50.0	40.6		ug/L		81	63 - 138	5	30
Methylene Chloride	ND		50.0	43.0		ug/L		86	60 - 146	1	32
4-Methyl-2-pentanone (MIBK)	ND		200	164		ug/L		82	63 - 146	8	30
Methyl tert-butyl ether	ND		50.0	42.3		ug/L		85	59 - 137	5	30
m-Xylene & p-Xylene	0.66	J	50.0	54.2		ug/L		107	57 - 130	9	30
Naphthalene	ND		50.0	46.9		ug/L		94	25 - 150	1	30
n-Butylbenzene	ND		50.0	53.8		ug/L		108	41 - 142	23	31
N-Propylbenzene	ND		50.0	57.4		ug/L		115	51 - 138	15	30
o-Chlorotoluene	ND		50.0	56.5		ug/L		113	53 - 134	11	30
o-Xylene	ND		50.0	52.1		ug/L		104	61 - 130	10	30
p-Chlorotoluene	ND		50.0	53.1		ug/L		106	54 - 133	10	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244733-4 MSD
Matrix: Water
Analysis Batch: 646204

Client Sample ID: MW14-ROX-100923
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	56.5		ug/L		113	48 - 139	22	30
sec-Butylbenzene	ND		50.0	58.0		ug/L		116	50 - 138	19	30
Styrene	ND		50.0	48.0		ug/L		96	58 - 131	8	30
tert-Butylbenzene	ND		50.0	62.3		ug/L		125	54 - 146	14	30
1,1,1,2-Tetrachloroethane	ND		50.0	51.5		ug/L		103	59 - 137	1	30
1,1,2,2-Tetrachloroethane	ND		50.0	51.6		ug/L		103	66 - 135	8	30
Tetrachloroethene	ND		50.0	53.3		ug/L		107	52 - 133	8	30
Toluene	3.3	F1	50.0	60.2		ug/L		114	65 - 130	19	30
trans-1,2-Dichloroethene	ND		50.0	48.6		ug/L		97	61 - 143	6	30
trans-1,3-Dichloropropene	ND		50.0	49.0		ug/L		98	53 - 133	2	30
1,2,3-Trichlorobenzene	ND		50.0	52.0		ug/L		104	43 - 145	4	30
1,2,4-Trichlorobenzene	ND		50.0	52.3		ug/L		105	39 - 148	10	30
1,1,1-Trichloroethane	ND		50.0	44.9		ug/L		90	57 - 142	4	30
1,1,2-Trichloroethane	ND		50.0	50.5		ug/L		101	66 - 131	6	30
Trichloroethene	ND		50.0	47.1		ug/L		94	64 - 136	5	30
Trichlorofluoromethane	ND		25.0	22.3		ug/L		89	54 - 150	21	30
1,2,3-Trichloropropane	ND		50.0	47.8		ug/L		96	65 - 133	7	30
1,2,4-Trimethylbenzene	ND		50.0	53.9		ug/L		108	50 - 139	13	30
1,3,5-Trimethylbenzene	ND		50.0	55.9		ug/L		112	52 - 135	14	30
Vinyl acetate	ND		50.0	51.4		ug/L		103	26 - 150	3	33
Vinyl chloride	ND		25.0	26.7		ug/L		107	46 - 150	22	30
Xylenes, Total	ND		100	106		ug/L		106	59 - 130	10	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*72 - 130*
Dibromofluoromethane	*89*		*75 - 126*
Toluene-d8 (Surr)	*106*		*64 - 132*

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

Lab Sample ID: MB 400-645109/1-A
Matrix: Water
Analysis Batch: 645446

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/11/23 14:57	10/13/23 17:13	1
Benzenethiol	ND		10	1.7	ug/L		10/11/23 14:57	10/13/23 17:13	1
Benzoic acid	ND		30	7.3	ug/L		10/11/23 14:57	10/13/23 17:13	1
Benzyl alcohol	ND		10	2.0	ug/L		10/11/23 14:57	10/13/23 17:13	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/11/23 14:57	10/13/23 17:13	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/11/23 14:57	10/13/23 17:13	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/11/23 14:57	10/13/23 17:13	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/11/23 14:57	10/13/23 17:13	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/11/23 14:57	10/13/23 17:13	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/11/23 14:57	10/13/23 17:13	1
4-Chloroaniline	ND		10	3.4	ug/L		10/11/23 14:57	10/13/23 17:13	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/11/23 14:57	10/13/23 17:13	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/11/23 14:57	10/13/23 17:13	1
2-Chlorophenol	ND		10	2.2	ug/L		10/11/23 14:57	10/13/23 17:13	1

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

Lab Sample ID: MB 400-645109/1-A
Matrix: Water
Analysis Batch: 645446

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/11/23 14:57	10/13/23 17:13	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/11/23 14:57	10/13/23 17:13	1
Dibenzofuran	ND		10	0.17	ug/L		10/11/23 14:57	10/13/23 17:13	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/11/23 14:57	10/13/23 17:13	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/11/23 14:57	10/13/23 17:13	1
Diethyl phthalate	ND		10	0.24	ug/L		10/11/23 14:57	10/13/23 17:13	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/11/23 14:57	10/13/23 17:13	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/11/23 14:57	10/13/23 17:13	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/11/23 14:57	10/13/23 17:13	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/11/23 14:57	10/13/23 17:13	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/11/23 14:57	10/13/23 17:13	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/11/23 14:57	10/13/23 17:13	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/11/23 14:57	10/13/23 17:13	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/11/23 14:57	10/13/23 17:13	1
1,4-Dioxane	ND		10	1.0	ug/L		10/11/23 14:57	10/13/23 17:13	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/11/23 14:57	10/13/23 17:13	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/11/23 14:57	10/13/23 17:13	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/11/23 14:57	10/13/23 17:13	1
Hexachloroethane	ND		10	4.2	ug/L		10/11/23 14:57	10/13/23 17:13	1
Indene	ND		10	1.0	ug/L		10/11/23 14:57	10/13/23 17:13	1
Isophorone	ND		10	0.14	ug/L		10/11/23 14:57	10/13/23 17:13	1
2-Methylphenol	ND		10	1.8	ug/L		10/11/23 14:57	10/13/23 17:13	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/11/23 14:57	10/13/23 17:13	1
2-Nitroaniline	ND		10	2.2	ug/L		10/11/23 14:57	10/13/23 17:13	1
3-Nitroaniline	ND		10	1.8	ug/L		10/11/23 14:57	10/13/23 17:13	1
4-Nitroaniline	ND		10	1.5	ug/L		10/11/23 14:57	10/13/23 17:13	1
Nitrobenzene	ND		10	0.13	ug/L		10/11/23 14:57	10/13/23 17:13	1
2-Nitrophenol	ND		10	5.2	ug/L		10/11/23 14:57	10/13/23 17:13	1
4-Nitrophenol	ND		10	2.1	ug/L		10/11/23 14:57	10/13/23 17:13	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/11/23 14:57	10/13/23 17:13	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/11/23 14:57	10/13/23 17:13	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/11/23 14:57	10/13/23 17:13	1
Pentachlorophenol	ND		20	1.4	ug/L		10/11/23 14:57	10/13/23 17:13	1
Phenol	ND		10	2.6	ug/L		10/11/23 14:57	10/13/23 17:13	1
Pyridine	ND		10	3.2	ug/L		10/11/23 14:57	10/13/23 17:13	1
Quinoline	ND		10	4.5	ug/L		10/11/23 14:57	10/13/23 17:13	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/11/23 14:57	10/13/23 17:13	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/11/23 14:57	10/13/23 17:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*10/11/23 14:57*	*10/13/23 17:13*	*1*
2-Fluorophenol	*33*		*13 - 113*	*10/11/23 14:57*	*10/13/23 17:13*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*10/11/23 14:57*	*10/13/23 17:13*	*1*
Phenol-d5	*60*		*17 - 127*	*10/11/23 14:57*	*10/13/23 17:13*	*1*
Terphenyl-d14	*85*		*44 - 149*	*10/11/23 14:57*	*10/13/23 17:13*	*1*
2,4,6-Tribromophenol	*74*		*26 - 150*	*10/11/23 14:57*	*10/13/23 17:13*	*1*

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

Lab Sample ID: LCS 400-645109/2-A
Matrix: Water
Analysis Batch: 645446

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645109

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	94.1		ug/L		78	21 - 120
Benzoic acid	522	335		ug/L		64	10 - 144
Benzyl alcohol	120	87.8		ug/L		73	28 - 120
Bis(2-chloroethoxy)methane	120	80.2		ug/L		67	47 - 120
Bis(2-chloroethyl)ether	120	76.5		ug/L		64	44 - 120
bis (2-chloroisopropyl) ether	120	80.7		ug/L		67	33 - 121
Bis(2-ethylhexyl) phthalate	120	93.1		ug/L		78	52 - 147
4-Bromophenyl phenyl ether	120	96.5		ug/L		80	54 - 122
Butyl benzyl phthalate	120	95.5		ug/L		80	54 - 133
4-Chloroaniline	120	80.1		ug/L		67	26 - 120
4-Chloro-3-methylphenol	120	93.0		ug/L		78	48 - 131
2-Chloronaphthalene	120	92.9		ug/L		77	52 - 121
2-Chlorophenol	120	82.4		ug/L		69	40 - 120
4-Chlorophenyl phenyl ether	120	101		ug/L		84	56 - 125
Dibenz[a,h]acridine	120	104		ug/L		87	31 - 150
Dibenzofuran	120	100		ug/L		83	56 - 122
3,3'-Dichlorobenzidine	160	153		ug/L		95	36 - 132
2,4-Dichlorophenol	120	91.1		ug/L		76	49 - 120
Diethyl phthalate	120	101		ug/L		85	50 - 137
2,4-Dimethylphenol	120	91.8		ug/L		76	48 - 120
Dimethyl phthalate	120	95.4		ug/L		80	57 - 124
Di-n-butyl phthalate	120	107		ug/L		89	58 - 126
4,6-Dinitro-ortho-cresol	240	178		ug/L		74	23 - 148
2,4-Dinitrophenol	240	185		ug/L		77	10 - 150
2,4-Dinitrotoluene	120	104		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	101		ug/L		84	55 - 130
Di-n-octyl phthalate	120	96.3		ug/L		80	57 - 138
1,4-Dioxane	120	62.6		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	87.7		ug/L		73	45 - 124
Hexachlorobenzene	120	103		ug/L		85	52 - 129
Hexachlorocyclopentadiene	120	66.7		ug/L		56	10 - 134
Hexachloroethane	120	76.1		ug/L		63	20 - 120
Indene	120	94.7		ug/L		79	49 - 120
Isophorone	120	81.5		ug/L		68	48 - 120
2-Methylphenol	120	94.8		ug/L		79	46 - 124
3 & 4 Methylphenol	120	91.7		ug/L		76	45 - 120
2-Nitroaniline	120	94.4		ug/L		79	51 - 145
3-Nitroaniline	120	86.3		ug/L		72	37 - 127
4-Nitroaniline	120	101		ug/L		84	36 - 137
Nitrobenzene	120	81.3		ug/L		68	45 - 120
2-Nitrophenol	120	95.1		ug/L		79	40 - 124
4-Nitrophenol	240	203		ug/L		84	23 - 146
N-Nitrosodimethylamine	120	85.8		ug/L		72	29 - 137
N-Nitrosodi-n-propylamine	120	91.9		ug/L		77	45 - 120
N-Nitrosodiphenylamine	119	90.9		ug/L		76	54 - 120
Pentachlorophenol	240	200		ug/L		83	31 - 130
Phenol	120	80.9		ug/L		67	11 - 120
Pyridine	240	136		ug/L		57	16 - 120

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

Lab Sample ID: LCS 400-645109/2-A
Matrix: Water
Analysis Batch: 645446

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	97.5		ug/L		81	49 - 130		
2,4,5-Trichlorophenol			120	104		ug/L		86	51 - 136		
2,4,6-Trichlorophenol			120	96.8		ug/L		81	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*71*		*17 - 127*
Terphenyl-d14	*88*		*44 - 149*
2,4,6-Tribromophenol	*94*		*26 - 150*

Lab Sample ID: LCS 400-645109/4-A
Matrix: Water
Analysis Batch: 645446

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645109

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	*81*		*46 - 124*
2-Fluorophenol	*51*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*70*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*61*		*26 - 150*

Lab Sample ID: LCSD 400-645109/3-A
Matrix: Water
Analysis Batch: 645446

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	96.9		ug/L		81	21 - 120	3	30
Benzoic acid			522	50.2	*1	ug/L		10	10 - 144	148	30
Benzyl alcohol			120	94.2		ug/L		78	28 - 120	7	30
Bis(2-chloroethoxy)methane			120	83.8		ug/L		70	47 - 120	4	30
Bis(2-chloroethyl)ether			120	85.4		ug/L		71	44 - 120	11	30
bis (2-chloroisopropyl) ether			120	88.0		ug/L		73	33 - 121	9	30
Bis(2-ethylhexyl) phthalate			120	98.6		ug/L		82	52 - 147	6	30
4-Bromophenyl phenyl ether			120	98.5		ug/L		82	54 - 122	2	30
Butyl benzyl phthalate			120	102		ug/L		85	54 - 133	6	30
4-Chloroaniline			120	85.1		ug/L		71	26 - 120	6	30
4-Chloro-3-methylphenol			120	98.6		ug/L		82	48 - 131	6	30
2-Chloronaphthalene			120	95.1		ug/L		79	52 - 121	2	30
2-Chlorophenol			120	84.8		ug/L		71	40 - 120	3	30
4-Chlorophenyl phenyl ether			120	103		ug/L		86	56 - 125	2	30
Dibenz[a,h]acridine			120	106		ug/L		89	31 - 150	2	30
Dibenzofuran			120	103		ug/L		86	56 - 122	3	30

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

Lab Sample ID: LCSD 400-645109/3-A
Matrix: Water
Analysis Batch: 645446

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine			160	159		ug/L		100	36 - 132	4	30
2,4-Dichlorophenol			120	94.0		ug/L		78	49 - 120	3	30
Diethyl phthalate			120	105		ug/L		88	50 - 137	4	30
2,4-Dimethylphenol			120	92.6		ug/L		77	48 - 120	1	30
Dimethyl phthalate			120	98.4		ug/L		82	57 - 124	3	30
Di-n-butyl phthalate			120	112		ug/L		94	58 - 126	5	30
4,6-Dinitro-ortho-cresol			240	173		ug/L		72	23 - 148	3	30
2,4-Dinitrophenol			240	137		ug/L		57	10 - 150	30	30
2,4-Dinitrotoluene			120	109		ug/L		91	54 - 142	5	30
2,6-Dinitrotoluene			120	105		ug/L		87	55 - 130	4	30
Di-n-octyl phthalate			120	101		ug/L		84	57 - 138	5	30
1,4-Dioxane			120	57.8		ug/L		48	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)			120	91.1		ug/L		76	45 - 124	4	30
Hexachlorobenzene			120	104		ug/L		86	52 - 129	1	30
Hexachlorocyclopentadiene			120	65.3		ug/L		54	10 - 134	2	30
Hexachloroethane			120	81.3		ug/L		68	20 - 120	7	30
Indene			120	99.2		ug/L		83	49 - 120	5	30
Isophorone			120	88.2		ug/L		74	48 - 120	8	30
2-Methylphenol			120	99.7		ug/L		83	46 - 124	5	30
3 & 4 Methylphenol			120	96.5		ug/L		80	45 - 120	5	30
2-Nitroaniline			120	101		ug/L		84	51 - 145	7	30
3-Nitroaniline			120	94.6		ug/L		79	37 - 127	9	30
4-Nitroaniline			120	112		ug/L		94	36 - 137	10	30
Nitrobenzene			120	88.2		ug/L		73	45 - 120	8	30
2-Nitrophenol			120	100		ug/L		83	40 - 124	5	30
4-Nitrophenol			240	188		ug/L		78	23 - 146	7	30
N-Nitrosodimethylamine			120	85.4		ug/L		71	29 - 137	0	30
N-Nitrosodi-n-propylamine			120	98.9		ug/L		82	45 - 120	7	30
N-Nitrosodiphenylamine			119	93.3		ug/L		78	54 - 120	3	30
Pentachlorophenol			240	189		ug/L		79	31 - 130	6	30
Phenol			120	85.1		ug/L		71	11 - 120	5	30
Pyridine			240	142		ug/L		59	16 - 120	4	30
Quinoline			120	99.8		ug/L		83	49 - 130	2	30
2,4,5-Trichlorophenol			120	110		ug/L		91	51 - 136	6	30
2,4,6-Trichlorophenol			120	99.3		ug/L		83	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*82*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*96*		*26 - 150*

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

Lab Sample ID: LCSD 400-645109/5-A
Matrix: Water
Analysis Batch: 645446

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	4.56	J *-	ug/L		4	10 - 120	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*63*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*79*		*17 - 127*
Terphenyl-d14	*97*		*44 - 149*
2,4,6-Tribromophenol	*73*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-645109/1-A
Matrix: Water
Analysis Batch: 645606

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/11/23 14:57	10/15/23 12:31	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/11/23 14:57	10/15/23 12:31	1
Anthracene	ND		0.20	0.047	ug/L		10/11/23 14:57	10/15/23 12:31	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/11/23 14:57	10/15/23 12:31	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/11/23 14:57	10/15/23 12:31	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/11/23 14:57	10/15/23 12:31	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/11/23 14:57	10/15/23 12:31	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/11/23 14:57	10/15/23 12:31	1
Chrysene	ND		0.20	0.033	ug/L		10/11/23 14:57	10/15/23 12:31	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/11/23 14:57	10/15/23 12:31	1
Fluoranthene	ND		0.20	0.034	ug/L		10/11/23 14:57	10/15/23 12:31	1
Fluorene	ND		0.20	0.089	ug/L		10/11/23 14:57	10/15/23 12:31	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/11/23 14:57	10/15/23 12:31	1
Phenanthrene	ND		0.20	0.090	ug/L		10/11/23 14:57	10/15/23 12:31	1
Pyrene	ND		0.20	0.039	ug/L		10/11/23 14:57	10/15/23 12:31	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/11/23 14:57	10/15/23 12:31	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/11/23 14:57	10/15/23 12:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*18 - 147*	*10/11/23 14:57*	*10/15/23 12:31*	*1*
2-Fluorobiphenyl	*73*		*15 - 128*	*10/11/23 14:57*	*10/15/23 12:31*	*1*
Nitrobenzene-d5	*66*		*10 - 144*	*10/11/23 14:57*	*10/15/23 12:31*	*1*

Lab Sample ID: LCS 400-645109/6-A
Matrix: Water
Analysis Batch: 645606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			2.00	1.66		ug/L		83	40 - 140		
Acenaphthylene			2.00	1.75		ug/L		87	40 - 140		
Anthracene			2.00	1.74		ug/L		87	40 - 140		

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-645109/6-A
Matrix: Water
Analysis Batch: 645606

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzo[a]anthracene			2.00	1.66		ug/L		83	40 - 140		
Benzo[a]pyrene			2.00	1.41		ug/L		71	40 - 140		
Benzo[b]fluoranthene			2.00	1.33		ug/L		67	40 - 140		
Benzo[g,h,i]perylene			2.00	1.42		ug/L		71	40 - 140		
Benzo[k]fluoranthene			2.00	1.49		ug/L		74	40 - 140		
Chrysene			2.00	1.66		ug/L		83	40 - 140		
Dibenz(a,h)anthracene			2.00	1.34		ug/L		67	40 - 140		
Fluoranthene			2.00	1.68		ug/L		84	40 - 140		
Fluorene			2.00	1.66		ug/L		83	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	1.36		ug/L		68	40 - 140		
Phenanthrene			2.00	1.60		ug/L		80	40 - 140		
Pyrene			2.00	1.66		ug/L		83	40 - 140		
1-Methylnaphthalene			2.00	1.67		ug/L		84	40 - 140		
2-Methylnaphthalene			2.00	1.62		ug/L		81	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*72*		*18 - 147*
2-Fluorobiphenyl	*66*		*15 - 128*
Nitrobenzene-d5	*62*		*10 - 144*

Lab Sample ID: LCSD 400-645109/7-A
Matrix: Water
Analysis Batch: 645606

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.66		ug/L		83	40 - 140	0	40
Acenaphthylene			2.00	1.73		ug/L		87	40 - 140	1	40
Anthracene			2.00	1.67		ug/L		84	40 - 140	4	40
Benzo[a]anthracene			2.00	1.73		ug/L		86	40 - 140	4	40
Benzo[a]pyrene			2.00	1.40		ug/L		70	40 - 140	1	40
Benzo[b]fluoranthene			2.00	1.46		ug/L		73	40 - 140	9	40
Benzo[g,h,i]perylene			2.00	1.45		ug/L		73	40 - 140	2	40
Benzo[k]fluoranthene			2.00	1.39		ug/L		69	40 - 140	7	40
Chrysene			2.00	1.74		ug/L		87	40 - 140	5	40
Dibenz(a,h)anthracene			2.00	1.33		ug/L		67	40 - 140	0	40
Fluoranthene			2.00	1.68		ug/L		84	40 - 140	0	40
Fluorene			2.00	1.67		ug/L		83	40 - 140	0	40
Indeno[1,2,3-cd]pyrene			2.00	1.40		ug/L		70	40 - 140	3	40
Phenanthrene			2.00	1.59		ug/L		79	40 - 140	1	40
Pyrene			2.00	1.74		ug/L		87	40 - 140	5	40
1-Methylnaphthalene			2.00	1.66		ug/L		83	40 - 140	0	40
2-Methylnaphthalene			2.00	1.62		ug/L		81	40 - 140	0	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*75*		*18 - 147*
2-Fluorobiphenyl	*66*		*15 - 128*
Nitrobenzene-d5	*60*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-645079/1-A
Matrix: Water
Analysis Batch: 645056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645079

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/11/23 11:49	10/11/23 14:13	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/11/23 11:49	10/11/23 14:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*51 - 149*	*10/11/23 11:49*	*10/11/23 14:13*	*1*

Lab Sample ID: LCS 400-645079/2-A
Matrix: Water
Analysis Batch: 645056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645079

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.0912		ug/L		91	60 - 140		
1,2-Dibromoethane			0.101	0.0861		ug/L		85	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*85*		*51 - 149*

Lab Sample ID: LCSD 400-645079/3-A
Matrix: Water
Analysis Batch: 645056

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645079

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.0930		ug/L		93	60 - 140	2	30
1,2-Dibromoethane			0.101	0.0883		ug/L		88	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*82*		*51 149*

Shell Oil Products US Chain Of Custody Record

AECOM

400-244733 COC

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: 10/9/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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, C. McDavid

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 – 3.4.2

FIELD NOTES:

2.9°C IR8

TEMPERATURE ON RECEIPT C°

1.7°C IR8

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 8270 SIMS
	TB-ROX-100923-8260	10/9/2023	0000	Water	2					2	X			
	TB-ROX-100923-8011	10/9/2023	0000	Water	2					2		X		
	MW14-ROX-100923-EB	10/9/2023	1020	Water	6			2		8	X	X	X	X
	MW14-ROX-100923	10/9/2023	1130	Water	6			2		8	X	X	X	X
	MW6D-ROX-100923	10/9/2023	1340	Water	6			2		8	X	X	X	X

10/9/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
MARY MASSA	FEDEX: 6339 6595 2789, 6339 6595 2790	10/9/2023	1600
Relinquished by: (Signature)	Received by: (Signature) Tammy Earnest	Date: 10/10/23	Time: 0901
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 27Sept23

CUSTODY SEALS: 2364004, 2364003, 2364000, 2364001

10/23/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-244733-1

Login Number: 244733
List Number: 1
Creator: Earnest, Tamantha

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.	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	1.7°C IR & 2.9°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").	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: 400-244733-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-244885-1-Rev.1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/12/2023

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

Sample Identification	Sample Identification
TB-ROX-101023-8260-BP	MW23-ROX-101023
TB-ROX-101023-8011-BP	--

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 fluoranthene was detected in one method blank. LCS/LCSD recoveries for benzenethiol were outside evaluation criteria. The continuing calibration verifications (CCV) for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on October 30, 2023, to include remove unnecessary method blank flagging.

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 400-645675/1-A	PAHs	Fluoranthene	0.0453 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
MW23-ROX-101023	PAHs	Fluoranthene	-	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 400-645675/3-A / 4-A	SVOCs	Benzenethiol	**3/2**	7	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-101023	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-645675/1-A	SVOCs	2-Fluorophenol	**11**	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. 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 verifications (CCV) for multiple analytes were outside evaluation criteria, biased low. Benzenethiol in sample MW23-ROX-101023 was previously qualified in Section 5.0 of this data review due to LCS/LCSD outside evaluation criteria; no further qualification is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-101023	VOCs	Dibromochloromethane	**UJ**
MW23-ROX-101023	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
MW23-ROX-101023	VOCs	Bromoform	**UJ**
MW23-ROX-101023	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW23-ROX-101023	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**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 10/30/2023 5:24:24 PM Revision 1

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-244885-1

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

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Job ID: 400-244885-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-244885-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Comments
Revised Report
Report revised to remove unnecessary method blank flagging.
Supersedes report dated 10-27-2023.

Receipt
The samples were received on 10/11/2023 8:56 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 1.6°C and 1.8°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646246 recovered outside acceptance criteria, low biased, for 1,1,1,2-Tetrachloroethane, Bromoform and Dibromochloromethane. 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646246 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 8260D: 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-101023-8260-BP (400-244885-1) and MW23-ROX-101023 (400-244885-3). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-645025 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 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-645675 and analytical batch 400-645848 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 8270E: 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 400-645675/1-A). These results have been reported and qualified.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-646046 recovered above the upper control limit for

Job ID: 400-244885-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Benzoic acid and Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-646046 recovered outside acceptance criteria, low biased, for 1,2-Diphenylhydrazine (as Azobenzene), Hexachlorocyclopentadiene and Benzenethiol. 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E_SIM: The method blank for preparation batch 400-645675 and analytical batch 400-646073 contained Fluoranthene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; 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

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: 400-244885-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-244885-1	TB-ROX-101023-8260-BP	Water	10/10/23 12:00	10/11/23 08:56
400-244885-2	TB-ROX-101023-8011-BP	Water	10/10/23 12:00	10/11/23 08:56
400-244885-3	MW23-ROX-101023	Water	10/10/23 12:55	10/11/23 08:56

Detection Summary

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

Job ID: 400-244885-1

Client Sample ID: TB-ROX-101023-8260-BP — Lab Sample ID: 400-244885-1

No Detections.

Client Sample ID: TB-ROX-101023-8011-BP — Lab Sample ID: 400-244885-2

No Detections.

Client Sample ID: MW23-ROX-101023 — Lab Sample ID: 400-244885-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	15	J	25	10	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.046	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.065	J B	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.044	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-244885-1

Client Sample ID: TB-ROX-101023-8260-BP
Date Collected: 10/10/23 12:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244885-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/19/23 13:22	1
Acrolein	ND		20	3.3	ug/L			10/19/23 13:22	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 13:22	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 13:22	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 13:22	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 13:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 13:22	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 13:22	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 13:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 13:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 13:22	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 13:22	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 13:22	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 13:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 13:22	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 13:22	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 13:22	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 13:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 13:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 13:22	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 13:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 13:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 13:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 13:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 13:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 13:22	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 13:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 13:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 13:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 13:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 13:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 13:22	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 13:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 13:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 13:22	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 13:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 13:22	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 13:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 13:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 13:22	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 13:22	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 13:22	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 13:22	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 13:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 13:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 13:22	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 13:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 13:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 13:22	1

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

Job ID: 400-244885-1

Client Sample ID: TB-ROX-101023-8260-BP
Date Collected: 10/10/23 12:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244885-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 13:22	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 13:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 13:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 13:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 13:22	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 13:22	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 13:22	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 13:22	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 13:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 13:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 13:22	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 13:22	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 13:22	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 13:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 13:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 13:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 13:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 13:22	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 13:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 13:22	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/19/23 13:22*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*10/19/23 13:22*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*10/19/23 13:22*	*1*

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

Job ID: 400-244885-1

Client Sample ID: TB-ROX-101023-8011-BP
Date Collected: 10/10/23 12:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244885-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/13/23 09:56	10/13/23 20:56	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/13/23 09:56	10/13/23 20:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*51 - 149*	*10/13/23 09:56*	*10/13/23 20:56*	*1*

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

Job ID: 400-244885-1

Client Sample ID: MW23-ROX-101023
Date Collected: 10/10/23 12:55
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244885-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	15	J	25	10	ug/L			10/19/23 13:40	1
Acrolein	ND		20	3.3	ug/L			10/19/23 13:40	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 13:40	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 13:40	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 13:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 13:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 13:40	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 13:40	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 13:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 13:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 13:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 13:40	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 13:40	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 13:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 13:40	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 13:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 13:40	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 13:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 13:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 13:40	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 13:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 13:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 13:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 13:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 13:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 13:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 13:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 13:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 13:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 13:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 13:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 13:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 13:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 13:40	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 13:40	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 13:40	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 13:40	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 13:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 13:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 13:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 13:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 13:40	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 13:40	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 13:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 13:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 13:40	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 13:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 13:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 13:40	1

Client Sample ID: MW23-ROX-101023
Date Collected: 10/10/23 12:55
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244885-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 13:40	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 13:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 13:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 13:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 13:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 13:40	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 13:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 13:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 13:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 13:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 13:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 13:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 13:40	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 13:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 13:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 13:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 13:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 13:40	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 13:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 13:40	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 130*		*10/19/23 13:40*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*10/19/23 13:40*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/19/23 13:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		10/16/23 13:27	10/19/23 17:34	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/16/23 13:27	10/19/23 17:34	1
Anthracene	ND		0.19	0.045	ug/L		10/16/23 13:27	10/19/23 17:34	1
Benzo[a]anthracene	**0.046**	**J**	0.19	0.032	ug/L		10/16/23 13:27	10/19/23 17:34	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		10/16/23 13:27	10/19/23 17:34	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		10/16/23 13:27	10/19/23 17:34	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		10/16/23 13:27	10/19/23 17:34	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		10/16/23 13:27	10/19/23 17:34	1
Chrysene	ND		0.19	0.031	ug/L		10/16/23 13:27	10/19/23 17:34	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		10/16/23 13:27	10/19/23 17:34	1
Fluoranthene	**0.065**	**J B**	0.19	0.032	ug/L		10/16/23 13:27	10/19/23 17:34	1
Fluorene	ND		0.19	0.085	ug/L		10/16/23 13:27	10/19/23 17:34	1
Indeno[1,2,3-cd]pyrene	**0.044**	**J**	0.19	0.032	ug/L		10/16/23 13:27	10/19/23 17:34	1
Phenanthrene	ND		0.19	0.086	ug/L		10/16/23 13:27	10/19/23 17:34	1
Pyrene	ND		0.19	0.037	ug/L		10/16/23 13:27	10/19/23 17:34	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		10/16/23 13:27	10/19/23 17:34	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		10/16/23 13:27	10/19/23 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*36*		*18 - 147*	*10/16/23 13:27*	*10/19/23 17:34*	*1*
2-Fluorobiphenyl	*52*		*15 - 128*	*10/16/23 13:27*	*10/19/23 17:34*	*1*

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

Job ID: 400-244885-1

Client Sample ID: MW23-ROX-101023
Date Collected: 10/10/23 12:55
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244885-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	46		10 - 144	10/16/23 13:27	10/19/23 17:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/16/23 13:27	10/18/23 18:50	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		10/16/23 13:27	10/18/23 18:50	1
Benzoic acid	ND		29	6.9	ug/L		10/16/23 13:27	10/18/23 18:50	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/16/23 13:27	10/18/23 18:50	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/16/23 13:27	10/18/23 18:50	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/16/23 13:27	10/18/23 18:50	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/16/23 13:27	10/18/23 18:50	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/16/23 13:27	10/18/23 18:50	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/16/23 13:27	10/18/23 18:50	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/16/23 13:27	10/18/23 18:50	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/16/23 13:27	10/18/23 18:50	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/16/23 13:27	10/18/23 18:50	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/16/23 13:27	10/18/23 18:50	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/16/23 13:27	10/18/23 18:50	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/16/23 13:27	10/18/23 18:50	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 18:50	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 18:50	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/16/23 13:27	10/18/23 18:50	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/16/23 13:27	10/18/23 18:50	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/16/23 13:27	10/18/23 18:50	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 18:50	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 18:50	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/16/23 13:27	10/18/23 18:50	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/16/23 13:27	10/18/23 18:50	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		10/16/23 13:27	10/18/23 18:50	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/16/23 13:27	10/18/23 18:50	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/16/23 13:27	10/18/23 18:50	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 18:50	1
1,4-Dioxane	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 18:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 18:50	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 18:50	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/16/23 13:27	10/18/23 18:50	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/16/23 13:27	10/18/23 18:50	1
Indene	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 18:50	1
Isophorone	ND		9.5	0.13	ug/L		10/16/23 13:27	10/18/23 18:50	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/16/23 13:27	10/18/23 18:50	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/16/23 13:27	10/18/23 18:50	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/16/23 13:27	10/18/23 18:50	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/16/23 13:27	10/18/23 18:50	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/16/23 13:27	10/18/23 18:50	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/16/23 13:27	10/18/23 18:50	1
2-Nitrophenol	ND		9.5	5.0	ug/L		10/16/23 13:27	10/18/23 18:50	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/16/23 13:27	10/18/23 18:50	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 18:50	1

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

Job ID: 400-244885-1

Client Sample ID: MW23-ROX-101023
Date Collected: 10/10/23 12:55
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244885-3
Matrix: Water

Method: SW846 8270E - 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		10/16/23 13:27	10/18/23 18:50	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/16/23 13:27	10/18/23 18:50	1
Pentachlorophenol	ND		19	1.3	ug/L		10/16/23 13:27	10/18/23 18:50	1
Phenol	ND		9.5	2.5	ug/L		10/16/23 13:27	10/18/23 18:50	1
Pyridine	ND		9.5	3.0	ug/L		10/16/23 13:27	10/18/23 18:50	1
Quinoline	ND		9.5	4.3	ug/L		10/16/23 13:27	10/18/23 18:50	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/16/23 13:27	10/18/23 18:50	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*10/16/23 13:27*	*10/18/23 18:50*	*1*
2-Fluorophenol	*20*		*13 - 113*	*10/16/23 13:27*	*10/18/23 18:50*	*1*
Nitrobenzene-d5	*60*		*36 - 126*	*10/16/23 13:27*	*10/18/23 18:50*	*1*
Phenol-d5	*48*		*17 - 127*	*10/16/23 13:27*	*10/18/23 18:50*	*1*
Terphenyl-d14	*52*		*44 - 149*	*10/16/23 13:27*	*10/18/23 18:50*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*10/16/23 13:27*	*10/18/23 18:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/13/23 09:56	10/13/23 21:17	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/13/23 09:56	10/13/23 21:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*10/13/23 09:56*	*10/13/23 21:17*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-244885-1
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.
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.

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: 400-244885-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-244885-1	TB-ROX-101023-8260-BP	94	111	97
400-244885-3	MW23-ROX-101023	93	111	99
LCS 400-646246/1001	Lab Control Sample	97	111	99
MB 400-646246/3	Method Blank	94	111	97

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-244885-3	MW23-ROX-101023	67	20	60	48	52	79
LCS 400-645675/2-A	Lab Control Sample	69	31	64	53	78	90
LCS 400-645675/3-A	Lab Control Sample	75	33	64	56	85	67
LCSD 400-645675/4-A	Lab Control Sample Dup	71	29	61	48	77	70
MB 400-645675/1-A	Method Blank	74	11 S1-	63	39	79	67

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-244885-3	MW23-ROX-101023	36	52	46
LCS 400-645675/5-A	Lab Control Sample	70	68	59
LCSD 400-645675/6-A	Lab Control Sample Dup	71	67	60
MB 400-645675/1-A	Method Blank	32	30	26

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

Surrogate Summary

Client: AECOM Technical Services Inc.
Job ID: 400-244885-1
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)								
400-244885-2	TB-ROX-101023-8011-BP	109								
400-244885-3	MW23-ROX-101023	94								
LCS 400-645442/2-A	Lab Control Sample	91								
LCSD 400-645442/3-A	Lab Control Sample Dup	97								
MB 400-645442/1-A	Method Blank	86								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-244885-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-244885-1

Client Sample ID: TB-ROX-101023-8260-BP
Lab Sample ID: 400-244885-1
Date Collected: 10/10/23 12:00
Matrix: Water
Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646246	10/19/23 13:22	CAR	EET PEN

Client Sample ID: TB-ROX-101023-8011-BP
Lab Sample ID: 400-244885-2
Date Collected: 10/10/23 12:00
Matrix: Water
Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.1 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 20:56	PG	EET PEN

Client Sample ID: MW23-ROX-101023
Lab Sample ID: 400-244885-3
Date Collected: 10/10/23 12:55
Matrix: Water
Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646246	10/19/23 13:40	CAR	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646046	10/18/23 18:50	S1B	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646291	10/19/23 17:34	S1B	EET PEN
Total/NA	Prep	8011			35.3 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 21:17	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-645442/1-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	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 15:58	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-645675/1-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645848	10/17/23 16:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/19/23 10:25	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244885-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646246/3
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	8260D		1	5 mL	5 mL	646246	10/19/23 10:53	CAR	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645442/2-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	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 16:20	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645675/2-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645848	10/17/23 17:04	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645675/3-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645848	10/17/23 17:25	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645675/5-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/18/23 16:15	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646246/1001
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	8260D		1	5 mL	5 mL	646246	10/19/23 09:21	CAR	EET PEN

Lab Chronicle

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

Job ID: 400-244885-1

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645442/3-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	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 16:41	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645675/4-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645848	10/17/23 17:46	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645675/6-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/18/23 16:35	S1B	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244885-1	TB-ROX-101023-8260-BP	Total/NA	Water	8260D	
400-244885-3	MW23-ROX-101023	Total/NA	Water	8260D	
MB 400-646246/3	Method Blank	Total/NA	Water	8260D	
LCS 400-646246/1001	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 645675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244885-3	MW23-ROX-101023	Total/NA	Water	3520C	
MB 400-645675/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-645675/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-645675/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-645675/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-645675/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-645675/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 645848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-645675/1-A	Method Blank	Total/NA	Water	8270E	645675
LCS 400-645675/2-A	Lab Control Sample	Total/NA	Water	8270E	645675
LCS 400-645675/3-A	Lab Control Sample	Total/NA	Water	8270E	645675
LCSD 400-645675/4-A	Lab Control Sample Dup	Total/NA	Water	8270E	645675

Analysis Batch: 646046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244885-3	MW23-ROX-101023	Total/NA	Water	8270E	645675

Analysis Batch: 646073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-645675/1-A	Method Blank	Total/NA	Water	8270E SIM	645675
LCS 400-645675/5-A	Lab Control Sample	Total/NA	Water	8270E SIM	645675
LCSD 400-645675/6-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	645675

Analysis Batch: 646291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244885-3	MW23-ROX-101023	Total/NA	Water	8270E SIM	645675

GC Semi VOA

Analysis Batch: 645412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244885-2	TB-ROX-101023-8011-BP	Total/NA	Water	8011	645442
400-244885-3	MW23-ROX-101023	Total/NA	Water	8011	645442
MB 400-645442/1-A	Method Blank	Total/NA	Water	8011	645442
LCS 400-645442/2-A	Lab Control Sample	Total/NA	Water	8011	645442
LCSD 400-645442/3-A	Lab Control Sample Dup	Total/NA	Water	8011	645442

Prep Batch: 645442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244885-2	TB-ROX-101023-8011-BP	Total/NA	Water	8011	
400-244885-3	MW23-ROX-101023	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 645442 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-645442/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-645442/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-645442/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646246/3
Matrix: Water
Analysis Batch: 646246

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			10/19/23 10:53	1
Acrolein	ND		20	3.3	ug/L			10/19/23 10:53	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 10:53	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 10:53	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 10:53	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 10:53	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 10:53	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 10:53	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 10:53	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 10:53	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 10:53	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 10:53	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 10:53	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 10:53	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 10:53	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 10:53	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 10:53	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 10:53	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 10:53	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 10:53	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 10:53	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 10:53	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 10:53	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 10:53	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 10:53	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 10:53	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 10:53	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 10:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 10:53	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 10:53	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 10:53	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 10:53	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 10:53	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 10:53	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 10:53	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 10:53	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 10:53	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646246/3
Matrix: Water
Analysis Batch: 646246

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			10/19/23 10:53	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 10:53	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 10:53	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 10:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 10:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 10:53	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 10:53	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 10:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 10:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 10:53	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 10:53	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 10:53	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 10:53	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 10:53	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 10:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 10:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 10:53	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 10:53	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 10:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/19/23 10:53*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*10/19/23 10:53*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*10/19/23 10:53*	*1*

Lab Sample ID: LCS 400-646246/1001
Matrix: Water
Analysis Batch: 646246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	100	90.7		ug/L		91	43 - 160
Acrolein	500	483		ug/L		97	38 - 160
Acrylonitrile	250	254		ug/L		102	64 - 142
Benzene	25.0	23.1		ug/L		92	70 - 130
Bromobenzene	25.0	21.8		ug/L		87	70 - 132
Bromochloromethane	25.0	23.8		ug/L		95	70 - 130
Bromodichloromethane	25.0	21.3		ug/L		85	67 - 133
Bromoform	25.0	17.3		ug/L		69	57 - 140
Bromomethane	50.0	47.4		ug/L		95	10 - 160
2-Butanone (MEK)	100	92.4		ug/L		92	61 - 145
Carbon disulfide	25.0	24.3		ug/L		97	61 - 137
Carbon tetrachloride	25.0	20.9		ug/L		84	61 - 137
Chlorobenzene	25.0	22.8		ug/L		91	70 - 130
Chloroethane	50.0	56.6		ug/L		113	55 - 141
2-Chloroethyl vinyl ether	50.0	61.0		ug/L		122	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646246/1001
Matrix: Water
Analysis Batch: 646246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	24.1		ug/L		97	69 - 130
1-Chlorohexane	25.0	23.6		ug/L		94	69 - 130
Chloromethane	50.0	54.1		ug/L		108	58 - 137
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	68 - 130
cis-1,3-Dichloropropene	25.0	21.8		ug/L		87	69 - 132
Dibromochloromethane	25.0	19.0		ug/L		76	67 - 135
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	67 - 130
1,3-Dichlorobenzene	25.0	23.2		ug/L		93	70 - 130
1,4-Dichlorobenzene	25.0	22.8		ug/L		91	70 - 130
Dichlorodifluoromethane	50.0	47.5		ug/L		95	41 - 146
1,1-Dichloroethane	25.0	24.5		ug/L		98	70 - 130
1,2-Dichloroethane	25.0	25.0		ug/L		100	69 - 130
1,1-Dichloroethene	25.0	23.8		ug/L		95	63 - 134
1,2-Dichloropropane	25.0	23.6		ug/L		94	70 - 130
1,3-Dichloropropane	25.0	22.4		ug/L		90	70 - 130
2,2-Dichloropropane	25.0	21.4		ug/L		85	52 - 135
1,1-Dichloropropene	25.0	22.8		ug/L		91	70 - 130
Ethylbenzene	25.0	23.7		ug/L		95	70 - 130
Ethyl methacrylate	25.0	22.0		ug/L		88	68 - 130
Hexachlorobutadiene	25.0	22.3		ug/L		89	53 - 140
2-Hexanone	100	94.3		ug/L		94	65 - 137
Isopropylbenzene	25.0	23.9		ug/L		96	70 - 130
Methylene bromide	25.0	23.6		ug/L		94	70 - 130
Methylene Chloride	25.0	25.0		ug/L		100	66 - 135
4-Methyl-2-pentanone (MIBK)	100	106		ug/L		106	69 - 138
Methyl tert-butyl ether	25.0	23.3		ug/L		93	66 - 130
m-Xylene & p-Xylene	25.0	24.2		ug/L		97	70 - 130
Naphthalene	25.0	21.4		ug/L		85	47 - 149
n-Butylbenzene	25.0	30.4		ug/L		121	67 - 130
N-Propylbenzene	25.0	23.3		ug/L		93	70 - 130
o-Chlorotoluene	25.0	27.4		ug/L		110	70 - 130
o-Xylene	25.0	23.6		ug/L		94	70 - 130
p-Chlorotoluene	25.0	23.1		ug/L		92	70 - 130
p-Isopropyltoluene	25.0	23.7		ug/L		95	65 - 130
sec-Butylbenzene	25.0	23.9		ug/L		95	66 - 130
Styrene	25.0	21.6		ug/L		86	70 - 130
tert-Butylbenzene	25.0	23.2		ug/L		93	64 - 139
1,1,1,2-Tetrachloroethane	25.0	18.9		ug/L		75	67 - 131
1,1,2,2-Tetrachloroethane	25.0	21.3		ug/L		85	70 - 131
Tetrachloroethene	25.0	20.7		ug/L		83	65 - 130
Toluene	25.0	21.8		ug/L		87	70 - 130
trans-1,2-Dichloroethene	25.0	23.9		ug/L		96	70 - 130
trans-1,3-Dichloropropene	25.0	20.6		ug/L		83	63 - 130
1,2,3-Trichlorobenzene	25.0	22.8		ug/L		91	60 - 138
1,2,4-Trichlorobenzene	25.0	23.0		ug/L		92	60 - 140
1,1,1-Trichloroethane	25.0	22.1		ug/L		89	68 - 130
1,1,2-Trichloroethane	25.0	22.6		ug/L		90	70 - 130
Trichloroethene	25.0	22.0		ug/L		88	70 - 130
Trichlorofluoromethane	50.0	50.9		ug/L		102	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646246/1001
Matrix: Water
Analysis Batch: 646246

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	25.0	22.3		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	25.0	23.4		ug/L		94	70 - 130
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		93	69 - 130
Vinyl acetate	100	131		ug/L		131	26 - 160
Vinyl chloride	50.0	58.6		ug/L		117	59 - 136
Xylenes, Total	50.0	47.8		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 130*
Dibromofluoromethane	*111*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

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

Lab Sample ID: MB 400-645675/1-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/16/23 10:40	10/17/23 16:43	1
Benzenethiol	ND		10	1.7	ug/L		10/16/23 10:40	10/17/23 16:43	1
Benzoic acid	ND		30	7.3	ug/L		10/16/23 10:40	10/17/23 16:43	1
Benzyl alcohol	ND		10	2.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/16/23 10:40	10/17/23 16:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/16/23 10:40	10/17/23 16:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/16/23 10:40	10/17/23 16:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/16/23 10:40	10/17/23 16:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Chloroaniline	ND		10	3.4	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Chlorophenol	ND		10	2.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Dibenzofuran	ND		10	0.17	ug/L		10/16/23 10:40	10/17/23 16:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Diethyl phthalate	ND		10	0.24	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/16/23 10:40	10/17/23 16:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/16/23 10:40	10/17/23 16:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/16/23 10:40	10/17/23 16:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/16/23 10:40	10/17/23 16:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/16/23 10:40	10/17/23 16:43	1
1,4-Dioxane	ND		10	1.0	ug/L		10/16/23 10:40	10/17/23 16:43	1

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

Lab Sample ID: MB 400-645675/1-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/16/23 10:40	10/17/23 16:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/16/23 10:40	10/17/23 16:43	1
Hexachloroethane	ND		10	4.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
Indene	ND		10	1.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Isophorone	ND		10	0.14	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Methylphenol	ND		10	1.8	ug/L		10/16/23 10:40	10/17/23 16:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Nitroaniline	ND		10	2.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
3-Nitroaniline	ND		10	1.8	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Nitroaniline	ND		10	1.5	ug/L		10/16/23 10:40	10/17/23 16:43	1
Nitrobenzene	ND		10	0.13	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Nitrophenol	ND		10	5.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Nitrophenol	ND		10	2.1	ug/L		10/16/23 10:40	10/17/23 16:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/16/23 10:40	10/17/23 16:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/16/23 10:40	10/17/23 16:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/16/23 10:40	10/17/23 16:43	1
Pentachlorophenol	ND		20	1.4	ug/L		10/16/23 10:40	10/17/23 16:43	1
Phenol	ND		10	2.6	ug/L		10/16/23 10:40	10/17/23 16:43	1
Pyridine	ND		10	3.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
Quinoline	ND		10	4.5	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/16/23 10:40	10/17/23 16:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
2-Fluorophenol	*11*	*S1-*	*13 - 113*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
Phenol-d5	*39*		*17 - 127*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
Terphenyl-d14	*79*		*44 - 149*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*10/16/23 10:40*	*10/17/23 16:43*	*1*

Lab Sample ID: LCS 400-645675/2-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	70.9		ug/L		59	21 - 120
Benzoic acid	522	174		ug/L		33	10 - 144
Benzyl alcohol	120	73.4		ug/L		61	28 - 120
Bis(2-chloroethoxy)methane	120	68.2		ug/L		57	47 - 120
Bis(2-chloroethyl)ether	120	67.2		ug/L		56	44 - 120
bis (2-chloroisopropyl) ether	120	67.6		ug/L		56	33 - 121
Bis(2-ethylhexyl) phthalate	120	78.1		ug/L		65	52 - 147
4-Bromophenyl phenyl ether	120	84.1		ug/L		70	54 - 122
Butyl benzyl phthalate	120	81.3		ug/L		68	54 - 133
4-Chloroaniline	120	68.3		ug/L		57	26 - 120
4-Chloro-3-methylphenol	120	79.3		ug/L		66	48 - 131

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

Lab Sample ID: LCS 400-645675/2-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	80.8		ug/L		67	52 - 121
2-Chlorophenol	120	60.7		ug/L		51	40 - 120
4-Chlorophenyl phenyl ether	120	89.2		ug/L		74	56 - 125
Dibenz[a,h]acridine	120	88.0		ug/L		74	31 - 150
Dibenzofuran	120	87.3		ug/L		73	56 - 122
3,3'-Dichlorobenzidine	160	132		ug/L		82	36 - 132
2,4-Dichlorophenol	120	75.5		ug/L		63	49 - 120
Diethyl phthalate	120	88.0		ug/L		73	50 - 137
2,4-Dimethylphenol	120	78.7		ug/L		66	48 - 120
Dimethyl phthalate	120	82.6		ug/L		69	57 - 124
Di-n-butyl phthalate	120	93.6		ug/L		78	58 - 126
4,6-Dinitro-ortho-cresol	240	191		ug/L		80	23 - 148
2,4-Dinitrophenol	240	184		ug/L		77	10 - 150
2,4-Dinitrotoluene	120	92.2		ug/L		77	54 - 142
2,6-Dinitrotoluene	120	87.9		ug/L		73	55 - 130
Di-n-octyl phthalate	120	75.1		ug/L		63	57 - 138
1,4-Dioxane	120	51.7		ug/L		43	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	69.9		ug/L		58	45 - 124
Hexachlorobenzene	120	89.3		ug/L		74	52 - 129
Hexachlorocyclopentadiene	120	63.6		ug/L		53	10 - 134
Hexachloroethane	120	70.5		ug/L		59	20 - 120
Indene	120	81.1		ug/L		68	49 - 120
Isophorone	120	70.1		ug/L		58	48 - 120
2-Methylphenol	120	75.7		ug/L		63	46 - 124
3 & 4 Methylphenol	120	72.2		ug/L		60	45 - 120
2-Nitroaniline	120	77.7		ug/L		65	51 - 145
3-Nitroaniline	120	70.7		ug/L		59	37 - 127
4-Nitroaniline	120	76.5		ug/L		64	36 - 137
Nitrobenzene	120	67.4		ug/L		56	45 - 120
2-Nitrophenol	120	76.1		ug/L		63	40 - 124
4-Nitrophenol	240	170		ug/L		71	23 - 146
N-Nitrosodimethylamine	120	68.7		ug/L		57	29 - 137
N-Nitrosodi-n-propylamine	120	73.8		ug/L		62	45 - 120
N-Nitrosodiphenylamine	119	76.1		ug/L		64	54 - 120
Pentachlorophenol	240	172		ug/L		72	31 - 130
Phenol	120	61.2		ug/L		51	11 - 120
Pyridine	240	111		ug/L		46	16 - 120
Quinoline	120	83.5		ug/L		70	49 - 130
2,4,5-Trichlorophenol	120	87.6		ug/L		73	51 - 136
2,4,6-Trichlorophenol	120	82.0		ug/L		68	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*69*		*46 - 124*
2-Fluorophenol	*31*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*53*		*17 - 127*
Terphenyl-d14	*78*		*44 - 149*

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

Lab Sample ID: LCS 400-645675/2-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*90*		*26 - 150*

Lab Sample ID: LCS 400-645675/3-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.07	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*85*		*44 - 149*
2,4,6-Tribromophenol	*67*		*26 - 150*

Lab Sample ID: LCSD 400-645675/4-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.87	J *-	ug/L		2	10 - 120	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*71*		*46 - 124*
2-Fluorophenol	*29*		*13 - 113*
Nitrobenzene-d5	*61*		*36 - 126*
Phenol-d5	*48*		*17 - 127*
Terphenyl-d14	*77*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-645675/1-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/16/23 10:40	10/19/23 10:25	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/16/23 10:40	10/19/23 10:25	1
Anthracene	ND		0.20	0.047	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/16/23 10:40	10/19/23 10:25	1
Chrysene	ND		0.20	0.033	ug/L		10/16/23 10:40	10/19/23 10:25	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-645675/1-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/16/23 10:40	10/19/23 10:25	1
Fluoranthene	0.0453	J	0.20	0.034	ug/L		10/16/23 10:40	10/19/23 10:25	1
Fluorene	ND		0.20	0.089	ug/L		10/16/23 10:40	10/19/23 10:25	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/16/23 10:40	10/19/23 10:25	1
Phenanthrene	ND		0.20	0.090	ug/L		10/16/23 10:40	10/19/23 10:25	1
Pyrene	ND		0.20	0.039	ug/L		10/16/23 10:40	10/19/23 10:25	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/16/23 10:40	10/19/23 10:25	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/16/23 10:40	10/19/23 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*32*		*18 - 147*	*10/16/23 10:40*	*10/19/23 10:25*	*1*
2-Fluorobiphenyl	*30*		*15 - 128*	*10/16/23 10:40*	*10/19/23 10:25*	*1*
Nitrobenzene-d5	*26*		*10 - 144*	*10/16/23 10:40*	*10/19/23 10:25*	*1*

Lab Sample ID: LCS 400-645675/5-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			2.00	1.72		ug/L		86	40 - 140		
Acenaphthylene			2.00	1.69		ug/L		84	40 - 140		
Anthracene			2.00	1.68		ug/L		84	40 - 140		
Benzo[a]anthracene			2.00	1.66		ug/L		83	40 - 140		
Benzo[a]pyrene			2.00	1.45		ug/L		72	40 - 140		
Benzo[b]fluoranthene			2.00	1.44		ug/L		72	40 - 140		
Benzo[g,h,i]perylene			2.00	1.66		ug/L		83	40 - 140		
Benzo[k]fluoranthene			2.00	1.47		ug/L		73	40 - 140		
Chrysene			2.00	1.70		ug/L		85	40 - 140		
Dibenz(a,h)anthracene			2.00	1.55		ug/L		77	40 - 140		
Fluoranthene			2.00	1.75		ug/L		88	40 - 140		
Fluorene			2.00	1.75		ug/L		88	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	1.55		ug/L		77	40 - 140		
Phenanthrene			2.00	1.65		ug/L		83	40 - 140		
Pyrene			2.00	1.63		ug/L		82	40 - 140		
1-Methylnaphthalene			2.00	1.79		ug/L		90	40 - 140		
2-Methylnaphthalene			2.00	1.76		ug/L		88	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*70*		*18 - 147*
2-Fluorobiphenyl	*68*		*15 - 128*
Nitrobenzene-d5	*59*		*10 - 144*

Lab Sample ID: LCSD 400-645675/6-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.74		ug/L		87	40 - 140	1	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-645675/6-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthylene			2.00	1.68		ug/L		84	40 - 140	0	40
Anthracene			2.00	1.67		ug/L		84	40 - 140	0	40
Benzo[a]anthracene			2.00	1.77		ug/L		88	40 - 140	7	40
Benzo[a]pyrene			2.00	1.43		ug/L		71	40 - 140	1	40
Benzo[b]fluoranthene			2.00	1.57		ug/L		79	40 - 140	9	40
Benzo[g,h,i]perylene			2.00	1.69		ug/L		85	40 - 140	2	40
Benzo[k]fluoranthene			2.00	1.46		ug/L		73	40 - 140	1	40
Chrysene			2.00	1.82		ug/L		91	40 - 140	7	40
Dibenz(a,h)anthracene			2.00	1.59		ug/L		79	40 - 140	2	40
Fluoranthene			2.00	1.87		ug/L		93	40 - 140	6	40
Fluorene			2.00	1.77		ug/L		89	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			2.00	1.62		ug/L		81	40 - 140	5	40
Phenanthrene			2.00	1.74		ug/L		87	40 - 140	5	40
Pyrene			2.00	1.72		ug/L		86	40 - 140	5	40
1-Methylnaphthalene			2.00	1.85		ug/L		92	40 - 140	3	40
2-Methylnaphthalene			2.00	1.82		ug/L		91	40 - 140	4	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*71*		*18 - 147*
2-Fluorobiphenyl	*67*		*15 - 128*
Nitrobenzene-d5	*60*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-645442/1-A
Matrix: Water
Analysis Batch: 645412

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645442

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/13/23 09:56	10/13/23 15:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/13/23 09:56	10/13/23 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*10/13/23 09:56*	*10/13/23 15:58*	*1*

Lab Sample ID: LCS 400-645442/2-A
Matrix: Water
Analysis Batch: 645412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645442

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.109		ug/L		109	60 - 140		
1,2-Dibromoethane			0.101	0.107		ug/L		106	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-645442/3-A
Matrix: Water
Analysis Batch: 645412

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645442

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.110		ug/L		109	60 - 140	0	30
1,2-Dibromoethane			0.101	0.107		ug/L		106	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*51 - 149*

LAB (LOCATION)

☐ ACCUTEST (_____ 400-244885 COC

☐ 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: 10/10/2023
PO #	**GSAP Project ID**	PAGE. 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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, C. McDavid

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 – 3.4.2

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 8270 SIMS
	TB-ROX-101023-8260-BP	10/10/2023	0000	Water	2					2	X			
	TB-ROX-101023-8011-BP	10/10/2023	0000	Water	2					2		X		
	MW23-ROX-101023	10/10/2023	1255	Water	6			2		8	X	X	X	X

10/10/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time
MARY MASSA	FEDEX: 6339 6595 2804, 6339 6595 2815	10/10/2023	1600
Relinquished by: (Signature)	Received by: (Signature) BP	Date: 10/11/23	Time 856
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

CUSTODY SEALS: 2364004, 2364005, 2364006, 2364007

1.6°C 1.8°C

Version: 27Sept23

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10/30/2023 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-244885-1

Login Number: 244885 **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	1.6°C, 1.8°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: 400-244885-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-244887-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/12/2023

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

Sample Identification	Sample Identification
TB-ROX-11023-8260	MW6A-ROX-101023
TB-ROX-11023-8011	MW6B-ROX-101023
MW6C-ROX-101023	MW12-ROX-101023

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 PAHs in samples MW6A-ROX-101023, MW6B-ROX-101023, and MW12-ROX-101023 were re-extracted outside extraction time criteria. Fluoranthene was detected in one method blank. LCS/LCSD recoveries for benzenethiol were outside evaluation criteria. MS/MSD recoveries for multiple analytes were outside evaluation criteria in sample MW6C-ROX-101023. The continuing calibration verifications (CCV) for several analytes 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?

No, PAHs in samples MW6A-ROX-101023, MW6B-ROX-101023, and MW12-ROX-101023 were re-extracted 3 days outside extraction time criteria (7 days) and then re-analyzed for confirmation. The initial results in samples MW6A-ROX-101023, MW6B-ROX-101023, and MW12-ROX-101023 were confirmed by the confirmation run. Holding time exceedances were not greater than two times (2X) criteria; both sets of data are reported. Based on professional judgement, the results from the initial analysis were used for the purposes of this report.

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 400-645675/1-A	PAHs	Fluoranthene	0.0453 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
MW6C-ROX-101023	PAHs	Fluoranthene	-	**U**
MW6A-ROX-101023	PAHs	Fluoranthene	-	**U**
MW12-ROX-101023	PAHs	Fluoranthene	-	**U**
MW6B-ROX-101023	PAHs	Fluoranthene	-	**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 400-645675/3-A/4-A	SVOCs	Benzenethiol	**3/2**	7	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
MW6C-ROX-101023	SVOCs	Benzenethiol	**UJ**
MW6A-ROX-101023	SVOCs	Benzenethiol	**UJ**
MW6B-ROX-101023	SVOCs	Benzenethiol	**UJ**
MW12-ROX-101023	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW6C-ROX-101023	SVOCs	2-Fluorophenol	**12**	13-113
MB 400-645675/1-A	SVOCs	2-Fluorophenol	**11**	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. 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 MW6C-ROX-101023 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
MW6C-ROX-101023 MS/MSD	VOCs	Acetone	**219/193**	13	43-150/30
MW6C-ROX-101023 MS/MSD	VOCs	2-Butanone (MEK)	**155**/148	5	55-150/30
MW6C-ROX-101023 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW6C-ROX-101023 MS/MSD	VOCs	1-Chlorohexane	62/**52**	18	56-143/30
MW6C-ROX-101023 MS/MSD	VOCs	1,3-Dichlorobenzene	64/**52**	21	54-135/30
MW6C-ROX-101023 MS/MSD	VOCs	1,4-Dichlorobenzene	65/**52**	22	53-135/30
MW6C-ROX-101023 MS/MSD	VOCs	Hexachlorobutadiene	37/**28**	28	31-149/36
MW6C-ROX-101023 MS/MSD	VOCs	Isopropylbenzene	65/**53**	20	56-133/30
MW6C-ROX-101023 MS/MSD	VOCs	N-Propylbenzene	54/**44**	22	51-138/30
MW6C-ROX-101023 MS/MSD	VOCs	o-Xylene	73/**60**	19	61-130/30
MW6C-ROX-101023 MS/MSD	VOCs	p-Chlorotoluene	61/**49**	21	54-133/30
MW6C-ROX-101023 MS/MSD	VOCs	p-Isopropyltoluene	49/**38**	25	48-139/30
MW6C-ROX-101023 MS/MSD	VOCs	sec-Butylbenzene	52/**41**	23	50-138/30
MW6C-ROX-101023 MS/MSD	VOCs	Styrene	68/**55**	21	58-131/30
MW6C-ROX-101023 MS/MSD	VOCs	tert-Butylbenzene	57/**46**	21	54-146/30
MW6C-ROX-101023 MS/MSD	VOCs	1,1,1,2-Tetrachloroethane	66/**56**	17	59-137/30
MW6C-ROX-101023 MS/MSD	VOCs	1,2,4-Trimethylbenzene	59/**47**	23	50-139/30
MW6C-ROX-101023 MS/MSD	VOCs	1,3,5-Trimethylbenzene	58/**47**	20	52-135/30

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW6C-ROX-101023 MS/MSD	SVOCs	1,4-Dioxane	**41/45**	11	50-150/40

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 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
MW6C-ROX-101023	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW6C-ROX-101023	VOCs	1-Chlorohexane	**UJ**
MW6C-ROX-101023	VOCs	1,3-Dichlorobenzene	**UJ**
MW6C-ROX-101023	VOCs	1,4-Dichlorobenzene	**UJ**
MW6C-ROX-101023	VOCs	Hexachlorobutadiene	**UJ**
MW6C-ROX-101023	VOCs	Isopropylbenzene	**UJ**
MW6C-ROX-101023	VOCs	N-Propylbenzene	**UJ**
MW6C-ROX-101023	VOCs	o-Xylene	**UJ**
MW6C-ROX-101023	VOCs	p-Chlorotoluene	**UJ**
MW6C-ROX-101023	VOCs	p-Isopropyltoluene	**UJ**
MW6C-ROX-101023	VOCs	sec-Butylbenzene	**UJ**
MW6C-ROX-101023	VOCs	Styrene	**UJ**
MW6C-ROX-101023	VOCs	tert-Butylbenzene	**UJ**
MW6C-ROX-101023	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
MW6C-ROX-101023	VOCs	1,2,4-Trimethylbenzene	**UJ**
MW6C-ROX-101023	VOCs	1,3,5-Trimethylbenzene	**UJ**
MW6C-ROX-101023	SVOCs	1,4-Dioxane	**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 multiple analytes were outside evaluation criteria, biased low. Benzenethiol, in all of the samples, was previously qualified in Section 5.0 of this data review due to LCS/LCSD outside evaluation criteria; no further qualification is required. 1,1,1,2-Tetrachloroethane in sample MW6C-ROX-101023 was previously qualified in Section 7.0 due to MS/MSD outside evaluation criteria; no further qualification is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW6C-ROX-101023	VOCs	Dibromochloromethane	**UJ**
MW6C-ROX-101023	VOCs	Bromoform	**UJ**
MW6C-ROX-101023	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6C-ROX-101023	SVOCs	1,2-Diphenylhydrazine	**UJ**
MW6A-ROX-101023	VOCs	Dibromochloromethane	**UJ**
MW6A-ROX-101023	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
MW6A-ROX-101023	VOCs	Bromoform	**UJ**
MW6A-ROX-101023	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6A-ROX-101023	SVOCs	1,2-Diphenylhydrazine	**UJ**
MW6B-ROX-101023	VOCs	Dibromochloromethane	**UJ**
MW6B-ROX-101023	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
MW6B-ROX-101023	VOCs	Bromoform	**UJ**
MW6B-ROX-101023	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6B-ROX-101023	SVOCs	1,2-Diphenylhydrazine	**UJ**
MW12-ROX-101023	VOCs	Dibromochloromethane	**UJ**
MW12-ROX-101023	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
MW12-ROX-101023	VOCs	Bromoform	**UJ**
MW12-ROX-101023	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW12-ROX-101023	SVOCs	1,2-Diphenylhydrazine	**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 10/31/2023 5:23:04 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-244887-1

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

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Job ID: 400-244887-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-244887-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/11/2023 8:56 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 1.6°C and 1.8°C

GC/MS VOA
Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-646246 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646246 recovered outside acceptance criteria, low biased, for 1,1,1,2-Tetrachloroethane, Bromoform and Dibromochloromethane. 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646246 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 8260D: 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-11023-8260 (400-244887-1), MW6C-ROX-101023 (400-244887-3), MW6A-ROX-101023 (400-244887-4), MW6B-ROX-101023 (400-244887-5) and MW12-ROX-101023 (400-244887-6). 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-646246 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-646246 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-645025 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Job ID: 400-244887-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-645675 and analytical batch 400-645848 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 8270E: 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 400-645675/1-A). These results have been reported and qualified.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-646046 recovered above the upper control limit for Benzoic acid and Indene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-646046 recovered outside acceptance criteria, low biased, for 1,2-Diphenylhydrazine (as Azobenzene), Hexachlorocyclopentadiene and Benzenethiol. 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 8270E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-645675 and analytical batch 400-646046 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 8270E: 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: MW6C-ROX-101023 (400-244887-3). These results have been reported and qualified.

Method 8270E_SIM: The method blank for preparation batch 400-645675 and analytical batch 400-646073 contained Fluoranthene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E_SIM: The method blank for preparation batch 645675 contained Fluoranthene above the reporting limit (RL). There was insufficient sample to perform a re-extraction and/or re-analysis; therefore, the data have been reported.

Method 8270E_SIM: The following samples were re-prepared outside of preparation holding time due to client requests confirmation of detections: MW6A-ROX-101023 (400-244887-4), MW6B-ROX-101023 (400-244887-5) and MW12-ROX-101023 (400-244887-6). Both 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

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: 400-244887-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-244887-1	TB-ROX-11023-8260	Water	10/10/23 12:00	10/11/23 08:56
400-244887-2	TB-ROX-11023-8011	Water	10/10/23 12:00	10/11/23 08:56
400-244887-3	MW6C-ROX-101023	Water	10/10/23 09:10	10/11/23 08:56
400-244887-4	MW6A-ROX-101023	Water	10/10/23 10:00	10/11/23 08:56
400-244887-5	MW6B-ROX-101023	Water	10/10/23 10:40	10/11/23 08:56
400-244887-6	MW12-ROX-101023	Water	10/10/23 13:40	10/11/23 08:56

Detection Summary

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

Job ID: 400-244887-1

Client Sample ID: TB-ROX-11023-8260 — Lab Sample ID: 400-244887-1

No Detections.

Client Sample ID: TB-ROX-11023-8011 — Lab Sample ID: 400-244887-2

No Detections.

Client Sample ID: MW6C-ROX-101023 — Lab Sample ID: 400-244887-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.043	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.072	J B	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.032	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW6A-ROX-101023 — Lab Sample ID: 400-244887-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	25	10	ug/L	1		8260D	Total/NA
Acenaphthene	0.26		0.19	0.094	ug/L	1		8270E SIM	Total/NA
Acenaphthylene	0.22		0.19	0.042	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.045	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.055	J B	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Acenaphthene - RERA	0.097	J H	0.19	0.094	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene - RERA	0.042	J H	0.19	0.032	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW6B-ROX-101023 — Lab Sample ID: 400-244887-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.11	J	0.19	0.093	ug/L	1		8270E SIM	Total/NA
Acenaphthylene	0.10	J	0.19	0.041	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.056	J B	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Acenaphthene - RERA	0.10	J H	0.19	0.093	ug/L	1		8270E SIM	Total/NA
Acenaphthylene - RERA	0.12	J H	0.19	0.041	ug/L	1		8270E SIM	Total/NA
Anthracene - RERA	0.044	J H	0.19	0.044	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene - RERA	0.044	J H	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Fluoranthene - RERA	0.097	J H	0.19	0.032	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW12-ROX-101023 — Lab Sample ID: 400-244887-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	1.4		1.0	0.90	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.052	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.053	J B	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.073	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene - RERA	0.034	J H	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Fluoranthene - RERA	0.052	J H	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Diethyl phthalate	0.28	J	9.4	0.22	ug/L	1		8270E	Total/NA
Dimethyl phthalate	0.49	J	9.4	0.16	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-244887-1

Client Sample ID: TB-ROX-11023-8260
Date Collected: 10/10/23 12:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/19/23 11:30	1
Acrolein	ND		20	3.3	ug/L			10/19/23 11:30	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 11:30	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 11:30	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 11:30	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 11:30	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 11:30	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 11:30	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 11:30	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 11:30	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 11:30	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 11:30	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 11:30	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 11:30	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 11:30	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 11:30	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 11:30	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 11:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 11:30	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 11:30	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 11:30	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 11:30	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 11:30	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 11:30	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 11:30	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 11:30	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 11:30	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 11:30	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:30	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:30	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:30	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 11:30	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 11:30	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 11:30	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 11:30	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 11:30	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 11:30	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 11:30	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 11:30	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 11:30	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 11:30	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 11:30	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 11:30	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 11:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 11:30	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 11:30	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 11:30	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 11:30	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 11:30	1

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

Job ID: 400-244887-1

Client Sample ID: TB-ROX-11023-8260
Date Collected: 10/10/23 12:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 11:30	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 11:30	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 11:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 11:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 11:30	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 11:30	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 11:30	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 11:30	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 11:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 11:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 11:30	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 11:30	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 11:30	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 11:30	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 11:30	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 11:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 11:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 11:30	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 11:30	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 11:30	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 11:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 130*		*10/19/23 11:30*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*10/19/23 11:30*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/19/23 11:30*	*1*

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

Job ID: 400-244887-1

Client Sample ID: TB-ROX-11023-8011
Date Collected: 10/10/23 12:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-2
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-Dibromo-3-Chloropropane	ND		0.031	0.017	ug/L		10/13/23 09:56	10/13/23 21:39	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		10/13/23 09:56	10/13/23 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*51 - 149*	*10/13/23 09:56*	*10/13/23 21:39*	*1*

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

Job ID: 400-244887-1

Client Sample ID: MW6C-ROX-101023
Date Collected: 10/10/23 09:10
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	F1	25	10	ug/L			10/19/23 11:49	1
Acrolein	ND		20	3.3	ug/L			10/19/23 11:49	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 11:49	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 11:49	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 11:49	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 11:49	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 11:49	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 11:49	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 11:49	1
2-Butanone (MEK)	ND	F1	25	2.6	ug/L			10/19/23 11:49	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 11:49	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 11:49	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 11:49	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 11:49	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			10/19/23 11:49	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 11:49	1
1-Chlorohexane	ND	F1	1.0	0.32	ug/L			10/19/23 11:49	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 11:49	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 11:49	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 11:49	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 11:49	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 11:49	1
1,3-Dichlorobenzene	ND	F1	1.0	0.54	ug/L			10/19/23 11:49	1
1,4-Dichlorobenzene	ND	F1	1.0	0.64	ug/L			10/19/23 11:49	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 11:49	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 11:49	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 11:49	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 11:49	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:49	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:49	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 11:49	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 11:49	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 11:49	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 11:49	1
Hexachlorobutadiene	ND	F1	5.0	0.90	ug/L			10/19/23 11:49	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 11:49	1
Isopropylbenzene	ND	F1	1.0	0.53	ug/L			10/19/23 11:49	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 11:49	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 11:49	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 11:49	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 11:49	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 11:49	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 11:49	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 11:49	1
N-Propylbenzene	ND	F1	1.0	0.69	ug/L			10/19/23 11:49	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 11:49	1
o-Xylene	ND	F1	5.0	0.60	ug/L			10/19/23 11:49	1
p-Chlorotoluene	ND	F1	1.0	0.56	ug/L			10/19/23 11:49	1
p-Isopropyltoluene	ND	F1	1.0	0.71	ug/L			10/19/23 11:49	1

Client Sample ID: MW6C-ROX-101023
Date Collected: 10/10/23 09:10
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND	F1	1.0	0.70	ug/L			10/19/23 11:49	1
Styrene	ND	F1	1.0	1.0	ug/L			10/19/23 11:49	1
tert-Butylbenzene	ND	F1	1.0	0.63	ug/L			10/19/23 11:49	1
1,1,1,2-Tetrachloroethane	ND	F1	1.0	0.16	ug/L			10/19/23 11:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 11:49	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 11:49	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 11:49	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 11:49	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 11:49	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 11:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 11:49	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 11:49	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 11:49	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 11:49	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 11:49	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 11:49	1
1,2,4-Trimethylbenzene	ND	F1	1.0	0.82	ug/L			10/19/23 11:49	1
1,3,5-Trimethylbenzene	ND	F1	1.0	0.56	ug/L			10/19/23 11:49	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 11:49	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 11:49	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 11:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 130*		*10/19/23 11:49*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*10/19/23 11:49*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*10/19/23 11:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		10/16/23 13:27	10/19/23 16:10	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/16/23 13:27	10/19/23 16:10	1
Anthracene	ND		0.19	0.045	ug/L		10/16/23 13:27	10/19/23 16:10	1
Benzo[a]anthracene	**0.043**	**J**	0.19	0.032	ug/L		10/16/23 13:27	10/19/23 16:10	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		10/16/23 13:27	10/19/23 16:10	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		10/16/23 13:27	10/19/23 16:10	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		10/16/23 13:27	10/19/23 16:10	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		10/16/23 13:27	10/19/23 16:10	1
Chrysene	ND		0.19	0.031	ug/L		10/16/23 13:27	10/19/23 16:10	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		10/16/23 13:27	10/19/23 16:10	1
Fluoranthene	**0.072**	**J B**	0.19	0.032	ug/L		10/16/23 13:27	10/19/23 16:10	1
Fluorene	ND		0.19	0.085	ug/L		10/16/23 13:27	10/19/23 16:10	1
Indeno[1,2,3-cd]pyrene	**0.032**	**J**	0.19	0.032	ug/L		10/16/23 13:27	10/19/23 16:10	1
Phenanthrene	ND		0.19	0.085	ug/L		10/16/23 13:27	10/19/23 16:10	1
Pyrene	ND		0.19	0.037	ug/L		10/16/23 13:27	10/19/23 16:10	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		10/16/23 13:27	10/19/23 16:10	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		10/16/23 13:27	10/19/23 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*50*		*18 - 147*	*10/16/23 13:27*	*10/19/23 16:10*	*1*
2-Fluorobiphenyl	*53*		*15 - 128*	*10/16/23 13:27*	*10/19/23 16:10*	*1*

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

Job ID: 400-244887-1

Client Sample ID: MW6C-ROX-101023
Date Collected: 10/10/23 09:10
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	46		10 - 144	10/16/23 13:27	10/19/23 16:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/16/23 13:27	10/18/23 17:26	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		10/16/23 13:27	10/18/23 17:26	1
Benzoic acid	ND		28	6.9	ug/L		10/16/23 13:27	10/18/23 17:26	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/16/23 13:27	10/18/23 17:26	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/16/23 13:27	10/18/23 17:26	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/16/23 13:27	10/18/23 17:26	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/16/23 13:27	10/18/23 17:26	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		10/16/23 13:27	10/18/23 17:26	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/16/23 13:27	10/18/23 17:26	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/16/23 13:27	10/18/23 17:26	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/16/23 13:27	10/18/23 17:26	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/16/23 13:27	10/18/23 17:26	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/16/23 13:27	10/18/23 17:26	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/16/23 13:27	10/18/23 17:26	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/16/23 13:27	10/18/23 17:26	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 17:26	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 17:26	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/16/23 13:27	10/18/23 17:26	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		10/16/23 13:27	10/18/23 17:26	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/16/23 13:27	10/18/23 17:26	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 17:26	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 17:26	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/16/23 13:27	10/18/23 17:26	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/16/23 13:27	10/18/23 17:26	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/16/23 13:27	10/18/23 17:26	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/16/23 13:27	10/18/23 17:26	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/16/23 13:27	10/18/23 17:26	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 17:26	1
1,4-Dioxane	ND	F1	9.5	0.95	ug/L		10/16/23 13:27	10/18/23 17:26	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 17:26	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 17:26	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/16/23 13:27	10/18/23 17:26	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/16/23 13:27	10/18/23 17:26	1
Indene	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 17:26	1
Isophorone	ND		9.5	0.13	ug/L		10/16/23 13:27	10/18/23 17:26	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/16/23 13:27	10/18/23 17:26	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/16/23 13:27	10/18/23 17:26	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/16/23 13:27	10/18/23 17:26	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/16/23 13:27	10/18/23 17:26	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/16/23 13:27	10/18/23 17:26	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/16/23 13:27	10/18/23 17:26	1
2-Nitrophenol	ND		9.5	4.9	ug/L		10/16/23 13:27	10/18/23 17:26	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/16/23 13:27	10/18/23 17:26	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 17:26	1

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

Job ID: 400-244887-1

Client Sample ID: MW6C-ROX-101023
Date Collected: 10/10/23 09:10
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-3
Matrix: Water

Method: SW846 8270E - 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		10/16/23 13:27	10/18/23 17:26	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/16/23 13:27	10/18/23 17:26	1
Pentachlorophenol	ND		19	1.3	ug/L		10/16/23 13:27	10/18/23 17:26	1
Phenol	ND		9.5	2.5	ug/L		10/16/23 13:27	10/18/23 17:26	1
Pyridine	ND		9.5	3.0	ug/L		10/16/23 13:27	10/18/23 17:26	1
Quinoline	ND		9.5	4.3	ug/L		10/16/23 13:27	10/18/23 17:26	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/16/23 13:27	10/18/23 17:26	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*10/16/23 13:27*	*10/18/23 17:26*	*1*
2-Fluorophenol	*12*	*S1-*	*13 - 113*	*10/16/23 13:27*	*10/18/23 17:26*	*1*
Nitrobenzene-d5	*59*		*36 - 126*	*10/16/23 13:27*	*10/18/23 17:26*	*1*
Phenol-d5	*41*		*17 - 127*	*10/16/23 13:27*	*10/18/23 17:26*	*1*
Terphenyl-d14	*82*		*44 - 149*	*10/16/23 13:27*	*10/18/23 17:26*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*10/16/23 13:27*	*10/18/23 17:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/13/23 09:56	10/13/23 22:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/13/23 09:56	10/13/23 22:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*10/13/23 09:56*	*10/13/23 22:00*	*1*

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

Job ID: 400-244887-1

Client Sample ID: MW6A-ROX-101023
Date Collected: 10/10/23 10:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	13	J	25	10	ug/L			10/19/23 12:07	1
Acrolein	ND		20	3.3	ug/L			10/19/23 12:07	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 12:07	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 12:07	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 12:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 12:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 12:07	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 12:07	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 12:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 12:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 12:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 12:07	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 12:07	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 12:07	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 12:07	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 12:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 12:07	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 12:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 12:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 12:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 12:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 12:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 12:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 12:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 12:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 12:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 12:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 12:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 12:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 12:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 12:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 12:07	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 12:07	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 12:07	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 12:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 12:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 12:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 12:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 12:07	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 12:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 12:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 12:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 12:07	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 12:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 12:07	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 12:07	1

Client Sample ID: MW6A-ROX-101023
Date Collected: 10/10/23 10:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 12:07	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 12:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 12:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 12:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 12:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 12:07	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 12:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 12:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 12:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 12:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 12:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 12:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 12:07	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 12:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 12:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 12:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 12:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 12:07	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 12:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 12:07	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 12:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/19/23 12:07*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*10/19/23 12:07*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*10/19/23 12:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.26**		0.19	0.094	ug/L		10/16/23 13:27	10/18/23 17:58	1
Acenaphthylene	**0.22**		0.19	0.042	ug/L		10/16/23 13:27	10/18/23 17:58	1
Anthracene	ND		0.19	0.045	ug/L		10/16/23 13:27	10/18/23 17:58	1
Benzo[a]anthracene	**0.045**	**J**	0.19	0.032	ug/L		10/16/23 13:27	10/18/23 17:58	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		10/16/23 13:27	10/18/23 17:58	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		10/16/23 13:27	10/18/23 17:58	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		10/16/23 13:27	10/18/23 17:58	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		10/16/23 13:27	10/18/23 17:58	1
Chrysene	ND		0.19	0.031	ug/L		10/16/23 13:27	10/18/23 17:58	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		10/16/23 13:27	10/18/23 17:58	1
Fluoranthene	**0.055**	**J B**	0.19	0.032	ug/L		10/16/23 13:27	10/18/23 17:58	1
Fluorene	ND		0.19	0.085	ug/L		10/16/23 13:27	10/18/23 17:58	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		10/16/23 13:27	10/18/23 17:58	1
Phenanthrene	ND		0.19	0.086	ug/L		10/16/23 13:27	10/18/23 17:58	1
Pyrene	ND		0.19	0.037	ug/L		10/16/23 13:27	10/18/23 17:58	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		10/16/23 13:27	10/18/23 17:58	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		10/16/23 13:27	10/18/23 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*55*		*18 - 147*	*10/16/23 13:27*	*10/18/23 17:58*	*1*
2-Fluorobiphenyl	*59*		*15 - 128*	*10/16/23 13:27*	*10/18/23 17:58*	*1*

Client Sample ID: MW6A-ROX-101023

Date Collected: 10/10/23 10:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-4

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	57		10 - 144	10/16/23 13:27	10/18/23 17:58	1

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.097**	**J H**	0.19	0.094	ug/L		10/20/23 09:33	10/25/23 18:24	1
Acenaphthylene	ND	H	0.19	0.042	ug/L		10/20/23 09:33	10/25/23 18:24	1
Anthracene	ND	H	0.19	0.045	ug/L		10/20/23 09:33	10/25/23 18:24	1
Benzo[a]anthracene	**0.042**	**J H**	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 18:24	1
Benzo[a]pyrene	ND	H	0.19	0.061	ug/L		10/20/23 09:33	10/25/23 18:24	1
Benzo[b]fluoranthene	ND	H	0.19	0.035	ug/L		10/20/23 09:33	10/25/23 18:24	1
Benzo[g,h,i]perylene	ND	H	0.19	0.026	ug/L		10/20/23 09:33	10/25/23 18:24	1
Benzo[k]fluoranthene	ND	H	0.19	0.059	ug/L		10/20/23 09:33	10/25/23 18:24	1
Chrysene	ND	H	0.19	0.031	ug/L		10/20/23 09:33	10/25/23 18:24	1
Dibenz(a,h)anthracene	ND	H	0.19	0.046	ug/L		10/20/23 09:33	10/25/23 18:24	1
Fluoranthene	ND	H	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 18:24	1
Fluorene	ND	H	0.19	0.085	ug/L		10/20/23 09:33	10/25/23 18:24	1
Indeno[1,2,3-cd]pyrene	ND	H	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 18:24	1
Phenanthrene	ND	H	0.19	0.086	ug/L		10/20/23 09:33	10/25/23 18:24	1
Pyrene	ND	H	0.19	0.037	ug/L		10/20/23 09:33	10/25/23 18:24	1
1-Methylnaphthalene	ND	H	0.19	0.076	ug/L		10/20/23 09:33	10/25/23 18:24	1
2-Methylnaphthalene	ND	H	0.19	0.063	ug/L		10/20/23 09:33	10/25/23 18:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	58		18 - 147	10/20/23 09:33	10/25/23 18:24	1
2-Fluorobiphenyl	62		15 - 128	10/20/23 09:33	10/25/23 18:24	1
Nitrobenzene-d5	61		10 - 144	10/20/23 09:33	10/25/23 18:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/16/23 13:27	10/18/23 17:47	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		10/16/23 13:27	10/18/23 17:47	1
Benzoic acid	ND		29	7.0	ug/L		10/16/23 13:27	10/18/23 17:47	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/16/23 13:27	10/18/23 17:47	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/16/23 13:27	10/18/23 17:47	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/16/23 13:27	10/18/23 17:47	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/16/23 13:27	10/18/23 17:47	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/16/23 13:27	10/18/23 17:47	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/16/23 13:27	10/18/23 17:47	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/16/23 13:27	10/18/23 17:47	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/16/23 13:27	10/18/23 17:47	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/16/23 13:27	10/18/23 17:47	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/16/23 13:27	10/18/23 17:47	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/16/23 13:27	10/18/23 17:47	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/16/23 13:27	10/18/23 17:47	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 17:47	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 17:47	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/16/23 13:27	10/18/23 17:47	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/16/23 13:27	10/18/23 17:47	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/16/23 13:27	10/18/23 17:47	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 17:47	1

Client Sample ID: MW6A-ROX-101023
Date Collected: 10/10/23 10:00
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 17:47	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/16/23 13:27	10/18/23 17:47	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/16/23 13:27	10/18/23 17:47	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		10/16/23 13:27	10/18/23 17:47	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/16/23 13:27	10/18/23 17:47	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/16/23 13:27	10/18/23 17:47	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 17:47	1
1,4-Dioxane	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 17:47	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 17:47	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/16/23 13:27	10/18/23 17:47	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/16/23 13:27	10/18/23 17:47	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/16/23 13:27	10/18/23 17:47	1
Indene	ND		9.5	0.95	ug/L		10/16/23 13:27	10/18/23 17:47	1
Isophorone	ND		9.5	0.13	ug/L		10/16/23 13:27	10/18/23 17:47	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/16/23 13:27	10/18/23 17:47	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/16/23 13:27	10/18/23 17:47	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/16/23 13:27	10/18/23 17:47	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/16/23 13:27	10/18/23 17:47	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/16/23 13:27	10/18/23 17:47	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/16/23 13:27	10/18/23 17:47	1
2-Nitrophenol	ND		9.5	5.0	ug/L		10/16/23 13:27	10/18/23 17:47	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/16/23 13:27	10/18/23 17:47	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 17:47	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/16/23 13:27	10/18/23 17:47	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/16/23 13:27	10/18/23 17:47	1
Pentachlorophenol	ND		19	1.3	ug/L		10/16/23 13:27	10/18/23 17:47	1
Phenol	ND		9.5	2.5	ug/L		10/16/23 13:27	10/18/23 17:47	1
Pyridine	ND		9.5	3.1	ug/L		10/16/23 13:27	10/18/23 17:47	1
Quinoline	ND		9.5	4.3	ug/L		10/16/23 13:27	10/18/23 17:47	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/16/23 13:27	10/18/23 17:47	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/16/23 13:27	10/18/23 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*10/16/23 13:27*	*10/18/23 17:47*	*1*
2-Fluorophenol	*31*		*13 - 113*	*10/16/23 13:27*	*10/18/23 17:47*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*10/16/23 13:27*	*10/18/23 17:47*	*1*
Phenol-d5	*57*		*17 - 127*	*10/16/23 13:27*	*10/18/23 17:47*	*1*
Terphenyl-d14	*68*		*44 - 149*	*10/16/23 13:27*	*10/18/23 17:47*	*1*
2,4,6-Tribromophenol	*85*		*26 - 150*	*10/16/23 13:27*	*10/18/23 17:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		10/13/23 09:56	10/13/23 23:03	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/13/23 09:56	10/13/23 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*51 - 149*	*10/13/23 09:56*	*10/13/23 23:03*	*1*

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

Job ID: 400-244887-1

Client Sample ID: MW6B-ROX-101023
Date Collected: 10/10/23 10:40
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/19/23 12:26	1
Acrolein	ND		20	3.3	ug/L			10/19/23 12:26	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 12:26	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 12:26	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 12:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 12:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 12:26	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 12:26	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 12:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 12:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 12:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 12:26	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 12:26	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 12:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 12:26	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 12:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 12:26	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 12:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 12:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 12:26	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 12:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 12:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 12:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 12:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 12:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 12:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 12:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 12:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 12:26	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 12:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 12:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 12:26	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 12:26	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 12:26	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 12:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 12:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 12:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 12:26	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 12:26	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 12:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 12:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 12:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 12:26	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 12:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 12:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 12:26	1

Client Sample ID: MW6B-ROX-101023
Date Collected: 10/10/23 10:40
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 12:26	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 12:26	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 12:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 12:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 12:26	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 12:26	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 12:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 12:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 12:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 12:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 12:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 12:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 12:26	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 12:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 12:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 12:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 12:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 12:26	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 12:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 12:26	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 130*		*10/19/23 12:26*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*10/19/23 12:26*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*10/19/23 12:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.11**	**J**	0.19	0.093	ug/L		10/16/23 13:27	10/18/23 18:19	1
Acenaphthylene	**0.10**	**J**	0.19	0.041	ug/L		10/16/23 13:27	10/18/23 18:19	1
Anthracene	ND		0.19	0.044	ug/L		10/16/23 13:27	10/18/23 18:19	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		10/16/23 13:27	10/18/23 18:19	1
Benzo[a]pyrene	ND		0.19	0.060	ug/L		10/16/23 13:27	10/18/23 18:19	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		10/16/23 13:27	10/18/23 18:19	1
Benzo[g,h,i]perylene	ND		0.19	0.025	ug/L		10/16/23 13:27	10/18/23 18:19	1
Benzo[k]fluoranthene	ND		0.19	0.058	ug/L		10/16/23 13:27	10/18/23 18:19	1
Chrysene	ND		0.19	0.031	ug/L		10/16/23 13:27	10/18/23 18:19	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		10/16/23 13:27	10/18/23 18:19	1
Fluoranthene	**0.056**	**J B**	0.19	0.032	ug/L		10/16/23 13:27	10/18/23 18:19	1
Fluorene	ND		0.19	0.084	ug/L		10/16/23 13:27	10/18/23 18:19	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		10/16/23 13:27	10/18/23 18:19	1
Phenanthrene	ND		0.19	0.085	ug/L		10/16/23 13:27	10/18/23 18:19	1
Pyrene	ND		0.19	0.037	ug/L		10/16/23 13:27	10/18/23 18:19	1
1-Methylnaphthalene	ND		0.19	0.075	ug/L		10/16/23 13:27	10/18/23 18:19	1
2-Methylnaphthalene	ND		0.19	0.062	ug/L		10/16/23 13:27	10/18/23 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*68*		*18 - 147*	*10/16/23 13:27*	*10/18/23 18:19*	*1*
2-Fluorobiphenyl	*61*		*15 - 128*	*10/16/23 13:27*	*10/18/23 18:19*	*1*

Client Sample ID: MW6B-ROX-101023

Date Collected: 10/10/23 10:40
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-5

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*55*		*10 - 144*	*10/16/23 13:27*	*10/18/23 18:19*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.10**	**J H**	0.19	0.093	ug/L		10/20/23 09:33	10/25/23 18:44	1
Acenaphthylene	**0.12**	**J H**	0.19	0.041	ug/L		10/20/23 09:33	10/25/23 18:44	1
Anthracene	**0.044**	**J H**	0.19	0.044	ug/L		10/20/23 09:33	10/25/23 18:44	1
Benzo[a]anthracene	**0.044**	**J H**	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 18:44	1
Benzo[a]pyrene	ND	H	0.19	0.060	ug/L		10/20/23 09:33	10/25/23 18:44	1
Benzo[b]fluoranthene	ND	H	0.19	0.035	ug/L		10/20/23 09:33	10/25/23 18:44	1
Benzo[g,h,i]perylene	ND	H	0.19	0.025	ug/L		10/20/23 09:33	10/25/23 18:44	1
Benzo[k]fluoranthene	ND	H	0.19	0.058	ug/L		10/20/23 09:33	10/25/23 18:44	1
Chrysene	ND	H	0.19	0.031	ug/L		10/20/23 09:33	10/25/23 18:44	1
Dibenz(a,h)anthracene	ND	H	0.19	0.045	ug/L		10/20/23 09:33	10/25/23 18:44	1
Fluoranthene	**0.097**	**J H**	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 18:44	1
Fluorene	ND	H	0.19	0.083	ug/L		10/20/23 09:33	10/25/23 18:44	1
Indeno[1,2,3-cd]pyrene	ND	H	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 18:44	1
Phenanthrene	ND	H	0.19	0.084	ug/L		10/20/23 09:33	10/25/23 18:44	1
Pyrene	ND	H	0.19	0.037	ug/L		10/20/23 09:33	10/25/23 18:44	1
1-Methylnaphthalene	ND	H	0.19	0.075	ug/L		10/20/23 09:33	10/25/23 18:44	1
2-Methylnaphthalene	ND	H	0.19	0.062	ug/L		10/20/23 09:33	10/25/23 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*60*		*18 - 147*	*10/20/23 09:33*	*10/25/23 18:44*	*1*
2-Fluorobiphenyl	*65*		*15 - 128*	*10/20/23 09:33*	*10/25/23 18:44*	*1*
Nitrobenzene-d5	*55*		*10 - 144*	*10/20/23 09:33*	*10/25/23 18:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		10/16/23 13:27	10/18/23 18:08	1
Benzenethiol	ND	*-	9.4	1.6	ug/L		10/16/23 13:27	10/18/23 18:08	1
Benzoic acid	ND		28	6.9	ug/L		10/16/23 13:27	10/18/23 18:08	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/16/23 13:27	10/18/23 18:08	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/16/23 13:27	10/18/23 18:08	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/16/23 13:27	10/18/23 18:08	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/16/23 13:27	10/18/23 18:08	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/16/23 13:27	10/18/23 18:08	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/16/23 13:27	10/18/23 18:08	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/16/23 13:27	10/18/23 18:08	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/16/23 13:27	10/18/23 18:08	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/16/23 13:27	10/18/23 18:08	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/16/23 13:27	10/18/23 18:08	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/16/23 13:27	10/18/23 18:08	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/16/23 13:27	10/18/23 18:08	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/16/23 13:27	10/18/23 18:08	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/16/23 13:27	10/18/23 18:08	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		10/16/23 13:27	10/18/23 18:08	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/16/23 13:27	10/18/23 18:08	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/16/23 13:27	10/18/23 18:08	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/16/23 13:27	10/18/23 18:08	1

Client Sample ID: MW6B-ROX-101023
Date Collected: 10/10/23 10:40
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/16/23 13:27	10/18/23 18:08	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/16/23 13:27	10/18/23 18:08	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		10/16/23 13:27	10/18/23 18:08	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/16/23 13:27	10/18/23 18:08	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/16/23 13:27	10/18/23 18:08	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/16/23 13:27	10/18/23 18:08	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/16/23 13:27	10/18/23 18:08	1
1,4-Dioxane	ND		9.4	0.94	ug/L		10/16/23 13:27	10/18/23 18:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/16/23 13:27	10/18/23 18:08	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/16/23 13:27	10/18/23 18:08	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		10/16/23 13:27	10/18/23 18:08	1
Hexachloroethane	ND		9.4	3.9	ug/L		10/16/23 13:27	10/18/23 18:08	1
Indene	ND		9.4	0.94	ug/L		10/16/23 13:27	10/18/23 18:08	1
Isophorone	ND		9.4	0.13	ug/L		10/16/23 13:27	10/18/23 18:08	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/16/23 13:27	10/18/23 18:08	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/16/23 13:27	10/18/23 18:08	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/16/23 13:27	10/18/23 18:08	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/16/23 13:27	10/18/23 18:08	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/16/23 13:27	10/18/23 18:08	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/16/23 13:27	10/18/23 18:08	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/16/23 13:27	10/18/23 18:08	1
4-Nitrophenol	ND		9.4	2.0	ug/L		10/16/23 13:27	10/18/23 18:08	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		10/16/23 13:27	10/18/23 18:08	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/16/23 13:27	10/18/23 18:08	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/16/23 13:27	10/18/23 18:08	1
Pentachlorophenol	ND		19	1.3	ug/L		10/16/23 13:27	10/18/23 18:08	1
Phenol	ND		9.4	2.4	ug/L		10/16/23 13:27	10/18/23 18:08	1
Pyridine	ND		9.4	3.0	ug/L		10/16/23 13:27	10/18/23 18:08	1
Quinoline	ND		9.4	4.2	ug/L		10/16/23 13:27	10/18/23 18:08	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/16/23 13:27	10/18/23 18:08	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/16/23 13:27	10/18/23 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*10/16/23 13:27*	*10/18/23 18:08*	*1*
2-Fluorophenol	*22*		*13 - 113*	*10/16/23 13:27*	*10/18/23 18:08*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*10/16/23 13:27*	*10/18/23 18:08*	*1*
Phenol-d5	*47*		*17 - 127*	*10/16/23 13:27*	*10/18/23 18:08*	*1*
Terphenyl-d14	*80*		*44 - 149*	*10/16/23 13:27*	*10/18/23 18:08*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*10/16/23 13:27*	*10/18/23 18:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/13/23 09:56	10/13/23 23:46	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/13/23 09:56	10/13/23 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*51 - 149*	*10/13/23 09:56*	*10/13/23 23:46*	*1*

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

Job ID: 400-244887-1

Client Sample ID: MW12-ROX-101023
Date Collected: 10/10/23 13:40
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/19/23 12:45	1
Acrolein	ND		20	3.3	ug/L			10/19/23 12:45	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 12:45	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 12:45	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 12:45	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 12:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 12:45	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 12:45	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 12:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 12:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 12:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 12:45	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 12:45	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 12:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 12:45	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 12:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 12:45	1
Chloromethane	**1.4**		1.0	0.90	ug/L			10/19/23 12:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 12:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 12:45	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 12:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 12:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 12:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 12:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 12:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 12:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 12:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 12:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 12:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 12:45	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 12:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 12:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 12:45	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 12:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 12:45	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 12:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 12:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 12:45	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 12:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 12:45	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 12:45	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 12:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 12:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 12:45	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 12:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 12:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/19/23 12:45	1

Client Sample ID: MW12-ROX-101023
Date Collected: 10/10/23 13:40
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 12:45	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 12:45	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 12:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 12:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 12:45	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 12:45	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 12:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 12:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 12:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 12:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 12:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 12:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 12:45	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 12:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 12:45	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 12:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 12:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 12:45	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 12:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 12:45	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 130*		*10/19/23 12:45*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*10/19/23 12:45*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*10/19/23 12:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.093	ug/L		10/16/23 13:27	10/18/23 18:40	1
Acenaphthylene	ND		0.19	0.041	ug/L		10/16/23 13:27	10/18/23 18:40	1
Anthracene	ND		0.19	0.044	ug/L		10/16/23 13:27	10/18/23 18:40	1
Benzo[a]anthracene	**0.052**	**J**	0.19	0.032	ug/L		10/16/23 13:27	10/18/23 18:40	1
Benzo[a]pyrene	ND		0.19	0.060	ug/L		10/16/23 13:27	10/18/23 18:40	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		10/16/23 13:27	10/18/23 18:40	1
Benzo[g,h,i]perylene	ND		0.19	0.025	ug/L		10/16/23 13:27	10/18/23 18:40	1
Benzo[k]fluoranthene	ND		0.19	0.058	ug/L		10/16/23 13:27	10/18/23 18:40	1
Chrysene	ND		0.19	0.031	ug/L		10/16/23 13:27	10/18/23 18:40	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		10/16/23 13:27	10/18/23 18:40	1
Fluoranthene	**0.053**	**J B**	0.19	0.032	ug/L		10/16/23 13:27	10/18/23 18:40	1
Fluorene	ND		0.19	0.083	ug/L		10/16/23 13:27	10/18/23 18:40	1
Indeno[1,2,3-cd]pyrene	**0.073**	**J**	0.19	0.032	ug/L		10/16/23 13:27	10/18/23 18:40	1
Phenanthrene	ND		0.19	0.084	ug/L		10/16/23 13:27	10/18/23 18:40	1
Pyrene	ND		0.19	0.037	ug/L		10/16/23 13:27	10/18/23 18:40	1
1-Methylnaphthalene	ND		0.19	0.075	ug/L		10/16/23 13:27	10/18/23 18:40	1
2-Methylnaphthalene	ND		0.19	0.062	ug/L		10/16/23 13:27	10/18/23 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*18 - 147*	*10/16/23 13:27*	*10/18/23 18:40*	*1*
2-Fluorobiphenyl	*70*		*15 - 128*	*10/16/23 13:27*	*10/18/23 18:40*	*1*

Client Sample ID: MW12-ROX-101023

Date Collected: 10/10/23 13:40
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-6

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	58		10 - 144	10/16/23 13:27	10/18/23 18:40	1

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.19	0.093	ug/L		10/20/23 09:33	10/25/23 19:05	1
Acenaphthylene	ND	H	0.19	0.041	ug/L		10/20/23 09:33	10/25/23 19:05	1
Anthracene	ND	H	0.19	0.044	ug/L		10/20/23 09:33	10/25/23 19:05	1
Benzo[a]anthracene	**0.034**	**J H**	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 19:05	1
Benzo[a]pyrene	ND	H	0.19	0.060	ug/L		10/20/23 09:33	10/25/23 19:05	1
Benzo[b]fluoranthene	ND	H	0.19	0.035	ug/L		10/20/23 09:33	10/25/23 19:05	1
Benzo[g,h,i]perylene	ND	H	0.19	0.025	ug/L		10/20/23 09:33	10/25/23 19:05	1
Benzo[k]fluoranthene	ND	H	0.19	0.058	ug/L		10/20/23 09:33	10/25/23 19:05	1
Chrysene	ND	H	0.19	0.031	ug/L		10/20/23 09:33	10/25/23 19:05	1
Dibenz(a,h)anthracene	ND	H	0.19	0.045	ug/L		10/20/23 09:33	10/25/23 19:05	1
Fluoranthene	**0.052**	**J H**	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 19:05	1
Fluorene	ND	H	0.19	0.084	ug/L		10/20/23 09:33	10/25/23 19:05	1
Indeno[1,2,3-cd]pyrene	ND	H	0.19	0.032	ug/L		10/20/23 09:33	10/25/23 19:05	1
Phenanthrene	ND	H	0.19	0.085	ug/L		10/20/23 09:33	10/25/23 19:05	1
Pyrene	ND	H	0.19	0.037	ug/L		10/20/23 09:33	10/25/23 19:05	1
1-Methylnaphthalene	ND	H	0.19	0.075	ug/L		10/20/23 09:33	10/25/23 19:05	1
2-Methylnaphthalene	ND	H	0.19	0.062	ug/L		10/20/23 09:33	10/25/23 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	61		18 - 147	10/20/23 09:33	10/25/23 19:05	1
2-Fluorobiphenyl	75		15 - 128	10/20/23 09:33	10/25/23 19:05	1
Nitrobenzene-d5	65		10 - 144	10/20/23 09:33	10/25/23 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		10/16/23 13:27	10/18/23 18:29	1
Benzenethiol	ND	*-	9.4	1.6	ug/L		10/16/23 13:27	10/18/23 18:29	1
Benzoic acid	ND		28	6.8	ug/L		10/16/23 13:27	10/18/23 18:29	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/16/23 13:27	10/18/23 18:29	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/16/23 13:27	10/18/23 18:29	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/16/23 13:27	10/18/23 18:29	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/16/23 13:27	10/18/23 18:29	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/16/23 13:27	10/18/23 18:29	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/16/23 13:27	10/18/23 18:29	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/16/23 13:27	10/18/23 18:29	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/16/23 13:27	10/18/23 18:29	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/16/23 13:27	10/18/23 18:29	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/16/23 13:27	10/18/23 18:29	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/16/23 13:27	10/18/23 18:29	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/16/23 13:27	10/18/23 18:29	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/16/23 13:27	10/18/23 18:29	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/16/23 13:27	10/18/23 18:29	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		10/16/23 13:27	10/18/23 18:29	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/16/23 13:27	10/18/23 18:29	1
Diethyl phthalate	**0.28**	**J**	9.4	0.22	ug/L		10/16/23 13:27	10/18/23 18:29	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/16/23 13:27	10/18/23 18:29	1

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

Job ID: 400-244887-1

Client Sample ID: MW12-ROX-101023
Date Collected: 10/10/23 13:40
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	0.49	J	9.4	0.16	ug/L		10/16/23 13:27	10/18/23 18:29	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/16/23 13:27	10/18/23 18:29	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		10/16/23 13:27	10/18/23 18:29	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/16/23 13:27	10/18/23 18:29	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/16/23 13:27	10/18/23 18:29	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/16/23 13:27	10/18/23 18:29	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/16/23 13:27	10/18/23 18:29	1
1,4-Dioxane	ND		9.4	0.94	ug/L		10/16/23 13:27	10/18/23 18:29	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/16/23 13:27	10/18/23 18:29	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/16/23 13:27	10/18/23 18:29	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		10/16/23 13:27	10/18/23 18:29	1
Hexachloroethane	ND		9.4	3.9	ug/L		10/16/23 13:27	10/18/23 18:29	1
Indene	ND		9.4	0.94	ug/L		10/16/23 13:27	10/18/23 18:29	1
Isophorone	ND		9.4	0.13	ug/L		10/16/23 13:27	10/18/23 18:29	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/16/23 13:27	10/18/23 18:29	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/16/23 13:27	10/18/23 18:29	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/16/23 13:27	10/18/23 18:29	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/16/23 13:27	10/18/23 18:29	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/16/23 13:27	10/18/23 18:29	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/16/23 13:27	10/18/23 18:29	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/16/23 13:27	10/18/23 18:29	1
4-Nitrophenol	ND		9.4	2.0	ug/L		10/16/23 13:27	10/18/23 18:29	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		10/16/23 13:27	10/18/23 18:29	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/16/23 13:27	10/18/23 18:29	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/16/23 13:27	10/18/23 18:29	1
Pentachlorophenol	ND		19	1.3	ug/L		10/16/23 13:27	10/18/23 18:29	1
Phenol	ND		9.4	2.4	ug/L		10/16/23 13:27	10/18/23 18:29	1
Pyridine	ND		9.4	3.0	ug/L		10/16/23 13:27	10/18/23 18:29	1
Quinoline	ND		9.4	4.2	ug/L		10/16/23 13:27	10/18/23 18:29	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/16/23 13:27	10/18/23 18:29	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/16/23 13:27	10/18/23 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*10/16/23 13:27*	*10/18/23 18:29*	*1*
2-Fluorophenol	*18*		*13 - 113*	*10/16/23 13:27*	*10/18/23 18:29*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*10/16/23 13:27*	*10/18/23 18:29*	*1*
Phenol-d5	*48*		*17 - 127*	*10/16/23 13:27*	*10/18/23 18:29*	*1*
Terphenyl-d14	*75*		*44 - 149*	*10/16/23 13:27*	*10/18/23 18:29*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*10/16/23 13:27*	*10/18/23 18:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/13/23 09:56	10/14/23 00:07	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/13/23 09:56	10/14/23 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*51 - 149*	*10/13/23 09:56*	*10/14/23 00:07*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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.

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: 400-244887-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-244887-1	TB-ROX-11023-8260	93	112	98
400-244887-3	MW6C-ROX-101023	95	109	100
400-244887-3 MS	MW6C-ROX-101023	95	113	101
400-244887-3 MSD	MW6C-ROX-101023	94	112	100
400-244887-4	MW6A-ROX-101023	94	112	100
400-244887-5	MW6B-ROX-101023	95	108	100
400-244887-6	MW12-ROX-101023	95	112	100
LCS 400-646246/1001	Lab Control Sample	97	111	99
MB 400-646246/3	Method Blank	94	111	97

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-244887-3	MW6C-ROX-101023	67	12 S1-	59	41	82	71
400-244887-3 MS	MW6C-ROX-101023	74	20	71	55	87	96
400-244887-3 MSD	MW6C-ROX-101023	74	25	70	52	83	93
400-244887-4	MW6A-ROX-101023	75	31	67	57	68	85
400-244887-5	MW6B-ROX-101023	67	22	61	47	80	77
400-244887-6	MW12-ROX-101023	72	18	65	48	75	69
LCS 400-645675/2-A	Lab Control Sample	69	31	64	53	78	90
LCS 400-645675/3-A	Lab Control Sample	75	33	64	56	85	67
LCSD 400-645675/4-A	Lab Control Sample Dup	71	29	61	48	77	70
MB 400-645675/1-A	Method Blank	74	11 S1-	63	39	79	67

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-244887-3	MW6C-ROX-101023	50	53	46
400-244887-3 MS	MW6C-ROX-101023	81	80	45
400-244887-3 MSD	MW6C-ROX-101023	85	78	55
400-244887-4	MW6A-ROX-101023	55	59	57
400-244887-4 - RERA	MW6A-ROX-101023	58	62	61

Surrogate Summary

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

Job ID: 400-244887-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TPHL (18-147)	FBP (15-128)	NBZ (10-144)
400-244887-5	MW6B-ROX-101023	68	61	55
400-244887-5 - RERA	MW6B-ROX-101023	60	65	55
400-244887-6	MW12-ROX-101023	87	70	58
400-244887-6 - RERA	MW12-ROX-101023	61	75	65
LCS 400-645675/5-A	Lab Control Sample	70	68	59
LCS 400-646461/2-A	Lab Control Sample	70	68	59
LCSD 400-645675/6-A	Lab Control Sample Dup	71	67	60
LCSD 400-646461/3-A	Lab Control Sample Dup	68	69	58
MB 400-645675/1-A	Method Blank	32	30	26
MB 400-646461/1-A	Method Blank	66	69	58

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-244887-2	TB-ROX-11023-8011	108
400-244887-3	MW6C-ROX-101023	110
400-244887-3 MS	MW6C-ROX-101023	101
400-244887-3 MSD	MW6C-ROX-101023	95
400-244887-4	MW6A-ROX-101023	90
400-244887-5	MW6B-ROX-101023	93
400-244887-6	MW12-ROX-101023	114
LCS 400-645442/2-A	Lab Control Sample	91
LCSD 400-645442/3-A	Lab Control Sample Dup	97
MB 400-645442/1-A	Method Blank	86

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-244887-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-244887-1

Client Sample ID: TB-ROX-11023-8260
Lab Sample ID: 400-244887-1
Date Collected: 10/10/23 12:00
Matrix: Water
Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646246	10/19/23 11:30	CAR	EET PEN

Client Sample ID: TB-ROX-11023-8011
Lab Sample ID: 400-244887-2
Date Collected: 10/10/23 12:00
Matrix: Water
Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.1 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 21:39	PG	EET PEN

Client Sample ID: MW6C-ROX-101023
Lab Sample ID: 400-244887-3
Date Collected: 10/10/23 09:10
Matrix: Water
Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646246	10/19/23 11:49	CAR	EET PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646046	10/18/23 17:26	S1B	EET PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646291	10/19/23 16:10	S1B	EET PEN
Total/NA	Prep	8011			34.8 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 22:00	PG	EET PEN

Client Sample ID: MW6A-ROX-101023
Lab Sample ID: 400-244887-4
Date Collected: 10/10/23 10:00
Matrix: Water
Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646246	10/19/23 12:07	CAR	EET PEN
Total/NA	Prep	3520C			262 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646046	10/18/23 17:47	S1B	EET PEN
Total/NA	Prep	3520C			262 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/18/23 17:58	S1B	EET PEN
Total/NA	Prep	3520C	RERA		263 mL	1 mL	646461	10/20/23 09:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647132	10/25/23 18:24	KJA	EET PEN
Total/NA	Prep	8011			35.6 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 23:03	PG	EET PEN

Client Sample ID: MW6B-ROX-101023
Lab Sample ID: 400-244887-5
Date Collected: 10/10/23 10:40
Matrix: Water
Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646246	10/19/23 12:26	CAR	EET PEN

Lab Chronicle

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

Job ID: 400-244887-1

Client Sample ID: MW6B-ROX-101023

Lab Sample ID: 400-244887-5

Date Collected: 10/10/23 10:40

Matrix: Water

Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			266.2 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646046	10/18/23 18:08	S1B	EET PEN
Total/NA	Prep	3520C			266.2 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/18/23 18:19	S1B	EET PEN
Total/NA	Prep	3520C	RERA		267 mL	1 mL	646461	10/20/23 09:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647132	10/25/23 18:44	KJA	EET PEN
Total/NA	Prep	8011			34.8 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 23:46	PG	EET PEN

Client Sample ID: MW12-ROX-101023

Lab Sample ID: 400-244887-6

Date Collected: 10/10/23 13:40

Matrix: Water

Date Received: 10/11/23 08:56

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646246	10/19/23 12:45	CAR	EET PEN
Total/NA	Prep	3520C			266.8 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646046	10/18/23 18:29	S1B	EET PEN
Total/NA	Prep	3520C			266.8 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/18/23 18:40	S1B	EET PEN
Total/NA	Prep	3520C	RERA		265.4 mL	1 mL	646461	10/20/23 09:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647132	10/25/23 19:05	KJA	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/14/23 00:07	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645442/1-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	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 15:58	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645675/1-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645848	10/17/23 16:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/19/23 10:25	S1B	EET PEN

Client Sample ID: Method Blank — Lab Sample ID: MB 400-646246/3

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	8260D		1	5 mL	5 mL	646246	10/19/23 10:53	CAR	EET PEN

Client Sample ID: Method Blank — Lab Sample ID: MB 400-646461/1-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	646461	10/20/23 09:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647132	10/25/23 17:22	KJA	EET PEN

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-645442/2-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	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 16:20	PG	EET PEN

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-645675/2-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645848	10/17/23 17:04	S1B	EET PEN

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-645675/3-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645848	10/17/23 17:25	S1B	EET PEN

Client Sample ID: Lab Control Sample — Lab Sample ID: LCS 400-645675/5-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/18/23 16:15	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-244887-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646246/1001
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	8260D		1	5 mL	5 mL	646246	10/19/23 09:21	CAR	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646461/2-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	646461	10/20/23 09:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647132	10/25/23 17:42	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645442/3-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	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 16:41	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645675/4-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	645848	10/17/23 17:46	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645675/6-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	645675	10/16/23 10:40	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646073	10/18/23 16:35	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646461/3-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	646461	10/20/23 09:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647132	10/25/23 18:03	KJA	EET PEN

Lab Chronicle

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

Job ID: 400-244887-1

Client Sample ID: MW6C-ROX-101023
Date Collected: 10/10/23 09:10
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-3 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	8260D		1	5 mL	5 mL	646246	10/19/23 13:59	CAR	EET PEN
Total/NA	Prep	3520C			259.8 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646046	10/18/23 16:44	S1B	EET PEN
Total/NA	Prep	3520C			259.8 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	646073	10/18/23 16:56	S1B	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 22:21	PG	EET PEN

Client Sample ID: MW6C-ROX-101023
Date Collected: 10/10/23 09:10
Date Received: 10/11/23 08:56

Lab Sample ID: 400-244887-3 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	8260D		1	5 mL	5 mL	646246	10/19/23 14:18	CAR	EET PEN
Total/NA	Prep	3520C			257 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646046	10/18/23 17:05	S1B	EET PEN
Total/NA	Prep	3520C			257 mL	1 mL	645675	10/16/23 13:27	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	646073	10/18/23 17:17	S1B	EET PEN
Total/NA	Prep	8011			34 mL	35 mL	645442	10/13/23 09:56	PG	EET PEN
Total/NA	Analysis	8011		1			645412	10/13/23 22:42	PG	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-1	TB-ROX-11023-8260	Total/NA	Water	8260D	
400-244887-3	MW6C-ROX-101023	Total/NA	Water	8260D	
400-244887-4	MW6A-ROX-101023	Total/NA	Water	8260D	
400-244887-5	MW6B-ROX-101023	Total/NA	Water	8260D	
400-244887-6	MW12-ROX-101023	Total/NA	Water	8260D	
MB 400-646246/3	Method Blank	Total/NA	Water	8260D	
LCS 400-646246/1001	Lab Control Sample	Total/NA	Water	8260D	
400-244887-3 MS	MW6C-ROX-101023	Total/NA	Water	8260D	
400-244887-3 MSD	MW6C-ROX-101023	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 645675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-3	MW6C-ROX-101023	Total/NA	Water	3520C	
400-244887-4	MW6A-ROX-101023	Total/NA	Water	3520C	
400-244887-5	MW6B-ROX-101023	Total/NA	Water	3520C	
400-244887-6	MW12-ROX-101023	Total/NA	Water	3520C	
MB 400-645675/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-645675/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-645675/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-645675/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-645675/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-645675/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-244887-3 MS	MW6C-ROX-101023	Total/NA	Water	3520C	
400-244887-3 MSD	MW6C-ROX-101023	Total/NA	Water	3520C	

Analysis Batch: 645848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-645675/1-A	Method Blank	Total/NA	Water	8270E	645675
LCS 400-645675/2-A	Lab Control Sample	Total/NA	Water	8270E	645675
LCS 400-645675/3-A	Lab Control Sample	Total/NA	Water	8270E	645675
LCSD 400-645675/4-A	Lab Control Sample Dup	Total/NA	Water	8270E	645675

Analysis Batch: 646046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-3	MW6C-ROX-101023	Total/NA	Water	8270E	645675
400-244887-4	MW6A-ROX-101023	Total/NA	Water	8270E	645675
400-244887-5	MW6B-ROX-101023	Total/NA	Water	8270E	645675
400-244887-6	MW12-ROX-101023	Total/NA	Water	8270E	645675
400-244887-3 MS	MW6C-ROX-101023	Total/NA	Water	8270E	645675
400-244887-3 MSD	MW6C-ROX-101023	Total/NA	Water	8270E	645675

Analysis Batch: 646073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-4	MW6A-ROX-101023	Total/NA	Water	8270E SIM	645675
400-244887-5	MW6B-ROX-101023	Total/NA	Water	8270E SIM	645675
400-244887-6	MW12-ROX-101023	Total/NA	Water	8270E SIM	645675
MB 400-645675/1-A	Method Blank	Total/NA	Water	8270E SIM	645675
LCS 400-645675/5-A	Lab Control Sample	Total/NA	Water	8270E SIM	645675
LCSD 400-645675/6-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	645675

GC/MS Semi VOA (Continued)

Analysis Batch: 646073 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-3 MS	MW6C-ROX-101023	Total/NA	Water	8270E SIM	645675
400-244887-3 MSD	MW6C-ROX-101023	Total/NA	Water	8270E SIM	645675

Analysis Batch: 646291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-3	MW6C-ROX-101023	Total/NA	Water	8270E SIM	645675

Prep Batch: 646461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-4 - RERA	MW6A-ROX-101023	Total/NA	Water	3520C	
400-244887-5 - RERA	MW6B-ROX-101023	Total/NA	Water	3520C	
400-244887-6 - RERA	MW12-ROX-101023	Total/NA	Water	3520C	
MB 400-646461/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646461/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646461/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 647132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-4 - RERA	MW6A-ROX-101023	Total/NA	Water	8270E SIM	646461
400-244887-5 - RERA	MW6B-ROX-101023	Total/NA	Water	8270E SIM	646461
400-244887-6 - RERA	MW12-ROX-101023	Total/NA	Water	8270E SIM	646461
MB 400-646461/1-A	Method Blank	Total/NA	Water	8270E SIM	646461
LCS 400-646461/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	646461
LCSD 400-646461/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646461

GC Semi VOA

Analysis Batch: 645412

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-2	TB-ROX-11023-8011	Total/NA	Water	8011	645442
400-244887-3	MW6C-ROX-101023	Total/NA	Water	8011	645442
400-244887-4	MW6A-ROX-101023	Total/NA	Water	8011	645442
400-244887-5	MW6B-ROX-101023	Total/NA	Water	8011	645442
400-244887-6	MW12-ROX-101023	Total/NA	Water	8011	645442
MB 400-645442/1-A	Method Blank	Total/NA	Water	8011	645442
LCS 400-645442/2-A	Lab Control Sample	Total/NA	Water	8011	645442
LCSD 400-645442/3-A	Lab Control Sample Dup	Total/NA	Water	8011	645442
400-244887-3 MS	MW6C-ROX-101023	Total/NA	Water	8011	645442
400-244887-3 MSD	MW6C-ROX-101023	Total/NA	Water	8011	645442

Prep Batch: 645442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-2	TB-ROX-11023-8011	Total/NA	Water	8011	
400-244887-3	MW6C-ROX-101023	Total/NA	Water	8011	
400-244887-4	MW6A-ROX-101023	Total/NA	Water	8011	
400-244887-5	MW6B-ROX-101023	Total/NA	Water	8011	
400-244887-6	MW12-ROX-101023	Total/NA	Water	8011	
MB 400-645442/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-645442/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-645442/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-244887-3 MS	MW6C-ROX-101023	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 645442 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-244887-3 MSD	MW6C-ROX-101023	Total/NA	Water	8011	

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646246/3
Matrix: Water
Analysis Batch: 646246

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			10/19/23 10:53	1
Acrolein	ND		20	3.3	ug/L			10/19/23 10:53	1
Acrylonitrile	ND		10	2.8	ug/L			10/19/23 10:53	1
Benzene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Bromobenzene	ND		1.0	0.54	ug/L			10/19/23 10:53	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/19/23 10:53	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Bromoform	ND		5.0	0.25	ug/L			10/19/23 10:53	1
Bromomethane	ND		1.0	0.98	ug/L			10/19/23 10:53	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/19/23 10:53	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/19/23 10:53	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/19/23 10:53	1
Chloroethane	ND		1.0	0.76	ug/L			10/19/23 10:53	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/19/23 10:53	1
Chloroform	ND		1.0	0.90	ug/L			10/19/23 10:53	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/19/23 10:53	1
Chloromethane	ND		1.0	0.90	ug/L			10/19/23 10:53	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/19/23 10:53	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/19/23 10:53	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/19/23 10:53	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/19/23 10:53	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/19/23 10:53	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/19/23 10:53	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/19/23 10:53	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/19/23 10:53	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/19/23 10:53	1
2-Hexanone	ND		25	1.4	ug/L			10/19/23 10:53	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/19/23 10:53	1
Methylene bromide	ND		5.0	0.22	ug/L			10/19/23 10:53	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/19/23 10:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/19/23 10:53	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/19/23 10:53	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/19/23 10:53	1
Naphthalene	ND		5.0	3.0	ug/L			10/19/23 10:53	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/19/23 10:53	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/19/23 10:53	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/19/23 10:53	1
o-Xylene	ND		5.0	0.60	ug/L			10/19/23 10:53	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/19/23 10:53	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646246/3
Matrix: Water
Analysis Batch: 646246

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			10/19/23 10:53	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/19/23 10:53	1
Styrene	ND		1.0	1.0	ug/L			10/19/23 10:53	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/19/23 10:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/19/23 10:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/19/23 10:53	1
Toluene	ND		1.0	0.90	ug/L			10/19/23 10:53	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/19/23 10:53	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/19/23 10:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/19/23 10:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/19/23 10:53	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/19/23 10:53	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/19/23 10:53	1
Trichloroethene	ND		1.0	0.15	ug/L			10/19/23 10:53	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/19/23 10:53	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/19/23 10:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/19/23 10:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/19/23 10:53	1
Vinyl acetate	ND		25	0.93	ug/L			10/19/23 10:53	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/19/23 10:53	1
Xylenes, Total	ND		10	1.6	ug/L			10/19/23 10:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/19/23 10:53*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*10/19/23 10:53*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*10/19/23 10:53*	*1*

Lab Sample ID: LCS 400-646246/1001
Matrix: Water
Analysis Batch: 646246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	100	90.7		ug/L		91	43 - 160
Acrolein	500	483		ug/L		97	38 - 160
Acrylonitrile	250	254		ug/L		102	64 - 142
Benzene	25.0	23.1		ug/L		92	70 - 130
Bromobenzene	25.0	21.8		ug/L		87	70 - 132
Bromochloromethane	25.0	23.8		ug/L		95	70 - 130
Bromodichloromethane	25.0	21.3		ug/L		85	67 - 133
Bromoform	25.0	17.3		ug/L		69	57 - 140
Bromomethane	50.0	47.4		ug/L		95	10 - 160
2-Butanone (MEK)	100	92.4		ug/L		92	61 - 145
Carbon disulfide	25.0	24.3		ug/L		97	61 - 137
Carbon tetrachloride	25.0	20.9		ug/L		84	61 - 137
Chlorobenzene	25.0	22.8		ug/L		91	70 - 130
Chloroethane	50.0	56.6		ug/L		113	55 - 141
2-Chloroethyl vinyl ether	50.0	61.0		ug/L		122	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646246/1001
Matrix: Water
Analysis Batch: 646246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	24.1		ug/L		97	69 - 130
1-Chlorohexane	25.0	23.6		ug/L		94	69 - 130
Chloromethane	50.0	54.1		ug/L		108	58 - 137
cis-1,2-Dichloroethene	25.0	24.6		ug/L		98	68 - 130
cis-1,3-Dichloropropene	25.0	21.8		ug/L		87	69 - 132
Dibromochloromethane	25.0	19.0		ug/L		76	67 - 135
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	67 - 130
1,3-Dichlorobenzene	25.0	23.2		ug/L		93	70 - 130
1,4-Dichlorobenzene	25.0	22.8		ug/L		91	70 - 130
Dichlorodifluoromethane	50.0	47.5		ug/L		95	41 - 146
1,1-Dichloroethane	25.0	24.5		ug/L		98	70 - 130
1,2-Dichloroethane	25.0	25.0		ug/L		100	69 - 130
1,1-Dichloroethene	25.0	23.8		ug/L		95	63 - 134
1,2-Dichloropropane	25.0	23.6		ug/L		94	70 - 130
1,3-Dichloropropane	25.0	22.4		ug/L		90	70 - 130
2,2-Dichloropropane	25.0	21.4		ug/L		85	52 - 135
1,1-Dichloropropene	25.0	22.8		ug/L		91	70 - 130
Ethylbenzene	25.0	23.7		ug/L		95	70 - 130
Ethyl methacrylate	25.0	22.0		ug/L		88	68 - 130
Hexachlorobutadiene	25.0	22.3		ug/L		89	53 - 140
2-Hexanone	100	94.3		ug/L		94	65 - 137
Isopropylbenzene	25.0	23.9		ug/L		96	70 - 130
Methylene bromide	25.0	23.6		ug/L		94	70 - 130
Methylene Chloride	25.0	25.0		ug/L		100	66 - 135
4-Methyl-2-pentanone (MIBK)	100	106		ug/L		106	69 - 138
Methyl tert-butyl ether	25.0	23.3		ug/L		93	66 - 130
m-Xylene & p-Xylene	25.0	24.2		ug/L		97	70 - 130
Naphthalene	25.0	21.4		ug/L		85	47 - 149
n-Butylbenzene	25.0	30.4		ug/L		121	67 - 130
N-Propylbenzene	25.0	23.3		ug/L		93	70 - 130
o-Chlorotoluene	25.0	27.4		ug/L		110	70 - 130
o-Xylene	25.0	23.6		ug/L		94	70 - 130
p-Chlorotoluene	25.0	23.1		ug/L		92	70 - 130
p-Isopropyltoluene	25.0	23.7		ug/L		95	65 - 130
sec-Butylbenzene	25.0	23.9		ug/L		95	66 - 130
Styrene	25.0	21.6		ug/L		86	70 - 130
tert-Butylbenzene	25.0	23.2		ug/L		93	64 - 139
1,1,1,2-Tetrachloroethane	25.0	18.9		ug/L		75	67 - 131
1,1,2,2-Tetrachloroethane	25.0	21.3		ug/L		85	70 - 131
Tetrachloroethene	25.0	20.7		ug/L		83	65 - 130
Toluene	25.0	21.8		ug/L		87	70 - 130
trans-1,2-Dichloroethene	25.0	23.9		ug/L		96	70 - 130
trans-1,3-Dichloropropene	25.0	20.6		ug/L		83	63 - 130
1,2,3-Trichlorobenzene	25.0	22.8		ug/L		91	60 - 138
1,2,4-Trichlorobenzene	25.0	23.0		ug/L		92	60 - 140
1,1,1-Trichloroethane	25.0	22.1		ug/L		89	68 - 130
1,1,2-Trichloroethane	25.0	22.6		ug/L		90	70 - 130
Trichloroethene	25.0	22.0		ug/L		88	70 - 130
Trichlorofluoromethane	50.0	50.9		ug/L		102	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646246/1001
Matrix: Water
Analysis Batch: 646246

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	25.0	22.3		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	25.0	23.4		ug/L		94	70 - 130
1,3,5-Trimethylbenzene	25.0	23.4		ug/L		93	69 - 130
Vinyl acetate	100	131		ug/L		131	26 - 160
Vinyl chloride	50.0	58.6		ug/L		117	59 - 136
Xylenes, Total	50.0	47.8		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 130*
Dibromofluoromethane	*111*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Lab Sample ID: 400-244887-3 MS
Matrix: Water
Analysis Batch: 646246

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND	F1	100	219	F1	ug/L		219	43 - 150
Acrolein	ND		500	505		ug/L		101	38 - 150
Acrylonitrile	ND		250	306		ug/L		122	62 - 149
Benzene	ND		25.0	22.3		ug/L		89	56 - 142
Bromobenzene	ND		25.0	17.6		ug/L		70	59 - 136
Bromochloromethane	ND		25.0	25.7		ug/L		103	64 - 140
Bromodichloromethane	ND		25.0	20.0		ug/L		80	59 - 143
Bromoform	ND		25.0	15.4		ug/L		62	50 - 140
Bromomethane	ND		50.0	50.4		ug/L		101	10 - 150
2-Butanone (MEK)	ND	F1	100	155	F1	ug/L		155	55 - 150
Carbon disulfide	ND		25.0	26.6		ug/L		106	48 - 150
Carbon tetrachloride	ND		25.0	21.4		ug/L		86	55 - 145
Chlorobenzene	ND		25.0	19.0		ug/L		76	64 - 130
Chloroethane	ND		50.0	58.1		ug/L		116	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		25.0	25.5		ug/L		102	60 - 141
1-Chlorohexane	ND	F1	25.0	15.6		ug/L		62	56 - 136
Chloromethane	ND		50.0	53.8		ug/L		108	49 - 148
cis-1,2-Dichloroethene	ND		25.0	25.8		ug/L		103	59 - 143
cis-1,3-Dichloropropene	ND		25.0	18.5		ug/L		74	57 - 140
Dibromochloromethane	ND		25.0	17.2		ug/L		69	56 - 143
1,2-Dichlorobenzene	ND		25.0	17.5		ug/L		70	52 - 137
1,3-Dichlorobenzene	ND	F1	25.0	16.1		ug/L		64	54 - 135
1,4-Dichlorobenzene	ND	F1	25.0	16.2		ug/L		65	53 - 135
Dichlorodifluoromethane	ND		50.0	49.4		ug/L		99	16 - 150
1,1-Dichloroethane	ND		25.0	27.0		ug/L		108	61 - 144
1,2-Dichloroethane	ND		25.0	25.8		ug/L		103	60 - 141
1,1-Dichloroethene	ND		25.0	27.7		ug/L		111	54 - 147
1,2-Dichloropropane	ND		25.0	22.8		ug/L		91	66 - 137
1,3-Dichloropropane	ND		25.0	21.0		ug/L		84	66 - 133
2,2-Dichloropropane	ND		25.0	23.0		ug/L		92	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244887-3 MS
Matrix: Water
Analysis Batch: 646246

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	ND		25.0	21.6		ug/L		86	65 - 136
Ethylbenzene	ND		25.0	18.1		ug/L		72	58 - 131
Ethyl methacrylate	ND		25.0	20.3		ug/L		81	64 - 130
Hexachlorobutadiene	ND	F1	25.0	9.31		ug/L		37	31 - 149
2-Hexanone	ND		100	104		ug/L		104	65 - 140
Isopropylbenzene	ND	F1	25.0	16.2		ug/L		65	56 - 133
Methylene bromide	ND		25.0	25.2		ug/L		101	63 - 138
Methylene Chloride	ND		25.0	28.8		ug/L		115	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		100	103		ug/L		103	63 - 146
Methyl tert-butyl ether	ND		25.0	22.5		ug/L		90	59 - 137
m-Xylene & p-Xylene	ND		25.0	17.8		ug/L		71	57 - 130
Naphthalene	ND		25.0	19.6		ug/L		78	25 - 150
n-Butylbenzene	ND		25.0	14.1		ug/L		56	41 - 142
N-Propylbenzene	ND	F1	25.0	13.6		ug/L		54	51 - 138
o-Chlorotoluene	ND		25.0	17.8		ug/L		71	53 - 134
o-Xylene	ND	F1	25.0	18.3		ug/L		73	61 - 130
p-Chlorotoluene	ND	F1	25.0	15.2		ug/L		61	54 - 133
p-Isopropyltoluene	ND	F1	25.0	12.2		ug/L		49	48 - 139
sec-Butylbenzene	ND	F1	25.0	13.0		ug/L		52	50 - 138
Styrene	ND	F1	25.0	17.0		ug/L		68	58 - 131
tert-Butylbenzene	ND	F1	25.0	14.2		ug/L		57	54 - 146
1,1,1,2-Tetrachloroethane	ND	F1	25.0	16.5		ug/L		66	59 - 137
1,1,2,2-Tetrachloroethane	ND		25.0	20.2		ug/L		81	66 - 135
Tetrachloroethene	ND		25.0	16.5		ug/L		66	52 - 133
Toluene	ND		25.0	19.9		ug/L		80	65 - 130
trans-1,2-Dichloroethene	ND		25.0	25.9		ug/L		103	61 - 143
trans-1,3-Dichloropropene	ND		25.0	17.6		ug/L		70	53 - 133
1,2,3-Trichlorobenzene	ND		25.0	17.2		ug/L		69	43 - 145
1,2,4-Trichlorobenzene	ND		25.0	16.1		ug/L		64	39 - 148
1,1,1-Trichloroethane	ND		25.0	23.4		ug/L		94	57 - 142
1,1,2-Trichloroethane	ND		25.0	21.6		ug/L		86	66 - 131
Trichloroethene	ND		25.0	19.8		ug/L		79	64 - 136
Trichlorofluoromethane	ND		50.0	50.7		ug/L		101	54 - 150
1,2,3-Trichloropropane	ND		25.0	21.6		ug/L		86	65 - 133
1,2,4-Trimethylbenzene	ND	F1	25.0	14.9		ug/L		59	50 - 139
1,3,5-Trimethylbenzene	ND	F1	25.0	14.4		ug/L		58	52 - 135
Vinyl acetate	ND		100	102		ug/L		102	26 - 150
Vinyl chloride	ND		50.0	59.4		ug/L		119	46 - 150
Xylenes, Total	ND		50.0	36.1		ug/L		72	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 130*
Dibromofluoromethane	*113*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244887-3 MSD
Matrix: Water
Analysis Batch: 646246

Client Sample ID: MW6C-ROX-101023
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	100	193	F1	ug/L		193	43 - 150	13	30
Acrolein	ND		500	508		ug/L		102	38 - 150	0	31
Acrylonitrile	ND		250	278		ug/L		111	62 - 149	10	30
Benzene	ND		25.0	19.8		ug/L		79	56 - 142	12	30
Bromobenzene	ND		25.0	15.1		ug/L		60	59 - 136	15	30
Bromochloromethane	ND		25.0	21.8		ug/L		87	64 - 140	17	30
Bromodichloromethane	ND		25.0	17.9		ug/L		72	59 - 143	11	30
Bromoform	ND		25.0	13.9		ug/L		56	50 - 140	10	30
Bromomethane	ND		50.0	54.6		ug/L		109	10 - 150	8	50
2-Butanone (MEK)	ND	F1	100	148		ug/L		148	55 - 150	5	30
Carbon disulfide	ND		25.0	22.8		ug/L		91	48 - 150	15	30
Carbon tetrachloride	ND		25.0	18.9		ug/L		75	55 - 145	13	30
Chlorobenzene	ND		25.0	16.1		ug/L		64	64 - 130	17	30
Chloroethane	ND		50.0	58.9		ug/L		118	50 - 150	1	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		25.0	22.4		ug/L		90	60 - 141	13	30
1-Chlorohexane	ND	F1	25.0	13.0	F1	ug/L		52	56 - 136	18	30
Chloromethane	ND		50.0	54.6		ug/L		109	49 - 148	1	31
cis-1,2-Dichloroethene	ND		25.0	22.0		ug/L		88	59 - 143	16	30
cis-1,3-Dichloropropene	ND		25.0	16.3		ug/L		65	57 - 140	13	30
Dibromochloromethane	ND		25.0	14.9		ug/L		60	56 - 143	15	30
1,2-Dichlorobenzene	ND		25.0	15.1		ug/L		60	52 - 137	15	30
1,3-Dichlorobenzene	ND	F1	25.0	13.0	F1	ug/L		52	54 - 135	21	30
1,4-Dichlorobenzene	ND	F1	25.0	13.0	F1	ug/L		52	53 - 135	22	30
Dichlorodifluoromethane	ND		50.0	49.7		ug/L		99	16 - 150	1	31
1,1-Dichloroethane	ND		25.0	23.6		ug/L		94	61 - 144	13	30
1,2-Dichloroethane	ND		25.0	22.6		ug/L		91	60 - 141	13	30
1,1-Dichloroethene	ND		25.0	24.2		ug/L		97	54 - 147	13	30
1,2-Dichloropropane	ND		25.0	20.5		ug/L		82	66 - 137	11	30
1,3-Dichloropropane	ND		25.0	19.1		ug/L		76	66 - 133	9	30
2,2-Dichloropropane	ND		25.0	20.4		ug/L		82	42 - 144	12	31
1,1-Dichloropropene	ND		25.0	19.2		ug/L		77	65 - 136	12	30
Ethylbenzene	ND		25.0	14.8		ug/L		59	58 - 131	20	30
Ethyl methacrylate	ND		25.0	18.1		ug/L		73	64 - 130	11	30
Hexachlorobutadiene	ND	F1	25.0	7.06	F1	ug/L		28	31 - 149	28	36
2-Hexanone	ND		100	95.8		ug/L		96	65 - 140	8	30
Isopropylbenzene	ND	F1	25.0	13.2	F1	ug/L		53	56 - 133	20	30
Methylene bromide	ND		25.0	21.8		ug/L		87	63 - 138	14	30
Methylene Chloride	ND		25.0	24.5		ug/L		98	60 - 146	16	32
4-Methyl-2-pentanone (MIBK)	ND		100	96.2		ug/L		96	63 - 146	7	30
Methyl tert-butyl ether	ND		25.0	20.8		ug/L		83	59 - 137	8	30
m-Xylene & p-Xylene	ND		25.0	14.6		ug/L		58	57 - 130	20	30
Naphthalene	ND		25.0	17.3		ug/L		69	25 - 150	12	30
n-Butylbenzene	ND		25.0	11.4		ug/L		46	41 - 142	21	31
N-Propylbenzene	ND	F1	25.0	11.0	F1	ug/L		44	51 - 138	22	30
o-Chlorotoluene	ND		25.0	15.1		ug/L		60	53 - 134	16	30
o-Xylene	ND	F1	25.0	15.1	F1	ug/L		60	61 - 130	19	30
p-Chlorotoluene	ND	F1	25.0	12.3	F1	ug/L		49	54 - 133	21	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-244887-3 MSD
Matrix: Water
Analysis Batch: 646246

Client Sample ID: MW6C-ROX-101023
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	F1	25.0	9.47	F1	ug/L		38	48 - 139	25	30
sec-Butylbenzene	ND	F1	25.0	10.3	F1	ug/L		41	50 - 138	23	30
Styrene	ND	F1	25.0	13.7	F1	ug/L		55	58 - 131	21	30
tert-Butylbenzene	ND	F1	25.0	11.4	F1	ug/L		46	54 - 146	21	30
1,1,1,2-Tetrachloroethane	ND	F1	25.0	13.9	F1	ug/L		56	59 - 137	17	30
1,1,2,2-Tetrachloroethane	ND		25.0	18.2		ug/L		73	66 - 135	10	30
Tetrachloroethene	ND		25.0	13.7		ug/L		55	52 - 133	18	30
Toluene	ND		25.0	16.8		ug/L		67	65 - 130	17	30
trans-1,2-Dichloroethene	ND		25.0	22.2		ug/L		89	61 - 143	15	30
trans-1,3-Dichloropropene	ND		25.0	16.0		ug/L		64	53 - 133	9	30
1,2,3-Trichlorobenzene	ND		25.0	14.8		ug/L		59	43 - 145	15	30
1,2,4-Trichlorobenzene	ND		25.0	13.3		ug/L		53	39 - 148	19	30
1,1,1-Trichloroethane	ND		25.0	21.1		ug/L		84	57 - 142	10	30
1,1,2-Trichloroethane	ND		25.0	19.3		ug/L		77	66 - 131	11	30
Trichloroethene	ND		25.0	17.1		ug/L		68	64 - 136	15	30
Trichlorofluoromethane	ND		50.0	50.1		ug/L		100	54 - 150	1	30
1,2,3-Trichloropropane	ND		25.0	19.7		ug/L		79	65 - 133	9	30
1,2,4-Trimethylbenzene	ND	F1	25.0	11.9	F1	ug/L		47	50 - 139	23	30
1,3,5-Trimethylbenzene	ND	F1	25.0	11.8	F1	ug/L		47	52 - 135	20	30
Vinyl acetate	ND		100	107		ug/L		107	26 - 150	4	33
Vinyl chloride	ND		50.0	59.1		ug/L		118	46 - 150	0	30
Xylenes, Total	ND		50.0	29.7		ug/L		59	59 - 130	19	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*72 - 130*
Dibromofluoromethane	*112*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

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

Lab Sample ID: MB 400-645675/1-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/16/23 10:40	10/17/23 16:43	1
Benzenethiol	ND		10	1.7	ug/L		10/16/23 10:40	10/17/23 16:43	1
Benzoic acid	ND		30	7.3	ug/L		10/16/23 10:40	10/17/23 16:43	1
Benzyl alcohol	ND		10	2.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/16/23 10:40	10/17/23 16:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/16/23 10:40	10/17/23 16:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/16/23 10:40	10/17/23 16:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/16/23 10:40	10/17/23 16:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Chloroaniline	ND		10	3.4	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Chlorophenol	ND		10	2.2	ug/L		10/16/23 10:40	10/17/23 16:43	1

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

Lab Sample ID: MB 400-645675/1-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Dibenzofuran	ND		10	0.17	ug/L		10/16/23 10:40	10/17/23 16:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Diethyl phthalate	ND		10	0.24	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/16/23 10:40	10/17/23 16:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/16/23 10:40	10/17/23 16:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/16/23 10:40	10/17/23 16:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/16/23 10:40	10/17/23 16:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/16/23 10:40	10/17/23 16:43	1
1,4-Dioxane	ND		10	1.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/16/23 10:40	10/17/23 16:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/16/23 10:40	10/17/23 16:43	1
Hexachloroethane	ND		10	4.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
Indene	ND		10	1.0	ug/L		10/16/23 10:40	10/17/23 16:43	1
Isophorone	ND		10	0.14	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Methylphenol	ND		10	1.8	ug/L		10/16/23 10:40	10/17/23 16:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Nitroaniline	ND		10	2.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
3-Nitroaniline	ND		10	1.8	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Nitroaniline	ND		10	1.5	ug/L		10/16/23 10:40	10/17/23 16:43	1
Nitrobenzene	ND		10	0.13	ug/L		10/16/23 10:40	10/17/23 16:43	1
2-Nitrophenol	ND		10	5.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
4-Nitrophenol	ND		10	2.1	ug/L		10/16/23 10:40	10/17/23 16:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/16/23 10:40	10/17/23 16:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/16/23 10:40	10/17/23 16:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/16/23 10:40	10/17/23 16:43	1
Pentachlorophenol	ND		20	1.4	ug/L		10/16/23 10:40	10/17/23 16:43	1
Phenol	ND		10	2.6	ug/L		10/16/23 10:40	10/17/23 16:43	1
Pyridine	ND		10	3.2	ug/L		10/16/23 10:40	10/17/23 16:43	1
Quinoline	ND		10	4.5	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/16/23 10:40	10/17/23 16:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/16/23 10:40	10/17/23 16:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
2-Fluorophenol	*11*	*S1-*	*13 - 113*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
Phenol-d5	*39*		*17 - 127*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
Terphenyl-d14	*79*		*44 - 149*	*10/16/23 10:40*	*10/17/23 16:43*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*10/16/23 10:40*	*10/17/23 16:43*	*1*

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

Lab Sample ID: LCS 400-645675/2-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	70.9		ug/L		59	21 - 120
Benzoic acid	522	174		ug/L		33	10 - 144
Benzyl alcohol	120	73.4		ug/L		61	28 - 120
Bis(2-chloroethoxy)methane	120	68.2		ug/L		57	47 - 120
Bis(2-chloroethyl)ether	120	67.2		ug/L		56	44 - 120
bis (2-chloroisopropyl) ether	120	67.6		ug/L		56	33 - 121
Bis(2-ethylhexyl) phthalate	120	78.1		ug/L		65	52 - 147
4-Bromophenyl phenyl ether	120	84.1		ug/L		70	54 - 122
Butyl benzyl phthalate	120	81.3		ug/L		68	54 - 133
4-Chloroaniline	120	68.3		ug/L		57	26 - 120
4-Chloro-3-methylphenol	120	79.3		ug/L		66	48 - 131
2-Chloronaphthalene	120	80.8		ug/L		67	52 - 121
2-Chlorophenol	120	60.7		ug/L		51	40 - 120
4-Chlorophenyl phenyl ether	120	89.2		ug/L		74	56 - 125
Dibenz[a,h]acridine	120	88.0		ug/L		74	31 - 150
Dibenzofuran	120	87.3		ug/L		73	56 - 122
3,3'-Dichlorobenzidine	160	132		ug/L		82	36 - 132
2,4-Dichlorophenol	120	75.5		ug/L		63	49 - 120
Diethyl phthalate	120	88.0		ug/L		73	50 - 137
2,4-Dimethylphenol	120	78.7		ug/L		66	48 - 120
Dimethyl phthalate	120	82.6		ug/L		69	57 - 124
Di-n-butyl phthalate	120	93.6		ug/L		78	58 - 126
4,6-Dinitro-ortho-cresol	240	191		ug/L		80	23 - 148
2,4-Dinitrophenol	240	184		ug/L		77	10 - 150
2,4-Dinitrotoluene	120	92.2		ug/L		77	54 - 142
2,6-Dinitrotoluene	120	87.9		ug/L		73	55 - 130
Di-n-octyl phthalate	120	75.1		ug/L		63	57 - 138
1,4-Dioxane	120	51.7		ug/L		43	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	69.9		ug/L		58	45 - 124
Hexachlorobenzene	120	89.3		ug/L		74	52 - 129
Hexachlorocyclopentadiene	120	63.6		ug/L		53	10 - 134
Hexachloroethane	120	70.5		ug/L		59	20 - 120
Indene	120	81.1		ug/L		68	49 - 120
Isophorone	120	70.1		ug/L		58	48 - 120
2-Methylphenol	120	75.7		ug/L		63	46 - 124
3 & 4 Methylphenol	120	72.2		ug/L		60	45 - 120
2-Nitroaniline	120	77.7		ug/L		65	51 - 145
3-Nitroaniline	120	70.7		ug/L		59	37 - 127
4-Nitroaniline	120	76.5		ug/L		64	36 - 137
Nitrobenzene	120	67.4		ug/L		56	45 - 120
2-Nitrophenol	120	76.1		ug/L		63	40 - 124
4-Nitrophenol	240	170		ug/L		71	23 - 146
N-Nitrosodimethylamine	120	68.7		ug/L		57	29 - 137
N-Nitrosodi-n-propylamine	120	73.8		ug/L		62	45 - 120
N-Nitrosodiphenylamine	119	76.1		ug/L		64	54 - 120
Pentachlorophenol	240	172		ug/L		72	31 - 130
Phenol	120	61.2		ug/L		51	11 - 120
Pyridine	240	111		ug/L		46	16 - 120

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

Lab Sample ID: LCS 400-645675/2-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	83.5		ug/L		70	49 - 130		
2,4,5-Trichlorophenol			120	87.6		ug/L		73	51 - 136		
2,4,6-Trichlorophenol			120	82.0		ug/L		68	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*69*		*46 - 124*
2-Fluorophenol	*31*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*53*		*17 - 127*
Terphenyl-d14	*78*		*44 - 149*
2,4,6-Tribromophenol	*90*		*26 - 150*

Lab Sample ID: LCS 400-645675/3-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.07	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*85*		*44 - 149*
2,4,6-Tribromophenol	*67*		*26 - 150*

Lab Sample ID: LCSD 400-645675/4-A
Matrix: Water
Analysis Batch: 645848

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.87	J *-	ug/L		2	10 - 120	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*71*		*46 - 124*
2-Fluorophenol	*29*		*13 - 113*
Nitrobenzene-d5	*61*		*36 - 126*
Phenol-d5	*48*		*17 - 127*
Terphenyl-d14	*77*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: 400-244887-3 MS
Matrix: Water
Analysis Batch: 646046

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Aniline	ND		115	73.7		ug/L		64	10 - 120		

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

Lab Sample ID: 400-244887-3 MS
Matrix: Water
Analysis Batch: 646046

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzoic acid	ND		502	288		ug/L		57	10 - 149
Benzyl alcohol	ND		115	77.7		ug/L		67	33 - 120
Bis(2-chloroethoxy)methane	ND		115	69.6		ug/L		60	26 - 120
Bis(2-chloroethyl)ether	ND		115	68.7		ug/L		59	42 - 120
bis (2-chloroisopropyl) ether	ND		115	67.9		ug/L		59	28 - 120
Bis(2-ethylhexyl) phthalate	ND		115	80.4		ug/L		70	39 - 120
4-Bromophenyl phenyl ether	ND		115	87.7		ug/L		76	40 - 120
Butyl benzyl phthalate	ND		115	87.7		ug/L		76	45 - 120
4-Chloroaniline	ND		115	68.4		ug/L		59	10 - 120
4-Chloro-3-methylphenol	ND		115	84.7		ug/L		73	34 - 120
2-Chloronaphthalene	ND		115	82.9		ug/L		72	39 - 120
2-Chlorophenol	ND		115	53.9		ug/L		47	25 - 120
4-Chlorophenyl phenyl ether	ND		115	91.9		ug/L		80	44 - 120
Dibenz[a,h]acridine	ND		115	101		ug/L		88	50 - 150
Dibenzofuran	ND		115	89.7		ug/L		78	25 - 130
3,3'-Dichlorobenzidine	ND		154	127		ug/L		82	10 - 120
2,4-Dichlorophenol	ND		115	77.9		ug/L		67	31 - 120
Diethyl phthalate	ND		115	92.8		ug/L		80	46 - 120
2,4-Dimethylphenol	ND		115	80.4		ug/L		70	21 - 120
Dimethyl phthalate	ND		115	87.3		ug/L		76	38 - 120
Di-n-butyl phthalate	ND		115	97.1		ug/L		84	49 - 120
4,6-Dinitro-ortho-cresol	ND		231	187		ug/L		81	25 - 120
2,4-Dinitrophenol	ND		231	208		ug/L		90	15 - 140
2,4-Dinitrotoluene	ND		115	95.8		ug/L		83	53 - 120
2,6-Dinitrotoluene	ND		115	92.9		ug/L		80	43 - 120
Di-n-octyl phthalate	ND		115	81.0		ug/L		70	35 - 121
1,4-Dioxane	ND	F1	115	46.8	F1	ug/L		41	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		115	73.3		ug/L		63	50 - 150
Hexachlorobenzene	ND		115	93.5		ug/L		81	38 - 122
Hexachlorocyclopentadiene	ND		115	54.4		ug/L		47	10 - 120
Hexachloroethane	ND		115	71.6		ug/L		62	10 - 150
Indene	ND		115	83.9		ug/L		73	50 - 150
Isophorone	ND		115	71.6		ug/L		62	42 - 120
2-Methylphenol	ND		115	78.5		ug/L		68	28 - 120
3 & 4 Methylphenol	ND		115	77.3		ug/L		67	31 - 120
2-Nitroaniline	ND		115	82.7		ug/L		72	45 - 120
3-Nitroaniline	ND		115	72.3		ug/L		63	10 - 130
4-Nitroaniline	ND		115	76.8		ug/L		67	10 - 132
Nitrobenzene	ND		115	71.2		ug/L		62	39 - 120
2-Nitrophenol	ND		115	77.7		ug/L		67	33 - 120
4-Nitrophenol	ND		231	182		ug/L		79	10 - 120
N-Nitrosodimethylamine	ND		115	67.1		ug/L		58	10 - 139
N-Nitrosodi-n-propylamine	ND		115	75.6		ug/L		65	37 - 124
N-Nitrosodiphenylamine	ND		115	79.2		ug/L		69	10 - 150
Pentachlorophenol	ND		231	186		ug/L		81	29 - 130
Phenol	ND		115	59.0		ug/L		51	10 - 150
Pyridine	ND		231	114		ug/L		50	10 - 120
Quinoline	ND		115	85.3		ug/L		74	51 - 120

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

Lab Sample ID: 400-244887-3 MS
Matrix: Water
Analysis Batch: 646046

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		115	94.6		ug/L		82	34 - 120
2,4,6-Trichlorophenol	ND		115	88.6		ug/L		77	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*20*		*13 - 113*
Nitrobenzene-d5	*71*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*96*		*26 - 150*

Lab Sample ID: 400-244887-3 MSD
Matrix: Water
Analysis Batch: 646046

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		117	77.5		ug/L		66	10 - 120	5	63
Benzoic acid	ND		507	339		ug/L		67	10 - 149	16	49
Benzyl alcohol	ND		117	77.9		ug/L		67	33 - 120	0	37
Bis(2-chloroethoxy)methane	ND		117	69.8		ug/L		60	26 - 120	0	70
Bis(2-chloroethyl)ether	ND		117	67.9		ug/L		58	42 - 120	1	42
bis (2-chloroisopropyl) ether	ND		117	67.8		ug/L		58	28 - 120	0	41
Bis(2-ethylhexyl) phthalate	ND		117	81.3		ug/L		70	39 - 120	1	35
4-Bromophenyl phenyl ether	ND		117	85.3		ug/L		73	40 - 120	3	30
Butyl benzyl phthalate	ND		117	84.9		ug/L		73	45 - 120	3	32
4-Chloroaniline	ND		117	66.7		ug/L		57	10 - 120	3	94
4-Chloro-3-methylphenol	ND		117	79.4		ug/L		68	34 - 120	6	40
2-Chloronaphthalene	ND		117	84.0		ug/L		72	39 - 120	1	29
2-Chlorophenol	ND		117	53.2		ug/L		46	25 - 120	1	42
4-Chlorophenyl phenyl ether	ND		117	90.6		ug/L		78	44 - 120	1	27
Dibenz[a,h]acridine	ND		116	96.6		ug/L		83	50 - 150	5	40
Dibenzofuran	ND		117	89.1		ug/L		76	25 - 130	1	29
3,3'-Dichlorobenzidine	ND		156	125		ug/L		80	10 - 120	2	58
2,4-Dichlorophenol	ND		117	72.3		ug/L		62	31 - 120	7	43
Diethyl phthalate	ND		117	91.2		ug/L		78	46 - 120	2	40
2,4-Dimethylphenol	ND		117	78.3		ug/L		67	21 - 120	3	47
Dimethyl phthalate	ND		117	85.7		ug/L		73	38 - 120	2	36
Di-n-butyl phthalate	ND		117	97.0		ug/L		83	49 - 120	0	32
4,6-Dinitro-ortho-cresol	ND		233	187		ug/L		80	25 - 120	0	42
2,4-Dinitrophenol	ND		233	222		ug/L		95	15 - 140	6	36
2,4-Dinitrotoluene	ND		117	93.5		ug/L		80	53 - 120	2	28
2,6-Dinitrotoluene	ND		117	91.6		ug/L		78	43 - 120	1	28
Di-n-octyl phthalate	ND		117	82.7		ug/L		71	35 - 121	2	35
1,4-Dioxane	ND	F1	117	52.5	F1	ug/L		45	50 - 150	11	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		117	72.0		ug/L		62	50 - 150	2	40
Hexachlorobenzene	ND		117	91.6		ug/L		78	38 - 122	2	33
Hexachlorocyclopentadiene	ND		117	65.9		ug/L		56	10 - 120	19	50
Hexachloroethane	ND		117	71.5		ug/L		61	10 - 150	0	41

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

Lab Sample ID: 400-244887-3 MSD
Matrix: Water
Analysis Batch: 646046

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indene	ND		117	83.6		ug/L		72	50 - 150	0	40
Isophorone	ND		117	71.5		ug/L		61	42 - 120	0	33
2-Methylphenol	ND		117	72.2		ug/L		62	28 - 120	8	47
3 & 4 Methylphenol	ND		117	71.7		ug/L		61	31 - 120	8	47
2-Nitroaniline	ND		117	81.6		ug/L		70	45 - 120	1	33
3-Nitroaniline	ND		117	71.6		ug/L		61	10 - 130	1	39
4-Nitroaniline	ND		117	92.5		ug/L		79	10 - 132	19	50
Nitrobenzene	ND		117	70.6		ug/L		60	39 - 120	1	35
2-Nitrophenol	ND		117	70.5		ug/L		60	33 - 120	10	43
4-Nitrophenol	ND		233	178		ug/L		76	10 - 120	2	82
N-Nitrosodimethylamine	ND		117	70.8		ug/L		61	10 - 139	5	62
N-Nitrosodi-n-propylamine	ND		117	74.3		ug/L		64	37 - 124	2	36
N-Nitrosodiphenylamine	ND		116	77.7		ug/L		67	10 - 150	2	34
Pentachlorophenol	ND		233	179		ug/L		77	29 - 130	4	42
Phenol	ND		117	57.2		ug/L		49	10 - 150	3	52
Pyridine	ND		233	117		ug/L		50	10 - 120	2	55
Quinoline	ND		116	84.5		ug/L		73	51 - 120	1	40
2,4,5-Trichlorophenol	ND		117	90.6		ug/L		78	34 - 120	4	42
2,4,6-Trichlorophenol	ND		117	81.8		ug/L		70	33 - 120	8	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*25*		*13 - 113*
Nitrobenzene-d5	*70*		*36 - 126*
Phenol-d5	*52*		*17 - 127*
Terphenyl-d14	*83*		*44 - 149*
2,4,6-Tribromophenol	*93*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-645675/1-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/16/23 10:40	10/19/23 10:25	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/16/23 10:40	10/19/23 10:25	1
Anthracene	ND		0.20	0.047	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/16/23 10:40	10/19/23 10:25	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/16/23 10:40	10/19/23 10:25	1
Chrysene	ND		0.20	0.033	ug/L		10/16/23 10:40	10/19/23 10:25	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/16/23 10:40	10/19/23 10:25	1
Fluoranthene	0.0453	J	0.20	0.034	ug/L		10/16/23 10:40	10/19/23 10:25	1
Fluorene	ND		0.20	0.089	ug/L		10/16/23 10:40	10/19/23 10:25	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/16/23 10:40	10/19/23 10:25	1
Phenanthrene	ND		0.20	0.090	ug/L		10/16/23 10:40	10/19/23 10:25	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-645675/1-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.20	0.039	ug/L		10/16/23 10:40	10/19/23 10:25	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/16/23 10:40	10/19/23 10:25	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/16/23 10:40	10/19/23 10:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*32*		*18 - 147*	*10/16/23 10:40*	*10/19/23 10:25*	*1*
2-Fluorobiphenyl	*30*		*15 - 128*	*10/16/23 10:40*	*10/19/23 10:25*	*1*
Nitrobenzene-d5	*26*		*10 - 144*	*10/16/23 10:40*	*10/19/23 10:25*	*1*

Lab Sample ID: LCS 400-645675/5-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.72		ug/L		86	40 - 140
Acenaphthylene	2.00	1.69		ug/L		84	40 - 140
Anthracene	2.00	1.68		ug/L		84	40 - 140
Benzo[a]anthracene	2.00	1.66		ug/L		83	40 - 140
Benzo[a]pyrene	2.00	1.45		ug/L		72	40 - 140
Benzo[b]fluoranthene	2.00	1.44		ug/L		72	40 - 140
Benzo[g,h,i]perylene	2.00	1.66		ug/L		83	40 - 140
Benzo[k]fluoranthene	2.00	1.47		ug/L		73	40 - 140
Chrysene	2.00	1.70		ug/L		85	40 - 140
Dibenz(a,h)anthracene	2.00	1.55		ug/L		77	40 - 140
Fluoranthene	2.00	1.75		ug/L		88	40 - 140
Fluorene	2.00	1.75		ug/L		88	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.55		ug/L		77	40 - 140
Phenanthrene	2.00	1.65		ug/L		83	40 - 140
Pyrene	2.00	1.63		ug/L		82	40 - 140
1-Methylnaphthalene	2.00	1.79		ug/L		90	40 - 140
2-Methylnaphthalene	2.00	1.76		ug/L		88	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*70*		*18 - 147*
2-Fluorobiphenyl	*68*		*15 - 128*
Nitrobenzene-d5	*59*		*10 - 144*

Lab Sample ID: LCSD 400-645675/6-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.74		ug/L		87	40 - 140	1	40
Acenaphthylene	2.00	1.68		ug/L		84	40 - 140	0	40
Anthracene	2.00	1.67		ug/L		84	40 - 140	0	40
Benzo[a]anthracene	2.00	1.77		ug/L		88	40 - 140	7	40
Benzo[a]pyrene	2.00	1.43		ug/L		71	40 - 140	1	40
Benzo[b]fluoranthene	2.00	1.57		ug/L		79	40 - 140	9	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-645675/6-A
Matrix: Water
Analysis Batch: 646073

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645675

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[g,h,i]perylene			2.00	1.69		ug/L		85	40 - 140	2	40
Benzo[k]fluoranthene			2.00	1.46		ug/L		73	40 - 140	1	40
Chrysene			2.00	1.82		ug/L		91	40 - 140	7	40
Dibenz(a,h)anthracene			2.00	1.59		ug/L		79	40 - 140	2	40
Fluoranthene			2.00	1.87		ug/L		93	40 - 140	6	40
Fluorene			2.00	1.77		ug/L		89	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			2.00	1.62		ug/L		81	40 - 140	5	40
Phenanthrene			2.00	1.74		ug/L		87	40 - 140	5	40
Pyrene			2.00	1.72		ug/L		86	40 - 140	5	40
1-Methylnaphthalene			2.00	1.85		ug/L		92	40 - 140	3	40
2-Methylnaphthalene			2.00	1.82		ug/L		91	40 - 140	4	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*71*		*18 - 147*
2-Fluorobiphenyl	*67*		*15 - 128*
Nitrobenzene-d5	*60*		*10 - 144*

Lab Sample ID: 400-244887-3 MS
Matrix: Water
Analysis Batch: 646073

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene	ND		115	99.1		ug/L		86	50 - 150		
Acenaphthylene	ND		115	102		ug/L		89	50 - 150		
Anthracene	0.051	J	115	98.6		ug/L		85	50 - 150		
Benzo[a]anthracene	0.051	J	115	103		ug/L		89	50 - 150		
Benzo[a]pyrene	ND		115	89.7		ug/L		78	50 - 150		
Benzo[b]fluoranthene	ND		115	94.1		ug/L		81	50 - 150		
Benzo[g,h,i]perylene	ND		115	95.2		ug/L		82	50 - 150		
Benzo[k]fluoranthene	ND		115	88.1		ug/L		76	50 - 150		
Chrysene	ND		115	97.5		ug/L		84	50 - 150		
Dibenz(a,h)anthracene	ND		115	89.2		ug/L		77	50 - 150		
Fluoranthene	0.076	J B	115	98.0		ug/L		85	50 - 150		
Fluorene	ND		115	100		ug/L		87	50 - 150		
Indeno[1,2,3-cd]pyrene	ND		115	90.9		ug/L		79	50 - 150		
Phenanthrene	ND		115	95.6		ug/L		83	50 - 150		
Pyrene	ND		115	98.7		ug/L		85	50 - 150		
1-Methylnaphthalene	ND		115	60.4		ug/L		52	50 - 150		
2-Methylnaphthalene	ND		115	59.7		ug/L		52	50 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*81*		*18 - 147*
2-Fluorobiphenyl	*80*		*15 - 128*
Nitrobenzene-d5	*45*		*10 - 144*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 400-244887-3 MSD
Matrix: Water
Analysis Batch: 646073

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645675

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		117	98.6		ug/L		84	50 - 150	1	40
Acenaphthylene	ND		117	104		ug/L		89	50 - 150	2	40
Anthracene	0.051	J	117	99.6		ug/L		85	50 - 150	1	40
Benzo[a]anthracene	0.051	J	117	103		ug/L		88	50 - 150	1	40
Benzo[a]pyrene	ND		117	93.6		ug/L		80	50 - 150	4	40
Benzo[b]fluoranthene	ND		117	98.1		ug/L		84	50 - 150	4	40
Benzo[g,h,i]perylene	ND		117	99.9		ug/L		86	50 - 150	5	40
Benzo[k]fluoranthene	ND		117	89.9		ug/L		77	50 - 150	2	40
Chrysene	ND		117	97.1		ug/L		83	50 - 150	0	40
Dibenz(a,h)anthracene	ND		117	98.0		ug/L		84	50 - 150	9	40
Fluoranthene	0.076	J B	117	98.7		ug/L		84	50 - 150	1	40
Fluorene	ND		117	101		ug/L		87	50 - 150	1	40
Indeno[1,2,3-cd]pyrene	ND		117	97.5		ug/L		84	50 - 150	7	40
Phenanthrene	ND		117	97.1		ug/L		83	50 - 150	2	40
Pyrene	ND		117	103		ug/L		89	50 - 150	5	40
1-Methylnaphthalene	ND		117	76.3		ug/L		65	50 - 150	23	40
2-Methylnaphthalene	ND		117	75.7		ug/L		65	50 - 150	24	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*85*		*18 - 147*
2-Fluorobiphenyl	*78*		*15 - 128*
Nitrobenzene-d5	*55*		*10 - 144*

Lab Sample ID: MB 400-646461/1-A
Matrix: Water
Analysis Batch: 647132

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646461

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/20/23 09:33	10/25/23 17:22	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/20/23 09:33	10/25/23 17:22	1
Anthracene	ND		0.20	0.047	ug/L		10/20/23 09:33	10/25/23 17:22	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/20/23 09:33	10/25/23 17:22	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/20/23 09:33	10/25/23 17:22	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/20/23 09:33	10/25/23 17:22	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/20/23 09:33	10/25/23 17:22	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/20/23 09:33	10/25/23 17:22	1
Chrysene	ND		0.20	0.033	ug/L		10/20/23 09:33	10/25/23 17:22	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/20/23 09:33	10/25/23 17:22	1
Fluoranthene	ND		0.20	0.034	ug/L		10/20/23 09:33	10/25/23 17:22	1
Fluorene	ND		0.20	0.089	ug/L		10/20/23 09:33	10/25/23 17:22	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/20/23 09:33	10/25/23 17:22	1
Phenanthrene	ND		0.20	0.090	ug/L		10/20/23 09:33	10/25/23 17:22	1
Pyrene	ND		0.20	0.039	ug/L		10/20/23 09:33	10/25/23 17:22	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/20/23 09:33	10/25/23 17:22	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/20/23 09:33	10/25/23 17:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*66*		*18 - 147*	*10/20/23 09:33*	*10/25/23 17:22*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-646461/1-A
Matrix: Water
Analysis Batch: 647132

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646461

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		15 - 128	10/20/23 09:33	10/25/23 17:22	1
Nitrobenzene-d5	58		10 - 144	10/20/23 09:33	10/25/23 17:22	1

Lab Sample ID: LCS 400-646461/2-A
Matrix: Water
Analysis Batch: 647132

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646461

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.81		ug/L		91	40 - 140
Acenaphthylene	2.00	1.82		ug/L		91	40 - 140
Anthracene	2.00	1.89		ug/L		94	40 - 140
Benzo[a]anthracene	2.00	1.83		ug/L		92	40 - 140
Benzo[a]pyrene	2.00	1.53		ug/L		77	40 - 140
Benzo[b]fluoranthene	2.00	1.61		ug/L		80	40 - 140
Benzo[g,h,i]perylene	2.00	1.35		ug/L		68	40 - 140
Benzo[k]fluoranthene	2.00	1.47		ug/L		73	40 - 140
Chrysene	2.00	1.80		ug/L		90	40 - 140
Dibenz(a,h)anthracene	2.00	1.41		ug/L		71	40 - 140
Fluoranthene	2.00	1.87		ug/L		93	40 - 140
Fluorene	2.00	1.90		ug/L		95	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.39		ug/L		70	40 - 140
Phenanthrene	2.00	1.79		ug/L		90	40 - 140
Pyrene	2.00	1.75		ug/L		88	40 - 140
1-Methylnaphthalene	2.00	1.94		ug/L		97	40 - 140
2-Methylnaphthalene	2.00	1.90		ug/L		95	40 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14	70		18 - 147
2-Fluorobiphenyl	68		15 - 128
Nitrobenzene-d5	59		10 - 144

Lab Sample ID: LCSD 400-646461/3-A
Matrix: Water
Analysis Batch: 647132

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646461

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.85		ug/L		93	40 - 140	2	40
Acenaphthylene	2.00	1.87		ug/L		93	40 - 140	2	40
Anthracene	2.00	1.87		ug/L		93	40 - 140	1	40
Benzo[a]anthracene	2.00	1.87		ug/L		94	40 - 140	2	40
Benzo[a]pyrene	2.00	1.57		ug/L		79	40 - 140	2	40
Benzo[b]fluoranthene	2.00	1.54		ug/L		77	40 - 140	4	40
Benzo[g,h,i]perylene	2.00	1.49		ug/L		75	40 - 140	10	40
Benzo[k]fluoranthene	2.00	1.56		ug/L		78	40 - 140	6	40
Chrysene	2.00	1.83		ug/L		91	40 - 140	1	40
Dibenz(a,h)anthracene	2.00	1.52		ug/L		76	40 - 140	8	40
Fluoranthene	2.00	1.89		ug/L		95	40 - 140	1	40
Fluorene	2.00	1.92		ug/L		96	40 - 140	1	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-646461/3-A
Matrix: Water
Analysis Batch: 647132

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646461

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene			2.00	1.54		ug/L		77	40 - 140	10	40
Phenanthrene			2.00	1.80		ug/L		90	40 - 140	0	40
Pyrene			2.00	1.72		ug/L		86	40 - 140	2	40
1-Methylnaphthalene			2.00	1.94		ug/L		97	40 - 140	0	40
2-Methylnaphthalene			2.00	1.90		ug/L		95	40 - 140	0	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*68*		*18 - 147*
2-Fluorobiphenyl	*69*		*15 - 128*
Nitrobenzene-d5	*58*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-645442/1-A
Matrix: Water
Analysis Batch: 645412

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645442

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/13/23 09:56	10/13/23 15:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/13/23 09:56	10/13/23 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*10/13/23 09:56*	*10/13/23 15:58*	*1*

Lab Sample ID: LCS 400-645442/2-A
Matrix: Water
Analysis Batch: 645412

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645442

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane			0.101	0.109		ug/L		109	60 - 140
1,2-Dibromoethane			0.101	0.107		ug/L		106	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*51 - 149*

Lab Sample ID: LCSD 400-645442/3-A
Matrix: Water
Analysis Batch: 645412

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645442

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.110		ug/L		109	60 - 140	0	30
1,2-Dibromoethane			0.101	0.107		ug/L		106	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-244887-3 MS
Matrix: Water
Analysis Batch: 645412

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645442

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane	ND		0.0985	0.114		ug/L		116	10 - 150		
1,2-Dibromoethane	ND		0.0988	0.104		ug/L		105	39 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*51 - 149*

Lab Sample ID: 400-244887-3 MSD
Matrix: Water
Analysis Batch: 645412

Client Sample ID: MW6C-ROX-101023
Prep Type: Total/NA
Prep Batch: 645442

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND		0.103	0.117		ug/L		113	10 - 150	3	20
1,2-Dibromoethane	ND		0.104	0.110		ug/L		106	39 - 150	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*51 - 149*

LAB (LOCATION

Shell Oil Products US Chain Of Custody Record

AECOM

☐ ACCUTEST (_____ 400-244887 COC

☐ 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: 10/10/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:
AECOM	

SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60697537 – 3.4.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.	E-MAIL:	AECOM Other ID:
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, C. McDavid

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, 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 – 3.4.2

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 8270 SIMS
	TB-ROX-101023-8260	10/10/2023	0000	Water	2					2	X			
	TB-ROX-101023-8011	10/10/2023	0000	Water	2					2		X		
	MW6C-ROX-101023	10/10/2023	0910	Water	6			2		8	X	X	X	X
	MW6C-ROX-101023-MS	10/10/2023	0910	Water	6			2		8	X	X	X	X
	MW6C-ROX-101023-MSD	10/10/2023	0910	Water	6			2		8	X	X	X	X
	MW6A-ROX-101023	10/10/2023	1000	Water	6			2		8	X	X	X	X
	MW6B-ROX-101023	10/10/2023	1040	Water	6			2		8	X	X	X	X
	MW12-ROX-101023	10/10/2023	1340	Water	6			2		8	X	X	X	X

10/10/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time
MARY MASSA	FEDEX: 6339 6595 2804, 6339 6595 2815	10/10/2023	1600
Relinquished by: (Signature)	Received by: (Signature) BP	Date: 10/11/23	Time 856
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

CUSTODY SEALS: 2364004, 2364005, 2364006, 2364007

1.6°C 1.8°C IR11

Version: 27Sept23

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10/31/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-244887-1

Login Number: 244887
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	1.6°C, 1.8°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: 400-244887-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245027-1-Rev.1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/13/2023

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

Sample Identification	Sample Identification
TB-ROX-101223-8260	ROST4PZG-ROX-101223
TB-ROX-101223-8011	MW3-ROX-101223
MW24-ROX-101223-EB	MW3-ROX-101223-DUP
MW24-ROX-101223	MW28-ROX-101223

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 PAHs were re-extracted outside extraction time criteria in samples MW24-ROX-101223, ROST4PZG-ROX-101223, MW28-ROX-101223, field duplicate pair MW3-ROX-101223/MW3-ROX-101223-DUP, and equipment blank MW24-ROX-101223-EB. Diethyl phthalate was detected in one method blank. Multiple analytes have been detected in equipment blank MW24-ROX-101223-EB. SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. The continuing calibration verifications (CCV) for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on December 18, 2023, to include missing QC that had inadvertently been omitted by the laboratory.

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?

No, PAHs in samples MW24-ROX-101223, ROST4PZG-ROX-101223, MW28-ROX-101223, field duplicate pair MW3-ROX-101223/MW3-ROX-101223-DUP, and equipment blank MW24-ROX-101223-EB, were re-extracted 7 days outside extraction time criteria (7 days) and then re-analyzed due to method blank contamination. The results for the re-extracted and re-analyzed samples were comparable to the initial results; both sets of data are reported. Holding time exceedances were not greater than two times (2X) criteria. Based on professional judgement, the results from the initial analysis were used for the purposes of this report. Equipment blanks are quality control samples and do not require

qualification.

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 400-646105/1-A	SVOCs	Diethyl phthalate	0.5 µg/L
MB 400-646105/1-A	PAHs	Benzo[a]anthracene	0.0695 µg/L
MB 400-646105/1-A	PAHs	Benzo[b]fluoranthene	0.143 µg/L
MB 400-646105/1-A	PAHs	Benzo[k]fluoranthene	0.0860 µg/L
MB 400-646105/1-A	PAHs	Chrysene	0.0977 µg/L
MB 400-646105/1-A	PAHs	Dibenz(a,h)anthracene	0.0866 µg/L
MB 400-646105/1-A	PAHs	Fluoranthene	0.0812 µg/L
MB 400-646105/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.109 µg/L
MW24-ROX-101223-EB	VOCs	Acetone	11 µg/L
MW24-ROX-101223-EB	PAHs	Benzo[a]anthracene	0.066 µg/L
MW24-ROX-101223-EB	PAHs	Chrysene	0.057 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
MW24-ROX-101223	PAHs	Benzo[a]anthracene	-	**U**
ROST4PZG-ROX-101223	PAHs	Benzo[a]anthracene	-	**U**
MW3-ROX-101223	PAHs	Benzo[a]anthracene	-	**U**
MW3-ROX-101223-DUP	PAHs	Benzo[a]anthracene	-	**U**
MW24-ROX-101223	PAHs	Chrysene	-	**U**
MW3-ROX-101223-DUP	PAHs	Chrysene	-	**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 400-646105/2-A/3-A	SVOCs	Benzoic acid	47/15	**102**	10-144/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2-Chlorophenol	62/**31**	**67**	40-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2,4-Dichlorophenol	74/53	**32**	49-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2,4-Dinitrophenol	93/67	**32**	10-150/30

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2-Nitrophenol	77/55	**33**	40-124/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	Phenol	62/37	**51**	11-120/30
LCS/LCSD 400-646105/4-A/ 5-A	SVOCs	Benzenethiol	**3/3**	10	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. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW24-ROX-101223	SVOCs	2-Chlorophenol	**UJ**
ROST4PZG-ROX-101223	SVOCs	2-Chlorophenol	**UJ**
MW3-ROX-101223	SVOCs	2-Chlorophenol	**UJ**
MW3-ROX-101223-DUP	SVOCs	2-Chlorophenol	**UJ**
MW28-ROX-101223	SVOCs	2-Chlorophenol	**UJ**
MW24-ROX-101223	SVOCs	Benzenethiol	**UJ**
ROST4PZG-ROX-101223	SVOCs	Benzenethiol	**UJ**
MW3-ROX-101223	SVOCs	Benzenethiol	**UJ**
MW3-ROX-101223-DUP	SVOCs	Benzenethiol	**UJ**
MW28-ROX-101223	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
LCSD 400-646105/3-A	SVOCs	2-Fluorophenol	**11**	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. Laboratory control sample duplicates 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-101223	MW3-ROX-101223-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 multiple analytes were outside evaluation criteria, biased low. Chrysene in sample MW24-ROX-101223 and MW3-ROX-101223-DUP were previously qualified in Section 4.0 of this data review due to method blank contamination. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW24-ROX-101223	VOCs	Carbon Tetrachloride	**UJ**
MW24-ROX-101223	VOCs	Bromodichloromethane	**UJ**
MW24-ROX-101223	VOCs	trans-1,3-Dichloropropene	**UJ**
MW24-ROX-101223	VOCs	Dibromochloromethane	**UJ**
MW24-ROX-101223	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
MW24-ROX-101223	VOCs	Styrene	**UJ**
MW24-ROX-101223	VOCs	Bromoform	**UJ**
MW24-ROX-101223	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
ROST4PZG-ROX-101223	VOCs	Carbon Tetrachloride	**UJ**
ROST4PZG-ROX-101223	VOCs	Bromodichloromethane	**UJ**
ROST4PZG-ROX-101223	VOCs	trans-1,3-Dichloropropene	**UJ**
ROST4PZG-ROX-101223	VOCs	Dibromochloromethane	**UJ**
ROST4PZG-ROX-101223	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
ROST4PZG-ROX-101223	VOCs	Styrene	**UJ**
ROST4PZG-ROX-101223	VOCs	Bromoform	**UJ**
ROST4PZG-ROX-101223	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
MW3-ROX-101223	VOCs	Carbon Tetrachloride	**UJ**
MW3-ROX-101223	VOCs	Bromodichloromethane	**UJ**
MW3-ROX-101223	VOCs	trans-1,3-Dichloropropene	**UJ**
MW3-ROX-101223	VOCs	Dibromochloromethane	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-101223	VOCs	1,1,1,2-Tetrachloroethane	UJ
MW3-ROX-101223	VOCs	Styrene	UJ
MW3-ROX-101223	VOCs	Bromoform	UJ
MW3-ROX-101223	VOCs	1,1,2,2-Tetrachloroethane	UJ
MW3-ROX-101223-DUP	VOCs	Carbon Tetrachloride	UJ
MW3-ROX-101223-DUP	VOCs	Bromodichloromethane	UJ
MW3-ROX-101223-DUP	VOCs	trans-1,3-Dichloropropene	UJ
MW3-ROX-101223-DUP	VOCs	Dibromochloromethane	UJ
MW3-ROX-101223-DUP	VOCs	1,1,1,2-Tetrachloroethane	UJ
MW3-ROX-101223-DUP	VOCs	Styrene	UJ
MW3-ROX-101223-DUP	VOCs	Bromoform	UJ
MW3-ROX-101223-DUP	VOCs	1,1,2,2-Tetrachloroethane	UJ
MW28-ROX-101223	VOCs	Carbon Tetrachloride	UJ
MW28-ROX-101223	VOCs	Bromodichloromethane	UJ
MW28-ROX-101223	VOCs	trans-1,3-Dichloropropene	UJ
MW28-ROX-101223	VOCs	Dibromochloromethane	UJ
MW28-ROX-101223	VOCs	1,1,1,2-Tetrachloroethane	UJ
MW28-ROX-101223	VOCs	Styrene	UJ
MW28-ROX-101223	VOCs	Bromoform	UJ
MW28-ROX-101223	VOCs	1,1,2,2-Tetrachloroethane	UJ
MW24-ROX-101223	SVOCs	Benzyl alcohol	UJ
MW24-ROX-101223	SVOCs	Di-n-octyl phthalate	UJ
MW24-ROX-101223	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZG-ROX-101223	SVOCs	Benzyl alcohol	UJ
ROST4PZG-ROX-101223	SVOCs	Di-n-octyl phthalate	UJ
ROST4PZG-ROX-101223	SVOCs	Hexachlorocyclopentadiene	UJ
MW3-ROX-101223	SVOCs	Benzyl alcohol	UJ
MW3-ROX-101223	SVOCs	Di-n-octyl phthalate	UJ
MW3-ROX-101223	SVOCs	Hexachlorocyclopentadiene	UJ
MW3-ROX-101223-DUP	SVOCs	Benzyl alcohol	UJ
MW3-ROX-101223-DUP	SVOCs	Di-n-octyl phthalate	UJ
MW3-ROX-101223-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
MW28-ROX-101223	SVOCs	Benzyl alcohol	UJ
MW28-ROX-101223	SVOCs	Di-n-octyl phthalate	UJ
MW28-ROX-101223	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZG-ROX-101223	PAHs	Chrysene	UJ
MW3-ROX-101223	PAHs	Chrysene	UJ
MW28-ROX-101223	PAHs	Chrysene	UJ
MW3-ROX-101223-Dup	PAHs	Chrysene	UJ
MW24-ROX-101223	PAHs	Chrysene	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

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JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245027-1

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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Authorization



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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

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Job Narrative
400-245027-1

REVISION
Report revised to include missing QC.
Supersedes reports dated 10-30-2023 and 12-18-2023 for data package.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/13/2023 9:19 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 1.7°C and 5.5°C

GC/MS VOA
Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-645025 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646459 recovered outside acceptance criteria, low biased, for Bromoform, Chlorodibromomethane, trans-1,3-Dichloropropene, Carbon tetrachloride, 1,1,2,2-Tetrachloroethane, Dichlorobromomethane, Styrene. and 1,1,1,2-Tetrachloroethane. 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 8260D: The following sample MW24-ROX-101223-EB (400-245027-3) contained Acetone between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

Method 8260D: 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-101223-8260 (400-245027-1), MW24-ROX-101223-EB (400-245027-3), MW24-ROX-101223 (400-245027-4), ROST4PZG-ROX-101223 (400-245027-5), MW3-ROX-101223 (400-245027-6), MW3-ROX-101223-DUP (400-245027-7) and MW28-ROX-101223 (400-245027-8). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades 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 8270E: The continuing calibration verification (CCV) associated with batch 400-646410 recovered outside acceptance criteria, low biased, for Benzyl alcohol, Di-n-octyl phthalate 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 8270E: The method blank for preparation batch 400-646105 and analytical batch 400-646410 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646105 and analytical batch 400-646410 recovered outside control limits for the following analytes: 2,4-Dichlorophenol, 2,4-Dinitrophenol, 2-Chlorophenol, 2-Nitrophenol, Benzoic acid and Phenol.

Method 8270E: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-646105 and analytical batch 400-646410: 2-Chlorophenol. This is not indicative of a systematic control problem because

these were random marginal exceedances. Qualified results have been reported.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646105 and analytical batch 400-646410 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 8270E: 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 LCSD contained an allowable number of surrogate compounds outside limits: (LCSD 400-646105/3-A). These results have been reported and qualified.

Method 8270E_SIM: The continuing calibration verification (CCV) associated with batch 400-646527 recovered outside acceptance criteria, low biased, for Chrysene. 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 8270E_SIM: The continuing calibration verification (CCV) associated with batch 400-647620 recovered outside acceptance criteria, low biased, for Dibenz(a,h)anthracene. 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 8270E_SIM: The following samples were re-prepared outside of preparation holding time due to method blank contamination: MW24-ROX-101223-EB (400-245027-3), MW24-ROX-101223 (400-245027-4), ROST4PZG-ROX-101223 (400-245027-5), MW3-ROX-101223 (400-245027-6), MW3-ROX-101223-DUP (400-245027-7) and MW28-ROX-101223 (400-245027-8). Both 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 400-645889 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: 400-245027-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245027-1	TB-ROX-101223-8260	Water	10/12/23 12:00	10/13/23 09:19
400-245027-2	TB-ROX-101223-8011	Water	10/12/23 12:00	10/13/23 09:19
400-245027-3	MW24-ROX-101223-EB	Water	10/12/23 08:20	10/13/23 09:19
400-245027-4	MW24-ROX-101223	Water	10/12/23 09:10	10/13/23 09:19
400-245027-5	ROST4PZG-ROX-101223	Water	10/12/23 10:15	10/13/23 09:19
400-245027-6	MW3-ROX-101223	Water	10/12/23 11:20	10/13/23 09:19
400-245027-7	MW3-ROX-101223-DUP	Water	10/12/23 11:20	10/13/23 09:19
400-245027-8	MW28-ROX-101223	Water	10/12/23 13:30	10/13/23 09:19

Detection Summary

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

Job ID: 400-245027-1

Client Sample ID: TB-ROX-101223-8260 — Lab Sample ID: 400-245027-1

No Detections.

Client Sample ID: TB-ROX-101223-8011 — Lab Sample ID: 400-245027-2

No Detections.

Client Sample ID: MW24-ROX-101223-EB — Lab Sample ID: 400-245027-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11	J	25	10	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.066	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Chrysene	0.057	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene - RERA	0.061	J H B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Fluoranthene - RERA	0.092	J H B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene - RERA	0.037	J H	0.20	0.034	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW24-ROX-101223 — Lab Sample ID: 400-245027-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.12	J	0.20	0.043	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.061	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Chrysene	0.039	J B	0.20	0.032	ug/L	1		8270E SIM	Total/NA

Client Sample ID: ROST4PZG-ROX-101223 — Lab Sample ID: 400-245027-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	33		25	10	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.046	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW3-ROX-101223 — Lab Sample ID: 400-245027-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	24	J	25	10	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.87	J	1.0	0.22	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.051	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW3-ROX-101223-DUP — Lab Sample ID: 400-245027-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	24	J	25	10	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.88	J	1.0	0.22	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.052	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Chrysene	0.032	J B	0.20	0.032	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW28-ROX-101223 — Lab Sample ID: 400-245027-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10	J	25	10	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.51	J	1.0	0.22	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245027-1

Client Sample ID: TB-ROX-101223-8260
Date Collected: 10/12/23 12:00
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/20/23 16:56	1
Acrolein	ND		20	3.3	ug/L			10/20/23 16:56	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/23 16:56	1
Benzene	ND		1.0	0.50	ug/L			10/20/23 16:56	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/23 16:56	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/20/23 16:56	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/23 16:56	1
Bromoform	ND		5.0	0.25	ug/L			10/20/23 16:56	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/23 16:56	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/23 16:56	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/23 16:56	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/20/23 16:56	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/20/23 16:56	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/23 16:56	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/23 16:56	1
Chloroform	ND		1.0	0.90	ug/L			10/20/23 16:56	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/20/23 16:56	1
Chloromethane	ND		1.0	0.90	ug/L			10/20/23 16:56	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/20/23 16:56	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/23 16:56	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/20/23 16:56	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/23 16:56	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/23 16:56	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/23 16:56	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/23 16:56	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/23 16:56	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/20/23 16:56	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 16:56	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 16:56	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 16:56	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 16:56	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/23 16:56	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/23 16:56	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/23 16:56	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/23 16:56	1
2-Hexanone	ND		25	1.4	ug/L			10/20/23 16:56	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/23 16:56	1
Methylene bromide	ND		5.0	0.22	ug/L			10/20/23 16:56	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/23 16:56	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/23 16:56	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/20/23 16:56	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/20/23 16:56	1
Naphthalene	ND		5.0	3.0	ug/L			10/20/23 16:56	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/23 16:56	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/23 16:56	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/23 16:56	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/23 16:56	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/23 16:56	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/20/23 16:56	1

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

Job ID: 400-245027-1

Client Sample ID: TB-ROX-101223-8260
Date Collected: 10/12/23 12:00
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/23 16:56	1
Styrene	ND		1.0	1.0	ug/L			10/20/23 16:56	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/23 16:56	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/20/23 16:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/23 16:56	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/20/23 16:56	1
Toluene	ND		1.0	0.90	ug/L			10/20/23 16:56	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 16:56	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/20/23 16:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/20/23 16:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/23 16:56	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/20/23 16:56	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/20/23 16:56	1
Trichloroethene	ND		1.0	0.15	ug/L			10/20/23 16:56	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/23 16:56	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/23 16:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/23 16:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/23 16:56	1
Vinyl acetate	ND		25	0.93	ug/L			10/20/23 16:56	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/23 16:56	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/23 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 130*		*10/20/23 16:56*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*10/20/23 16:56*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/20/23 16:56*	*1*

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

Job ID: 400-245027-1

Client Sample ID: TB-ROX-101223-8011
Date Collected: 10/12/23 12:00
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-2
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-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		10/17/23 07:05	10/17/23 18:31	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		10/17/23 07:05	10/17/23 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*125*		*51 - 149*	*10/17/23 07:05*	*10/17/23 18:31*	*1*

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

Job ID: 400-245027-1

Client Sample ID: MW24-ROX-101223-EB

Date Collected: 10/12/23 08:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-3

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**11**	**J**	25	10	ug/L			10/20/23 17:15	1
Acrolein	ND		20	3.3	ug/L			10/20/23 17:15	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/23 17:15	1
Benzene	ND		1.0	0.50	ug/L			10/20/23 17:15	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/23 17:15	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/20/23 17:15	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/23 17:15	1
Bromoform	ND		5.0	0.25	ug/L			10/20/23 17:15	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/23 17:15	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/23 17:15	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/23 17:15	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/20/23 17:15	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/20/23 17:15	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/23 17:15	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/23 17:15	1
Chloroform	ND		1.0	0.90	ug/L			10/20/23 17:15	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/20/23 17:15	1
Chloromethane	ND		1.0	0.90	ug/L			10/20/23 17:15	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/20/23 17:15	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/23 17:15	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/20/23 17:15	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/23 17:15	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/23 17:15	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/23 17:15	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/23 17:15	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/23 17:15	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/20/23 17:15	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 17:15	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 17:15	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 17:15	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 17:15	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/23 17:15	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/23 17:15	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/23 17:15	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/23 17:15	1
2-Hexanone	ND		25	1.4	ug/L			10/20/23 17:15	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/23 17:15	1
Methylene bromide	ND		5.0	0.22	ug/L			10/20/23 17:15	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 12:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/23 17:15	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/20/23 17:15	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/20/23 17:15	1
Naphthalene	ND		5.0	3.0	ug/L			10/20/23 17:15	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/23 17:15	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/23 17:15	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/23 17:15	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/23 17:15	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/23 17:15	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/20/23 17:15	1

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

Job ID: 400-245027-1

Client Sample ID: MW24-ROX-101223-EB

Date Collected: 10/12/23 08:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/23 17:15	1
Styrene	ND		1.0	1.0	ug/L			10/20/23 17:15	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/23 17:15	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/20/23 17:15	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/23 17:15	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/20/23 17:15	1
Toluene	ND		1.0	0.90	ug/L			10/20/23 17:15	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 17:15	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/20/23 17:15	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/20/23 17:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/23 17:15	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/20/23 17:15	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/20/23 17:15	1
Trichloroethene	ND		1.0	0.15	ug/L			10/20/23 17:15	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/23 17:15	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/23 17:15	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/23 17:15	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/23 17:15	1
Vinyl acetate	ND		25	0.93	ug/L			10/20/23 17:15	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/23 17:15	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/23 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 130*		*10/20/23 17:15*	*1*
4-Bromofluorobenzene	*97*		*72 - 130*		*10/23/23 12:48*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*10/20/23 17:15*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*10/23/23 12:48*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/20/23 17:15*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*10/23/23 12:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/18/23 12:44	10/21/23 04:24	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 12:44	10/21/23 04:24	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 04:24	1
Benzo[a]anthracene	**0.066**	**J B**	0.20	0.034	ug/L		10/18/23 12:44	10/21/23 04:24	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 12:44	10/21/23 04:24	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/18/23 12:44	10/21/23 04:24	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/21/23 04:24	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/18/23 12:44	10/21/23 04:24	1
Chrysene	**0.057**	**J B**	0.20	0.033	ug/L		10/18/23 12:44	10/21/23 04:24	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/18/23 12:44	10/21/23 04:24	1
Fluoranthene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 04:24	1
Fluorene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/21/23 04:24	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 04:24	1
Phenanthrene	ND		0.20	0.090	ug/L		10/18/23 12:44	10/21/23 04:24	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/21/23 04:24	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/18/23 12:44	10/21/23 04:24	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/18/23 12:44	10/21/23 04:24	1

Client Sample ID: MW24-ROX-101223-EB

Date Collected: 10/12/23 08:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	114		18 - 147	10/18/23 12:44	10/21/23 04:24	1
2-Fluorobiphenyl	81		15 - 128	10/18/23 12:44	10/21/23 04:24	1
Nitrobenzene-d5	49		10 - 144	10/18/23 12:44	10/21/23 04:24	1

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.099	ug/L		10/26/23 08:58	10/27/23 19:17	1
Acenaphthylene	ND	H	0.20	0.044	ug/L		10/26/23 08:58	10/27/23 19:17	1
Anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 19:17	1
Benzo[a]anthracene	**0.061**	**J H B**	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 19:17	1
Benzo[a]pyrene	ND	H	0.20	0.064	ug/L		10/26/23 08:58	10/27/23 19:17	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		10/26/23 08:58	10/27/23 19:17	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		10/26/23 08:58	10/27/23 19:17	1
Benzo[k]fluoranthene	ND	H	0.20	0.062	ug/L		10/26/23 08:58	10/27/23 19:17	1
Chrysene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 19:17	1
Dibenz(a,h)anthracene	ND	H	0.20	0.048	ug/L		10/26/23 08:58	10/27/23 19:17	1
Fluoranthene	**0.092**	**J H B**	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 19:17	1
Fluorene	ND	H	0.20	0.089	ug/L		10/26/23 08:58	10/27/23 19:17	1
Indeno[1,2,3-cd]pyrene	**0.037**	**J H**	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 19:17	1
Phenanthrene	ND	H	0.20	0.090	ug/L		10/26/23 08:58	10/27/23 19:17	1
Pyrene	ND	H	0.20	0.039	ug/L		10/26/23 08:58	10/27/23 19:17	1
1-Methylnaphthalene	ND	H	0.20	0.080	ug/L		10/26/23 08:58	10/27/23 19:17	1
2-Methylnaphthalene	ND	H	0.20	0.066	ug/L		10/26/23 08:58	10/27/23 19:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	102		18 - 147	10/26/23 08:58	10/27/23 19:17	1
2-Fluorobiphenyl	77		15 - 128	10/26/23 08:58	10/27/23 19:17	1
Nitrobenzene-d5	61		10 - 144	10/26/23 08:58	10/27/23 19:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 12:32	1
Benzenethiol	ND	*-	10	1.7	ug/L		10/18/23 12:44	10/20/23 12:32	1
Benzoic acid	ND	*1	30	7.3	ug/L		10/18/23 12:44	10/20/23 12:32	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 12:32	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 12:32	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 12:32	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 12:32	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/18/23 12:44	10/20/23 12:32	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 12:44	10/20/23 12:32	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 12:44	10/20/23 12:32	1
4-Chloroaniline	ND		10	3.4	ug/L		10/18/23 12:44	10/20/23 12:32	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 12:32	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 12:32	1
2-Chlorophenol	ND	*- *1	10	2.2	ug/L		10/18/23 12:44	10/20/23 12:32	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 12:32	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 12:32	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 12:32	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 12:32	1
2,4-Dichlorophenol	ND	*1	10	3.0	ug/L		10/18/23 12:44	10/20/23 12:32	1
Diethyl phthalate	ND		10	0.24	ug/L		10/18/23 12:44	10/20/23 12:32	1

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

Job ID: 400-245027-1

Client Sample ID: MW24-ROX-101223-EB
Date Collected: 10/12/23 08:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 12:32	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 12:32	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 12:32	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 12:44	10/20/23 12:32	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/18/23 12:44	10/20/23 12:32	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 12:32	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 12:32	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 12:32	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 12:32	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 12:32	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 12:32	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 12:32	1
Hexachloroethane	ND		10	4.2	ug/L		10/18/23 12:44	10/20/23 12:32	1
Indene	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 12:32	1
Isophorone	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 12:32	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 12:32	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 12:32	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 12:32	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 12:32	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 12:44	10/20/23 12:32	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 12:44	10/20/23 12:32	1
2-Nitrophenol	ND	*1	10	5.2	ug/L		10/18/23 12:44	10/20/23 12:32	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 12:44	10/20/23 12:32	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 12:32	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/18/23 12:44	10/20/23 12:32	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 12:44	10/20/23 12:32	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 12:32	1
Phenol	ND	*1	10	2.6	ug/L		10/18/23 12:44	10/20/23 12:32	1
Pyridine	ND		10	3.2	ug/L		10/18/23 12:44	10/20/23 12:32	1
Quinoline	ND		10	4.5	ug/L		10/18/23 12:44	10/20/23 12:32	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/18/23 12:44	10/20/23 12:32	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 12:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*10/18/23 12:44*	*10/20/23 12:32*	*1*
2-Fluorophenol	*26*		*13 - 113*	*10/18/23 12:44*	*10/20/23 12:32*	*1*
Nitrobenzene-d5	*62*		*36 - 126*	*10/18/23 12:44*	*10/20/23 12:32*	*1*
Phenol-d5	*50*		*17 - 127*	*10/18/23 12:44*	*10/20/23 12:32*	*1*
Terphenyl-d14	*92*		*44 - 149*	*10/18/23 12:44*	*10/20/23 12:32*	*1*
2,4,6-Tribromophenol	*60*		*26 - 150*	*10/18/23 12:44*	*10/20/23 12:32*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 18:52	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*10/17/23 07:05*	*10/17/23 18:52*	*1*

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

Job ID: 400-245027-1

Client Sample ID: MW24-ROX-101223
Date Collected: 10/12/23 09:10
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/20/23 17:52	1
Acrolein	ND		20	3.3	ug/L			10/20/23 17:52	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/23 17:52	1
Benzene	ND		1.0	0.50	ug/L			10/20/23 17:52	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/23 17:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/20/23 17:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/23 17:52	1
Bromoform	ND		5.0	0.25	ug/L			10/20/23 17:52	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/23 17:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/23 17:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/23 17:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/20/23 17:52	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/20/23 17:52	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/23 17:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/23 17:52	1
Chloroform	ND		1.0	0.90	ug/L			10/20/23 17:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/20/23 17:52	1
Chloromethane	ND		1.0	0.90	ug/L			10/20/23 17:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/20/23 17:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/23 17:52	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/20/23 17:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/23 17:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/23 17:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/23 17:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/23 17:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/23 17:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/20/23 17:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 17:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 17:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 17:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 17:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/23 17:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/23 17:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/23 17:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/23 17:52	1
2-Hexanone	ND		25	1.4	ug/L			10/20/23 17:52	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/23 17:52	1
Methylene bromide	ND		5.0	0.22	ug/L			10/20/23 17:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/23 17:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/23 17:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/20/23 17:52	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/20/23 17:52	1
Naphthalene	ND		5.0	3.0	ug/L			10/20/23 17:52	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/23 17:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/23 17:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/23 17:52	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/23 17:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/23 17:52	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/20/23 17:52	1

Client Sample ID: MW24-ROX-101223
Date Collected: 10/12/23 09:10
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/23 17:52	1
Styrene	ND		1.0	1.0	ug/L			10/20/23 17:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/23 17:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/20/23 17:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/23 17:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/20/23 17:52	1
Toluene	ND		1.0	0.90	ug/L			10/20/23 17:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 17:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/20/23 17:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/20/23 17:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/23 17:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/20/23 17:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/20/23 17:52	1
Trichloroethene	ND		1.0	0.15	ug/L			10/20/23 17:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/23 17:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/23 17:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/23 17:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/23 17:52	1
Vinyl acetate	ND		25	0.93	ug/L			10/20/23 17:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/23 17:52	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/23 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 130*		*10/20/23 17:52*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*10/20/23 17:52*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/20/23 17:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/18/23 12:44	10/21/23 04:44	1
Acenaphthylene	**0.12**	**J**	0.20	0.043	ug/L		10/18/23 12:44	10/21/23 04:44	1
Anthracene	ND		0.20	0.046	ug/L		10/18/23 12:44	10/21/23 04:44	1
Benzo[a]anthracene	**0.061**	**J B**	0.20	0.033	ug/L		10/18/23 12:44	10/21/23 04:44	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/18/23 12:44	10/21/23 04:44	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/18/23 12:44	10/21/23 04:44	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/18/23 12:44	10/21/23 04:44	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/18/23 12:44	10/21/23 04:44	1
Chrysene	**0.039**	**J B**	0.20	0.032	ug/L		10/18/23 12:44	10/21/23 04:44	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 04:44	1
Fluoranthene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 04:44	1
Fluorene	ND		0.20	0.087	ug/L		10/18/23 12:44	10/21/23 04:44	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 04:44	1
Phenanthrene	ND		0.20	0.088	ug/L		10/18/23 12:44	10/21/23 04:44	1
Pyrene	ND		0.20	0.038	ug/L		10/18/23 12:44	10/21/23 04:44	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		10/18/23 12:44	10/21/23 04:44	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/18/23 12:44	10/21/23 04:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*107*		*18 - 147*	*10/18/23 12:44*	*10/21/23 04:44*	*1*
2-Fluorobiphenyl	*86*		*15 - 128*	*10/18/23 12:44*	*10/21/23 04:44*	*1*

Client Sample ID: MW24-ROX-101223
Date Collected: 10/12/23 09:10
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-4
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*63*		*10 - 144*	*10/18/23 12:44*	*10/21/23 04:44*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.097	ug/L		10/26/23 08:58	10/27/23 19:38	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		10/26/23 08:58	10/27/23 19:38	1
Anthracene	ND	H	0.20	0.046	ug/L		10/26/23 08:58	10/27/23 19:38	1
Benzo[a]anthracene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 19:38	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		10/26/23 08:58	10/27/23 19:38	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		10/26/23 08:58	10/27/23 19:38	1
Benzo[g,h,i]perylene	ND	H	0.20	0.026	ug/L		10/26/23 08:58	10/27/23 19:38	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		10/26/23 08:58	10/27/23 19:38	1
Chrysene	ND	H	0.20	0.032	ug/L		10/26/23 08:58	10/27/23 19:38	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 19:38	1
Fluoranthene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 19:38	1
Fluorene	ND	H	0.20	0.087	ug/L		10/26/23 08:58	10/27/23 19:38	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 19:38	1
Phenanthrene	ND	H	0.20	0.088	ug/L		10/26/23 08:58	10/27/23 19:38	1
Pyrene	ND	H	0.20	0.038	ug/L		10/26/23 08:58	10/27/23 19:38	1
1-Methylnaphthalene	ND	H	0.20	0.078	ug/L		10/26/23 08:58	10/27/23 19:38	1
2-Methylnaphthalene	ND	H	0.20	0.065	ug/L		10/26/23 08:58	10/27/23 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*94*		*18 - 147*	*10/26/23 08:58*	*10/27/23 19:38*	*1*
2-Fluorobiphenyl	*74*		*15 - 128*	*10/26/23 08:58*	*10/27/23 19:38*	*1*
Nitrobenzene-d5	*60*		*10 - 144*	*10/26/23 08:58*	*10/27/23 19:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/18/23 12:44	10/20/23 12:53	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		10/18/23 12:44	10/20/23 12:53	1
Benzoic acid	ND	*1	29	7.1	ug/L		10/18/23 12:44	10/20/23 12:53	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/18/23 12:44	10/20/23 12:53	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/18/23 12:44	10/20/23 12:53	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/18/23 12:44	10/20/23 12:53	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/18/23 12:44	10/20/23 12:53	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/18/23 12:44	10/20/23 12:53	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/18/23 12:44	10/20/23 12:53	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/18/23 12:44	10/20/23 12:53	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/18/23 12:44	10/20/23 12:53	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/18/23 12:44	10/20/23 12:53	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/18/23 12:44	10/20/23 12:53	1
2-Chlorophenol	ND	*- *1	9.8	2.2	ug/L		10/18/23 12:44	10/20/23 12:53	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/18/23 12:44	10/20/23 12:53	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 12:53	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 12:53	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		10/18/23 12:44	10/20/23 12:53	1
2,4-Dichlorophenol	ND	*1	9.8	2.9	ug/L		10/18/23 12:44	10/20/23 12:53	1
Diethyl phthalate	ND		9.8	0.23	ug/L		10/18/23 12:44	10/20/23 12:53	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 12:53	1

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

Job ID: 400-245027-1

Client Sample ID: MW24-ROX-101223
Date Collected: 10/12/23 09:10
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 12:53	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/18/23 12:44	10/20/23 12:53	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		10/18/23 12:44	10/20/23 12:53	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/18/23 12:44	10/20/23 12:53	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 12:44	10/20/23 12:53	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 12:44	10/20/23 12:53	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 12:53	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 12:53	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 12:53	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 12:53	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		10/18/23 12:44	10/20/23 12:53	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/18/23 12:44	10/20/23 12:53	1
Indene	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 12:53	1
Isophorone	ND		9.8	0.14	ug/L		10/18/23 12:44	10/20/23 12:53	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/18/23 12:44	10/20/23 12:53	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/18/23 12:44	10/20/23 12:53	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/18/23 12:44	10/20/23 12:53	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/18/23 12:44	10/20/23 12:53	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/18/23 12:44	10/20/23 12:53	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/18/23 12:44	10/20/23 12:53	1
2-Nitrophenol	ND	*1	9.8	5.1	ug/L		10/18/23 12:44	10/20/23 12:53	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/18/23 12:44	10/20/23 12:53	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 12:53	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		10/18/23 12:44	10/20/23 12:53	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/18/23 12:44	10/20/23 12:53	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 12:53	1
Phenol	ND	*1	9.8	2.5	ug/L		10/18/23 12:44	10/20/23 12:53	1
Pyridine	ND		9.8	3.1	ug/L		10/18/23 12:44	10/20/23 12:53	1
Quinoline	ND		9.8	4.4	ug/L		10/18/23 12:44	10/20/23 12:53	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/18/23 12:44	10/20/23 12:53	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 12:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*10/18/23 12:44*	*10/20/23 12:53*	*1*
2-Fluorophenol	*26*		*13 - 113*	*10/18/23 12:44*	*10/20/23 12:53*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*10/18/23 12:44*	*10/20/23 12:53*	*1*
Phenol-d5	*50*		*17 - 127*	*10/18/23 12:44*	*10/20/23 12:53*	*1*
Terphenyl-d14	*85*		*44 - 149*	*10/18/23 12:44*	*10/20/23 12:53*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*10/18/23 12:44*	*10/20/23 12:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 19:13	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*51 - 149*	*10/17/23 07:05*	*10/17/23 19:13*	*1*

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

Job ID: 400-245027-1

Client Sample ID: ROST4PZG-ROX-101223
Date Collected: 10/12/23 10:15
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	33		25	10	ug/L			10/20/23 18:11	1
Acrolein	ND		20	3.3	ug/L			10/20/23 18:11	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/23 18:11	1
Benzene	ND		1.0	0.50	ug/L			10/20/23 18:11	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/23 18:11	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/20/23 18:11	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/23 18:11	1
Bromoform	ND		5.0	0.25	ug/L			10/20/23 18:11	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/23 18:11	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/23 18:11	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/23 18:11	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/20/23 18:11	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/20/23 18:11	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/23 18:11	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/23 18:11	1
Chloroform	ND		1.0	0.90	ug/L			10/20/23 18:11	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/20/23 18:11	1
Chloromethane	ND		1.0	0.90	ug/L			10/20/23 18:11	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/20/23 18:11	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/23 18:11	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/20/23 18:11	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/23 18:11	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/23 18:11	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/23 18:11	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/23 18:11	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/23 18:11	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/20/23 18:11	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 18:11	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:11	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:11	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:11	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/23 18:11	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/23 18:11	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/23 18:11	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/23 18:11	1
2-Hexanone	ND		25	1.4	ug/L			10/20/23 18:11	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/23 18:11	1
Methylene bromide	ND		5.0	0.22	ug/L			10/20/23 18:11	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/23 18:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/23 18:11	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/20/23 18:11	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/20/23 18:11	1
Naphthalene	ND		5.0	3.0	ug/L			10/20/23 18:11	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/23 18:11	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/23 18:11	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/23 18:11	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/23 18:11	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/23 18:11	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/20/23 18:11	1

Client Sample ID: ROST4PZG-ROX-101223
Date Collected: 10/12/23 10:15
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/23 18:11	1
Styrene	ND		1.0	1.0	ug/L			10/20/23 18:11	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/23 18:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/20/23 18:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/23 18:11	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/20/23 18:11	1
Toluene	ND		1.0	0.90	ug/L			10/20/23 18:11	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 18:11	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/20/23 18:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/20/23 18:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/23 18:11	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/20/23 18:11	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/20/23 18:11	1
Trichloroethene	ND		1.0	0.15	ug/L			10/20/23 18:11	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/23 18:11	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/23 18:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/23 18:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/23 18:11	1
Vinyl acetate	ND		25	0.93	ug/L			10/20/23 18:11	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/23 18:11	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/23 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 130*		*10/20/23 18:11*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*10/20/23 18:11*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/20/23 18:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.098	ug/L		10/18/23 12:44	10/21/23 05:05	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 12:44	10/21/23 05:05	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 05:05	1
Benzo[a]anthracene	**0.046**	**J B**	0.20	0.034	ug/L		10/18/23 12:44	10/21/23 05:05	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/18/23 12:44	10/21/23 05:05	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/18/23 12:44	10/21/23 05:05	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/21/23 05:05	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/18/23 12:44	10/21/23 05:05	1
Chrysene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 05:05	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/18/23 12:44	10/21/23 05:05	1
Fluoranthene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 05:05	1
Fluorene	ND		0.20	0.088	ug/L		10/18/23 12:44	10/21/23 05:05	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 05:05	1
Phenanthrene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/21/23 05:05	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/21/23 05:05	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/18/23 12:44	10/21/23 05:05	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/18/23 12:44	10/21/23 05:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*113*		*18 - 147*	*10/18/23 12:44*	*10/21/23 05:05*	*1*
2-Fluorobiphenyl	*86*		*15 - 128*	*10/18/23 12:44*	*10/21/23 05:05*	*1*

Client Sample ID: ROST4PZG-ROX-101223
Date Collected: 10/12/23 10:15
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*58*		*10 - 144*	*10/18/23 12:44*	*10/21/23 05:05*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.098	ug/L		10/26/23 08:58	10/27/23 19:59	1
Acenaphthylene	ND	H	0.20	0.044	ug/L		10/26/23 08:58	10/27/23 19:59	1
Anthracene	ND	H	0.20	0.046	ug/L		10/26/23 08:58	10/27/23 19:59	1
Benzo[a]anthracene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 19:59	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		10/26/23 08:58	10/27/23 19:59	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		10/26/23 08:58	10/27/23 19:59	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		10/26/23 08:58	10/27/23 19:59	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		10/26/23 08:58	10/27/23 19:59	1
Chrysene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 19:59	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 19:59	1
Fluoranthene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 19:59	1
Fluorene	ND	H	0.20	0.088	ug/L		10/26/23 08:58	10/27/23 19:59	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 19:59	1
Phenanthrene	ND	H	0.20	0.089	ug/L		10/26/23 08:58	10/27/23 19:59	1
Pyrene	ND	H	0.20	0.039	ug/L		10/26/23 08:58	10/27/23 19:59	1
1-Methylnaphthalene	ND	H	0.20	0.079	ug/L		10/26/23 08:58	10/27/23 19:59	1
2-Methylnaphthalene	ND	H	0.20	0.065	ug/L		10/26/23 08:58	10/27/23 19:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*95*		*18 - 147*	*10/26/23 08:58*	*10/27/23 19:59*	*1*
2-Fluorobiphenyl	*73*		*15 - 128*	*10/26/23 08:58*	*10/27/23 19:59*	*1*
Nitrobenzene-d5	*58*		*10 - 144*	*10/26/23 08:58*	*10/27/23 19:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		10/18/23 12:44	10/20/23 13:15	1
Benzenethiol	ND	*-	9.9	1.7	ug/L		10/18/23 12:44	10/20/23 13:15	1
Benzoic acid	ND	*1	30	7.2	ug/L		10/18/23 12:44	10/20/23 13:15	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/18/23 12:44	10/20/23 13:15	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/18/23 12:44	10/20/23 13:15	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/18/23 12:44	10/20/23 13:15	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/18/23 12:44	10/20/23 13:15	1
Bis(2-ethylhexyl) phthalate	ND		9.9	5.0	ug/L		10/18/23 12:44	10/20/23 13:15	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/18/23 12:44	10/20/23 13:15	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/18/23 12:44	10/20/23 13:15	1
4-Chloroaniline	ND		9.9	3.4	ug/L		10/18/23 12:44	10/20/23 13:15	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		10/18/23 12:44	10/20/23 13:15	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/18/23 12:44	10/20/23 13:15	1
2-Chlorophenol	ND	*- *1	9.9	2.2	ug/L		10/18/23 12:44	10/20/23 13:15	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/18/23 12:44	10/20/23 13:15	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 13:15	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 13:15	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/18/23 12:44	10/20/23 13:15	1
2,4-Dichlorophenol	ND	*1	9.9	3.0	ug/L		10/18/23 12:44	10/20/23 13:15	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/18/23 12:44	10/20/23 13:15	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 13:15	1

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

Job ID: 400-245027-1

Client Sample ID: ROST4PZG-ROX-101223
Date Collected: 10/12/23 10:15
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 13:15	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/18/23 12:44	10/20/23 13:15	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		10/18/23 12:44	10/20/23 13:15	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/18/23 12:44	10/20/23 13:15	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/18/23 12:44	10/20/23 13:15	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/18/23 12:44	10/20/23 13:15	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 13:15	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 13:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 13:15	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 13:15	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 13:15	1
Hexachloroethane	ND		9.9	4.2	ug/L		10/18/23 12:44	10/20/23 13:15	1
Indene	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 13:15	1
Isophorone	ND		9.9	0.14	ug/L		10/18/23 12:44	10/20/23 13:15	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/18/23 12:44	10/20/23 13:15	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 13:15	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/18/23 12:44	10/20/23 13:15	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/18/23 12:44	10/20/23 13:15	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/18/23 12:44	10/20/23 13:15	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/18/23 12:44	10/20/23 13:15	1
2-Nitrophenol	ND	*1	9.9	5.2	ug/L		10/18/23 12:44	10/20/23 13:15	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/18/23 12:44	10/20/23 13:15	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 13:15	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/18/23 12:44	10/20/23 13:15	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/18/23 12:44	10/20/23 13:15	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 13:15	1
Phenol	ND	*1	9.9	2.6	ug/L		10/18/23 12:44	10/20/23 13:15	1
Pyridine	ND		9.9	3.2	ug/L		10/18/23 12:44	10/20/23 13:15	1
Quinoline	ND		9.9	4.5	ug/L		10/18/23 12:44	10/20/23 13:15	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/18/23 12:44	10/20/23 13:15	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*10/18/23 12:44*	*10/20/23 13:15*	*1*
2-Fluorophenol	*19*		*13 - 113*	*10/18/23 12:44*	*10/20/23 13:15*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*10/18/23 12:44*	*10/20/23 13:15*	*1*
Phenol-d5	*44*		*17 - 127*	*10/18/23 12:44*	*10/20/23 13:15*	*1*
Terphenyl-d14	*82*		*44 - 149*	*10/18/23 12:44*	*10/20/23 13:15*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*10/18/23 12:44*	*10/20/23 13:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 19:34	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*51 - 149*	*10/17/23 07:05*	*10/17/23 19:34*	*1*

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

Job ID: 400-245027-1

Client Sample ID: MW3-ROX-101223
Date Collected: 10/12/23 11:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**24**	**J**	25	10	ug/L			10/20/23 18:29	1
Acrolein	ND		20	3.3	ug/L			10/20/23 18:29	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/23 18:29	1
Benzene	ND		1.0	0.50	ug/L			10/20/23 18:29	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/23 18:29	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/20/23 18:29	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/23 18:29	1
Bromoform	ND		5.0	0.25	ug/L			10/20/23 18:29	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/23 18:29	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/23 18:29	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/23 18:29	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/20/23 18:29	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/20/23 18:29	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/23 18:29	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/23 18:29	1
Chloroform	ND		1.0	0.90	ug/L			10/20/23 18:29	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/20/23 18:29	1
Chloromethane	ND		1.0	0.90	ug/L			10/20/23 18:29	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/20/23 18:29	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/23 18:29	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/20/23 18:29	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/23 18:29	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/23 18:29	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/23 18:29	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/23 18:29	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/23 18:29	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/20/23 18:29	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 18:29	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:29	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:29	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:29	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/23 18:29	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/23 18:29	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/23 18:29	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/23 18:29	1
2-Hexanone	ND		25	1.4	ug/L			10/20/23 18:29	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/23 18:29	1
Methylene bromide	ND		5.0	0.22	ug/L			10/20/23 18:29	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/23 18:29	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/23 18:29	1
Methyl tert-butyl ether	**0.87**	**J**	1.0	0.22	ug/L			10/20/23 18:29	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/20/23 18:29	1
Naphthalene	ND		5.0	3.0	ug/L			10/20/23 18:29	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/23 18:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/23 18:29	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/23 18:29	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/23 18:29	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/23 18:29	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/20/23 18:29	1

Client Sample ID: MW3-ROX-101223
Date Collected: 10/12/23 11:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/23 18:29	1
Styrene	ND		1.0	1.0	ug/L			10/20/23 18:29	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/23 18:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/20/23 18:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/23 18:29	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/20/23 18:29	1
Toluene	ND		1.0	0.90	ug/L			10/20/23 18:29	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 18:29	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/20/23 18:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/20/23 18:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/23 18:29	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/20/23 18:29	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/20/23 18:29	1
Trichloroethene	ND		1.0	0.15	ug/L			10/20/23 18:29	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/23 18:29	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/23 18:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/23 18:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/23 18:29	1
Vinyl acetate	ND		25	0.93	ug/L			10/20/23 18:29	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/23 18:29	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/23 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/20/23 18:29*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*10/20/23 18:29*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*10/20/23 18:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/18/23 12:44	10/21/23 05:25	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/18/23 12:44	10/21/23 05:25	1
Anthracene	ND		0.20	0.046	ug/L		10/18/23 12:44	10/21/23 05:25	1
Benzo[a]anthracene	**0.051**	**J B**	0.20	0.033	ug/L		10/18/23 12:44	10/21/23 05:25	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/18/23 12:44	10/21/23 05:25	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/18/23 12:44	10/21/23 05:25	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/18/23 12:44	10/21/23 05:25	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/18/23 12:44	10/21/23 05:25	1
Chrysene	ND		0.20	0.032	ug/L		10/18/23 12:44	10/21/23 05:25	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 05:25	1
Fluoranthene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 05:25	1
Fluorene	ND		0.20	0.087	ug/L		10/18/23 12:44	10/21/23 05:25	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 05:25	1
Phenanthrene	ND		0.20	0.088	ug/L		10/18/23 12:44	10/21/23 05:25	1
Pyrene	ND		0.20	0.038	ug/L		10/18/23 12:44	10/21/23 05:25	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		10/18/23 12:44	10/21/23 05:25	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/18/23 12:44	10/21/23 05:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*85*		*18 - 147*	*10/18/23 12:44*	*10/21/23 05:25*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*10/18/23 12:44*	*10/21/23 05:25*	*1*

Client Sample ID: MW3-ROX-101223

Date Collected: 10/12/23 11:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-6

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	59		10 - 144	10/18/23 12:44	10/21/23 05:25	1

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.099	ug/L		10/26/23 08:58	10/27/23 20:20	1
Acenaphthylene	ND	H	0.20	0.044	ug/L		10/26/23 08:58	10/27/23 20:20	1
Anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 20:20	1
Benzo[a]anthracene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 20:20	1
Benzo[a]pyrene	ND	H	0.20	0.064	ug/L		10/26/23 08:58	10/27/23 20:20	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		10/26/23 08:58	10/27/23 20:20	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		10/26/23 08:58	10/27/23 20:20	1
Benzo[k]fluoranthene	ND	H	0.20	0.062	ug/L		10/26/23 08:58	10/27/23 20:20	1
Chrysene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 20:20	1
Dibenz(a,h)anthracene	ND	H	0.20	0.048	ug/L		10/26/23 08:58	10/27/23 20:20	1
Fluoranthene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 20:20	1
Fluorene	ND	H	0.20	0.089	ug/L		10/26/23 08:58	10/27/23 20:20	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 20:20	1
Phenanthrene	ND	H	0.20	0.090	ug/L		10/26/23 08:58	10/27/23 20:20	1
Pyrene	ND	H	0.20	0.039	ug/L		10/26/23 08:58	10/27/23 20:20	1
1-Methylnaphthalene	ND	H	0.20	0.080	ug/L		10/26/23 08:58	10/27/23 20:20	1
2-Methylnaphthalene	ND	H	0.20	0.066	ug/L		10/26/23 08:58	10/27/23 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	67		18 - 147	10/26/23 08:58	10/27/23 20:20	1
2-Fluorobiphenyl	62		15 - 128	10/26/23 08:58	10/27/23 20:20	1
Nitrobenzene-d5	59		10 - 144	10/26/23 08:58	10/27/23 20:20	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/18/23 12:44	10/20/23 13:36	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		10/18/23 12:44	10/20/23 13:36	1
Benzoic acid	ND	*1	29	7.1	ug/L		10/18/23 12:44	10/20/23 13:36	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/18/23 12:44	10/20/23 13:36	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/18/23 12:44	10/20/23 13:36	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/18/23 12:44	10/20/23 13:36	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/18/23 12:44	10/20/23 13:36	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/18/23 12:44	10/20/23 13:36	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/18/23 12:44	10/20/23 13:36	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/18/23 12:44	10/20/23 13:36	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/18/23 12:44	10/20/23 13:36	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/18/23 12:44	10/20/23 13:36	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/18/23 12:44	10/20/23 13:36	1
2-Chlorophenol	ND	*- *1	9.8	2.2	ug/L		10/18/23 12:44	10/20/23 13:36	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/18/23 12:44	10/20/23 13:36	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 13:36	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 13:36	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		10/18/23 12:44	10/20/23 13:36	1
2,4-Dichlorophenol	ND	*1	9.8	2.9	ug/L		10/18/23 12:44	10/20/23 13:36	1
Diethyl phthalate	ND		9.8	0.23	ug/L		10/18/23 12:44	10/20/23 13:36	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 13:36	1

Client Sample ID: MW3-ROX-101223
Date Collected: 10/12/23 11:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 13:36	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/18/23 12:44	10/20/23 13:36	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		10/18/23 12:44	10/20/23 13:36	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/18/23 12:44	10/20/23 13:36	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 12:44	10/20/23 13:36	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 12:44	10/20/23 13:36	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 13:36	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 13:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 13:36	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 13:36	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		10/18/23 12:44	10/20/23 13:36	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/18/23 12:44	10/20/23 13:36	1
Indene	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 13:36	1
Isophorone	ND		9.8	0.14	ug/L		10/18/23 12:44	10/20/23 13:36	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/18/23 12:44	10/20/23 13:36	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/18/23 12:44	10/20/23 13:36	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/18/23 12:44	10/20/23 13:36	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/18/23 12:44	10/20/23 13:36	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/18/23 12:44	10/20/23 13:36	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/18/23 12:44	10/20/23 13:36	1
2-Nitrophenol	ND	*1	9.8	5.1	ug/L		10/18/23 12:44	10/20/23 13:36	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/18/23 12:44	10/20/23 13:36	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 13:36	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		10/18/23 12:44	10/20/23 13:36	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/18/23 12:44	10/20/23 13:36	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 13:36	1
Phenol	ND	*1	9.8	2.5	ug/L		10/18/23 12:44	10/20/23 13:36	1
Pyridine	ND		9.8	3.1	ug/L		10/18/23 12:44	10/20/23 13:36	1
Quinoline	ND		9.8	4.4	ug/L		10/18/23 12:44	10/20/23 13:36	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/18/23 12:44	10/20/23 13:36	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 13:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*10/18/23 12:44*	*10/20/23 13:36*	*1*
2-Fluorophenol	*17*		*13 - 113*	*10/18/23 12:44*	*10/20/23 13:36*	*1*
Nitrobenzene-d5	*62*		*36 - 126*	*10/18/23 12:44*	*10/20/23 13:36*	*1*
Phenol-d5	*44*		*17 - 127*	*10/18/23 12:44*	*10/20/23 13:36*	*1*
Terphenyl-d14	*71*		*44 - 149*	*10/18/23 12:44*	*10/20/23 13:36*	*1*
2,4,6-Tribromophenol	*84*		*26 - 150*	*10/18/23 12:44*	*10/20/23 13:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 19:55	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*10/17/23 07:05*	*10/17/23 19:55*	*1*

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

Job ID: 400-245027-1

Client Sample ID: MW3-ROX-101223-DUP
Date Collected: 10/12/23 11:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**24**	**J**	25	10	ug/L			10/20/23 18:48	1
Acrolein	ND		20	3.3	ug/L			10/20/23 18:48	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/23 18:48	1
Benzene	ND		1.0	0.50	ug/L			10/20/23 18:48	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/23 18:48	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/20/23 18:48	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/23 18:48	1
Bromoform	ND		5.0	0.25	ug/L			10/20/23 18:48	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/23 18:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/23 18:48	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/23 18:48	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/20/23 18:48	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/20/23 18:48	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/23 18:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/23 18:48	1
Chloroform	ND		1.0	0.90	ug/L			10/20/23 18:48	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/20/23 18:48	1
Chloromethane	ND		1.0	0.90	ug/L			10/20/23 18:48	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/20/23 18:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/23 18:48	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/20/23 18:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/23 18:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/23 18:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/23 18:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/23 18:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/23 18:48	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/20/23 18:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 18:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 18:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/23 18:48	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/23 18:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/23 18:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/23 18:48	1
2-Hexanone	ND		25	1.4	ug/L			10/20/23 18:48	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/23 18:48	1
Methylene bromide	ND		5.0	0.22	ug/L			10/20/23 18:48	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/23 18:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/23 18:48	1
Methyl tert-butyl ether	**0.88**	**J**	1.0	0.22	ug/L			10/20/23 18:48	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/20/23 18:48	1
Naphthalene	ND		5.0	3.0	ug/L			10/20/23 18:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/23 18:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/23 18:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/23 18:48	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/23 18:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/23 18:48	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/20/23 18:48	1

Client Sample ID: MW3-ROX-101223-DUP
Date Collected: 10/12/23 11:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/23 18:48	1
Styrene	ND		1.0	1.0	ug/L			10/20/23 18:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/23 18:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/20/23 18:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/23 18:48	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/20/23 18:48	1
Toluene	ND		1.0	0.90	ug/L			10/20/23 18:48	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 18:48	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/20/23 18:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/20/23 18:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/23 18:48	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/20/23 18:48	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/20/23 18:48	1
Trichloroethene	ND		1.0	0.15	ug/L			10/20/23 18:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/23 18:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/23 18:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/23 18:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/23 18:48	1
Vinyl acetate	ND		25	0.93	ug/L			10/20/23 18:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/23 18:48	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/23 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/20/23 18:48*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*10/20/23 18:48*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*10/20/23 18:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/18/23 12:44	10/21/23 05:45	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/18/23 12:44	10/21/23 05:45	1
Anthracene	ND		0.20	0.046	ug/L		10/18/23 12:44	10/21/23 05:45	1
Benzo[a]anthracene	**0.052**	**J B**	0.20	0.033	ug/L		10/18/23 12:44	10/21/23 05:45	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/18/23 12:44	10/21/23 05:45	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/18/23 12:44	10/21/23 05:45	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/21/23 05:45	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/18/23 12:44	10/21/23 05:45	1
Chrysene	**0.032**	**J B**	0.20	0.032	ug/L		10/18/23 12:44	10/21/23 05:45	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 05:45	1
Fluoranthene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 05:45	1
Fluorene	ND		0.20	0.088	ug/L		10/18/23 12:44	10/21/23 05:45	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 05:45	1
Phenanthrene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/21/23 05:45	1
Pyrene	ND		0.20	0.038	ug/L		10/18/23 12:44	10/21/23 05:45	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/18/23 12:44	10/21/23 05:45	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/18/23 12:44	10/21/23 05:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*18 - 147*	*10/18/23 12:44*	*10/21/23 05:45*	*1*
2-Fluorobiphenyl	*78*		*15 - 128*	*10/18/23 12:44*	*10/21/23 05:45*	*1*

Client Sample ID: MW3-ROX-101223-DUP
Date Collected: 10/12/23 11:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-7
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*64*		*10 - 144*	*10/18/23 12:44*	*10/21/23 05:45*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.21	0.10	ug/L		10/26/23 08:58	10/27/23 20:41	1
Acenaphthylene	ND	H	0.21	0.045	ug/L		10/26/23 08:58	10/27/23 20:41	1
Anthracene	ND	H	0.21	0.048	ug/L		10/26/23 08:58	10/27/23 20:41	1
Benzo[a]anthracene	ND	H	0.21	0.035	ug/L		10/26/23 08:58	10/27/23 20:41	1
Benzo[a]pyrene	ND	H	0.21	0.066	ug/L		10/26/23 08:58	10/27/23 20:41	1
Benzo[b]fluoranthene	ND	H	0.21	0.038	ug/L		10/26/23 08:58	10/27/23 20:41	1
Benzo[g,h,i]perylene	ND	H	0.21	0.028	ug/L		10/26/23 08:58	10/27/23 20:41	1
Benzo[k]fluoranthene	ND	H	0.21	0.064	ug/L		10/26/23 08:58	10/27/23 20:41	1
Chrysene	ND	H	0.21	0.034	ug/L		10/26/23 08:58	10/27/23 20:41	1
Dibenz(a,h)anthracene	ND	H	0.21	0.049	ug/L		10/26/23 08:58	10/27/23 20:41	1
Fluoranthene	ND	H	0.21	0.035	ug/L		10/26/23 08:58	10/27/23 20:41	1
Fluorene	ND	H	0.21	0.091	ug/L		10/26/23 08:58	10/27/23 20:41	1
Indeno[1,2,3-cd]pyrene	ND	H	0.21	0.035	ug/L		10/26/23 08:58	10/27/23 20:41	1
Phenanthrene	ND	H	0.21	0.092	ug/L		10/26/23 08:58	10/27/23 20:41	1
Pyrene	ND	H	0.21	0.040	ug/L		10/26/23 08:58	10/27/23 20:41	1
1-Methylnaphthalene	ND	H	0.21	0.082	ug/L		10/26/23 08:58	10/27/23 20:41	1
2-Methylnaphthalene	ND	H	0.21	0.068	ug/L		10/26/23 08:58	10/27/23 20:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*72*		*18 - 147*	*10/26/23 08:58*	*10/27/23 20:41*	*1*
2-Fluorobiphenyl	*70*		*15 - 128*	*10/26/23 08:58*	*10/27/23 20:41*	*1*
Nitrobenzene-d5	*57*		*10 - 144*	*10/26/23 08:58*	*10/27/23 20:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/18/23 12:44	10/20/23 13:58	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		10/18/23 12:44	10/20/23 13:58	1
Benzoic acid	ND	*1	30	7.2	ug/L		10/18/23 12:44	10/20/23 13:58	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/18/23 12:44	10/20/23 13:58	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/18/23 12:44	10/20/23 13:58	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		10/18/23 12:44	10/20/23 13:58	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/18/23 12:44	10/20/23 13:58	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/18/23 12:44	10/20/23 13:58	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/18/23 12:44	10/20/23 13:58	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/18/23 12:44	10/20/23 13:58	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/18/23 12:44	10/20/23 13:58	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/18/23 12:44	10/20/23 13:58	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/18/23 12:44	10/20/23 13:58	1
2-Chlorophenol	ND	*- *1	9.8	2.2	ug/L		10/18/23 12:44	10/20/23 13:58	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/18/23 12:44	10/20/23 13:58	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 13:58	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 13:58	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		10/18/23 12:44	10/20/23 13:58	1
2,4-Dichlorophenol	ND	*1	9.8	3.0	ug/L		10/18/23 12:44	10/20/23 13:58	1
Diethyl phthalate	ND		9.8	0.24	ug/L		10/18/23 12:44	10/20/23 13:58	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 13:58	1

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

Job ID: 400-245027-1

Client Sample ID: MW3-ROX-101223-DUP
Date Collected: 10/12/23 11:20
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 13:58	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		10/18/23 12:44	10/20/23 13:58	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		10/18/23 12:44	10/20/23 13:58	1
2,4-Dinitrophenol	ND	*1	30	3.3	ug/L		10/18/23 12:44	10/20/23 13:58	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 12:44	10/20/23 13:58	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 12:44	10/20/23 13:58	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 13:58	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 13:58	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 13:58	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 13:58	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 13:58	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/18/23 12:44	10/20/23 13:58	1
Indene	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 13:58	1
Isophorone	ND		9.8	0.14	ug/L		10/18/23 12:44	10/20/23 13:58	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/18/23 12:44	10/20/23 13:58	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/18/23 12:44	10/20/23 13:58	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/18/23 12:44	10/20/23 13:58	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/18/23 12:44	10/20/23 13:58	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/18/23 12:44	10/20/23 13:58	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/18/23 12:44	10/20/23 13:58	1
2-Nitrophenol	ND	*1	9.8	5.1	ug/L		10/18/23 12:44	10/20/23 13:58	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/18/23 12:44	10/20/23 13:58	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 13:58	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		10/18/23 12:44	10/20/23 13:58	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/18/23 12:44	10/20/23 13:58	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 13:58	1
Phenol	ND	*1	9.8	2.6	ug/L		10/18/23 12:44	10/20/23 13:58	1
Pyridine	ND		9.8	3.1	ug/L		10/18/23 12:44	10/20/23 13:58	1
Quinoline	ND		9.8	4.4	ug/L		10/18/23 12:44	10/20/23 13:58	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/18/23 12:44	10/20/23 13:58	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 13:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*46 - 124*	*10/18/23 12:44*	*10/20/23 13:58*	*1*
2-Fluorophenol	*26*		*13 - 113*	*10/18/23 12:44*	*10/20/23 13:58*	*1*
Nitrobenzene-d5	*69*		*36 - 126*	*10/18/23 12:44*	*10/20/23 13:58*	*1*
Phenol-d5	*55*		*17 - 127*	*10/18/23 12:44*	*10/20/23 13:58*	*1*
Terphenyl-d14	*66*		*44 - 149*	*10/18/23 12:44*	*10/20/23 13:58*	*1*
2,4,6-Tribromophenol	*90*		*26 - 150*	*10/18/23 12:44*	*10/20/23 13:58*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 20:16	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*51 - 149*	*10/17/23 07:05*	*10/17/23 20:16*	*1*

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

Job ID: 400-245027-1

Client Sample ID: MW28-ROX-101223
Date Collected: 10/12/23 13:30
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**10**	**J**	25	10	ug/L			10/20/23 19:06	1
Acrolein	ND		20	3.3	ug/L			10/20/23 19:06	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/23 19:06	1
Benzene	ND		1.0	0.50	ug/L			10/20/23 19:06	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/23 19:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/20/23 19:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/23 19:06	1
Bromoform	ND		5.0	0.25	ug/L			10/20/23 19:06	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/23 19:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/23 19:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/23 19:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/20/23 19:06	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/20/23 19:06	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/23 19:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/23 19:06	1
Chloroform	ND		1.0	0.90	ug/L			10/20/23 19:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/20/23 19:06	1
Chloromethane	ND		1.0	0.90	ug/L			10/20/23 19:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/20/23 19:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/23 19:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/20/23 19:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/23 19:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/23 19:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/23 19:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/23 19:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/23 19:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/20/23 19:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 19:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 19:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 19:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 19:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/23 19:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/23 19:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/23 19:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/23 19:06	1
2-Hexanone	ND		25	1.4	ug/L			10/20/23 19:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/23 19:06	1
Methylene bromide	ND		5.0	0.22	ug/L			10/20/23 19:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/23 19:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/23 19:06	1
Methyl tert-butyl ether	**0.51**	**J**	1.0	0.22	ug/L			10/20/23 19:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/20/23 19:06	1
Naphthalene	ND		5.0	3.0	ug/L			10/20/23 19:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/23 19:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/23 19:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/23 19:06	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/23 19:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/23 19:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/20/23 19:06	1

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

Job ID: 400-245027-1

Client Sample ID: MW28-ROX-101223
Date Collected: 10/12/23 13:30
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/23 19:06	1
Styrene	ND		1.0	1.0	ug/L			10/20/23 19:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/23 19:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/20/23 19:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/23 19:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/20/23 19:06	1
Toluene	ND		1.0	0.90	ug/L			10/20/23 19:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 19:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/20/23 19:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/20/23 19:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/23 19:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/20/23 19:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/20/23 19:06	1
Trichloroethene	ND		1.0	0.15	ug/L			10/20/23 19:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/23 19:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/23 19:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/23 19:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/23 19:06	1
Vinyl acetate	ND		25	0.93	ug/L			10/20/23 19:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/23 19:06	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/23 19:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 130*		*10/20/23 19:06*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*10/20/23 19:06*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/20/23 19:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/18/23 12:44	10/21/23 07:48	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 12:44	10/21/23 07:48	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 07:48	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 07:48	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 12:44	10/21/23 07:48	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/18/23 12:44	10/21/23 07:48	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/21/23 07:48	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/18/23 12:44	10/21/23 07:48	1
Chrysene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 07:48	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/18/23 12:44	10/21/23 07:48	1
Fluoranthene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 07:48	1
Fluorene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/21/23 07:48	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 07:48	1
Phenanthrene	ND		0.20	0.090	ug/L		10/18/23 12:44	10/21/23 07:48	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/21/23 07:48	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/18/23 12:44	10/21/23 07:48	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/18/23 12:44	10/21/23 07:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*98*		*18 - 147*	*10/18/23 12:44*	*10/21/23 07:48*	*1*
2-Fluorobiphenyl	*97*		*15 - 128*	*10/18/23 12:44*	*10/21/23 07:48*	*1*

Client Sample ID: MW28-ROX-101223
Date Collected: 10/12/23 13:30
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-8
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*61*		*10 - 144*	*10/18/23 12:44*	*10/21/23 07:48*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.098	ug/L		10/26/23 08:58	10/27/23 21:02	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		10/26/23 08:58	10/27/23 21:02	1
Anthracene	ND	H	0.20	0.046	ug/L		10/26/23 08:58	10/27/23 21:02	1
Benzo[a]anthracene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 21:02	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		10/26/23 08:58	10/27/23 21:02	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		10/26/23 08:58	10/27/23 21:02	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		10/26/23 08:58	10/27/23 21:02	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		10/26/23 08:58	10/27/23 21:02	1
Chrysene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 21:02	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 21:02	1
Fluoranthene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 21:02	1
Fluorene	ND	H	0.20	0.088	ug/L		10/26/23 08:58	10/27/23 21:02	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 21:02	1
Phenanthrene	ND	H	0.20	0.089	ug/L		10/26/23 08:58	10/27/23 21:02	1
Pyrene	ND	H	0.20	0.039	ug/L		10/26/23 08:58	10/27/23 21:02	1
1-Methylnaphthalene	ND	H	0.20	0.079	ug/L		10/26/23 08:58	10/27/23 21:02	1
2-Methylnaphthalene	ND	H	0.20	0.065	ug/L		10/26/23 08:58	10/27/23 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*111*		*18 - 147*	*10/26/23 08:58*	*10/27/23 21:02*	*1*
2-Fluorobiphenyl	*74*		*15 - 128*	*10/26/23 08:58*	*10/27/23 21:02*	*1*
Nitrobenzene-d5	*58*		*10 - 144*	*10/26/23 08:58*	*10/27/23 21:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 14:19	1
Benzenethiol	ND	*-	10	1.7	ug/L		10/18/23 12:44	10/20/23 14:19	1
Benzoic acid	ND	*1	30	7.3	ug/L		10/18/23 12:44	10/20/23 14:19	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 14:19	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 14:19	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 14:19	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 14:19	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/18/23 12:44	10/20/23 14:19	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 12:44	10/20/23 14:19	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 12:44	10/20/23 14:19	1
4-Chloroaniline	ND		10	3.4	ug/L		10/18/23 12:44	10/20/23 14:19	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 14:19	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 14:19	1
2-Chlorophenol	ND	*- *1	10	2.2	ug/L		10/18/23 12:44	10/20/23 14:19	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 14:19	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 14:19	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 14:19	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 14:19	1
2,4-Dichlorophenol	ND	*1	10	3.0	ug/L		10/18/23 12:44	10/20/23 14:19	1
Diethyl phthalate	ND		10	0.24	ug/L		10/18/23 12:44	10/20/23 14:19	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 14:19	1

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

Job ID: 400-245027-1

Client Sample ID: MW28-ROX-101223
Date Collected: 10/12/23 13:30
Date Received: 10/13/23 09:19

Lab Sample ID: 400-245027-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 14:19	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 14:19	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 12:44	10/20/23 14:19	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/18/23 12:44	10/20/23 14:19	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 14:19	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 14:19	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 14:19	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 14:19	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 14:19	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 14:19	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 14:19	1
Hexachloroethane	ND		10	4.2	ug/L		10/18/23 12:44	10/20/23 14:19	1
Indene	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 14:19	1
Isophorone	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 14:19	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 14:19	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 14:19	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 14:19	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 14:19	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 12:44	10/20/23 14:19	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 12:44	10/20/23 14:19	1
2-Nitrophenol	ND	*1	10	5.2	ug/L		10/18/23 12:44	10/20/23 14:19	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 12:44	10/20/23 14:19	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 14:19	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/18/23 12:44	10/20/23 14:19	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 12:44	10/20/23 14:19	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 14:19	1
Phenol	ND	*1	10	2.6	ug/L		10/18/23 12:44	10/20/23 14:19	1
Pyridine	ND		10	3.2	ug/L		10/18/23 12:44	10/20/23 14:19	1
Quinoline	ND		10	4.5	ug/L		10/18/23 12:44	10/20/23 14:19	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/18/23 12:44	10/20/23 14:19	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*10/18/23 12:44*	*10/20/23 14:19*	*1*
2-Fluorophenol	*16*		*13 - 113*	*10/18/23 12:44*	*10/20/23 14:19*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*10/18/23 12:44*	*10/20/23 14:19*	*1*
Phenol-d5	*42*		*17 - 127*	*10/18/23 12:44*	*10/20/23 14:19*	*1*
Terphenyl-d14	*90*		*44 - 149*	*10/18/23 12:44*	*10/20/23 14:19*	*1*
2,4,6-Tribromophenol	*76*		*26 - 150*	*10/18/23 12:44*	*10/20/23 14:19*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 20:38	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*51 - 149*	*10/17/23 07:05*	*10/17/23 20:38*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-245027-1
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.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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.

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: 400-245027-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245027-1	TB-ROX-101223-8260	93	107	98
400-245027-3	MW24-ROX-101223-EB	92	110	99
400-245027-3	MW24-ROX-101223-EB	97	103	102
400-245027-4	MW24-ROX-101223	92	105	98
400-245027-5	ROST4PZG-ROX-101223	93	101	99
400-245027-6	MW3-ROX-101223	94	100	100
400-245027-7	MW3-ROX-101223-DUP	94	102	100
400-245027-8	MW28-ROX-101223	96	110	98
LCS 400-646459/1001	Lab Control Sample	98	106	100
LCS 400-646671/1001	Lab Control Sample	97	102	101
MB 400-646459/3	Method Blank	94	104	99
MB 400-646671/4	Method Blank	96	104	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245027-3	MW24-ROX-101223-EB	70	26	62	50	92	60
400-245027-4	MW24-ROX-101223	77	26	68	50	85	79
400-245027-5	ROST4PZG-ROX-101223	73	19	63	44	82	72
400-245027-6	MW3-ROX-101223	70	17	62	44	71	84
400-245027-7	MW3-ROX-101223-DUP	76	26	69	55	66	90
400-245027-8	MW28-ROX-101223	73	16	64	42	90	76
LCS 400-646105/2-A	Lab Control Sample	77	42	73	64	87	98
LCS 400-646105/4-A	Lab Control Sample	77	30	66	55	98	44
LCSD 400-646105/3-A	Lab Control Sample Dup	72	11 S1-	68	38	83	88
LCSD 400-646105/5-A	Lab Control Sample Dup	81	43	72	62	95	65
MB 400-646105/1-A	Method Blank	82	21	71	52	100	71

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245027-3	MW24-ROX-101223-EB	114	81	49

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-245027-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245027-3 - RERA	MW24-ROX-101223-EB	102	77	61
400-245027-4	MW24-ROX-101223	107	86	63
400-245027-4 - RERA	MW24-ROX-101223	94	74	60
400-245027-5	ROST4PZG-ROX-101223	113	86	58
400-245027-5 - RERA	ROST4PZG-ROX-101223	95	73	58
400-245027-6	MW3-ROX-101223	85	72	59
400-245027-6 - RERA	MW3-ROX-101223	67	62	59
400-245027-7	MW3-ROX-101223-DUP	70	78	64
400-245027-7 - RERA	MW3-ROX-101223-DUP	72	70	57
400-245027-8	MW28-ROX-101223	98	97	61
400-245027-8 - RERA	MW28-ROX-101223	111	74	58
LCS 400-646105/6-A	Lab Control Sample	115	80	52
LCS 400-647260/2-A	Lab Control Sample	96	75	64
LCSD 400-646105/7-A	Lab Control Sample Dup	134	77	66
LCSD 400-647260/3-A	Lab Control Sample Dup	93	73	60
MB 400-646105/1-A	Method Blank	82	72	60
MB 400-647260/1-A	Method Blank	100	75	62

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-245027-2	TB-ROX-101223-8011	125
400-245027-3	MW24-ROX-101223-EB	99
400-245027-4	MW24-ROX-101223	114
400-245027-5	ROST4PZG-ROX-101223	111
400-245027-6	MW3-ROX-101223	94
400-245027-7	MW3-ROX-101223-DUP	105
400-245027-8	MW28-ROX-101223	100
LCS 400-645805/2-A	Lab Control Sample	106
LCSD 400-645805/3-A	Lab Control Sample Dup	88
MB 400-645805/1-A	Method Blank	98

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-245027-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-245027-1

Client Sample ID: TB-ROX-101223-8260

Lab Sample ID: 400-245027-1

Date Collected: 10/12/23 12:00

Matrix: Water

Date Received: 10/13/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646459	10/20/23 16:56	BPO	EET PEN

Client Sample ID: TB-ROX-101223-8011

Lab Sample ID: 400-245027-2

Date Collected: 10/12/23 12:00

Matrix: Water

Date Received: 10/13/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.6 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 18:31	PG	EET PEN

Client Sample ID: MW24-ROX-101223-EB

Lab Sample ID: 400-245027-3

Date Collected: 10/12/23 08:20

Matrix: Water

Date Received: 10/13/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646459	10/20/23 17:15	BPO	EET PEN
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 12:48	WPD	EET PEN
Total/NA	Prep	3520C			250.6 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 12:32	KJA	EET PEN
Total/NA	Prep	3520C	RERA		249.4 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 19:17	S1B	EET PEN
Total/NA	Prep	3520C			250.6 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 04:24	TH	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 18:52	PG	EET PEN

Client Sample ID: MW24-ROX-101223

Lab Sample ID: 400-245027-4

Date Collected: 10/12/23 09:10

Matrix: Water

Date Received: 10/13/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646459	10/20/23 17:52	BPO	EET PEN
Total/NA	Prep	3520C			255.4 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 12:53	KJA	EET PEN
Total/NA	Prep	3520C	RERA		255.6 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 19:38	S1B	EET PEN
Total/NA	Prep	3520C			255.4 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 04:44	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 19:13	PG	EET PEN

Client Sample ID: ROST4PZG-ROX-101223

Lab Sample ID: 400-245027-5

Date Collected: 10/12/23 10:15

Matrix: Water

Date Received: 10/13/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646459	10/20/23 18:11	BPO	EET PEN
Total/NA	Prep	3520C			252.4 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 13:15	KJA	EET PEN
Total/NA	Prep	3520C	RERA		252.8 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 19:59	S1B	EET PEN
Total/NA	Prep	3520C			252.4 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 05:05	TH	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 19:34	PG	EET PEN

Client Sample ID: MW3-ROX-101223

Lab Sample ID: 400-245027-6

Date Collected: 10/12/23 11:20

Matrix: Water

Date Received: 10/13/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646459	10/20/23 18:29	BPO	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 13:36	KJA	EET PEN
Total/NA	Prep	3520C	RERA		251 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 20:20	S1B	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 05:25	TH	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 19:55	PG	EET PEN

Client Sample ID: MW3-ROX-101223-DUP

Lab Sample ID: 400-245027-7

Date Collected: 10/12/23 11:20

Matrix: Water

Date Received: 10/13/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646459	10/20/23 18:48	BPO	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 13:58	KJA	EET PEN
Total/NA	Prep	3520C	RERA		243.4 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 20:41	S1B	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 05:45	TH	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 20:16	PG	EET PEN

Client Sample ID: MW28-ROX-101223

Lab Sample ID: 400-245027-8

Date Collected: 10/12/23 13:30

Matrix: Water

Date Received: 10/13/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646459	10/20/23 19:06	BPO	EET PEN
Total/NA	Prep	3520C			251 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 14:19	KJA	EET PEN
Total/NA	Prep	3520C	RERA		253.2 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 21:02	S1B	EET PEN
Total/NA	Prep	3520C			251 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 07:48	TH	EET PEN
Total/NA	Prep	8011			35.3 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 20:38	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645805/1-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	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 14:00	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646105/1-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 10:45	KJA	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646684	10/23/23 14:23	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646459/3

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	8260D		1	5 mL	5 mL	646459	10/20/23 11:52	BPO	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646671/4

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	8260D		1	5 mL	5 mL	646671	10/23/23 12:29	WPD	EET PEN

Lab Chronicle

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

Job ID: 400-245027-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-647260/1-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	647260	10/26/23 08:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647620	10/27/23 18:14	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645805/2-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	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 14:20	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/2-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:06	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/4-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:49	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/6-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 03:43	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646459/1001

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	8260D		1	5 mL	5 mL	646459	10/20/23 10:54	BPO	EET PEN

Lab Chronicle

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

Job ID: 400-245027-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646671/1001
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	8260D		1	5 mL	5 mL	646671	10/23/23 11:38	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-647260/2-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	647260	10/26/23 08:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647620	10/27/23 18:35	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645805/3-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	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 14:41	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/3-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:28	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/5-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 12:11	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/7-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 04:03	TH	EET PEN

Lab Chronicle

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

Job ID: 400-245027-1

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-647260/3-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	3520C			250 mL	1 mL	647260	10/26/23 08:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647620	10/27/23 18:56	S1B	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646459

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-1	TB-ROX-101223-8260	Total/NA	Water	8260D	
400-245027-3	MW24-ROX-101223-EB	Total/NA	Water	8260D	
400-245027-4	MW24-ROX-101223	Total/NA	Water	8260D	
400-245027-5	ROST4PZG-ROX-101223	Total/NA	Water	8260D	
400-245027-6	MW3-ROX-101223	Total/NA	Water	8260D	
400-245027-7	MW3-ROX-101223-DUP	Total/NA	Water	8260D	
400-245027-8	MW28-ROX-101223	Total/NA	Water	8260D	
MB 400-646459/3	Method Blank	Total/NA	Water	8260D	
LCS 400-646459/1001	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 646671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-3	MW24-ROX-101223-EB	Total/NA	Water	8260D	
MB 400-646671/4	Method Blank	Total/NA	Water	8260D	
LCS 400-646671/1001	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-3	MW24-ROX-101223-EB	Total/NA	Water	3520C	
400-245027-4	MW24-ROX-101223	Total/NA	Water	3520C	
400-245027-5	ROST4PZG-ROX-101223	Total/NA	Water	3520C	
400-245027-6	MW3-ROX-101223	Total/NA	Water	3520C	
400-245027-7	MW3-ROX-101223-DUP	Total/NA	Water	3520C	
400-245027-8	MW28-ROX-101223	Total/NA	Water	3520C	
MB 400-646105/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646105/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646105/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646105/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646105/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646105/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646105/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 646410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-3	MW24-ROX-101223-EB	Total/NA	Water	8270E	646105
400-245027-4	MW24-ROX-101223	Total/NA	Water	8270E	646105
400-245027-5	ROST4PZG-ROX-101223	Total/NA	Water	8270E	646105
400-245027-6	MW3-ROX-101223	Total/NA	Water	8270E	646105
400-245027-7	MW3-ROX-101223-DUP	Total/NA	Water	8270E	646105
400-245027-8	MW28-ROX-101223	Total/NA	Water	8270E	646105
MB 400-646105/1-A	Method Blank	Total/NA	Water	8270E	646105
LCS 400-646105/2-A	Lab Control Sample	Total/NA	Water	8270E	646105
LCS 400-646105/4-A	Lab Control Sample	Total/NA	Water	8270E	646105
LCSD 400-646105/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646105
LCSD 400-646105/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646105

Analysis Batch: 646527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-3	MW24-ROX-101223-EB	Total/NA	Water	8270E SIM	646105

GC/MS Semi VOA (Continued)

Analysis Batch: 646527 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-4	MW24-ROX-101223	Total/NA	Water	8270E SIM	646105
400-245027-5	ROST4PZG-ROX-101223	Total/NA	Water	8270E SIM	646105
400-245027-6	MW3-ROX-101223	Total/NA	Water	8270E SIM	646105
400-245027-7	MW3-ROX-101223-DUP	Total/NA	Water	8270E SIM	646105
400-245027-8	MW28-ROX-101223	Total/NA	Water	8270E SIM	646105
LCS 400-646105/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646105
LCSD 400-646105/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646105

Analysis Batch: 646684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-646105/1-A	Method Blank	Total/NA	Water	8270E SIM	646105

Prep Batch: 647260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-3 - RERA	MW24-ROX-101223-EB	Total/NA	Water	3520C	
400-245027-4 - RERA	MW24-ROX-101223	Total/NA	Water	3520C	
400-245027-5 - RERA	ROST4PZG-ROX-101223	Total/NA	Water	3520C	
400-245027-6 - RERA	MW3-ROX-101223	Total/NA	Water	3520C	
400-245027-7 - RERA	MW3-ROX-101223-DUP	Total/NA	Water	3520C	
400-245027-8 - RERA	MW28-ROX-101223	Total/NA	Water	3520C	
MB 400-647260/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-647260/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-647260/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 647620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-3 - RERA	MW24-ROX-101223-EB	Total/NA	Water	8270E SIM	647260
400-245027-4 - RERA	MW24-ROX-101223	Total/NA	Water	8270E SIM	647260
400-245027-5 - RERA	ROST4PZG-ROX-101223	Total/NA	Water	8270E SIM	647260
400-245027-6 - RERA	MW3-ROX-101223	Total/NA	Water	8270E SIM	647260
400-245027-7 - RERA	MW3-ROX-101223-DUP	Total/NA	Water	8270E SIM	647260
400-245027-8 - RERA	MW28-ROX-101223	Total/NA	Water	8270E SIM	647260
MB 400-647260/1-A	Method Blank	Total/NA	Water	8270E SIM	647260
LCS 400-647260/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	647260
LCSD 400-647260/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	647260

GC Semi VOA

Prep Batch: 645805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-2	TB-ROX-101223-8011	Total/NA	Water	8011	
400-245027-3	MW24-ROX-101223-EB	Total/NA	Water	8011	
400-245027-4	MW24-ROX-101223	Total/NA	Water	8011	
400-245027-5	ROST4PZG-ROX-101223	Total/NA	Water	8011	
400-245027-6	MW3-ROX-101223	Total/NA	Water	8011	
400-245027-7	MW3-ROX-101223-DUP	Total/NA	Water	8011	
400-245027-8	MW28-ROX-101223	Total/NA	Water	8011	
MB 400-645805/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-645805/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-645805/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

QC Association Summary

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

Job ID: 400-245027-1

GC Semi VOA

Analysis Batch: 645889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245027-2	TB-ROX-101223-8011	Total/NA	Water	8011	645805
400-245027-3	MW24-ROX-101223-EB	Total/NA	Water	8011	645805
400-245027-4	MW24-ROX-101223	Total/NA	Water	8011	645805
400-245027-5	ROST4PZG-ROX-101223	Total/NA	Water	8011	645805
400-245027-6	MW3-ROX-101223	Total/NA	Water	8011	645805
400-245027-7	MW3-ROX-101223-DUP	Total/NA	Water	8011	645805
400-245027-8	MW28-ROX-101223	Total/NA	Water	8011	645805
MB 400-645805/1-A	Method Blank	Total/NA	Water	8011	645805
LCS 400-645805/2-A	Lab Control Sample	Total/NA	Water	8011	645805
LCSD 400-645805/3-A	Lab Control Sample Dup	Total/NA	Water	8011	645805

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646459/3
Matrix: Water
Analysis Batch: 646459

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			10/20/23 11:52	1
Acrolein	ND		20	3.3	ug/L			10/20/23 11:52	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/23 11:52	1
Benzene	ND		1.0	0.50	ug/L			10/20/23 11:52	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/23 11:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/20/23 11:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/23 11:52	1
Bromoform	ND		5.0	0.25	ug/L			10/20/23 11:52	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/23 11:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/23 11:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/23 11:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/20/23 11:52	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/20/23 11:52	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/23 11:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/23 11:52	1
Chloroform	ND		1.0	0.90	ug/L			10/20/23 11:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/20/23 11:52	1
Chloromethane	ND		1.0	0.90	ug/L			10/20/23 11:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/20/23 11:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/23 11:52	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/20/23 11:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/23 11:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/23 11:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/23 11:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/23 11:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/23 11:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/20/23 11:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 11:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 11:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 11:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/23 11:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/23 11:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/23 11:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/23 11:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/23 11:52	1
2-Hexanone	ND		25	1.4	ug/L			10/20/23 11:52	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/23 11:52	1
Methylene bromide	ND		5.0	0.22	ug/L			10/20/23 11:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/23 11:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/23 11:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/20/23 11:52	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/20/23 11:52	1
Naphthalene	ND		5.0	3.0	ug/L			10/20/23 11:52	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/23 11:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/23 11:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/23 11:52	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/23 11:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/23 11:52	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646459/3
Matrix: Water
Analysis Batch: 646459

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			10/20/23 11:52	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/23 11:52	1
Styrene	ND		1.0	1.0	ug/L			10/20/23 11:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/23 11:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/20/23 11:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/23 11:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/20/23 11:52	1
Toluene	ND		1.0	0.90	ug/L			10/20/23 11:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/23 11:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/20/23 11:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/20/23 11:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/23 11:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/20/23 11:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/20/23 11:52	1
Trichloroethene	ND		1.0	0.15	ug/L			10/20/23 11:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/23 11:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/23 11:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/23 11:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/23 11:52	1
Vinyl acetate	ND		25	0.93	ug/L			10/20/23 11:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/23 11:52	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/23 11:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/20/23 11:52*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/20/23 11:52*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/20/23 11:52*	*1*

Lab Sample ID: LCS 400-646459/1001
Matrix: Water
Analysis Batch: 646459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	100	92.1		ug/L		92	43 - 160
Acrolein	500	479		ug/L		96	38 - 160
Acrylonitrile	250	252		ug/L		101	64 - 142
Benzene	25.0	21.9		ug/L		88	70 - 130
Bromobenzene	25.0	20.4		ug/L		82	70 - 132
Bromochloromethane	25.0	22.5		ug/L		90	70 - 130
Bromodichloromethane	25.0	19.7		ug/L		79	67 - 133
Bromoform	25.0	15.7		ug/L		63	57 - 140
Bromomethane	50.0	44.5		ug/L		89	10 - 160
2-Butanone (MEK)	100	91.2		ug/L		91	61 - 145
Carbon disulfide	25.0	23.0		ug/L		92	61 - 137
Carbon tetrachloride	25.0	19.5		ug/L		78	61 - 137
Chlorobenzene	25.0	21.3		ug/L		85	70 - 130
Chloroethane	50.0	53.7		ug/L		107	55 - 141
2-Chloroethyl vinyl ether	50.0	52.2		ug/L		104	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646459/1001
Matrix: Water
Analysis Batch: 646459

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	22.8		ug/L		91	69 - 130
1-Chlorohexane	25.0	22.8		ug/L		91	69 - 130
Chloromethane	50.0	52.4		ug/L		105	58 - 137
cis-1,2-Dichloroethene	25.0	22.9		ug/L		92	68 - 130
cis-1,3-Dichloropropene	25.0	20.2		ug/L		81	69 - 132
Dibromochloromethane	25.0	17.1		ug/L		69	67 - 135
1,2-Dichlorobenzene	25.0	22.1		ug/L		88	67 - 130
1,3-Dichlorobenzene	25.0	21.9		ug/L		87	70 - 130
1,4-Dichlorobenzene	25.0	21.8		ug/L		87	70 - 130
Dichlorodifluoromethane	50.0	44.9		ug/L		90	41 - 146
1,1-Dichloroethane	25.0	23.4		ug/L		94	70 - 130
1,2-Dichloroethane	25.0	23.2		ug/L		93	69 - 130
1,1-Dichloroethene	25.0	23.2		ug/L		93	63 - 134
1,2-Dichloropropane	25.0	22.6		ug/L		91	70 - 130
1,3-Dichloropropane	25.0	21.2		ug/L		85	70 - 130
2,2-Dichloropropane	25.0	20.1		ug/L		81	52 - 135
1,1-Dichloropropene	25.0	21.5		ug/L		86	70 - 130
Ethylbenzene	25.0	22.2		ug/L		89	70 - 130
Ethyl methacrylate	25.0	20.5		ug/L		82	68 - 130
Hexachlorobutadiene	25.0	20.5		ug/L		82	53 - 140
2-Hexanone	100	95.0		ug/L		95	65 - 137
Isopropylbenzene	25.0	22.2		ug/L		89	70 - 130
Methylene bromide	25.0	22.2		ug/L		89	70 - 130
Methylene Chloride	25.0	25.3		ug/L		101	66 - 135
4-Methyl-2-pentanone (MIBK)	100	97.7		ug/L		98	69 - 138
Methyl tert-butyl ether	25.0	22.2		ug/L		89	66 - 130
m-Xylene & p-Xylene	25.0	22.0		ug/L		88	70 - 130
Naphthalene	25.0	20.1		ug/L		80	47 - 149
n-Butylbenzene	25.0	29.5		ug/L		118	67 - 130
N-Propylbenzene	25.0	21.5		ug/L		86	70 - 130
o-Chlorotoluene	25.0	26.9		ug/L		108	70 - 130
o-Xylene	25.0	22.0		ug/L		88	70 - 130
p-Chlorotoluene	25.0	22.3		ug/L		89	70 - 130
p-Isopropyltoluene	25.0	22.4		ug/L		90	65 - 130
sec-Butylbenzene	25.0	22.7		ug/L		91	66 - 130
Styrene	25.0	19.9		ug/L		80	70 - 130
tert-Butylbenzene	25.0	21.9		ug/L		88	64 - 139
1,1,1,2-Tetrachloroethane	25.0	17.7		ug/L		71	67 - 131
1,1,2,2-Tetrachloroethane	25.0	19.5		ug/L		78	70 - 131
Tetrachloroethene	25.0	20.1		ug/L		81	65 - 130
Toluene	25.0	20.8		ug/L		83	70 - 130
trans-1,2-Dichloroethene	25.0	22.6		ug/L		90	70 - 130
trans-1,3-Dichloropropene	25.0	18.9		ug/L		75	63 - 130
1,2,3-Trichlorobenzene	25.0	21.0		ug/L		84	60 - 138
1,2,4-Trichlorobenzene	25.0	21.8		ug/L		87	60 - 140
1,1,1-Trichloroethane	25.0	20.8		ug/L		83	68 - 130
1,1,2-Trichloroethane	25.0	20.8		ug/L		83	70 - 130
Trichloroethene	25.0	20.4		ug/L		81	70 - 130
Trichlorofluoromethane	50.0	46.5		ug/L		93	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646459/1001
Matrix: Water
Analysis Batch: 646459

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	25.0	20.3		ug/L		81	70 - 130
1,2,4-Trimethylbenzene	25.0	22.2		ug/L		89	70 - 130
1,3,5-Trimethylbenzene	25.0	22.1		ug/L		88	69 - 130
Vinyl acetate	100	113		ug/L		113	26 - 160
Vinyl chloride	50.0	53.2		ug/L		106	59 - 136
Xylenes, Total	50.0	44.0		ug/L		88	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 130*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: MB 400-646671/4
Matrix: Water
Analysis Batch: 646671

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 130*		*10/23/23 12:29*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/23/23 12:29*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*10/23/23 12:29*	*1*

Lab Sample ID: LCS 400-646671/1001
Matrix: Water
Analysis Batch: 646671

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	25.0	25.9		ug/L		104	66 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 130*
Dibromofluoromethane	*102*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzenethiol	ND		10	1.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzoic acid	ND		30	7.3	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 10:45	1

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 12:44	10/20/23 10:45	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chloroaniline	ND		10	3.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Chlorophenol	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Diethyl phthalate	0.500	J	10	0.24	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 10:45	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachloroethane	ND		10	4.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
Indene	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Isophorone	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Nitrophenol	ND		10	5.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 12:44	10/20/23 10:45	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
Phenol	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
Pyridine	ND		10	3.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
Quinoline	ND		10	4.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		46 - 124	10/18/23 12:44	10/20/23 10:45	1
2-Fluorophenol	21		13 - 113	10/18/23 12:44	10/20/23 10:45	1
Nitrobenzene-d5	71		36 - 126	10/18/23 12:44	10/20/23 10:45	1
Phenol-d5	52		17 - 127	10/18/23 12:44	10/20/23 10:45	1
Terphenyl-d14	100		44 - 149	10/18/23 12:44	10/20/23 10:45	1
2,4,6-Tribromophenol	71		26 - 150	10/18/23 12:44	10/20/23 10:45	1

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	87.5		ug/L		73	21 - 120
Benzoic acid	522	246		ug/L		47	10 - 144
Benzyl alcohol	120	82.2		ug/L		68	28 - 120
Bis(2-chloroethoxy)methane	120	76.2		ug/L		64	47 - 120
Bis(2-chloroethyl)ether	120	71.9		ug/L		60	44 - 120
bis (2-chloroisopropyl) ether	120	76.4		ug/L		64	33 - 121
Bis(2-ethylhexyl) phthalate	120	89.0		ug/L		74	52 - 147
4-Bromophenyl phenyl ether	120	94.1		ug/L		78	54 - 122
Butyl benzyl phthalate	120	91.8		ug/L		76	54 - 133
4-Chloroaniline	120	77.2		ug/L		64	26 - 120
4-Chloro-3-methylphenol	120	90.5		ug/L		75	48 - 131
2-Chloronaphthalene	120	90.6		ug/L		75	52 - 121
2-Chlorophenol	120	74.4		ug/L		62	40 - 120
4-Chlorophenyl phenyl ether	120	100		ug/L		84	56 - 125
Dibenz[a,h]acridine	120	104		ug/L		87	31 - 150
Dibenzofuran	120	98.4		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	140		ug/L		87	36 - 132
2,4-Dichlorophenol	120	88.9		ug/L		74	49 - 120
Diethyl phthalate	120	99.4		ug/L		83	50 - 137
2,4-Dimethylphenol	120	90.5		ug/L		75	48 - 120
Dimethyl phthalate	120	93.9		ug/L		78	57 - 124
Di-n-butyl phthalate	120	105		ug/L		87	58 - 126
4,6-Dinitro-ortho-cresol	240	214		ug/L		89	23 - 148
2,4-Dinitrophenol	240	222		ug/L		93	10 - 150
2,4-Dinitrotoluene	120	104		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	100		ug/L		83	55 - 130
Di-n-octyl phthalate	120	88.8		ug/L		74	57 - 138
1,4-Dioxane	120	56.7		ug/L		47	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	79.7		ug/L		66	45 - 124
Hexachlorobenzene	120	101		ug/L		84	52 - 129
Hexachlorocyclopentadiene	120	67.5		ug/L		56	10 - 134
Hexachloroethane	120	84.1		ug/L		70	20 - 120
Indene	120	92.4		ug/L		77	49 - 120
Isophorone	120	78.3		ug/L		65	48 - 120
2-Methylphenol	120	87.6		ug/L		73	46 - 124
3 & 4 Methylphenol	120	85.1		ug/L		71	45 - 120

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

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	120	89.7		ug/L		75	51 - 145
3-Nitroaniline	120	82.9		ug/L		69	37 - 127
4-Nitroaniline	120	104		ug/L		87	36 - 137
Nitrobenzene	120	76.2		ug/L		64	45 - 120
2-Nitrophenol	120	92.1		ug/L		77	40 - 124
4-Nitrophenol	240	191		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	79.7		ug/L		66	29 - 137
N-Nitrosodi-n-propylamine	120	84.9		ug/L		71	45 - 120
N-Nitrosodiphenylamine	119	86.7		ug/L		73	54 - 120
Pentachlorophenol	240	183		ug/L		76	31 - 130
Phenol	120	74.3		ug/L		62	11 - 120
Pyridine	240	129		ug/L		54	16 - 120
Quinoline	120	93.4		ug/L		78	49 - 130
2,4,5-Trichlorophenol	120	104		ug/L		86	51 - 136
2,4,6-Trichlorophenol	120	94.8		ug/L		79	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*42*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*98*		*26 - 150*

Lab Sample ID: LCS 400-646105/4-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	3.31	J *-	ug/L		3	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*66*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*44*		*26 - 150*

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	79.2		ug/L		66	21 - 120	10	30
Benzoic acid	522	80.0	*1	ug/L		15	10 - 144	102	30
Benzyl alcohol	120	74.7		ug/L		62	28 - 120	10	30
Bis(2-chloroethoxy)methane	120	72.9		ug/L		61	47 - 120	5	30

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

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-chloroethyl)ether	120	69.7		ug/L		58	44 - 120	3	30
bis (2-chloroisopropyl) ether	120	72.8		ug/L		61	33 - 121	5	30
Bis(2-ethylhexyl) phthalate	120	85.0		ug/L		71	52 - 147	5	30
4-Bromophenyl phenyl ether	120	90.5		ug/L		75	54 - 122	4	30
Butyl benzyl phthalate	120	87.5		ug/L		73	54 - 133	5	30
4-Chloroaniline	120	73.8		ug/L		62	26 - 120	4	30
4-Chloro-3-methylphenol	120	75.0		ug/L		62	48 - 131	19	30
2-Chloronaphthalene	120	87.1		ug/L		73	52 - 121	4	30
2-Chlorophenol	120	37.1	*- *1	ug/L		31	40 - 120	67	30
4-Chlorophenyl phenyl ether	120	95.0		ug/L		79	56 - 125	5	30
Dibenz[a,h]acridine	120	102		ug/L		85	31 - 150	2	30
Dibenzofuran	120	93.1		ug/L		78	56 - 122	6	30
3,3'-Dichlorobenzidine	160	133		ug/L		83	36 - 132	5	30
2,4-Dichlorophenol	120	64.2	*1	ug/L		53	49 - 120	32	30
Diethyl phthalate	120	93.6		ug/L		78	50 - 137	6	30
2,4-Dimethylphenol	120	81.0		ug/L		67	48 - 120	11	30
Dimethyl phthalate	120	89.1		ug/L		74	57 - 124	5	30
Di-n-butyl phthalate	120	99.7		ug/L		83	58 - 126	5	30
4,6-Dinitro-ortho-cresol	240	181		ug/L		75	23 - 148	17	30
2,4-Dinitrophenol	240	160	*1	ug/L		67	10 - 150	32	30
2,4-Dinitrotoluene	120	96.1		ug/L		80	54 - 142	8	30
2,6-Dinitrotoluene	120	94.1		ug/L		78	55 - 130	6	30
Di-n-octyl phthalate	120	84.9		ug/L		71	57 - 138	5	30
1,4-Dioxane	120	52.5		ug/L		44	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)	120	77.8		ug/L		65	45 - 124	2	30
Hexachlorobenzene	120	96.3		ug/L		80	52 - 129	5	30
Hexachlorocyclopentadiene	120	56.9		ug/L		47	10 - 134	17	30
Hexachloroethane	120	75.1		ug/L		63	20 - 120	11	30
Indene	120	85.5		ug/L		71	49 - 120	8	30
Isophorone	120	73.6		ug/L		61	48 - 120	6	30
2-Methylphenol	120	69.2		ug/L		58	46 - 124	23	30
3 & 4 Methylphenol	120	66.0		ug/L		55	45 - 120	25	30
2-Nitroaniline	120	84.5		ug/L		70	51 - 145	6	30
3-Nitroaniline	120	78.5		ug/L		65	37 - 127	5	30
4-Nitroaniline	120	94.1		ug/L		78	36 - 137	10	30
Nitrobenzene	120	71.7		ug/L		60	45 - 120	6	30
2-Nitrophenol	120	66.0	*1	ug/L		55	40 - 124	33	30
4-Nitrophenol	240	160		ug/L		67	23 - 146	17	30
N-Nitrosodimethylamine	120	72.7		ug/L		61	29 - 137	9	30
N-Nitrosodi-n-propylamine	120	79.6		ug/L		66	45 - 120	6	30
N-Nitrosodiphenylamine	119	82.2		ug/L		69	54 - 120	5	30
Pentachlorophenol	240	163		ug/L		68	31 - 130	11	30
Phenol	120	44.3	*1	ug/L		37	11 - 120	51	30
Pyridine	240	123		ug/L		51	16 - 120	5	30
Quinoline	120	87.2		ug/L		73	49 - 130	7	30
2,4,5-Trichlorophenol	120	88.9		ug/L		74	51 - 136	15	30
2,4,6-Trichlorophenol	120	80.7		ug/L		67	50 - 127	16	30

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

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*11*	*S1-*	*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*38*		*17 - 127*
Terphenyl-d14	*83*		*44 - 149*
2,4,6-Tribromophenol	*88*		*26 - 150*

Lab Sample ID: LCSD 400-646105/5-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.00	J *-	ug/L		3	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*62*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*65*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646684

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/18/23 12:44	10/23/23 14:23	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 12:44	10/23/23 14:23	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[a]anthracene	0.0695	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[b]fluoranthene	0.143	J	0.20	0.037	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[k]fluoranthene	0.0860	J	0.20	0.062	ug/L		10/18/23 12:44	10/23/23 14:23	1
Chrysene	0.0977	J	0.20	0.033	ug/L		10/18/23 12:44	10/23/23 14:23	1
Dibenz(a,h)anthracene	0.0866	J	0.20	0.048	ug/L		10/18/23 12:44	10/23/23 14:23	1
Fluoranthene	0.0812	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Fluorene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/23/23 14:23	1
Indeno[1,2,3-cd]pyrene	0.109	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Phenanthrene	ND		0.20	0.090	ug/L		10/18/23 12:44	10/23/23 14:23	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/23/23 14:23	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/18/23 12:44	10/23/23 14:23	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/18/23 12:44	10/23/23 14:23	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646684

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	82		18 - 147	10/18/23 12:44	10/23/23 14:23	1
2-Fluorobiphenyl	72		15 - 128	10/18/23 12:44	10/23/23 14:23	1
Nitrobenzene-d5	60		10 - 144	10/18/23 12:44	10/23/23 14:23	1

Lab Sample ID: LCS 400-646105/6-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.43		ug/L		71	40 - 140
Acenaphthylene	2.00	1.39		ug/L		69	40 - 140
Anthracene	2.00	1.46		ug/L		73	40 - 140
Benzo[a]anthracene	2.00	1.31		ug/L		66	40 - 140
Benzo[a]pyrene	2.00	1.11		ug/L		55	40 - 140
Benzo[b]fluoranthene	2.00	1.34		ug/L		67	40 - 140
Benzo[g,h,i]perylene	2.00	1.32		ug/L		66	40 - 140
Benzo[k]fluoranthene	2.00	1.33		ug/L		67	40 - 140
Chrysene	2.00	1.31		ug/L		65	40 - 140
Dibenz(a,h)anthracene	2.00	1.37		ug/L		68	40 - 140
Fluoranthene	2.00	1.53		ug/L		77	40 - 140
Fluorene	2.00	1.41		ug/L		70	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.32		ug/L		66	40 - 140
Phenanthrene	2.00	1.69		ug/L		84	40 - 140
Pyrene	2.00	1.54		ug/L		77	40 - 140
1-Methylnaphthalene	2.00	1.36		ug/L		68	40 - 140
2-Methylnaphthalene	2.00	1.39		ug/L		70	40 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14	115		18 - 147
2-Fluorobiphenyl	80		15 - 128
Nitrobenzene-d5	52		10 - 144

Lab Sample ID: LCSD 400-646105/7-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.72		ug/L		86	40 - 140	18	40
Acenaphthylene	2.00	1.76		ug/L		88	40 - 140	23	40
Anthracene	2.00	1.68		ug/L		84	40 - 140	15	40
Benzo[a]anthracene	2.00	1.57		ug/L		79	40 - 140	18	40
Benzo[a]pyrene	2.00	1.32		ug/L		66	40 - 140	17	40
Benzo[b]fluoranthene	2.00	1.59		ug/L		79	40 - 140	17	40
Benzo[g,h,i]perylene	2.00	1.46		ug/L		73	40 - 140	10	40
Benzo[k]fluoranthene	2.00	1.48		ug/L		74	40 - 140	10	40
Chrysene	2.00	1.39		ug/L		69	40 - 140	6	40
Dibenz(a,h)anthracene	2.00	1.46		ug/L		73	40 - 140	7	40
Fluoranthene	2.00	1.81		ug/L		90	40 - 140	16	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-646105/7-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene			2.00	1.68		ug/L		84	40 - 140	18	40
Indeno[1,2,3-cd]pyrene			2.00	1.44		ug/L		72	40 - 140	9	40
Phenanthrene			2.00	1.87		ug/L		94	40 - 140	10	40
Pyrene			2.00	1.73		ug/L		86	40 - 140	11	40
1-Methylnaphthalene			2.00	1.62		ug/L		81	40 - 140	18	40
2-Methylnaphthalene			2.00	1.71		ug/L		86	40 - 140	21	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*134*		*18 - 147*
2-Fluorobiphenyl	*77*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Lab Sample ID: MB 400-647260/1-A
Matrix: Water
Analysis Batch: 647620

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 647260

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/26/23 08:57	10/27/23 18:14	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/26/23 08:57	10/27/23 18:14	1
Anthracene	ND		0.20	0.047	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/26/23 08:57	10/27/23 18:14	1
Chrysene	ND		0.20	0.033	ug/L		10/26/23 08:57	10/27/23 18:14	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/26/23 08:57	10/27/23 18:14	1
Fluoranthene	ND		0.20	0.034	ug/L		10/26/23 08:57	10/27/23 18:14	1
Fluorene	ND		0.20	0.089	ug/L		10/26/23 08:57	10/27/23 18:14	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/26/23 08:57	10/27/23 18:14	1
Phenanthrene	ND		0.20	0.090	ug/L		10/26/23 08:57	10/27/23 18:14	1
Pyrene	ND		0.20	0.039	ug/L		10/26/23 08:57	10/27/23 18:14	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/26/23 08:57	10/27/23 18:14	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/26/23 08:57	10/27/23 18:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*100*		*18 - 147*	*10/26/23 08:57*	*10/27/23 18:14*	*1*
2-Fluorobiphenyl	*75*		*15 - 128*	*10/26/23 08:57*	*10/27/23 18:14*	*1*
Nitrobenzene-d5	*62*		*10 - 144*	*10/26/23 08:57*	*10/27/23 18:14*	*1*

Lab Sample ID: LCS 400-647260/2-A
Matrix: Water
Analysis Batch: 647620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647260

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			2.00	1.82		ug/L		91	40 - 140		
Acenaphthylene			2.00	1.89		ug/L		94	40 - 140		
Anthracene			2.00	1.83		ug/L		92	40 - 140		

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-647260/2-A
Matrix: Water
Analysis Batch: 647620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647260

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzo[a]anthracene			2.00	1.86		ug/L		93	40 - 140		
Benzo[a]pyrene			2.00	1.42		ug/L		71	40 - 140		
Benzo[b]fluoranthene			2.00	1.46		ug/L		73	40 - 140		
Benzo[g,h,i]perylene			2.00	1.64		ug/L		82	40 - 140		
Benzo[k]fluoranthene			2.00	1.54		ug/L		77	40 - 140		
Chrysene			2.00	2.00		ug/L		100	40 - 140		
Dibenz(a,h)anthracene			2.00	1.39		ug/L		69	40 - 140		
Fluoranthene			2.00	1.71		ug/L		85	40 - 140		
Fluorene			2.00	1.81		ug/L		91	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	1.48		ug/L		74	40 - 140		
Phenanthrene			2.00	1.79		ug/L		89	40 - 140		
Pyrene			2.00	2.20		ug/L		110	40 - 140		
1-Methylnaphthalene			2.00	1.90		ug/L		95	40 - 140		
2-Methylnaphthalene			2.00	1.86		ug/L		93	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*96*		*18 - 147*
2-Fluorobiphenyl	*75*		*15 - 128*
Nitrobenzene-d5	*64*		*10 - 144*

Lab Sample ID: LCSD 400-647260/3-A
Matrix: Water
Analysis Batch: 647620

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 647260

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.82		ug/L		91	40 - 140	0	40
Acenaphthylene			2.00	1.88		ug/L		94	40 - 140	1	40
Anthracene			2.00	1.82		ug/L		91	40 - 140	0	40
Benzo[a]anthracene			2.00	1.80		ug/L		90	40 - 140	3	40
Benzo[a]pyrene			2.00	1.42		ug/L		71	40 - 140	1	40
Benzo[b]fluoranthene			2.00	1.52		ug/L		76	40 - 140	4	40
Benzo[g,h,i]perylene			2.00	1.57		ug/L		78	40 - 140	5	40
Benzo[k]fluoranthene			2.00	1.52		ug/L		76	40 - 140	1	40
Chrysene			2.00	1.90		ug/L		95	40 - 140	5	40
Dibenz(a,h)anthracene			2.00	1.26		ug/L		63	40 - 140	9	40
Fluoranthene			2.00	1.68		ug/L		84	40 - 140	2	40
Fluorene			2.00	1.83		ug/L		91	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			2.00	1.39		ug/L		70	40 - 140	6	40
Phenanthrene			2.00	1.75		ug/L		87	40 - 140	2	40
Pyrene			2.00	2.09		ug/L		104	40 - 140	5	40
1-Methylnaphthalene			2.00	1.80		ug/L		90	40 - 140	5	40
2-Methylnaphthalene			2.00	1.75		ug/L		88	40 - 140	6	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*93*		*18 - 147*
2-Fluorobiphenyl	*73*		*15 - 128*
Nitrobenzene-d5	*60*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-645805/1-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 14:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 14:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*10/17/23 07:05*	*10/17/23 14:00*	*1*

Lab Sample ID: LCS 400-645805/2-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645805

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.114		ug/L		114	60 - 140		
1,2-Dibromoethane			0.101	0.114		ug/L		113	60 - 140		

Surrogate			*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene			*106*		*51 - 149*

Lab Sample ID: LCSD 400-645805/3-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645805

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.106		ug/L		106	60 - 140	7	30
1,2-Dibromoethane			0.101	0.105		ug/L		104	60 - 140	9	30

Surrogate			*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene			*88*		*51 149*

LAB (LOCATION)

Shell Oil Products US Chain Of Custody Record

AECOM

400-245027 COC

☐ 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: 10/12/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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, C. McDavid

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa remiger@aecom.com

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; 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 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 1.7 IR10 5.5

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 8270 SIMS
	TB-ROX-101223-8260	10/12/2023	0000	Water	2					2	X			
	TB-ROX-101223-8011	10/12/2023	0000	Water	2					2		X		
	MW24-ROX-101223-EB	10/12/2023	0820	Water	6			2		8	X	X	X	X
	MW24-ROX-101223	10/12/2023	0910	Water	6			2		8	X	X	X	X
	ROST4PZG-ROX-101223	10/12/2023	1015	Water	6			2		8	X	X	X	X
	MW3-ROX-101223	10/12/2023	1120	Water	6			2		8	X	X	X	X
	MW3-ROX-101223-DUP	10/12/2023	1120	Water	6			2		8	X	X	X	X
	MW28-ROX-101223	10/12/2023	1330	Water	6			2		8	X	X	X	X

MM 10/12/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
MARY MASSA	FEDEX: 6339 6595 3145, 6339 6595 3134	10/12/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
		10.13.23	9:19
Relinquished by: (Signature)	Received by: (Signature)	Date	Time

Version: 27Sept23

CUSTODY SEALS: 2364886, 2364887, 2364888, 2364889

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12/18/2023 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-245027-1

Login Number: 245027
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	1.7°C, 5.5°C IR10
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: 400-245027-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245066-1-Rev.1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/14/2023

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

Sample Identification	Sample Identification
TB-ROX-101323-8260	TB-ROX-101323-8011
MW10-R0X-101323	ROST4PZE-R0X-101323
MW2-ROX-101323-EB	MW2-ROX-101323

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 that PAHs in samples MW10-R0X-101323, ROST4PZE-R0X-101323, and MW2-ROX-101323 were re-extracted outside extraction time criteria. Several PAHs and/or diethyl phthalate were detected in the method blank and equipment blank MW2-ROX-101323-EB. Several SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. VOCs in sample MW2-ROX-101323 were diluted due to the abundance of non-target analytes. The continuing calibration verifications (CCV) for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on December 18, 2023, to include missing QC that had inadvertently been omitted by the laboratory.

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?

No, PAHs in samples MW10-R0X-101323, ROST4PZE-R0X-101323, and MW2-ROX-101323 were re-extracted 5 days outside of extraction time criteria (7 days) for confirmation due to method blank detections. Holding time exceedances were not greater than two times (2X) criteria. The results for the re-extracted and re-analyzed samples were comparable to the initial results; both sets of data are reported. Based on professional judgement, the results from the initial analysis were used for the purposes of this report.

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-101323-EB	PAHs	Benzo[a]anthracene	0.068µg/L
MW2-ROX-101323-EB	PAHs	Chrysene	0.10 µg/L
MW2-ROX-101323-EB	PAHs	Dibenz(a,h)anthracene	0.051 µg/L
MB 400-646105/1-A	SVOCs	Diethyl phthalate	0.500 µg/L
MB 400-646105/1-A	PAHs	Benzo[a]anthracene	0.0695 µg/L
MB 400-646105/1-A	PAHs	Benzo[b]fluoranthene	0.143 µg/L
MB 400-646105/1-A	PAHs	Benzo[k]fluoranthene	0.0860 µg/L
MB 400-646105/1-A	PAHs	Chrysene	0.0977 µg/L
MB 400-646105/1-A	PAHs	Dibenz(a,h)anthracene	0.0866 µg/L
MB 400-646105/1-A	PAHs	Fluoranthene	0.0812 µg/L
MB 400-646105/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.109 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
ROST4PZE-R0X-101323	PAHs	Benzo[a]anthracene	-	**U**
ROST4PZE-R0X-101323	PAHs	Chrysene	-	**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 400-646105/4-A/5-A	SVOCs	Benzenethiol	**3/3**	10	10-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	Benzoic acid	47/15	**102**	10-144/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2-Chlorophenol	62/**31**	**67**	40-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2,4-Dichlorophenol	74/53	**32**	49-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2,4-Dinitrophenol	93/67	**32**	10-150/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2-Nitrophenol	77/55	**33**	40-124/30

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
LCS/LCSD 400-646105/2-A/3-A	SVOCs	Phenol	62/37	**51**	11-120/30

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 poor performing analytes under Method 8270. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW10-R0X-101323	SVOCs	Benzenethiol	**UJ**
MW10-R0X-101323	SVOCs	2-Chlorophenol	**UJ**
ROST4PZE-R0X-101323	SVOCs	Benzenethiol	**UJ**
ROST4PZE-R0X-101323	SVOCs	2-Chlorophenol	**UJ**
MW2-ROX-101323	SVOCs	Benzenethiol	**UJ**
MW2-ROX-101323	SVOCs	2-Chlorophenol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW10-R0X-101323	SVOCs	2-Fluorophenol	**11**	13-113
MW2-ROX-101323-EB	SVOCs	2-Fluorophenol	**2**	13-113
MW2-ROX-101323-EB	SVOCs	Phenol-d5	**15**	46-124
LCSD 400-646105/3-A	SVOCs	2-Fluorophenol	**11**	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. Equipment blanks and laboratory control sample duplicates 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 with the exception of several PAHs in sample MW2-ROX-101323 due to the nature of the sample matrix. PAHs were non-detect at a dilution factor of 5X, with raised reporting limits of 0.99 µg/L. Due to historical detections, please see Section 12.0 of this data review for additional qualifications.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications (CCV) for multiple analytes were outside evaluation criteria, biased low. Chrysene in sample ROST4PZE-R0X-101323 was previously qualified in Section 4.0 of this data review due to method blank contamination. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW10-R0X-101323	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW10-R0X-101323	SVOCs	Di-n-octyl phthalate	**UJ**
MW10-R0X-101323	PAHs	Chrysene	**UJ**
ROST4PZE-R0X-101323	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZE-R0X-101323	SVOCs	Di-n-octyl phthalate	**UJ**
MW2-ROX-101323	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW2-ROX-101323	SVOCs	Di-n-octyl phthalate	**UJ**
MW2-ROX-101323	PAHs	Chrysene	**UJ**
MW10-R0X-101323	SVOCs	Benzyl Alcohol	**UJ**
ROST4PZE-R0X-101323	SVOCs	Benzyl Alcohol	**UJ**
MW2-ROX-101323	SVOCs	Benzyl Alcohol	**UJ**
ROST4PZE-R0X-101323	PAHs	Chrysene	**UJ**

Additionally, several PAHs in sample MW2-ROX-101323 were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-101323	PAHs	Acenaphthene	**UJ**
MW2-ROX-101323	PAHs	Acenaphthylene	**UJ**
MW2-ROX-101323	PAHs	Fluorene	**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 12/18/2023 5:21:06 PM Revision 1

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245066-1

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

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Job Narrative
400-245066-1

REVISION
Report revised to include missing QC.
Supersedes reports dated 10-30-2023.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/14/2023 8:05 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 0.0°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646595 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 8260D: 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-101323-8260 (400-245066-1), MW10-R0X-101323 (400-245066-3), ROST4PZE-R0X-101323 (400-245066-4), MW2-ROX-101323-EB (400-245066-5) and MW2-ROX-101323 (400-245066-6). 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 8260D: The initial calibration verification (ICV) analyzed in batch 400-625791 was outside method criteria for the following analyte(s): Hexachlorobutadiene. 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 8270E: The continuing calibration verification (CCV) associated with batch 400-646410 recovered outside acceptance criteria, low biased, for Benzyl alcohol, Di-n-octyl phthalate 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 8270E: The method blank for preparation batch 400-646105 and analytical batch 400-646410 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646105 and analytical batch 400-646410 recovered outside control limits for the following analytes: 2,4-Dichlorophenol, 2,4-Dinitrophenol, 2-Chlorophenol, 2-Nitrophenol, Benzoic acid and Phenol.

Method 8270E: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-646105 and analytical batch 400-646410: 2-Chlorophenol. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646105 and analytical batch 400-646410 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 8270E: 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: MW10-R0X-101323 (400-245066-3). These results have been reported and qualified.

Method 8270E: 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 LCSD contained an allowable number of surrogate compounds outside limits: (LCSD 400-646105/3-A). These results have been reported and qualified.

Method 8270E: Two of six surrogates are outside QC limits, however there is no evidence of analtyes present in the sample therefore data is qualified and reported.

MW2-ROX-101323-EB (400-245066-5)

Method 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E_SIM: 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: MW2-ROX-101323 (400-245066-6). These results have been reported and qualified.

Method 8270E_SIM: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: MW2-ROX-101323 (400-245066-6).

Method 8270E_SIM: The continuing calibration verification (CCV) associated with batch 400-647620 recovered outside acceptance criteria, low biased, for Dibenz(a,h)anthracene. 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 8270E_SIM: The following samples were re-prepared outside of preparation holding time due to method blank contamination: MW10-R0X-101323 (400-245066-3), ROST4PZE-R0X-101323 (400-245066-4), MW2-ROX-101323-EB (400-245066-5) and MW2-ROX-101323 (400-245066-6). Both 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 400-645889 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: 400-245066-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245066-1	TB-ROX-101323-8260	Water	10/13/23 12:00	10/14/23 08:05
400-245066-2	TB-ROX-101323-8011	Water	10/13/23 12:00	10/14/23 08:05
400-245066-3	MW10-R0X-101323	Water	10/13/23 09:45	10/14/23 08:05
400-245066-4	ROST4PZE-R0X-101323	Water	10/13/23 10:50	10/14/23 08:05
400-245066-5	MW2-ROX-101323-EB	Water	10/13/23 11:40	10/14/23 08:05
400-245066-6	MW2-ROX-101323	Water	10/13/23 13:50	10/14/23 08:05

Detection Summary

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

Job ID: 400-245066-1

Client Sample ID: TB-ROX-101323-8260 — Lab Sample ID: 400-245066-1

No Detections.

Client Sample ID: TB-ROX-101323-8011 — Lab Sample ID: 400-245066-2

No Detections.

Client Sample ID: MW10-R0X-101323 — Lab Sample ID: 400-245066-3

No Detections.

Client Sample ID: ROST4PZE-R0X-101323 — Lab Sample ID: 400-245066-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	62		25	10	ug/L	1		8260D	Total/NA
Benzene	0.61	J	1.0	0.50	ug/L	1		8260D	Total/NA
2-Butanone (MEK)	8.2	J	25	2.6	ug/L	1		8260D	Total/NA
Ethylbenzene	5.4		1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	0.76	J	1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	4.8	J	5.0	0.63	ug/L	1		8260D	Total/NA
Naphthalene	3.1	J	5.0	3.0	ug/L	1		8260D	Total/NA
N-Propylbenzene	0.75	J	1.0	0.69	ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	10		1.0	0.82	ug/L	1		8260D	Total/NA
Xylenes, Total	5.3	J	10	1.6	ug/L	1		8260D	Total/NA
Acenaphthene	0.48		0.20	0.097	ug/L	1		8270E SIM	Total/NA
Anthracene	0.82		0.20	0.046	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.036	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Chrysene	0.039	J B	0.20	0.032	ug/L	1		8270E SIM	Total/NA
Fluorene	0.59		0.20	0.087	ug/L	1		8270E SIM	Total/NA
Phenanthrene	4.2		0.20	0.088	ug/L	1		8270E SIM	Total/NA
Pyrene	0.13	J	0.20	0.038	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	7.9		0.20	0.078	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	3.2		0.20	0.065	ug/L	1		8270E SIM	Total/NA
Acenaphthene - RERA	0.66	H	0.20	0.098	ug/L	1		8270E SIM	Total/NA
Anthracene - RERA	0.59	H	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Fluoranthene - RERA	0.11	J H	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Fluorene - RERA	0.73	H	0.20	0.088	ug/L	1		8270E SIM	Total/NA
Phenanthrene - RERA	4.0	H	0.20	0.089	ug/L	1		8270E SIM	Total/NA
Pyrene - RERA	0.12	J H	0.20	0.039	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene - RERA	9.6	H	0.20	0.079	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene - RERA	3.9	H	0.20	0.065	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW2-ROX-101323-EB — Lab Sample ID: 400-245066-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.068	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Chrysene	0.10	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.051	J B	0.20	0.048	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW2-ROX-101323 — Lab Sample ID: 400-245066-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	150		25	10	ug/L	1		8260D	Total/NA
Benzene	1.1		1.0	0.50	ug/L	1		8260D	Total/NA
Ethylbenzene	67		1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	35		1.0	0.53	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW2-ROX-101323 (Continued)

Lab Sample ID: 400-245066-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	28		5.0	0.63	ug/L	1		8260D	Total/NA
Naphthalene	18		5.0	3.0	ug/L	1		8260D	Total/NA
n-Butylbenzene	2.9		1.0	0.76	ug/L	1		8260D	Total/NA
N-Propylbenzene	49		1.0	0.69	ug/L	1		8260D	Total/NA
o-Xylene	2.9	J	5.0	0.60	ug/L	1		8260D	Total/NA
p-Isopropyltoluene	2.8		1.0	0.71	ug/L	1		8260D	Total/NA
sec-Butylbenzene	3.3		1.0	0.70	ug/L	1		8260D	Total/NA
tert-Butylbenzene	0.83	J	1.0	0.63	ug/L	1		8260D	Total/NA
Toluene	3.2		1.0	0.90	ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	12		1.0	0.82	ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	15		1.0	0.56	ug/L	1		8260D	Total/NA
Xylenes, Total	31		10	1.6	ug/L	1		8260D	Total/NA
1-Methylnaphthalene	8.2		0.20	0.079	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	15		0.20	0.066	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene - RERA	9.9	H	0.20	0.080	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene - RERA	16	H	0.20	0.066	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245066-1

Client Sample ID: TB-ROX-101323-8260
Date Collected: 10/13/23 12:00
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/23 16:57	1
Acrolein	ND		20	3.3	ug/L			10/21/23 16:57	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 16:57	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 16:57	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 16:57	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 16:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 16:57	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 16:57	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 16:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 16:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 16:57	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 16:57	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 16:57	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 16:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 16:57	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 16:57	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 16:57	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 16:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 16:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 16:57	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 16:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 16:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 16:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 16:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 16:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 16:57	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 16:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 16:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 16:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 16:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 16:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 16:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 16:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 16:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 16:57	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 16:57	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 16:57	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 16:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 16:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 16:57	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 16:57	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 16:57	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 16:57	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 16:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 16:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 16:57	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 16:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 16:57	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/23 16:57	1

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

Job ID: 400-245066-1

Client Sample ID: TB-ROX-101323-8260
Date Collected: 10/13/23 12:00
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 16:57	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 16:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 16:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 16:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 16:57	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 16:57	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 16:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 16:57	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 16:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 16:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 16:57	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 16:57	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 16:57	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 16:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 16:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 16:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 16:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 16:57	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 16:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 16:57	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 130*		*10/21/23 16:57*	*1*
Dibromofluoromethane	*115*		*75 - 126*		*10/21/23 16:57*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/21/23 16:57*	*1*

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

Job ID: 400-245066-1

Client Sample ID: TB-ROX-101323-8011
Date Collected: 10/13/23 12:00
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 20:59	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*10/17/23 07:05*	*10/17/23 20:59*	*1*

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

Job ID: 400-245066-1

Client Sample ID: MW10-R0X-101323
Date Collected: 10/13/23 09:45
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/23 19:59	1
Acrolein	ND		20	3.3	ug/L			10/21/23 19:59	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 19:59	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 19:59	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 19:59	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 19:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 19:59	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 19:59	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 19:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 19:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 19:59	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 19:59	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 19:59	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 19:59	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 19:59	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 19:59	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 19:59	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 19:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 19:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 19:59	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 19:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 19:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 19:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 19:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 19:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 19:59	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 19:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 19:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:59	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:59	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 19:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 19:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 19:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 19:59	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 19:59	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 19:59	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 19:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 19:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 19:59	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 19:59	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 19:59	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 19:59	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 19:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 19:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 19:59	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 19:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 19:59	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/23 19:59	1

Client Sample ID: MW10-R0X-101323
Date Collected: 10/13/23 09:45
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 19:59	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 19:59	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 19:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 19:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 19:59	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 19:59	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 19:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 19:59	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 19:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 19:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 19:59	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 19:59	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 19:59	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 19:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 19:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 19:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 19:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 19:59	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 19:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 19:59	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 130*		*10/21/23 19:59*	*1*
Dibromofluoromethane	*116*		*75 - 126*		*10/21/23 19:59*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*10/21/23 19:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.098	ug/L		10/18/23 12:44	10/21/23 08:08	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/18/23 12:44	10/21/23 08:08	1
Anthracene	ND		0.20	0.046	ug/L		10/18/23 12:44	10/21/23 08:08	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 08:08	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/18/23 12:44	10/21/23 08:08	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/18/23 12:44	10/21/23 08:08	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/21/23 08:08	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/18/23 12:44	10/21/23 08:08	1
Chrysene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 08:08	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 08:08	1
Fluoranthene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 08:08	1
Fluorene	ND		0.20	0.088	ug/L		10/18/23 12:44	10/21/23 08:08	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 08:08	1
Phenanthrene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/21/23 08:08	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/21/23 08:08	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/18/23 12:44	10/21/23 08:08	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/18/23 12:44	10/21/23 08:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*100*		*18 - 147*	*10/18/23 12:44*	*10/21/23 08:08*	*1*
2-Fluorobiphenyl	*84*		*15 - 128*	*10/18/23 12:44*	*10/21/23 08:08*	*1*

Client Sample ID: MW10-R0X-101323
Date Collected: 10/13/23 09:45
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-3
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*54*		*10 - 144*	*10/18/23 12:44*	*10/21/23 08:08*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.097	ug/L		10/26/23 08:58	10/27/23 21:23	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		10/26/23 08:58	10/27/23 21:23	1
Anthracene	ND	H	0.20	0.046	ug/L		10/26/23 08:58	10/27/23 21:23	1
Benzo[a]anthracene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 21:23	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		10/26/23 08:58	10/27/23 21:23	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		10/26/23 08:58	10/27/23 21:23	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		10/26/23 08:58	10/27/23 21:23	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		10/26/23 08:58	10/27/23 21:23	1
Chrysene	ND	H	0.20	0.032	ug/L		10/26/23 08:58	10/27/23 21:23	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 21:23	1
Fluoranthene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 21:23	1
Fluorene	ND	H	0.20	0.088	ug/L		10/26/23 08:58	10/27/23 21:23	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 21:23	1
Phenanthrene	ND	H	0.20	0.089	ug/L		10/26/23 08:58	10/27/23 21:23	1
Pyrene	ND	H	0.20	0.038	ug/L		10/26/23 08:58	10/27/23 21:23	1
1-Methylnaphthalene	ND	H	0.20	0.079	ug/L		10/26/23 08:58	10/27/23 21:23	1
2-Methylnaphthalene	ND	H	0.20	0.065	ug/L		10/26/23 08:58	10/27/23 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*95*		*18 - 147*	*10/26/23 08:58*	*10/27/23 21:23*	*1*
2-Fluorobiphenyl	*77*		*15 - 128*	*10/26/23 08:58*	*10/27/23 21:23*	*1*
Nitrobenzene-d5	*66*		*10 - 144*	*10/26/23 08:58*	*10/27/23 21:23*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		10/18/23 12:44	10/20/23 14:41	1
Benzenethiol	ND	*-	9.9	1.7	ug/L		10/18/23 12:44	10/20/23 14:41	1
Benzoic acid	ND	*1	30	7.2	ug/L		10/18/23 12:44	10/20/23 14:41	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/18/23 12:44	10/20/23 14:41	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/18/23 12:44	10/20/23 14:41	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/18/23 12:44	10/20/23 14:41	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/18/23 12:44	10/20/23 14:41	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		10/18/23 12:44	10/20/23 14:41	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/18/23 12:44	10/20/23 14:41	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/18/23 12:44	10/20/23 14:41	1
4-Chloroaniline	ND		9.9	3.4	ug/L		10/18/23 12:44	10/20/23 14:41	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		10/18/23 12:44	10/20/23 14:41	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/18/23 12:44	10/20/23 14:41	1
2-Chlorophenol	ND	*- *1	9.9	2.2	ug/L		10/18/23 12:44	10/20/23 14:41	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/18/23 12:44	10/20/23 14:41	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 14:41	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 14:41	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/18/23 12:44	10/20/23 14:41	1
2,4-Dichlorophenol	ND	*1	9.9	3.0	ug/L		10/18/23 12:44	10/20/23 14:41	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/18/23 12:44	10/20/23 14:41	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 14:41	1

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

Job ID: 400-245066-1

Client Sample ID: MW10-R0X-101323
Date Collected: 10/13/23 09:45
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 14:41	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/18/23 12:44	10/20/23 14:41	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		10/18/23 12:44	10/20/23 14:41	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/18/23 12:44	10/20/23 14:41	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/18/23 12:44	10/20/23 14:41	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/18/23 12:44	10/20/23 14:41	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 14:41	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 14:41	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 14:41	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 14:41	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 14:41	1
Hexachloroethane	ND		9.9	4.1	ug/L		10/18/23 12:44	10/20/23 14:41	1
Indene	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 14:41	1
Isophorone	ND		9.9	0.14	ug/L		10/18/23 12:44	10/20/23 14:41	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/18/23 12:44	10/20/23 14:41	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 14:41	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/18/23 12:44	10/20/23 14:41	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/18/23 12:44	10/20/23 14:41	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/18/23 12:44	10/20/23 14:41	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/18/23 12:44	10/20/23 14:41	1
2-Nitrophenol	ND	*1	9.9	5.1	ug/L		10/18/23 12:44	10/20/23 14:41	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/18/23 12:44	10/20/23 14:41	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 14:41	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/18/23 12:44	10/20/23 14:41	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/18/23 12:44	10/20/23 14:41	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 14:41	1
Phenol	ND	*1	9.9	2.6	ug/L		10/18/23 12:44	10/20/23 14:41	1
Pyridine	ND		9.9	3.2	ug/L		10/18/23 12:44	10/20/23 14:41	1
Quinoline	ND		9.9	4.4	ug/L		10/18/23 12:44	10/20/23 14:41	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/18/23 12:44	10/20/23 14:41	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 14:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*10/18/23 12:44*	*10/20/23 14:41*	*1*
2-Fluorophenol	*11*	*S1-*	*13 - 113*	*10/18/23 12:44*	*10/20/23 14:41*	*1*
Nitrobenzene-d5	*59*		*36 - 126*	*10/18/23 12:44*	*10/20/23 14:41*	*1*
Phenol-d5	*29*		*17 - 127*	*10/18/23 12:44*	*10/20/23 14:41*	*1*
Terphenyl-d14	*85*		*44 - 149*	*10/18/23 12:44*	*10/20/23 14:41*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*10/18/23 12:44*	*10/20/23 14:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 21:41	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*51 - 149*	*10/17/23 07:05*	*10/17/23 21:41*	*1*

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

Job ID: 400-245066-1

Client Sample ID: ROST4PZE-R0X-101323
Date Collected: 10/13/23 10:50
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**62**		25	10	ug/L			10/21/23 20:21	1
Acrolein	ND		20	3.3	ug/L			10/21/23 20:21	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 20:21	1
Benzene	**0.61**	**J**	1.0	0.50	ug/L			10/21/23 20:21	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 20:21	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 20:21	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 20:21	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 20:21	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 20:21	1
2-Butanone (MEK)	**8.2**	**J**	25	2.6	ug/L			10/21/23 20:21	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 20:21	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 20:21	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 20:21	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 20:21	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 20:21	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 20:21	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 20:21	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 20:21	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 20:21	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 20:21	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 20:21	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 20:21	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 20:21	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 20:21	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 20:21	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 20:21	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 20:21	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 20:21	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 20:21	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 20:21	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 20:21	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 20:21	1
Ethylbenzene	**5.4**		1.0	0.50	ug/L			10/21/23 20:21	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 20:21	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 20:21	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 20:21	1
Isopropylbenzene	**0.76**	**J**	1.0	0.53	ug/L			10/21/23 20:21	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 20:21	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 20:21	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 20:21	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 20:21	1
m-Xylene & p-Xylene	**4.8**	**J**	5.0	0.63	ug/L			10/21/23 20:21	1
Naphthalene	**3.1**	**J**	5.0	3.0	ug/L			10/21/23 20:21	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 20:21	1
N-Propylbenzene	**0.75**	**J**	1.0	0.69	ug/L			10/21/23 20:21	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 20:21	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 20:21	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 20:21	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/23 20:21	1

Client Sample ID: ROST4PZE-R0X-101323
Date Collected: 10/13/23 10:50
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 20:21	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 20:21	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 20:21	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 20:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 20:21	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 20:21	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 20:21	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 20:21	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 20:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 20:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 20:21	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 20:21	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 20:21	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 20:21	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 20:21	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 20:21	1
1,2,4-Trimethylbenzene	**10**		1.0	0.82	ug/L			10/21/23 20:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 20:21	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 20:21	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 20:21	1
Xylenes, Total	**5.3**	**J**	10	1.6	ug/L			10/21/23 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 130*		*10/21/23 20:21*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/21/23 20:21*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*10/21/23 20:21*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.48**		0.20	0.097	ug/L		10/18/23 12:44	10/21/23 08:28	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/18/23 12:44	10/21/23 08:28	1
Anthracene	**0.82**		0.20	0.046	ug/L		10/18/23 12:44	10/21/23 08:28	1
Benzo[a]anthracene	**0.036**	**J B**	0.20	0.033	ug/L		10/18/23 12:44	10/21/23 08:28	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/18/23 12:44	10/21/23 08:28	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/18/23 12:44	10/21/23 08:28	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/18/23 12:44	10/21/23 08:28	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/18/23 12:44	10/21/23 08:28	1
Chrysene	**0.039**	**J B**	0.20	0.032	ug/L		10/18/23 12:44	10/21/23 08:28	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 08:28	1
Fluoranthene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 08:28	1
Fluorene	**0.59**		0.20	0.087	ug/L		10/18/23 12:44	10/21/23 08:28	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 08:28	1
Phenanthrene	**4.2**		0.20	0.088	ug/L		10/18/23 12:44	10/21/23 08:28	1
Pyrene	**0.13**	**J**	0.20	0.038	ug/L		10/18/23 12:44	10/21/23 08:28	1
1-Methylnaphthalene	**7.9**		0.20	0.078	ug/L		10/18/23 12:44	10/21/23 08:28	1
2-Methylnaphthalene	**3.2**		0.20	0.065	ug/L		10/18/23 12:44	10/21/23 08:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*51*		*18 - 147*	*10/18/23 12:44*	*10/21/23 08:28*	*1*
2-Fluorobiphenyl	*60*		*15 - 128*	*10/18/23 12:44*	*10/21/23 08:28*	*1*

Client Sample ID: ROST4PZE-R0X-101323

Date Collected: 10/13/23 10:50
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-4

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*60*		*10 - 144*	*10/18/23 12:44*	*10/21/23 08:28*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.66**	**H**	0.20	0.098	ug/L		10/26/23 08:58	10/27/23 21:44	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		10/26/23 08:58	10/27/23 21:44	1
Anthracene	**0.59**	**H**	0.20	0.046	ug/L		10/26/23 08:58	10/27/23 21:44	1
Benzo[a]anthracene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 21:44	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		10/26/23 08:58	10/27/23 21:44	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		10/26/23 08:58	10/27/23 21:44	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		10/26/23 08:58	10/27/23 21:44	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		10/26/23 08:58	10/27/23 21:44	1
Chrysene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 21:44	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 21:44	1
Fluoranthene	**0.11**	**J H**	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 21:44	1
Fluorene	**0.73**	**H**	0.20	0.088	ug/L		10/26/23 08:58	10/27/23 21:44	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 21:44	1
Phenanthrene	**4.0**	**H**	0.20	0.089	ug/L		10/26/23 08:58	10/27/23 21:44	1
Pyrene	**0.12**	**J H**	0.20	0.039	ug/L		10/26/23 08:58	10/27/23 21:44	1
1-Methylnaphthalene	**9.6**	**H**	0.20	0.079	ug/L		10/26/23 08:58	10/27/23 21:44	1
2-Methylnaphthalene	**3.9**	**H**	0.20	0.065	ug/L		10/26/23 08:58	10/27/23 21:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*47*		*18 - 147*	*10/26/23 08:58*	*10/27/23 21:44*	*1*
2-Fluorobiphenyl	*70*		*15 - 128*	*10/26/23 08:58*	*10/27/23 21:44*	*1*
Nitrobenzene-d5	*63*		*10 - 144*	*10/26/23 08:58*	*10/27/23 21:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/18/23 12:44	10/20/23 15:02	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		10/18/23 12:44	10/20/23 15:02	1
Benzoic acid	ND	*1	29	7.1	ug/L		10/18/23 12:44	10/20/23 15:02	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/18/23 12:44	10/20/23 15:02	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/18/23 12:44	10/20/23 15:02	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/18/23 12:44	10/20/23 15:02	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/18/23 12:44	10/20/23 15:02	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/18/23 12:44	10/20/23 15:02	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/18/23 12:44	10/20/23 15:02	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/18/23 12:44	10/20/23 15:02	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/18/23 12:44	10/20/23 15:02	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/18/23 12:44	10/20/23 15:02	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/18/23 12:44	10/20/23 15:02	1
2-Chlorophenol	ND	*- *1	9.8	2.2	ug/L		10/18/23 12:44	10/20/23 15:02	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/18/23 12:44	10/20/23 15:02	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 15:02	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 15:02	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		10/18/23 12:44	10/20/23 15:02	1
2,4-Dichlorophenol	ND	*1	9.8	2.9	ug/L		10/18/23 12:44	10/20/23 15:02	1
Diethyl phthalate	ND		9.8	0.23	ug/L		10/18/23 12:44	10/20/23 15:02	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 15:02	1

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

Job ID: 400-245066-1

Client Sample ID: ROST4PZE-R0X-101323
Date Collected: 10/13/23 10:50
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 15:02	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/18/23 12:44	10/20/23 15:02	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		10/18/23 12:44	10/20/23 15:02	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/18/23 12:44	10/20/23 15:02	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 12:44	10/20/23 15:02	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 12:44	10/20/23 15:02	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 15:02	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 15:02	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 15:02	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/18/23 12:44	10/20/23 15:02	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		10/18/23 12:44	10/20/23 15:02	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/18/23 12:44	10/20/23 15:02	1
Indene	ND		9.8	0.98	ug/L		10/18/23 12:44	10/20/23 15:02	1
Isophorone	ND		9.8	0.14	ug/L		10/18/23 12:44	10/20/23 15:02	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/18/23 12:44	10/20/23 15:02	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/18/23 12:44	10/20/23 15:02	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/18/23 12:44	10/20/23 15:02	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/18/23 12:44	10/20/23 15:02	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/18/23 12:44	10/20/23 15:02	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/18/23 12:44	10/20/23 15:02	1
2-Nitrophenol	ND	*1	9.8	5.1	ug/L		10/18/23 12:44	10/20/23 15:02	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/18/23 12:44	10/20/23 15:02	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 15:02	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		10/18/23 12:44	10/20/23 15:02	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/18/23 12:44	10/20/23 15:02	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 15:02	1
Phenol	ND	*1	9.8	2.5	ug/L		10/18/23 12:44	10/20/23 15:02	1
Pyridine	ND		9.8	3.1	ug/L		10/18/23 12:44	10/20/23 15:02	1
Quinoline	ND		9.8	4.4	ug/L		10/18/23 12:44	10/20/23 15:02	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/18/23 12:44	10/20/23 15:02	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/18/23 12:44	10/20/23 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*10/18/23 12:44*	*10/20/23 15:02*	*1*
2-Fluorophenol	*30*		*13 - 113*	*10/18/23 12:44*	*10/20/23 15:02*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*10/18/23 12:44*	*10/20/23 15:02*	*1*
Phenol-d5	*49*		*17 - 127*	*10/18/23 12:44*	*10/20/23 15:02*	*1*
Terphenyl-d14	*54*		*44 - 149*	*10/18/23 12:44*	*10/20/23 15:02*	*1*
2,4,6-Tribromophenol	*89*		*26 - 150*	*10/18/23 12:44*	*10/20/23 15:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		10/17/23 07:05	10/17/23 22:02	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		10/17/23 07:05	10/17/23 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*	*p*	*51 - 149*	*10/17/23 07:05*	*10/17/23 22:02*	*1*

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

Job ID: 400-245066-1

Client Sample ID: MW2-ROX-101323-EB
Date Collected: 10/13/23 11:40
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/23 17:20	1
Acrolein	ND		20	3.3	ug/L			10/21/23 17:20	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 17:20	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 17:20	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 17:20	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 17:20	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 17:20	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 17:20	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 17:20	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 17:20	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 17:20	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 17:20	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 17:20	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 17:20	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 17:20	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 17:20	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 17:20	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 17:20	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 17:20	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 17:20	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 17:20	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 17:20	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 17:20	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 17:20	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 17:20	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 17:20	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 17:20	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 17:20	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 17:20	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 17:20	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 17:20	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 17:20	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 17:20	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 17:20	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 17:20	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 17:20	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 17:20	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 17:20	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 17:20	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 17:20	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 17:20	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 17:20	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 17:20	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 17:20	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 17:20	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 17:20	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 17:20	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 17:20	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/23 17:20	1

Client Sample ID: MW2-ROX-101323-EB
Date Collected: 10/13/23 11:40
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 17:20	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 17:20	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 17:20	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 17:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 17:20	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 17:20	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 17:20	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 17:20	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 17:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 17:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 17:20	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 17:20	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 17:20	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 17:20	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 17:20	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 17:20	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 17:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 17:20	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 17:20	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 17:20	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 130*		*10/21/23 17:20*	*1*
Dibromofluoromethane	*115*		*75 - 126*		*10/21/23 17:20*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*10/21/23 17:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/18/23 12:44	10/21/23 08:49	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 12:44	10/21/23 08:49	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 08:49	1
Benzo[a]anthracene	**0.068**	**J B**	0.20	0.034	ug/L		10/18/23 12:44	10/21/23 08:49	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 12:44	10/21/23 08:49	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/18/23 12:44	10/21/23 08:49	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/21/23 08:49	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/18/23 12:44	10/21/23 08:49	1
Chrysene	**0.10**	**J B**	0.20	0.033	ug/L		10/18/23 12:44	10/21/23 08:49	1
Dibenz(a,h)anthracene	**0.051**	**J B**	0.20	0.048	ug/L		10/18/23 12:44	10/21/23 08:49	1
Fluoranthene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 08:49	1
Fluorene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/21/23 08:49	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 08:49	1
Phenanthrene	ND		0.20	0.090	ug/L		10/18/23 12:44	10/21/23 08:49	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/21/23 08:49	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/18/23 12:44	10/21/23 08:49	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/18/23 12:44	10/21/23 08:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*18 - 147*	*10/18/23 12:44*	*10/21/23 08:49*	*1*
2-Fluorobiphenyl	*70*		*15 - 128*	*10/18/23 12:44*	*10/21/23 08:49*	*1*

Client Sample ID: MW2-ROX-101323-EB
Date Collected: 10/13/23 11:40
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-5
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*48*		*10 - 144*	*10/18/23 12:44*	*10/21/23 08:49*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.097	ug/L		10/26/23 08:58	10/27/23 22:05	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		10/26/23 08:58	10/27/23 22:05	1
Anthracene	ND	H	0.20	0.046	ug/L		10/26/23 08:58	10/27/23 22:05	1
Benzo[a]anthracene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 22:05	1
Benzo[a]pyrene	ND	H	0.20	0.062	ug/L		10/26/23 08:58	10/27/23 22:05	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		10/26/23 08:58	10/27/23 22:05	1
Benzo[g,h,i]perylene	ND	H	0.20	0.026	ug/L		10/26/23 08:58	10/27/23 22:05	1
Benzo[k]fluoranthene	ND	H	0.20	0.060	ug/L		10/26/23 08:58	10/27/23 22:05	1
Chrysene	ND	H	0.20	0.032	ug/L		10/26/23 08:58	10/27/23 22:05	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 22:05	1
Fluoranthene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 22:05	1
Fluorene	ND	H	0.20	0.087	ug/L		10/26/23 08:58	10/27/23 22:05	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 22:05	1
Phenanthrene	ND	H	0.20	0.088	ug/L		10/26/23 08:58	10/27/23 22:05	1
Pyrene	ND	H	0.20	0.038	ug/L		10/26/23 08:58	10/27/23 22:05	1
1-Methylnaphthalene	ND	H	0.20	0.078	ug/L		10/26/23 08:58	10/27/23 22:05	1
2-Methylnaphthalene	ND	H	0.20	0.064	ug/L		10/26/23 08:58	10/27/23 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*111*		*18 - 147*	*10/26/23 08:58*	*10/27/23 22:05*	*1*
2-Fluorobiphenyl	*82*		*15 - 128*	*10/26/23 08:58*	*10/27/23 22:05*	*1*
Nitrobenzene-d5	*68*		*10 - 144*	*10/26/23 08:58*	*10/27/23 22:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 15:24	1
Benzenethiol	ND	*-	10	1.7	ug/L		10/18/23 12:44	10/20/23 15:24	1
Benzoic acid	ND	*1	30	7.3	ug/L		10/18/23 12:44	10/20/23 15:24	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 15:24	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 15:24	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 15:24	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 15:24	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/18/23 12:44	10/20/23 15:24	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 12:44	10/20/23 15:24	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 12:44	10/20/23 15:24	1
4-Chloroaniline	ND		10	3.4	ug/L		10/18/23 12:44	10/20/23 15:24	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 15:24	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 15:24	1
2-Chlorophenol	ND	*- *1	10	2.2	ug/L		10/18/23 12:44	10/20/23 15:24	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 15:24	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 15:24	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 15:24	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 15:24	1
2,4-Dichlorophenol	ND	*1	10	3.0	ug/L		10/18/23 12:44	10/20/23 15:24	1
Diethyl phthalate	ND		10	0.24	ug/L		10/18/23 12:44	10/20/23 15:24	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 15:24	1

Client Sample ID: MW2-ROX-101323-EB
Date Collected: 10/13/23 11:40
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 15:24	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 15:24	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 12:44	10/20/23 15:24	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/18/23 12:44	10/20/23 15:24	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 15:24	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 15:24	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 15:24	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 15:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 15:24	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 15:24	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 15:24	1
Hexachloroethane	ND		10	4.2	ug/L		10/18/23 12:44	10/20/23 15:24	1
Indene	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 15:24	1
Isophorone	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 15:24	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 15:24	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 15:24	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 15:24	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 15:24	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 12:44	10/20/23 15:24	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 12:44	10/20/23 15:24	1
2-Nitrophenol	ND	*1	10	5.2	ug/L		10/18/23 12:44	10/20/23 15:24	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 12:44	10/20/23 15:24	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 15:24	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/18/23 12:44	10/20/23 15:24	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 12:44	10/20/23 15:24	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 15:24	1
Phenol	ND	*1	10	2.6	ug/L		10/18/23 12:44	10/20/23 15:24	1
Pyridine	ND		10	3.2	ug/L		10/18/23 12:44	10/20/23 15:24	1
Quinoline	ND		10	4.5	ug/L		10/18/23 12:44	10/20/23 15:24	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/18/23 12:44	10/20/23 15:24	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*46 - 124*	*10/18/23 12:44*	*10/20/23 15:24*	*1*
2-Fluorophenol	*2*	*S1-*	*13 - 113*	*10/18/23 12:44*	*10/20/23 15:24*	*1*
Nitrobenzene-d5	*55*		*36 - 126*	*10/18/23 12:44*	*10/20/23 15:24*	*1*
Phenol-d5	*15*	*S1-*	*17 - 127*	*10/18/23 12:44*	*10/20/23 15:24*	*1*
Terphenyl-d14	*80*		*44 - 149*	*10/18/23 12:44*	*10/20/23 15:24*	*1*
2,4,6-Tribromophenol	*60*		*26 - 150*	*10/18/23 12:44*	*10/20/23 15:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.017	ug/L		10/17/23 07:05	10/17/23 22:23	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 22:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*10/17/23 07:05*	*10/17/23 22:23*	*1*

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

Job ID: 400-245066-1

Client Sample ID: MW2-ROX-101323
Date Collected: 10/13/23 13:50
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**150**		25	10	ug/L			10/21/23 20:44	1
Acrolein	ND		20	3.3	ug/L			10/21/23 20:44	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 20:44	1
Benzene	**1.1**		1.0	0.50	ug/L			10/21/23 20:44	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 20:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 20:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 20:44	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 20:44	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 20:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 20:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 20:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 20:44	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 20:44	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 20:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 20:44	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 20:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 20:44	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 20:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 20:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 20:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 20:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 20:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 20:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 20:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 20:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 20:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 20:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 20:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 20:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 20:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 20:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 20:44	1
Ethylbenzene	**67**		1.0	0.50	ug/L			10/21/23 20:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 20:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 20:44	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 20:44	1
Isopropylbenzene	**35**		1.0	0.53	ug/L			10/21/23 20:44	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 20:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 20:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 20:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 20:44	1
m-Xylene & p-Xylene	**28**		5.0	0.63	ug/L			10/21/23 20:44	1
Naphthalene	**18**		5.0	3.0	ug/L			10/21/23 20:44	1
n-Butylbenzene	**2.9**		1.0	0.76	ug/L			10/21/23 20:44	1
N-Propylbenzene	**49**		1.0	0.69	ug/L			10/21/23 20:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 20:44	1
o-Xylene	**2.9**	**J**	5.0	0.60	ug/L			10/21/23 20:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 20:44	1
p-Isopropyltoluene	**2.8**		1.0	0.71	ug/L			10/21/23 20:44	1

Client Sample ID: MW2-ROX-101323
Date Collected: 10/13/23 13:50
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**3.3**		1.0	0.70	ug/L			10/21/23 20:44	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 20:44	1
tert-Butylbenzene	**0.83**	**J**	1.0	0.63	ug/L			10/21/23 20:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 20:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 20:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 20:44	1
Toluene	**3.2**		1.0	0.90	ug/L			10/21/23 20:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 20:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 20:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 20:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 20:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 20:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 20:44	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 20:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 20:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 20:44	1
1,2,4-Trimethylbenzene	**12**		1.0	0.82	ug/L			10/21/23 20:44	1
1,3,5-Trimethylbenzene	**15**		1.0	0.56	ug/L			10/21/23 20:44	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 20:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 20:44	1
Xylenes, Total	**31**		10	1.6	ug/L			10/21/23 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 130*		*10/21/23 20:44*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*10/21/23 20:44*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*10/21/23 20:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.99	0.49	ug/L		10/18/23 12:44	10/25/23 15:59	5
Acenaphthylene	ND		0.99	0.22	ug/L		10/18/23 12:44	10/25/23 15:59	5
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/21/23 09:09	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 09:09	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 12:44	10/21/23 09:09	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/18/23 12:44	10/21/23 09:09	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/21/23 09:09	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/18/23 12:44	10/21/23 09:09	1
Chrysene	ND		0.20	0.033	ug/L		10/18/23 12:44	10/21/23 09:09	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/18/23 12:44	10/21/23 09:09	1
Fluoranthene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 09:09	1
Fluorene	ND		0.99	0.44	ug/L		10/18/23 12:44	10/25/23 15:59	5
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/18/23 12:44	10/21/23 09:09	1
Phenanthrene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/21/23 09:09	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/21/23 09:09	1
1-Methylnaphthalene	**8.2**		0.20	0.079	ug/L		10/18/23 12:44	10/21/23 09:09	1
2-Methylnaphthalene	**15**		0.20	0.066	ug/L		10/18/23 12:44	10/21/23 09:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*75*		*18 - 147*	*10/18/23 12:44*	*10/25/23 15:59*	*5*
2-Fluorobiphenyl	*57*		*15 - 128*	*10/18/23 12:44*	*10/25/23 15:59*	*5*

Client Sample ID: MW2-ROX-101323

Lab Sample ID: 400-245066-6

Date Collected: 10/13/23 13:50

Matrix: Water

Date Received: 10/14/23 08:05

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*131*		*10 - 144*	*10/18/23 12:44*	*10/21/23 09:09*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.10	ug/L		10/26/23 08:58	10/27/23 22:26	1
Acenaphthylene	ND	H	0.20	0.044	ug/L		10/26/23 08:58	10/27/23 22:26	1
Anthracene	ND	H	0.20	0.047	ug/L		10/26/23 08:58	10/27/23 22:26	1
Benzo[a]anthracene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 22:26	1
Benzo[a]pyrene	ND	H	0.20	0.064	ug/L		10/26/23 08:58	10/27/23 22:26	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		10/26/23 08:58	10/27/23 22:26	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		10/26/23 08:58	10/27/23 22:26	1
Benzo[k]fluoranthene	ND	H	0.20	0.062	ug/L		10/26/23 08:58	10/27/23 22:26	1
Chrysene	ND	H	0.20	0.033	ug/L		10/26/23 08:58	10/27/23 22:26	1
Dibenz(a,h)anthracene	ND	H	0.20	0.048	ug/L		10/26/23 08:58	10/27/23 22:26	1
Fluoranthene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 22:26	1
Fluorene	ND	H	0.20	0.090	ug/L		10/26/23 08:58	10/27/23 22:26	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.034	ug/L		10/26/23 08:58	10/27/23 22:26	1
Phenanthrene	ND	H	0.20	0.091	ug/L		10/26/23 08:58	10/27/23 22:26	1
Pyrene	ND	H	0.20	0.039	ug/L		10/26/23 08:58	10/27/23 22:26	1
1-Methylnaphthalene	**9.9**	**H**	0.20	0.080	ug/L		10/26/23 08:58	10/27/23 22:26	1
2-Methylnaphthalene	**16**	**H**	0.20	0.066	ug/L		10/26/23 08:58	10/27/23 22:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*80*		*18 - 147*	*10/26/23 08:58*	*10/27/23 22:26*	*1*
2-Fluorobiphenyl	*78*		*15 - 128*	*10/26/23 08:58*	*10/27/23 22:26*	*1*
Nitrobenzene-d5	*58*		*10 - 144*	*10/26/23 08:58*	*10/27/23 22:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		10/18/23 12:44	10/20/23 15:45	1
Benzenethiol	ND	*-	9.9	1.7	ug/L		10/18/23 12:44	10/20/23 15:45	1
Benzoic acid	ND	*1	30	7.3	ug/L		10/18/23 12:44	10/20/23 15:45	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/18/23 12:44	10/20/23 15:45	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/18/23 12:44	10/20/23 15:45	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/18/23 12:44	10/20/23 15:45	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/18/23 12:44	10/20/23 15:45	1
Bis(2-ethylhexyl) phthalate	ND		9.9	5.0	ug/L		10/18/23 12:44	10/20/23 15:45	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/18/23 12:44	10/20/23 15:45	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/18/23 12:44	10/20/23 15:45	1
4-Chloroaniline	ND		9.9	3.4	ug/L		10/18/23 12:44	10/20/23 15:45	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		10/18/23 12:44	10/20/23 15:45	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/18/23 12:44	10/20/23 15:45	1
2-Chlorophenol	ND	*- *1	9.9	2.2	ug/L		10/18/23 12:44	10/20/23 15:45	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/18/23 12:44	10/20/23 15:45	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 15:45	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 15:45	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/18/23 12:44	10/20/23 15:45	1
2,4-Dichlorophenol	ND	*1	9.9	3.0	ug/L		10/18/23 12:44	10/20/23 15:45	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/18/23 12:44	10/20/23 15:45	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 15:45	1

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

Job ID: 400-245066-1

Client Sample ID: MW2-ROX-101323
Date Collected: 10/13/23 13:50
Date Received: 10/14/23 08:05

Lab Sample ID: 400-245066-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 15:45	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/18/23 12:44	10/20/23 15:45	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		10/18/23 12:44	10/20/23 15:45	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/18/23 12:44	10/20/23 15:45	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/18/23 12:44	10/20/23 15:45	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/18/23 12:44	10/20/23 15:45	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 15:45	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 15:45	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 15:45	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/18/23 12:44	10/20/23 15:45	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 15:45	1
Hexachloroethane	ND		9.9	4.2	ug/L		10/18/23 12:44	10/20/23 15:45	1
Indene	ND		9.9	0.99	ug/L		10/18/23 12:44	10/20/23 15:45	1
Isophorone	ND		9.9	0.14	ug/L		10/18/23 12:44	10/20/23 15:45	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/18/23 12:44	10/20/23 15:45	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 15:45	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/18/23 12:44	10/20/23 15:45	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/18/23 12:44	10/20/23 15:45	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/18/23 12:44	10/20/23 15:45	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/18/23 12:44	10/20/23 15:45	1
2-Nitrophenol	ND	*1	9.9	5.2	ug/L		10/18/23 12:44	10/20/23 15:45	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/18/23 12:44	10/20/23 15:45	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 15:45	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/18/23 12:44	10/20/23 15:45	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/18/23 12:44	10/20/23 15:45	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 15:45	1
Phenol	ND	*1	9.9	2.6	ug/L		10/18/23 12:44	10/20/23 15:45	1
Pyridine	ND		9.9	3.2	ug/L		10/18/23 12:44	10/20/23 15:45	1
Quinoline	ND		9.9	4.5	ug/L		10/18/23 12:44	10/20/23 15:45	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/18/23 12:44	10/20/23 15:45	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/18/23 12:44	10/20/23 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*10/18/23 12:44*	*10/20/23 15:45*	*1*
2-Fluorophenol	*38*		*13 - 113*	*10/18/23 12:44*	*10/20/23 15:45*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*10/18/23 12:44*	*10/20/23 15:45*	*1*
Phenol-d5	*59*		*17 - 127*	*10/18/23 12:44*	*10/20/23 15:45*	*1*
Terphenyl-d14	*75*		*44 - 149*	*10/18/23 12:44*	*10/20/23 15:45*	*1*
2,4,6-Tribromophenol	*85*		*26 - 150*	*10/18/23 12:44*	*10/20/23 15:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.017	ug/L		10/17/23 10:40	10/17/23 23:46	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 10:40	10/17/23 23:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*10/17/23 10:40*	*10/17/23 23:46*	*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.
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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
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: 400-245066-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245066-1	TB-ROX-101323-8260	97	115	98
400-245066-3	MW10-R0X-101323	97	116	97
400-245066-4	ROST4PZE-R0X-101323	96	104	101
400-245066-5	MW2-ROX-101323-EB	98	115	97
400-245066-6	MW2-ROX-101323	100	102	102
LCS 400-646595/1002	Lab Control Sample	97	105	100
MB 400-646595/5	Method Blank	98	113	97

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245066-3	MW10-R0X-101323	72	11 S1-	59	29	85	67
400-245066-4	ROST4PZE-R0X-101323	72	30	66	49	54	89
400-245066-5	MW2-ROX-101323-EB	62	2 S1-	55	15 S1-	80	60
400-245066-6	MW2-ROX-101323	73	38	66	59	75	85
LCS 400-646105/2-A	Lab Control Sample	77	42	73	64	87	98
LCS 400-646105/4-A	Lab Control Sample	77	30	66	55	98	44
LCSD 400-646105/3-A	Lab Control Sample Dup	72	11 S1-	68	38	83	88
LCSD 400-646105/5-A	Lab Control Sample Dup	81	43	72	62	95	65
MB 400-646105/1-A	Method Blank	82	21	71	52	100	71

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245066-3	MW10-R0X-101323	100	84	54
400-245066-3 - RERA	MW10-R0X-101323	95	77	66
400-245066-4	ROST4PZE-R0X-101323	51	60	60
400-245066-4 - RERA	ROST4PZE-R0X-101323	47	70	63
400-245066-5	MW2-ROX-101323-EB	82	70	48
400-245066-5 - RERA	MW2-ROX-101323-EB	111	82	68
400-245066-6	MW2-ROX-101323			131
400-245066-6	MW2-ROX-101323	75	57	

Client: AECOM Technical Services Inc. Job ID: 400-245066-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245066-6 - RERA	MW2-ROX-101323	80	78	58
LCS 400-646105/6-A	Lab Control Sample	115	80	52
LCS 400-647260/2-A	Lab Control Sample	96	75	64
LCSD 400-646105/7-A	Lab Control Sample Dup	134	77	66
LCSD 400-647260/3-A	Lab Control Sample Dup	93	73	60
MB 400-646105/1-A	Method Blank	82	72	60
MB 400-647260/1-A	Method Blank	100	75	62

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-245066-2	TB-ROX-101323-8011	101
400-245066-3	MW10-R0X-101323	93
400-245066-4	ROST4PZE-R0X-101323	83 p
400-245066-5	MW2-ROX-101323-EB	113
400-245066-6	MW2-ROX-101323	101
LCS 400-645805/2-A	Lab Control Sample	106
LCS 400-645864/2-A	Lab Control Sample	106
LCSD 400-645805/3-A	Lab Control Sample Dup	88
LCSD 400-645864/3-A	Lab Control Sample Dup	100
MB 400-645805/1-A	Method Blank	98
MB 400-645864/1-A	Method Blank	94

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-245066-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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-101323-8260

Lab Sample ID: 400-245066-1

Date Collected: 10/13/23 12:00

Matrix: Water

Date Received: 10/14/23 08:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646595	10/21/23 16:57	BPO	EET PEN

Client Sample ID: TB-ROX-101323-8011

Lab Sample ID: 400-245066-2

Date Collected: 10/13/23 12:00

Matrix: Water

Date Received: 10/14/23 08:05

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	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 20:59	PG	EET PEN

Client Sample ID: MW10-R0X-101323

Lab Sample ID: 400-245066-3

Date Collected: 10/13/23 09:45

Matrix: Water

Date Received: 10/14/23 08:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646595	10/21/23 19:59	BPO	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 14:41	KJA	EET PEN
Total/NA	Prep	3520C	RERA		254.2 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 21:23	S1B	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 08:08	TH	EET PEN
Total/NA	Prep	8011			35.2 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 21:41	PG	EET PEN

Client Sample ID: ROST4PZE-R0X-101323

Lab Sample ID: 400-245066-4

Date Collected: 10/13/23 10:50

Matrix: Water

Date Received: 10/14/23 08:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646595	10/21/23 20:21	BPO	EET PEN
Total/NA	Prep	3520C			255.8 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 15:02	KJA	EET PEN
Total/NA	Prep	3520C	RERA		253.2 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 21:44	S1B	EET PEN
Total/NA	Prep	3520C			255.8 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 08:28	TH	EET PEN
Total/NA	Prep	8011			33.8 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 22:02	PG	EET PEN

Client Sample ID: MW2-ROX-101323-EB

Lab Sample ID: 400-245066-5

Date Collected: 10/13/23 11:40

Matrix: Water

Date Received: 10/14/23 08:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646595	10/21/23 17:20	BPO	EET PEN
Total/NA	Prep	3520C			249 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 15:24	KJA	EET PEN
Total/NA	Prep	3520C	RERA		256.2 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 22:05	S1B	EET PEN
Total/NA	Prep	3520C			249 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 08:49	TH	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 22:23	PG	EET PEN

Client Sample ID: MW2-ROX-101323

Lab Sample ID: 400-245066-6

Date Collected: 10/13/23 13:50

Matrix: Water

Date Received: 10/14/23 08:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646595	10/21/23 20:44	BPO	EET PEN
Total/NA	Prep	3520C			251.6 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 15:45	KJA	EET PEN
Total/NA	Prep	3520C			251.6 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		5	0.4 mL	0.4 mL	647132	10/25/23 15:59	KJA	EET PEN
Total/NA	Prep	3520C	RERA		248.6 mL	1 mL	647260	10/26/23 08:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	647620	10/27/23 22:26	S1B	EET PEN
Total/NA	Prep	3520C			251.6 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 09:09	TH	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 23:46	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645805/1-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	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 14:00	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645864/1-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 22:44	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646105/1-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 10:45	KJA	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646684	10/23/23 14:23	S1B	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646595/5

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	8260D		1	5 mL	5 mL	646595	10/21/23 11:16	BPO	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-647260/1-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	647260	10/26/23 08:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647620	10/27/23 18:14	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645805/2-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	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 14:20	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645864/2-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 23:05	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/2-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:06	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/4-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:49	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/6-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 03:43	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646595/1002
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	8260D		1	5 mL	5 mL	646595	10/21/23 09:54	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-647260/2-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	647260	10/26/23 08:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647620	10/27/23 18:35	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645805/3-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	645805	10/17/23 07:05	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 14:41	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645864/3-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 23:26	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/3-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:28	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/5-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 12:11	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/7-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 04:03	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-647260/3-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	647260	10/26/23 08:57	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647620	10/27/23 18:56	S1B	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-1	TB-ROX-101323-8260	Total/NA	Water	8260D	
400-245066-3	MW10-R0X-101323	Total/NA	Water	8260D	
400-245066-4	ROST4PZE-R0X-101323	Total/NA	Water	8260D	
400-245066-5	MW2-ROX-101323-EB	Total/NA	Water	8260D	
400-245066-6	MW2-ROX-101323	Total/NA	Water	8260D	
MB 400-646595/5	Method Blank	Total/NA	Water	8260D	
LCS 400-646595/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-3	MW10-R0X-101323	Total/NA	Water	3520C	
400-245066-4	ROST4PZE-R0X-101323	Total/NA	Water	3520C	
400-245066-5	MW2-ROX-101323-EB	Total/NA	Water	3520C	
400-245066-6	MW2-ROX-101323	Total/NA	Water	3520C	
MB 400-646105/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646105/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646105/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646105/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646105/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646105/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646105/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 646410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-3	MW10-R0X-101323	Total/NA	Water	8270E	646105
400-245066-4	ROST4PZE-R0X-101323	Total/NA	Water	8270E	646105
400-245066-5	MW2-ROX-101323-EB	Total/NA	Water	8270E	646105
400-245066-6	MW2-ROX-101323	Total/NA	Water	8270E	646105
MB 400-646105/1-A	Method Blank	Total/NA	Water	8270E	646105
LCS 400-646105/2-A	Lab Control Sample	Total/NA	Water	8270E	646105
LCS 400-646105/4-A	Lab Control Sample	Total/NA	Water	8270E	646105
LCSD 400-646105/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646105
LCSD 400-646105/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646105

Analysis Batch: 646527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-3	MW10-R0X-101323	Total/NA	Water	8270E SIM	646105
400-245066-4	ROST4PZE-R0X-101323	Total/NA	Water	8270E SIM	646105
400-245066-5	MW2-ROX-101323-EB	Total/NA	Water	8270E SIM	646105
400-245066-6	MW2-ROX-101323	Total/NA	Water	8270E SIM	646105
LCS 400-646105/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646105
LCSD 400-646105/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646105

Analysis Batch: 646684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-646105/1-A	Method Blank	Total/NA	Water	8270E SIM	646105

GC/MS Semi VOA

Analysis Batch: 647132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-6	MW2-ROX-101323	Total/NA	Water	8270E SIM	646105

Prep Batch: 647260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-3 - RERA	MW10-R0X-101323	Total/NA	Water	3520C	
400-245066-4 - RERA	ROST4PZE-R0X-101323	Total/NA	Water	3520C	
400-245066-5 - RERA	MW2-ROX-101323-EB	Total/NA	Water	3520C	
400-245066-6 - RERA	MW2-ROX-101323	Total/NA	Water	3520C	
MB 400-647260/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-647260/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-647260/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 647620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-3 - RERA	MW10-R0X-101323	Total/NA	Water	8270E SIM	647260
400-245066-4 - RERA	ROST4PZE-R0X-101323	Total/NA	Water	8270E SIM	647260
400-245066-5 - RERA	MW2-ROX-101323-EB	Total/NA	Water	8270E SIM	647260
400-245066-6 - RERA	MW2-ROX-101323	Total/NA	Water	8270E SIM	647260
MB 400-647260/1-A	Method Blank	Total/NA	Water	8270E SIM	647260
LCS 400-647260/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	647260
LCSD 400-647260/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	647260

GC Semi VOA

Prep Batch: 645805

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-2	TB-ROX-101323-8011	Total/NA	Water	8011	
400-245066-3	MW10-R0X-101323	Total/NA	Water	8011	
400-245066-4	ROST4PZE-R0X-101323	Total/NA	Water	8011	
400-245066-5	MW2-ROX-101323-EB	Total/NA	Water	8011	
MB 400-645805/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-645805/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-645805/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 645864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-6	MW2-ROX-101323	Total/NA	Water	8011	
MB 400-645864/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-645864/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-645864/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 645889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245066-2	TB-ROX-101323-8011	Total/NA	Water	8011	645805
400-245066-3	MW10-R0X-101323	Total/NA	Water	8011	645805
400-245066-4	ROST4PZE-R0X-101323	Total/NA	Water	8011	645805
400-245066-5	MW2-ROX-101323-EB	Total/NA	Water	8011	645805
400-245066-6	MW2-ROX-101323	Total/NA	Water	8011	645864
MB 400-645805/1-A	Method Blank	Total/NA	Water	8011	645805
MB 400-645864/1-A	Method Blank	Total/NA	Water	8011	645864
LCS 400-645805/2-A	Lab Control Sample	Total/NA	Water	8011	645805

GC Semi VOA (Continued)

Analysis Batch: 645889 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-645864/2-A	Lab Control Sample	Total/NA	Water	8011	645864
LCSD 400-645805/3-A	Lab Control Sample Dup	Total/NA	Water	8011	645805
LCSD 400-645864/3-A	Lab Control Sample Dup	Total/NA	Water	8011	645864

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646595/5
Matrix: Water
Analysis Batch: 646595

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			10/21/23 11:16	1
Acrolein	ND		20	3.3	ug/L			10/21/23 11:16	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 11:16	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 11:16	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 11:16	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 11:16	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 11:16	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 11:16	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 11:16	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 11:16	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 11:16	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 11:16	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 11:16	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 11:16	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 11:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 11:16	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 11:16	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 11:16	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 11:16	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 11:16	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 11:16	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 11:16	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 11:16	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 11:16	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 11:16	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 11:16	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 11:16	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 11:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 11:16	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 11:16	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 11:16	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 11:16	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 11:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 11:16	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 11:16	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 11:16	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 11:16	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646595/5
Matrix: Water
Analysis Batch: 646595

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			10/21/23 11:16	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 11:16	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 11:16	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 11:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 11:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 11:16	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 11:16	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 11:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 11:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 11:16	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 11:16	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 11:16	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 11:16	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 11:16	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 11:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 11:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 11:16	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 11:16	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 130*		*10/21/23 11:16*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*10/21/23 11:16*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*10/21/23 11:16*	*1*

Lab Sample ID: LCS 400-646595/1002
Matrix: Water
Analysis Batch: 646595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	206		ug/L		103	43 - 160
Acrolein	500	537		ug/L		107	38 - 160
Acrylonitrile	500	424		ug/L		85	64 - 142
Benzene	50.0	48.4		ug/L		97	70 - 130
Bromobenzene	50.0	53.7		ug/L		107	70 - 132
Bromochloromethane	50.0	54.5		ug/L		109	70 - 130
Bromodichloromethane	50.0	52.2		ug/L		104	67 - 133
Bromoform	50.0	53.8		ug/L		108	57 - 140
Bromomethane	50.0	47.0		ug/L		94	10 - 160
2-Butanone (MEK)	200	205		ug/L		102	61 - 145
Carbon disulfide	50.0	39.9		ug/L		80	61 - 137
Carbon tetrachloride	50.0	50.2		ug/L		100	61 - 137
Chlorobenzene	50.0	52.2		ug/L		104	70 - 130
Chloroethane	50.0	58.3		ug/L		117	55 - 141
2-Chloroethyl vinyl ether	50.0	67.0		ug/L		134	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646595/1002
Matrix: Water
Analysis Batch: 646595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	50.4		ug/L		101	69 - 130
1-Chlorohexane	50.0	47.1		ug/L		94	69 - 130
Chloromethane	50.0	44.5		ug/L		89	58 - 137
cis-1,2-Dichloroethene	50.0	46.9		ug/L		94	68 - 130
cis-1,3-Dichloropropene	50.0	51.4		ug/L		103	69 - 132
Dibromochloromethane	50.0	56.7		ug/L		113	67 - 135
1,2-Dichlorobenzene	50.0	56.2		ug/L		112	67 - 130
1,3-Dichlorobenzene	50.0	55.1		ug/L		110	70 - 130
1,4-Dichlorobenzene	50.0	56.1		ug/L		112	70 - 130
Dichlorodifluoromethane	50.0	53.8		ug/L		108	41 - 146
1,1-Dichloroethane	50.0	46.5		ug/L		93	70 - 130
1,2-Dichloroethane	50.0	54.0		ug/L		108	69 - 130
1,1-Dichloroethene	50.0	45.5		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	49.1		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	56.6		ug/L		113	70 - 130
2,2-Dichloropropane	50.0	42.9		ug/L		86	52 - 135
1,1-Dichloropropene	50.0	47.8		ug/L		96	70 - 130
Ethylbenzene	50.0	52.5		ug/L		105	70 - 130
Ethyl methacrylate	50.0	53.8		ug/L		108	68 - 130
Hexachlorobutadiene	50.0	53.8		ug/L		108	53 - 140
2-Hexanone	200	203		ug/L		101	65 - 137
Isopropylbenzene	50.0	53.6		ug/L		107	70 - 130
Methylene bromide	50.0	54.7		ug/L		109	70 - 130
Methylene Chloride	50.0	48.9		ug/L		98	66 - 135
4-Methyl-2-pentanone (MIBK)	200	191		ug/L		95	69 - 138
Methyl tert-butyl ether	50.0	49.7		ug/L		99	66 - 130
m-Xylene & p-Xylene	50.0	52.9		ug/L		106	70 - 130
Naphthalene	50.0	51.6		ug/L		103	47 - 149
n-Butylbenzene	50.0	60.9		ug/L		122	67 - 130
N-Propylbenzene	50.0	54.0		ug/L		108	70 - 130
o-Chlorotoluene	50.0	56.7		ug/L		113	70 - 130
o-Xylene	50.0	53.8		ug/L		108	70 - 130
p-Chlorotoluene	50.0	54.4		ug/L		109	70 - 130
p-Isopropyltoluene	50.0	55.1		ug/L		110	65 - 130
sec-Butylbenzene	50.0	54.2		ug/L		108	66 - 130
Styrene	50.0	52.3		ug/L		105	70 - 130
tert-Butylbenzene	50.0	52.4		ug/L		105	64 - 139
1,1,1,2-Tetrachloroethane	50.0	54.6		ug/L		109	67 - 131
1,1,2,2-Tetrachloroethane	50.0	55.4		ug/L		111	70 - 131
Tetrachloroethene	50.0	43.7		ug/L		87	65 - 130
Toluene	50.0	49.4		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	47.2		ug/L		94	70 - 130
trans-1,3-Dichloropropene	50.0	54.7		ug/L		109	63 - 130
1,2,3-Trichlorobenzene	50.0	50.2		ug/L		100	60 - 138
1,2,4-Trichlorobenzene	50.0	49.8		ug/L		100	60 - 140
1,1,1-Trichloroethane	50.0	47.5		ug/L		95	68 - 130
1,1,2-Trichloroethane	50.0	56.7		ug/L		113	70 - 130
Trichloroethene	50.0	48.8		ug/L		98	70 - 130
Trichlorofluoromethane	50.0	57.5		ug/L		115	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646595/1002
Matrix: Water
Analysis Batch: 646595

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	53.8		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	50.0	52.8		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	50.0	52.7		ug/L		105	69 - 130
Vinyl acetate	100	159		ug/L		159	26 - 160
Vinyl chloride	50.0	49.9		ug/L		100	59 - 136
Xylenes, Total	100	107		ug/L		107	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 130*
Dibromofluoromethane	*105*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzenethiol	ND		10	1.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzoic acid	ND		30	7.3	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 12:44	10/20/23 10:45	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chloroaniline	ND		10	3.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Chlorophenol	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Diethyl phthalate	0.500	J	10	0.24	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 10:45	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachloroethane	ND		10	4.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
Indene	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Isophorone	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Nitrophenol	ND		10	5.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 12:44	10/20/23 10:45	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
Phenol	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
Pyridine	ND		10	3.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
Quinoline	ND		10	4.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
2-Fluorophenol	*21*		*13 - 113*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Phenol-d5	*52*		*17 - 127*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Terphenyl-d14	*100*		*44 - 149*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*10/18/23 12:44*	*10/20/23 10:45*	*1*

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	87.5		ug/L		73	21 - 120
Benzoic acid	522	246		ug/L		47	10 - 144
Benzyl alcohol	120	82.2		ug/L		68	28 - 120
Bis(2-chloroethoxy)methane	120	76.2		ug/L		64	47 - 120
Bis(2-chloroethyl)ether	120	71.9		ug/L		60	44 - 120
bis (2-chloroisopropyl) ether	120	76.4		ug/L		64	33 - 121
Bis(2-ethylhexyl) phthalate	120	89.0		ug/L		74	52 - 147
4-Bromophenyl phenyl ether	120	94.1		ug/L		78	54 - 122
Butyl benzyl phthalate	120	91.8		ug/L		76	54 - 133
4-Chloroaniline	120	77.2		ug/L		64	26 - 120
4-Chloro-3-methylphenol	120	90.5		ug/L		75	48 - 131

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

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	90.6		ug/L		75	52 - 121
2-Chlorophenol	120	74.4		ug/L		62	40 - 120
4-Chlorophenyl phenyl ether	120	100		ug/L		84	56 - 125
Dibenz[a,h]acridine	120	104		ug/L		87	31 - 150
Dibenzofuran	120	98.4		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	140		ug/L		87	36 - 132
2,4-Dichlorophenol	120	88.9		ug/L		74	49 - 120
Diethyl phthalate	120	99.4		ug/L		83	50 - 137
2,4-Dimethylphenol	120	90.5		ug/L		75	48 - 120
Dimethyl phthalate	120	93.9		ug/L		78	57 - 124
Di-n-butyl phthalate	120	105		ug/L		87	58 - 126
4,6-Dinitro-ortho-cresol	240	214		ug/L		89	23 - 148
2,4-Dinitrophenol	240	222		ug/L		93	10 - 150
2,4-Dinitrotoluene	120	104		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	100		ug/L		83	55 - 130
Di-n-octyl phthalate	120	88.8		ug/L		74	57 - 138
1,4-Dioxane	120	56.7		ug/L		47	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	79.7		ug/L		66	45 - 124
Hexachlorobenzene	120	101		ug/L		84	52 - 129
Hexachlorocyclopentadiene	120	67.5		ug/L		56	10 - 134
Hexachloroethane	120	84.1		ug/L		70	20 - 120
Indene	120	92.4		ug/L		77	49 - 120
Isophorone	120	78.3		ug/L		65	48 - 120
2-Methylphenol	120	87.6		ug/L		73	46 - 124
3 & 4 Methylphenol	120	85.1		ug/L		71	45 - 120
2-Nitroaniline	120	89.7		ug/L		75	51 - 145
3-Nitroaniline	120	82.9		ug/L		69	37 - 127
4-Nitroaniline	120	104		ug/L		87	36 - 137
Nitrobenzene	120	76.2		ug/L		64	45 - 120
2-Nitrophenol	120	92.1		ug/L		77	40 - 124
4-Nitrophenol	240	191		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	79.7		ug/L		66	29 - 137
N-Nitrosodi-n-propylamine	120	84.9		ug/L		71	45 - 120
N-Nitrosodiphenylamine	119	86.7		ug/L		73	54 - 120
Pentachlorophenol	240	183		ug/L		76	31 - 130
Phenol	120	74.3		ug/L		62	11 - 120
Pyridine	240	129		ug/L		54	16 - 120
Quinoline	120	93.4		ug/L		78	49 - 130
2,4,5-Trichlorophenol	120	104		ug/L		86	51 - 136
2,4,6-Trichlorophenol	120	94.8		ug/L		79	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*42*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*

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

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*26 - 150*

Lab Sample ID: LCS 400-646105/4-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.31	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*66*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*44*		*26 - 150*

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	79.2		ug/L		66	21 - 120	10	30
Benzoic acid			522	80.0	*1	ug/L		15	10 - 144	102	30
Benzyl alcohol			120	74.7		ug/L		62	28 - 120	10	30
Bis(2-chloroethoxy)methane			120	72.9		ug/L		61	47 - 120	5	30
Bis(2-chloroethyl)ether			120	69.7		ug/L		58	44 - 120	3	30
bis (2-chloroisopropyl) ether			120	72.8		ug/L		61	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	85.0		ug/L		71	52 - 147	5	30
4-Bromophenyl phenyl ether			120	90.5		ug/L		75	54 - 122	4	30
Butyl benzyl phthalate			120	87.5		ug/L		73	54 - 133	5	30
4-Chloroaniline			120	73.8		ug/L		62	26 - 120	4	30
4-Chloro-3-methylphenol			120	75.0		ug/L		62	48 - 131	19	30
2-Chloronaphthalene			120	87.1		ug/L		73	52 - 121	4	30
2-Chlorophenol			120	37.1	*- *1	ug/L		31	40 - 120	67	30
4-Chlorophenyl phenyl ether			120	95.0		ug/L		79	56 - 125	5	30
Dibenz[a,h]acridine			120	102		ug/L		85	31 - 150	2	30
Dibenzofuran			120	93.1		ug/L		78	56 - 122	6	30
3,3'-Dichlorobenzidine			160	133		ug/L		83	36 - 132	5	30
2,4-Dichlorophenol			120	64.2	*1	ug/L		53	49 - 120	32	30
Diethyl phthalate			120	93.6		ug/L		78	50 - 137	6	30
2,4-Dimethylphenol			120	81.0		ug/L		67	48 - 120	11	30
Dimethyl phthalate			120	89.1		ug/L		74	57 - 124	5	30
Di-n-butyl phthalate			120	99.7		ug/L		83	58 - 126	5	30
4,6-Dinitro-ortho-cresol			240	181		ug/L		75	23 - 148	17	30
2,4-Dinitrophenol			240	160	*1	ug/L		67	10 - 150	32	30
2,4-Dinitrotoluene			120	96.1		ug/L		80	54 - 142	8	30
2,6-Dinitrotoluene			120	94.1		ug/L		78	55 - 130	6	30

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

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	84.9		ug/L		71	57 - 138	5	30
1,4-Dioxane			120	52.5		ug/L		44	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)			120	77.8		ug/L		65	45 - 124	2	30
Hexachlorobenzene			120	96.3		ug/L		80	52 - 129	5	30
Hexachlorocyclopentadiene			120	56.9		ug/L		47	10 - 134	17	30
Hexachloroethane			120	75.1		ug/L		63	20 - 120	11	30
Indene			120	85.5		ug/L		71	49 - 120	8	30
Isophorone			120	73.6		ug/L		61	48 - 120	6	30
2-Methylphenol			120	69.2		ug/L		58	46 - 124	23	30
3 & 4 Methylphenol			120	66.0		ug/L		55	45 - 120	25	30
2-Nitroaniline			120	84.5		ug/L		70	51 - 145	6	30
3-Nitroaniline			120	78.5		ug/L		65	37 - 127	5	30
4-Nitroaniline			120	94.1		ug/L		78	36 - 137	10	30
Nitrobenzene			120	71.7		ug/L		60	45 - 120	6	30
2-Nitrophenol			120	66.0	*1	ug/L		55	40 - 124	33	30
4-Nitrophenol			240	160		ug/L		67	23 - 146	17	30
N-Nitrosodimethylamine			120	72.7		ug/L		61	29 - 137	9	30
N-Nitrosodi-n-propylamine			120	79.6		ug/L		66	45 - 120	6	30
N-Nitrosodiphenylamine			119	82.2		ug/L		69	54 - 120	5	30
Pentachlorophenol			240	163		ug/L		68	31 - 130	11	30
Phenol			120	44.3	*1	ug/L		37	11 - 120	51	30
Pyridine			240	123		ug/L		51	16 - 120	5	30
Quinoline			120	87.2		ug/L		73	49 - 130	7	30
2,4,5-Trichlorophenol			120	88.9		ug/L		74	51 - 136	15	30
2,4,6-Trichlorophenol			120	80.7		ug/L		67	50 - 127	16	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*11*	*S1-*	*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*38*		*17 - 127*
Terphenyl-d14	*83*		*44 - 149*
2,4,6-Tribromophenol	*88*		*26 - 150*

Lab Sample ID: LCSD 400-646105/5-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.00	J *-	ug/L		3	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*62*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*

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

Lab Sample ID: LCSD 400-646105/5-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*65*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646684

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/18/23 12:44	10/23/23 14:23	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 12:44	10/23/23 14:23	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[a]anthracene	0.0695	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[b]fluoranthene	0.143	J	0.20	0.037	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[k]fluoranthene	0.0860	J	0.20	0.062	ug/L		10/18/23 12:44	10/23/23 14:23	1
Chrysene	0.0977	J	0.20	0.033	ug/L		10/18/23 12:44	10/23/23 14:23	1
Dibenz(a,h)anthracene	0.0866	J	0.20	0.048	ug/L		10/18/23 12:44	10/23/23 14:23	1
Fluoranthene	0.0812	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Fluorene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/23/23 14:23	1
Indeno[1,2,3-cd]pyrene	0.109	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Phenanthrene	ND		0.20	0.090	ug/L		10/18/23 12:44	10/23/23 14:23	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/23/23 14:23	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/18/23 12:44	10/23/23 14:23	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/18/23 12:44	10/23/23 14:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*18 - 147*	*10/18/23 12:44*	*10/23/23 14:23*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*10/18/23 12:44*	*10/23/23 14:23*	*1*
Nitrobenzene-d5	*60*		*10 - 144*	*10/18/23 12:44*	*10/23/23 14:23*	*1*

Lab Sample ID: LCS 400-646105/6-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.43		ug/L		71	40 - 140
Acenaphthylene	2.00	1.39		ug/L		69	40 - 140
Anthracene	2.00	1.46		ug/L		73	40 - 140
Benzo[a]anthracene	2.00	1.31		ug/L		66	40 - 140
Benzo[a]pyrene	2.00	1.11		ug/L		55	40 - 140
Benzo[b]fluoranthene	2.00	1.34		ug/L		67	40 - 140
Benzo[g,h,i]perylene	2.00	1.32		ug/L		66	40 - 140
Benzo[k]fluoranthene	2.00	1.33		ug/L		67	40 - 140
Chrysene	2.00	1.31		ug/L		65	40 - 140
Dibenz(a,h)anthracene	2.00	1.37		ug/L		68	40 - 140
Fluoranthene	2.00	1.53		ug/L		77	40 - 140

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-646105/6-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	2.00	1.41		ug/L		70	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.32		ug/L		66	40 - 140
Phenanthrene	2.00	1.69		ug/L		84	40 - 140
Pyrene	2.00	1.54		ug/L		77	40 - 140
1-Methylnaphthalene	2.00	1.36		ug/L		68	40 - 140
2-Methylnaphthalene	2.00	1.39		ug/L		70	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*115*		*18 - 147*
2-Fluorobiphenyl	*80*		*15 - 128*
Nitrobenzene-d5	*52*		*10 - 144*

Lab Sample ID: LCSD 400-646105/7-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.72		ug/L		86	40 - 140	18	40
Acenaphthylene	2.00	1.76		ug/L		88	40 - 140	23	40
Anthracene	2.00	1.68		ug/L		84	40 - 140	15	40
Benzo[a]anthracene	2.00	1.57		ug/L		79	40 - 140	18	40
Benzo[a]pyrene	2.00	1.32		ug/L		66	40 - 140	17	40
Benzo[b]fluoranthene	2.00	1.59		ug/L		79	40 - 140	17	40
Benzo[g,h,i]perylene	2.00	1.46		ug/L		73	40 - 140	10	40
Benzo[k]fluoranthene	2.00	1.48		ug/L		74	40 - 140	10	40
Chrysene	2.00	1.39		ug/L		69	40 - 140	6	40
Dibenz(a,h)anthracene	2.00	1.46		ug/L		73	40 - 140	7	40
Fluoranthene	2.00	1.81		ug/L		90	40 - 140	16	40
Fluorene	2.00	1.68		ug/L		84	40 - 140	18	40
Indeno[1,2,3-cd]pyrene	2.00	1.44		ug/L		72	40 - 140	9	40
Phenanthrene	2.00	1.87		ug/L		94	40 - 140	10	40
Pyrene	2.00	1.73		ug/L		86	40 - 140	11	40
1-Methylnaphthalene	2.00	1.62		ug/L		81	40 - 140	18	40
2-Methylnaphthalene	2.00	1.71		ug/L		86	40 - 140	21	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*134*		*18 - 147*
2-Fluorobiphenyl	*77*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Lab Sample ID: MB 400-647260/1-A
Matrix: Water
Analysis Batch: 647620

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 647260

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/26/23 08:57	10/27/23 18:14	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/26/23 08:57	10/27/23 18:14	1
Anthracene	ND		0.20	0.047	ug/L		10/26/23 08:57	10/27/23 18:14	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-647260/1-A
Matrix: Water
Analysis Batch: 647620

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 647260

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/26/23 08:57	10/27/23 18:14	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/26/23 08:57	10/27/23 18:14	1
Chrysene	ND		0.20	0.033	ug/L		10/26/23 08:57	10/27/23 18:14	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/26/23 08:57	10/27/23 18:14	1
Fluoranthene	ND		0.20	0.034	ug/L		10/26/23 08:57	10/27/23 18:14	1
Fluorene	ND		0.20	0.089	ug/L		10/26/23 08:57	10/27/23 18:14	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/26/23 08:57	10/27/23 18:14	1
Phenanthrene	ND		0.20	0.090	ug/L		10/26/23 08:57	10/27/23 18:14	1
Pyrene	ND		0.20	0.039	ug/L		10/26/23 08:57	10/27/23 18:14	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/26/23 08:57	10/27/23 18:14	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/26/23 08:57	10/27/23 18:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*100*		*18 - 147*	*10/26/23 08:57*	*10/27/23 18:14*	*1*
2-Fluorobiphenyl	*75*		*15 - 128*	*10/26/23 08:57*	*10/27/23 18:14*	*1*
Nitrobenzene-d5	*62*		*10 - 144*	*10/26/23 08:57*	*10/27/23 18:14*	*1*

Lab Sample ID: LCS 400-647260/2-A
Matrix: Water
Analysis Batch: 647620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647260

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.82		ug/L		91	40 - 140
Acenaphthylene	2.00	1.89		ug/L		94	40 - 140
Anthracene	2.00	1.83		ug/L		92	40 - 140
Benzo[a]anthracene	2.00	1.86		ug/L		93	40 - 140
Benzo[a]pyrene	2.00	1.42		ug/L		71	40 - 140
Benzo[b]fluoranthene	2.00	1.46		ug/L		73	40 - 140
Benzo[g,h,i]perylene	2.00	1.64		ug/L		82	40 - 140
Benzo[k]fluoranthene	2.00	1.54		ug/L		77	40 - 140
Chrysene	2.00	2.00		ug/L		100	40 - 140
Dibenz(a,h)anthracene	2.00	1.39		ug/L		69	40 - 140
Fluoranthene	2.00	1.71		ug/L		85	40 - 140
Fluorene	2.00	1.81		ug/L		91	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.48		ug/L		74	40 - 140
Phenanthrene	2.00	1.79		ug/L		89	40 - 140
Pyrene	2.00	2.20		ug/L		110	40 - 140
1-Methylnaphthalene	2.00	1.90		ug/L		95	40 - 140
2-Methylnaphthalene	2.00	1.86		ug/L		93	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*96*		*18 - 147*
2-Fluorobiphenyl	*75*		*15 - 128*
Nitrobenzene-d5	*64*		*10 - 144*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-647260/3-A
Matrix: Water
Analysis Batch: 647620

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 647260

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.82		ug/L		91	40 - 140	0	40
Acenaphthylene			2.00	1.88		ug/L		94	40 - 140	1	40
Anthracene			2.00	1.82		ug/L		91	40 - 140	0	40
Benzo[a]anthracene			2.00	1.80		ug/L		90	40 - 140	3	40
Benzo[a]pyrene			2.00	1.42		ug/L		71	40 - 140	1	40
Benzo[b]fluoranthene			2.00	1.52		ug/L		76	40 - 140	4	40
Benzo[g,h,i]perylene			2.00	1.57		ug/L		78	40 - 140	5	40
Benzo[k]fluoranthene			2.00	1.52		ug/L		76	40 - 140	1	40
Chrysene			2.00	1.90		ug/L		95	40 - 140	5	40
Dibenz(a,h)anthracene			2.00	1.26		ug/L		63	40 - 140	9	40
Fluoranthene			2.00	1.68		ug/L		84	40 - 140	2	40
Fluorene			2.00	1.83		ug/L		91	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			2.00	1.39		ug/L		70	40 - 140	6	40
Phenanthrene			2.00	1.75		ug/L		87	40 - 140	2	40
Pyrene			2.00	2.09		ug/L		104	40 - 140	5	40
1-Methylnaphthalene			2.00	1.80		ug/L		90	40 - 140	5	40
2-Methylnaphthalene			2.00	1.75		ug/L		88	40 - 140	6	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*93*		*18 - 147*
2-Fluorobiphenyl	*73*		*15 - 128*
Nitrobenzene-d5	*60*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-645805/1-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645805

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 07:05	10/17/23 14:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 07:05	10/17/23 14:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*10/17/23 07:05*	*10/17/23 14:00*	*1*

Lab Sample ID: LCS 400-645805/2-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645805

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.114		ug/L		114	60 - 140		
1,2-Dibromoethane			0.101	0.114		ug/L		113	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-645805/3-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645805

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.106		ug/L		106	60 - 140	7	30
1,2-Dibromoethane			0.101	0.105		ug/L		104	60 - 140	9	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*51 - 149*

Lab Sample ID: MB 400-645864/1-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 10:40	10/17/23 22:44	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 10:40	10/17/23 22:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*10/17/23 10:40*	*10/17/23 22:44*	*1*

Lab Sample ID: LCS 400-645864/2-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645864

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.111		ug/L		110	60 - 140		
1,2-Dibromoethane			0.101	0.114		ug/L		114	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*51 - 149*

Lab Sample ID: LCSD 400-645864/3-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645864

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.114		ug/L		113	60 - 140	3	30
1,2-Dibromoethane			0.101	0.109		ug/L		108	60 - 140	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

400-245066 COC

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica 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: 10/13/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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	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 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 0.0 IR8

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 8270 SIMS
	TB-ROX-101323-8260	10/13/2023	0000	Water	2					2	X			
	TB-ROX-101323-8011	10/13/2023	0000	Water	2					2		X		
	MW10-ROX-101323	10/13/2023	0945	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-101323	10/13/2023	1050	Water	6			2		8	X	X	X	X
	MW2-ROX-101323-EB	10/13/2023	1140	Water	6			2		8	X	X	X	X
	MW2-ROX-101323	10/13/2023	1350	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 6339 6595 3167	10/13/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 10.14 23	Time: 8:05
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 2364885, 2364884

Version: 27Sept23

Page 53 of 55

12/18/2023 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-245066-1

Login Number: 245066
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 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: 400-245066-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245131-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/14/2023

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

Sample Identification	Sample Identification
TB-ROX-042123-8260-SS	P93D-ROX-101623
TB-ROX-042123-8011-SS	P93C-ROX-101623

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 several PAHs were detected in the method blanks. LCS/LCSD recoveries for several analytes were outside evaluation criteria. The continuing calibration verifications (CCV) for several analytes 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 400-646105/1-A	SVOCs	Diethyl phthalate	0.500 µg/L
MB 400-646105/1-A	PAHs	Benzo[a]anthracene	0.0695 µg/L
MB 400-646105/1-A	PAHs	Benzo[b]fluoranthene	0.143 µg/L
MB 400-646105/1-A	PAHs	Benzo[k]fluoranthene	0.0860 µg/L
MB 400-646105/1-A	PAHs	Chrysene	0.0977 µg/L
MB 400-646105/1-A	PAHs	Dibenz(a,h)anthracene	0.0866 µg/L

Blank ID	Parameter	Analyte	Concentration/Amount
MB 400-646105/1-A	PAHs	Fluoranthene	0.0812 µg/L
MB 400-646105/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.109 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-101623	PAHs	Benzo[a]anthracene	-	**U**
P93D-ROX-101623	PAHs	Chrysene	-	**U**
P93D-ROX-101623	PAHs	Fluoranthene	-	**U**
P93C-ROX-101623	PAHs	Benzo[a]anthracene	-	**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 400-646105/2-A/3-A	SVOCs	Benzoic acid	47/15	**102**	10-144/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2-Chlorophenol	62/**31**	**67**	40-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2,4-Dichlorophenol	74/53	**32**	49-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2,4-Dinitrophenol	93/67	**32**	10-150/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2-Nitrophenol	77/55	**33**	40-124/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	Phenol	62/37	**51**	11-120/30
LCS/LCSD 400-646105/4-A/ 5-A	SVOCs	Benzenethiol	**3/3**	10	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. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-101623	SVOCs	2-Chlorophenol	**UJ**
P93C-ROX-101623	SVOCs	2-Chlorophenol	**UJ**
P93D-ROX-101623	SVOCs	Benzenethiol	**UJ**
P93C-ROX-101623	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P93D-ROX-101623	SVOCs	2-Fluorophenol	**10**	13-113
LCSD 400-646105/3-A	SVOCs	2- Fluorophenol	**11**	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. Laboratory control sample duplicates 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 verifications (CCV) for multiple analytes were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-101623	SVOCs	Benzyl alcohol	**UJ**
P93D-ROX-101623	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93D-ROX-101623	SVOCs	Di-n-octyl phthalate	**UJ**
P93C-ROX-101623	SVOCs	Benzyl alcohol	**UJ**
P93C-ROX-101623	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93C-ROX-101623	SVOCs	Di-n-octyl phthalate	**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 10/30/2023 5:39:57 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245131-1

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

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Job ID: 400-245131-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-245131-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/17/2023 8:55 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 0.0°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646595 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 8260D: 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 (400-245131-1), P93D-ROX-101623 (400-245131-3) and P93C-ROX-101623 (400-245131-4). 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 8260D: The initial calibration verification (ICV) analyzed in batch 400-625791 was outside method criteria for the following analyte(s): Hexachlorobutadiene. 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-646410 recovered outside acceptance criteria, low biased, for Benzyl alcohol, Di-n-octyl phthalate 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 8270E: The method blank for preparation batch 400-646105 and analytical batch 400-646410 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646105 and analytical batch 400-646410 recovered outside control limits for the following analytes: 2,4-Dichlorophenol, 2,4-Dinitrophenol, 2-Chlorophenol, 2-Nitrophenol, Benzoic acid and Phenol.

Method 8270E: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-646105 and analytical batch 400-646410: 2-Chlorophenol. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Job ID: 400-245131-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646105 and analytical batch 400-646410 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 8270E: 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-101623 (400-245131-3). These results have been reported and qualified.

Method 8270E: 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 LCSD contained an allowable number of surrogate compounds outside limits: (LCSD 400-646105/3-A). These results have been reported and qualified.

Method 8270E_SIM: The method blank for preparation batch 400-646105 and analytical batch 400-646684 contained Indeno[1,2,3-cd]pyrene, Benzo[b]fluoranthene, Fluoranthene, Benzo[k]fluoranthene, Chrysene, Benzo[a]anthracene and Dibenz(a,h)anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; 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

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: 400-245131-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245131-1	TB-ROX-042123-8260-SS	Water	10/16/23 12:00	10/17/23 08:55
400-245131-2	TB-ROX-042123-8011-SS	Water	10/16/23 12:00	10/17/23 08:55
400-245131-3	P93D-ROX-101623	Water	10/16/23 12:45	10/17/23 08:55
400-245131-4	P93C-ROX-101623	Water	10/16/23 13:35	10/17/23 08:55

Detection Summary

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

Job ID: 400-245131-1

Client Sample ID: TB-ROX-042123-8260-SS — Lab Sample ID: 400-245131-1

No Detections.

Client Sample ID: TB-ROX-042123-8011-SS — Lab Sample ID: 400-245131-2

No Detections.

Client Sample ID: P93D-ROX-101623 — Lab Sample ID: 400-245131-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.53	J	1.0	0.22	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.093	J B	0.20	0.035	ug/L	1		8270E SIM	Total/NA
Chrysene	0.041	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.14	J B	0.20	0.035	ug/L	1		8270E SIM	Total/NA
Pyrene	0.043	J	0.20	0.040	ug/L	1		8270E SIM	Total/NA

Client Sample ID: P93C-ROX-101623 — Lab Sample ID: 400-245131-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	13		1.0	0.50	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	2.5		1.0	0.22	ug/L	1		8260D	Total/NA
Acenaphthylene	0.18	J	0.21	0.045	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.038	J B	0.21	0.035	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245131-1

Client Sample ID: TB-ROX-042123-8260-SS
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/23 15:26	1
Acrolein	ND		20	3.3	ug/L			10/21/23 15:26	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 15:26	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 15:26	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 15:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 15:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 15:26	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 15:26	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 15:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 15:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 15:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 15:26	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 15:26	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 15:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 15:26	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 15:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 15:26	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 15:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 15:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 15:26	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 15:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 15:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 15:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 15:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 15:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 15:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 15:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 15:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 15:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 15:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 15:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 15:26	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 15:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 15:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 15:26	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 15:26	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 15:26	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 15:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 15:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 15:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 15:26	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 15:26	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 15:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 15:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 15:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 15:26	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 15:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 15:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/23 15:26	1

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

Job ID: 400-245131-1

Client Sample ID: TB-ROX-042123-8260-SS
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 15:26	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 15:26	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 15:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 15:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 15:26	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 15:26	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 15:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 15:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 15:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 15:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 15:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 15:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 15:26	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 15:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 15:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 15:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 15:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 15:26	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 15:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 15:26	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 130*		*10/21/23 15:26*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*10/21/23 15:26*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/21/23 15:26*	*1*

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

Job ID: 400-245131-1

Client Sample ID: TB-ROX-042123-8011-SS
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-2
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-Dibromo-3-Chloropropane	ND		0.031	0.017	ug/L		10/18/23 09:18	10/18/23 13:48	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*51 - 149*	*10/18/23 09:18*	*10/18/23 13:48*	*1*

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

Job ID: 400-245131-1

Client Sample ID: P93D-ROX-101623
Date Collected: 10/16/23 12:45
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/23 19:13	1
Acrolein	ND		20	3.3	ug/L			10/21/23 19:13	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 19:13	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 19:13	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 19:13	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 19:13	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 19:13	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 19:13	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 19:13	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 19:13	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 19:13	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 19:13	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 19:13	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 19:13	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 19:13	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 19:13	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 19:13	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 19:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 19:13	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 19:13	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 19:13	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 19:13	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 19:13	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 19:13	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 19:13	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 19:13	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 19:13	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 19:13	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:13	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:13	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:13	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 19:13	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 19:13	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 19:13	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 19:13	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 19:13	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 19:13	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 19:13	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 19:13	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 19:13	1
Methyl tert-butyl ether	**0.53**	**J**	1.0	0.22	ug/L			10/21/23 19:13	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 19:13	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 19:13	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 19:13	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 19:13	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 19:13	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 19:13	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 19:13	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/23 19:13	1

Client Sample ID: P93D-ROX-101623
Date Collected: 10/16/23 12:45
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 19:13	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 19:13	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 19:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 19:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 19:13	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 19:13	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 19:13	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 19:13	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 19:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 19:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 19:13	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 19:13	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 19:13	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 19:13	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 19:13	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 19:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 19:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 19:13	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 19:13	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 19:13	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 130*		*10/21/23 19:13*	*1*
Dibromofluoromethane	*115*		*75 - 126*		*10/21/23 19:13*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/21/23 19:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.10	ug/L		10/18/23 13:29	10/23/23 16:28	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/18/23 13:29	10/23/23 16:28	1
Anthracene	ND		0.20	0.048	ug/L		10/18/23 13:29	10/23/23 16:28	1
Benzo[a]anthracene	**0.093**	**J B**	0.20	0.035	ug/L		10/18/23 13:29	10/23/23 16:28	1
Benzo[a]pyrene	ND		0.20	0.065	ug/L		10/18/23 13:29	10/23/23 16:28	1
Benzo[b]fluoranthene	ND		0.20	0.038	ug/L		10/18/23 13:29	10/23/23 16:28	1
Benzo[g,h,i]perylene	ND		0.20	0.028	ug/L		10/18/23 13:29	10/23/23 16:28	1
Benzo[k]fluoranthene	ND		0.20	0.063	ug/L		10/18/23 13:29	10/23/23 16:28	1
Chrysene	**0.041**	**J B**	0.20	0.034	ug/L		10/18/23 13:29	10/23/23 16:28	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		10/18/23 13:29	10/23/23 16:28	1
Fluoranthene	**0.14**	**J B**	0.20	0.035	ug/L		10/18/23 13:29	10/23/23 16:28	1
Fluorene	ND		0.20	0.091	ug/L		10/18/23 13:29	10/23/23 16:28	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.035	ug/L		10/18/23 13:29	10/23/23 16:28	1
Phenanthrene	ND		0.20	0.092	ug/L		10/18/23 13:29	10/23/23 16:28	1
Pyrene	**0.043**	**J**	0.20	0.040	ug/L		10/18/23 13:29	10/23/23 16:28	1
1-Methylnaphthalene	ND		0.20	0.082	ug/L		10/18/23 13:29	10/23/23 16:28	1
2-Methylnaphthalene	ND		0.20	0.067	ug/L		10/18/23 13:29	10/23/23 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*64*		*18 - 147*	*10/18/23 13:29*	*10/23/23 16:28*	*1*
2-Fluorobiphenyl	*54*		*15 - 128*	*10/18/23 13:29*	*10/23/23 16:28*	*1*

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

Job ID: 400-245131-1

Client Sample ID: P93D-ROX-101623
Date Collected: 10/16/23 12:45
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*45*		*10 - 144*	*10/18/23 13:29*	*10/23/23 16:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		10/18/23 13:29	10/20/23 17:32	1
Benzenethiol	ND	*-	10	1.7	ug/L		10/18/23 13:29	10/20/23 17:32	1
Benzoic acid	ND	*1	31	7.5	ug/L		10/18/23 13:29	10/20/23 17:32	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 13:29	10/20/23 17:32	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 13:29	10/20/23 17:32	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		10/18/23 13:29	10/20/23 17:32	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 13:29	10/20/23 17:32	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		10/18/23 13:29	10/20/23 17:32	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 13:29	10/20/23 17:32	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 13:29	10/20/23 17:32	1
4-Chloroaniline	ND		10	3.5	ug/L		10/18/23 13:29	10/20/23 17:32	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		10/18/23 13:29	10/20/23 17:32	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 13:29	10/20/23 17:32	1
2-Chlorophenol	ND	*- *1	10	2.2	ug/L		10/18/23 13:29	10/20/23 17:32	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 13:29	10/20/23 17:32	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 17:32	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 17:32	1
3,3'-Dichlorobenzidine	ND		10	2.7	ug/L		10/18/23 13:29	10/20/23 17:32	1
2,4-Dichlorophenol	ND	*1	10	3.1	ug/L		10/18/23 13:29	10/20/23 17:32	1
Diethyl phthalate	ND		10	0.25	ug/L		10/18/23 13:29	10/20/23 17:32	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		10/18/23 13:29	10/20/23 17:32	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 17:32	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		10/18/23 13:29	10/20/23 17:32	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 13:29	10/20/23 17:32	1
2,4-Dinitrophenol	ND	*1	31	3.5	ug/L		10/18/23 13:29	10/20/23 17:32	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 13:29	10/20/23 17:32	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 13:29	10/20/23 17:32	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 17:32	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 17:32	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 17:32	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 17:32	1
Hexachlorocyclopentadiene	ND		20	2.7	ug/L		10/18/23 13:29	10/20/23 17:32	1
Hexachloroethane	ND		10	4.3	ug/L		10/18/23 13:29	10/20/23 17:32	1
Indene	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 17:32	1
Isophorone	ND		10	0.14	ug/L		10/18/23 13:29	10/20/23 17:32	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 13:29	10/20/23 17:32	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		10/18/23 13:29	10/20/23 17:32	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 13:29	10/20/23 17:32	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 13:29	10/20/23 17:32	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 13:29	10/20/23 17:32	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 13:29	10/20/23 17:32	1
2-Nitrophenol	ND	*1	10	5.3	ug/L		10/18/23 13:29	10/20/23 17:32	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 13:29	10/20/23 17:32	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		10/18/23 13:29	10/20/23 17:32	1

Client Sample ID: P93D-ROX-101623
Date Collected: 10/16/23 12:45
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		10/18/23 13:29	10/20/23 17:32	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 13:29	10/20/23 17:32	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 13:29	10/20/23 17:32	1
Phenol	ND	*1	10	2.7	ug/L		10/18/23 13:29	10/20/23 17:32	1
Pyridine	ND		10	3.3	ug/L		10/18/23 13:29	10/20/23 17:32	1
Quinoline	ND		10	4.6	ug/L		10/18/23 13:29	10/20/23 17:32	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		10/18/23 13:29	10/20/23 17:32	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		10/18/23 13:29	10/20/23 17:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*54*		*46 - 124*	*10/18/23 13:29*	*10/20/23 17:32*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*10/18/23 13:29*	*10/20/23 17:32*	*1*
Nitrobenzene-d5	*47*		*36 - 126*	*10/18/23 13:29*	*10/20/23 17:32*	*1*
Phenol-d5	*32*		*17 - 127*	*10/18/23 13:29*	*10/20/23 17:32*	*1*
Terphenyl-d14	*80*		*44 - 149*	*10/18/23 13:29*	*10/20/23 17:32*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*10/18/23 13:29*	*10/20/23 17:32*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/18/23 09:18	10/18/23 14:09	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*10/18/23 09:18*	*10/18/23 14:09*	*1*

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

Job ID: 400-245131-1

Client Sample ID: P93C-ROX-101623
Date Collected: 10/16/23 13:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/23 19:36	1
Acrolein	ND		20	3.3	ug/L			10/21/23 19:36	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 19:36	1
Benzene	**13**		1.0	0.50	ug/L			10/21/23 19:36	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 19:36	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 19:36	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 19:36	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 19:36	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 19:36	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 19:36	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 19:36	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 19:36	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 19:36	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 19:36	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 19:36	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 19:36	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 19:36	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 19:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 19:36	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 19:36	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 19:36	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 19:36	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 19:36	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 19:36	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 19:36	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 19:36	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 19:36	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 19:36	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:36	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:36	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 19:36	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 19:36	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 19:36	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 19:36	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 19:36	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 19:36	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 19:36	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 19:36	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 19:36	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 19:36	1
Methyl tert-butyl ether	**2.5**		1.0	0.22	ug/L			10/21/23 19:36	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 19:36	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 19:36	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 19:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 19:36	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 19:36	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 19:36	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 19:36	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/23 19:36	1

Client Sample ID: P93C-ROX-101623
Date Collected: 10/16/23 13:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 19:36	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 19:36	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 19:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 19:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 19:36	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 19:36	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 19:36	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 19:36	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 19:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 19:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 19:36	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 19:36	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 19:36	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 19:36	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 19:36	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 19:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 19:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 19:36	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 19:36	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 19:36	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 19:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 130*		*10/21/23 19:36*	*1*
Dibromofluoromethane	*115*		*75 - 126*		*10/21/23 19:36*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/21/23 19:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.21	0.10	ug/L		10/18/23 13:29	10/23/23 16:49	1
Acenaphthylene	**0.18**	**J**	0.21	0.045	ug/L		10/18/23 13:29	10/23/23 16:49	1
Anthracene	ND		0.21	0.049	ug/L		10/18/23 13:29	10/23/23 16:49	1
Benzo[a]anthracene	**0.038**	**J B**	0.21	0.035	ug/L		10/18/23 13:29	10/23/23 16:49	1
Benzo[a]pyrene	ND		0.21	0.066	ug/L		10/18/23 13:29	10/23/23 16:49	1
Benzo[b]fluoranthene	ND		0.21	0.038	ug/L		10/18/23 13:29	10/23/23 16:49	1
Benzo[g,h,i]perylene	ND		0.21	0.028	ug/L		10/18/23 13:29	10/23/23 16:49	1
Benzo[k]fluoranthene	ND		0.21	0.064	ug/L		10/18/23 13:29	10/23/23 16:49	1
Chrysene	ND		0.21	0.034	ug/L		10/18/23 13:29	10/23/23 16:49	1
Dibenz(a,h)anthracene	ND		0.21	0.050	ug/L		10/18/23 13:29	10/23/23 16:49	1
Fluoranthene	ND		0.21	0.035	ug/L		10/18/23 13:29	10/23/23 16:49	1
Fluorene	ND		0.21	0.092	ug/L		10/18/23 13:29	10/23/23 16:49	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.035	ug/L		10/18/23 13:29	10/23/23 16:49	1
Phenanthrene	ND		0.21	0.093	ug/L		10/18/23 13:29	10/23/23 16:49	1
Pyrene	ND		0.21	0.040	ug/L		10/18/23 13:29	10/23/23 16:49	1
1-Methylnaphthalene	ND		0.21	0.083	ug/L		10/18/23 13:29	10/23/23 16:49	1
2-Methylnaphthalene	ND		0.21	0.068	ug/L		10/18/23 13:29	10/23/23 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*59*		*18 - 147*	*10/18/23 13:29*	*10/23/23 16:49*	*1*
2-Fluorobiphenyl	*53*		*15 - 128*	*10/18/23 13:29*	*10/23/23 16:49*	*1*

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

Job ID: 400-245131-1

Client Sample ID: P93C-ROX-101623
Date Collected: 10/16/23 13:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*49*		*10 - 144*	*10/18/23 13:29*	*10/23/23 16:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		10/18/23 13:29	10/20/23 17:54	1
Benzenethiol	ND	*-	10	1.8	ug/L		10/18/23 13:29	10/20/23 17:54	1
Benzoic acid	ND	*1	31	7.5	ug/L		10/18/23 13:29	10/20/23 17:54	1
Benzyl alcohol	ND		10	2.1	ug/L		10/18/23 13:29	10/20/23 17:54	1
Bis(2-chloroethoxy)methane	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 17:54	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		10/18/23 13:29	10/20/23 17:54	1
bis (2-chloroisopropyl) ether	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 17:54	1
Bis(2-ethylhexyl) phthalate	ND		10	5.2	ug/L		10/18/23 13:29	10/20/23 17:54	1
4-Bromophenyl phenyl ether	ND		10	0.21	ug/L		10/18/23 13:29	10/20/23 17:54	1
Butyl benzyl phthalate	ND		10	0.20	ug/L		10/18/23 13:29	10/20/23 17:54	1
4-Chloroaniline	ND		10	3.5	ug/L		10/18/23 13:29	10/20/23 17:54	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		10/18/23 13:29	10/20/23 17:54	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 13:29	10/20/23 17:54	1
2-Chlorophenol	ND	*- *1	10	2.3	ug/L		10/18/23 13:29	10/20/23 17:54	1
4-Chlorophenyl phenyl ether	ND		10	2.1	ug/L		10/18/23 13:29	10/20/23 17:54	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 17:54	1
Dibenzofuran	ND		10	0.18	ug/L		10/18/23 13:29	10/20/23 17:54	1
3,3'-Dichlorobenzidine	ND		10	2.7	ug/L		10/18/23 13:29	10/20/23 17:54	1
2,4-Dichlorophenol	ND	*1	10	3.1	ug/L		10/18/23 13:29	10/20/23 17:54	1
Diethyl phthalate	ND		10	0.25	ug/L		10/18/23 13:29	10/20/23 17:54	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		10/18/23 13:29	10/20/23 17:54	1
Dimethyl phthalate	ND		10	0.18	ug/L		10/18/23 13:29	10/20/23 17:54	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		10/18/23 13:29	10/20/23 17:54	1
4,6-Dinitro-ortho-cresol	ND		10	1.7	ug/L		10/18/23 13:29	10/20/23 17:54	1
2,4-Dinitrophenol	ND	*1	31	3.5	ug/L		10/18/23 13:29	10/20/23 17:54	1
2,4-Dinitrotoluene	ND		10	2.0	ug/L		10/18/23 13:29	10/20/23 17:54	1
2,6-Dinitrotoluene	ND		10	2.0	ug/L		10/18/23 13:29	10/20/23 17:54	1
Di-n-octyl phthalate	ND		10	0.18	ug/L		10/18/23 13:29	10/20/23 17:54	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 17:54	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 17:54	1
Hexachlorobenzene	ND		10	0.18	ug/L		10/18/23 13:29	10/20/23 17:54	1
Hexachlorocyclopentadiene	ND		21	2.7	ug/L		10/18/23 13:29	10/20/23 17:54	1
Hexachloroethane	ND		10	4.3	ug/L		10/18/23 13:29	10/20/23 17:54	1
Indene	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 17:54	1
Isophorone	ND		10	0.14	ug/L		10/18/23 13:29	10/20/23 17:54	1
2-Methylphenol	ND		10	1.9	ug/L		10/18/23 13:29	10/20/23 17:54	1
3 & 4 Methylphenol	ND		21	0.40	ug/L		10/18/23 13:29	10/20/23 17:54	1
2-Nitroaniline	ND		10	2.3	ug/L		10/18/23 13:29	10/20/23 17:54	1
3-Nitroaniline	ND		10	1.9	ug/L		10/18/23 13:29	10/20/23 17:54	1
4-Nitroaniline	ND		10	1.6	ug/L		10/18/23 13:29	10/20/23 17:54	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 13:29	10/20/23 17:54	1
2-Nitrophenol	ND	*1	10	5.4	ug/L		10/18/23 13:29	10/20/23 17:54	1
4-Nitrophenol	ND		10	2.2	ug/L		10/18/23 13:29	10/20/23 17:54	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		10/18/23 13:29	10/20/23 17:54	1

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

Job ID: 400-245131-1

Client Sample ID: P93C-ROX-101623
Date Collected: 10/16/23 13:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245131-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		10/18/23 13:29	10/20/23 17:54	1
N-Nitrosodiphenylamine	ND		10	0.19	ug/L		10/18/23 13:29	10/20/23 17:54	1
Pentachlorophenol	ND		21	1.4	ug/L		10/18/23 13:29	10/20/23 17:54	1
Phenol	ND	*1	10	2.7	ug/L		10/18/23 13:29	10/20/23 17:54	1
Pyridine	ND		10	3.3	ug/L		10/18/23 13:29	10/20/23 17:54	1
Quinoline	ND		10	4.7	ug/L		10/18/23 13:29	10/20/23 17:54	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		10/18/23 13:29	10/20/23 17:54	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		10/18/23 13:29	10/20/23 17:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*46 - 124*	*10/18/23 13:29*	*10/20/23 17:54*	*1*
2-Fluorophenol	*22*		*13 - 113*	*10/18/23 13:29*	*10/20/23 17:54*	*1*
Nitrobenzene-d5	*57*		*36 - 126*	*10/18/23 13:29*	*10/20/23 17:54*	*1*
Phenol-d5	*41*		*17 - 127*	*10/18/23 13:29*	*10/20/23 17:54*	*1*
Terphenyl-d14	*76*		*44 - 149*	*10/18/23 13:29*	*10/20/23 17:54*	*1*
2,4,6-Tribromophenol	*80*		*26 - 150*	*10/18/23 13:29*	*10/20/23 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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/18/23 09:18	10/18/23 14:30	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*51 - 149*	*10/18/23 09:18*	*10/18/23 14:30*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-245131-1
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.
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.

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: 400-245131-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245131-1	TB-ROX-042123-8260-SS	96	113	98
400-245131-3	P93D-ROX-101623	96	115	98
400-245131-4	P93C-ROX-101623	97	115	98
LCS 400-646595/1002	Lab Control Sample	97	105	100
MB 400-646595/5	Method Blank	98	113	97

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245131-3	P93D-ROX-101623	54	10 S1-	47	32	80	72
400-245131-4	P93C-ROX-101623	63	22	57	41	76	80
LCS 400-646105/2-A	Lab Control Sample	77	42	73	64	87	98
LCS 400-646105/4-A	Lab Control Sample	77	30	66	55	98	44
LCSD 400-646105/3-A	Lab Control Sample Dup	72	11 S1-	68	38	83	88
LCSD 400-646105/5-A	Lab Control Sample Dup	81	43	72	62	95	65
MB 400-646105/1-A	Method Blank	82	21	71	52	100	71

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245131-3	P93D-ROX-101623	64	54	45
400-245131-4	P93C-ROX-101623	59	53	49
LCS 400-646105/6-A	Lab Control Sample	115	80	52
LCSD 400-646105/7-A	Lab Control Sample Dup	134	77	66
MB 400-646105/1-A	Method Blank	82	72	60

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

Surrogate Summary

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

Job ID: 400-245131-1

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)
400-245131-2	TB-ROX-042123-8011-SS	93
400-245131-3	P93D-ROX-101623	98
400-245131-4	P93C-ROX-101623	90

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)
		BFB2
Lab Sample ID	Client Sample ID	(51-149)
LCS 400-645864/2-A	Lab Control Sample	106
LCSD 400-645864/3-A	Lab Control Sample Dup	100
MB 400-645864/1-A	Method Blank	94

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-245131-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-245131-1

Client Sample ID: TB-ROX-042123-8260-SS
Lab Sample ID: 400-245131-1
Date Collected: 10/16/23 12:00
Matrix: Water
Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646595	10/21/23 15:26	BPO	EET PEN

Client Sample ID: TB-ROX-042123-8011-SS
Lab Sample ID: 400-245131-2
Date Collected: 10/16/23 12:00
Matrix: Water
Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.4 mL	35 mL	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 13:48	PG	EET PEN

Client Sample ID: P93D-ROX-101623
Lab Sample ID: 400-245131-3
Date Collected: 10/16/23 12:45
Matrix: Water
Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646595	10/21/23 19:13	BPO	EET PEN
Total/NA	Prep	3520C			244.8 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 17:32	KJA	EET PEN
Total/NA	Prep	3520C			244.8 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646684	10/23/23 16:28	S1B	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 14:09	PG	EET PEN

Client Sample ID: P93C-ROX-101623
Lab Sample ID: 400-245131-4
Date Collected: 10/16/23 13:35
Matrix: Water
Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646595	10/21/23 19:36	BPO	EET PEN
Total/NA	Prep	3520C			241.8 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 17:54	KJA	EET PEN
Total/NA	Prep	3520C			241.8 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646684	10/23/23 16:49	S1B	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 14:30	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-645864/1-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 22:44	PG	EET PEN

Lab Chronicle

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

Job ID: 400-245131-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646105/1-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 10:45	KJA	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646684	10/23/23 14:23	S1B	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646595/5
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	8260D		1	5 mL	5 mL	646595	10/21/23 11:16	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645864/2-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 23:05	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/2-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:06	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/4-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:49	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/6-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 03:43	TH	EET PEN

Lab Chronicle

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

Job ID: 400-245131-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646595/1002
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	8260D		1	5 mL	5 mL	646595	10/21/23 09:54	BPO	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645864/3-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 23:26	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/3-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:28	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/5-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 12:11	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/7-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 04:03	TH	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245131-1	TB-ROX-042123-8260-SS	Total/NA	Water	8260D	
400-245131-3	P93D-ROX-101623	Total/NA	Water	8260D	
400-245131-4	P93C-ROX-101623	Total/NA	Water	8260D	
MB 400-646595/5	Method Blank	Total/NA	Water	8260D	
LCS 400-646595/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245131-3	P93D-ROX-101623	Total/NA	Water	3520C	
400-245131-4	P93C-ROX-101623	Total/NA	Water	3520C	
MB 400-646105/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646105/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646105/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646105/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646105/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646105/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646105/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 646410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245131-3	P93D-ROX-101623	Total/NA	Water	8270E	646105
400-245131-4	P93C-ROX-101623	Total/NA	Water	8270E	646105
MB 400-646105/1-A	Method Blank	Total/NA	Water	8270E	646105
LCS 400-646105/2-A	Lab Control Sample	Total/NA	Water	8270E	646105
LCS 400-646105/4-A	Lab Control Sample	Total/NA	Water	8270E	646105
LCSD 400-646105/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646105
LCSD 400-646105/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646105

Analysis Batch: 646527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-646105/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646105
LCSD 400-646105/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646105

Analysis Batch: 646684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245131-3	P93D-ROX-101623	Total/NA	Water	8270E SIM	646105
400-245131-4	P93C-ROX-101623	Total/NA	Water	8270E SIM	646105
MB 400-646105/1-A	Method Blank	Total/NA	Water	8270E SIM	646105

GC Semi VOA

Prep Batch: 645864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245131-2	TB-ROX-042123-8011-SS	Total/NA	Water	8011	
400-245131-3	P93D-ROX-101623	Total/NA	Water	8011	
400-245131-4	P93C-ROX-101623	Total/NA	Water	8011	
MB 400-645864/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-645864/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-645864/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

QC Association Summary

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

Job ID: 400-245131-1

GC Semi VOA

Analysis Batch: 645889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-645864/1-A	Method Blank	Total/NA	Water	8011	645864
LCS 400-645864/2-A	Lab Control Sample	Total/NA	Water	8011	645864
LCSD 400-645864/3-A	Lab Control Sample Dup	Total/NA	Water	8011	645864

Analysis Batch: 646062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245131-2	TB-ROX-042123-8011-SS	Total/NA	Water	8011	645864
400-245131-3	P93D-ROX-101623	Total/NA	Water	8011	645864
400-245131-4	P93C-ROX-101623	Total/NA	Water	8011	645864

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646595/5
Matrix: Water
Analysis Batch: 646595

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			10/21/23 11:16	1
Acrolein	ND		20	3.3	ug/L			10/21/23 11:16	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 11:16	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 11:16	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 11:16	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 11:16	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 11:16	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 11:16	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 11:16	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 11:16	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 11:16	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 11:16	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 11:16	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 11:16	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 11:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 11:16	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 11:16	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 11:16	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 11:16	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 11:16	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 11:16	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 11:16	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 11:16	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 11:16	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 11:16	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 11:16	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 11:16	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 11:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 11:16	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 11:16	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 11:16	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 11:16	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 11:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 11:16	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 11:16	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 11:16	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 11:16	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646595/5
Matrix: Water
Analysis Batch: 646595

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			10/21/23 11:16	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 11:16	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 11:16	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 11:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 11:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 11:16	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 11:16	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 11:16	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 11:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 11:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 11:16	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 11:16	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 11:16	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 11:16	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 11:16	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 11:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 11:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 11:16	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 11:16	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 11:16	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 11:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 130*		*10/21/23 11:16*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*10/21/23 11:16*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*10/21/23 11:16*	*1*

Lab Sample ID: LCS 400-646595/1002
Matrix: Water
Analysis Batch: 646595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	206		ug/L		103	43 - 160
Acrolein	500	537		ug/L		107	38 - 160
Acrylonitrile	500	424		ug/L		85	64 - 142
Benzene	50.0	48.4		ug/L		97	70 - 130
Bromobenzene	50.0	53.7		ug/L		107	70 - 132
Bromochloromethane	50.0	54.5		ug/L		109	70 - 130
Bromodichloromethane	50.0	52.2		ug/L		104	67 - 133
Bromoform	50.0	53.8		ug/L		108	57 - 140
Bromomethane	50.0	47.0		ug/L		94	10 - 160
2-Butanone (MEK)	200	205		ug/L		102	61 - 145
Carbon disulfide	50.0	39.9		ug/L		80	61 - 137
Carbon tetrachloride	50.0	50.2		ug/L		100	61 - 137
Chlorobenzene	50.0	52.2		ug/L		104	70 - 130
Chloroethane	50.0	58.3		ug/L		117	55 - 141
2-Chloroethyl vinyl ether	50.0	67.0		ug/L		134	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646595/1002
Matrix: Water
Analysis Batch: 646595

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	50.4		ug/L		101	69 - 130
1-Chlorohexane	50.0	47.1		ug/L		94	69 - 130
Chloromethane	50.0	44.5		ug/L		89	58 - 137
cis-1,2-Dichloroethene	50.0	46.9		ug/L		94	68 - 130
cis-1,3-Dichloropropene	50.0	51.4		ug/L		103	69 - 132
Dibromochloromethane	50.0	56.7		ug/L		113	67 - 135
1,2-Dichlorobenzene	50.0	56.2		ug/L		112	67 - 130
1,3-Dichlorobenzene	50.0	55.1		ug/L		110	70 - 130
1,4-Dichlorobenzene	50.0	56.1		ug/L		112	70 - 130
Dichlorodifluoromethane	50.0	53.8		ug/L		108	41 - 146
1,1-Dichloroethane	50.0	46.5		ug/L		93	70 - 130
1,2-Dichloroethane	50.0	54.0		ug/L		108	69 - 130
1,1-Dichloroethene	50.0	45.5		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	49.1		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	56.6		ug/L		113	70 - 130
2,2-Dichloropropane	50.0	42.9		ug/L		86	52 - 135
1,1-Dichloropropene	50.0	47.8		ug/L		96	70 - 130
Ethylbenzene	50.0	52.5		ug/L		105	70 - 130
Ethyl methacrylate	50.0	53.8		ug/L		108	68 - 130
Hexachlorobutadiene	50.0	53.8		ug/L		108	53 - 140
2-Hexanone	200	203		ug/L		101	65 - 137
Isopropylbenzene	50.0	53.6		ug/L		107	70 - 130
Methylene bromide	50.0	54.7		ug/L		109	70 - 130
Methylene Chloride	50.0	48.9		ug/L		98	66 - 135
4-Methyl-2-pentanone (MIBK)	200	191		ug/L		95	69 - 138
Methyl tert-butyl ether	50.0	49.7		ug/L		99	66 - 130
m-Xylene & p-Xylene	50.0	52.9		ug/L		106	70 - 130
Naphthalene	50.0	51.6		ug/L		103	47 - 149
n-Butylbenzene	50.0	60.9		ug/L		122	67 - 130
N-Propylbenzene	50.0	54.0		ug/L		108	70 - 130
o-Chlorotoluene	50.0	56.7		ug/L		113	70 - 130
o-Xylene	50.0	53.8		ug/L		108	70 - 130
p-Chlorotoluene	50.0	54.4		ug/L		109	70 - 130
p-Isopropyltoluene	50.0	55.1		ug/L		110	65 - 130
sec-Butylbenzene	50.0	54.2		ug/L		108	66 - 130
Styrene	50.0	52.3		ug/L		105	70 - 130
tert-Butylbenzene	50.0	52.4		ug/L		105	64 - 139
1,1,1,2-Tetrachloroethane	50.0	54.6		ug/L		109	67 - 131
1,1,2,2-Tetrachloroethane	50.0	55.4		ug/L		111	70 - 131
Tetrachloroethene	50.0	43.7		ug/L		87	65 - 130
Toluene	50.0	49.4		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	47.2		ug/L		94	70 - 130
trans-1,3-Dichloropropene	50.0	54.7		ug/L		109	63 - 130
1,2,3-Trichlorobenzene	50.0	50.2		ug/L		100	60 - 138
1,2,4-Trichlorobenzene	50.0	49.8		ug/L		100	60 - 140
1,1,1-Trichloroethane	50.0	47.5		ug/L		95	68 - 130
1,1,2-Trichloroethane	50.0	56.7		ug/L		113	70 - 130
Trichloroethene	50.0	48.8		ug/L		98	70 - 130
Trichlorofluoromethane	50.0	57.5		ug/L		115	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646595/1002
Matrix: Water
Analysis Batch: 646595

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	53.8		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	50.0	52.8		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	50.0	52.7		ug/L		105	69 - 130
Vinyl acetate	100	159		ug/L		159	26 - 160
Vinyl chloride	50.0	49.9		ug/L		100	59 - 136
Xylenes, Total	100	107		ug/L		107	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 130*
Dibromofluoromethane	*105*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzenethiol	ND		10	1.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzoic acid	ND		30	7.3	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 12:44	10/20/23 10:45	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chloroaniline	ND		10	3.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Chlorophenol	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Diethyl phthalate	0.500	J	10	0.24	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 10:45	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachloroethane	ND		10	4.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
Indene	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Isophorone	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Nitrophenol	ND		10	5.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 12:44	10/20/23 10:45	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
Phenol	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
Pyridine	ND		10	3.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
Quinoline	ND		10	4.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
2-Fluorophenol	*21*		*13 - 113*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Phenol-d5	*52*		*17 - 127*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Terphenyl-d14	*100*		*44 - 149*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*10/18/23 12:44*	*10/20/23 10:45*	*1*

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	87.5		ug/L		73	21 - 120
Benzoic acid	522	246		ug/L		47	10 - 144
Benzyl alcohol	120	82.2		ug/L		68	28 - 120
Bis(2-chloroethoxy)methane	120	76.2		ug/L		64	47 - 120
Bis(2-chloroethyl)ether	120	71.9		ug/L		60	44 - 120
bis (2-chloroisopropyl) ether	120	76.4		ug/L		64	33 - 121
Bis(2-ethylhexyl) phthalate	120	89.0		ug/L		74	52 - 147
4-Bromophenyl phenyl ether	120	94.1		ug/L		78	54 - 122
Butyl benzyl phthalate	120	91.8		ug/L		76	54 - 133
4-Chloroaniline	120	77.2		ug/L		64	26 - 120
4-Chloro-3-methylphenol	120	90.5		ug/L		75	48 - 131

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

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	90.6		ug/L		75	52 - 121
2-Chlorophenol	120	74.4		ug/L		62	40 - 120
4-Chlorophenyl phenyl ether	120	100		ug/L		84	56 - 125
Dibenz[a,h]acridine	120	104		ug/L		87	31 - 150
Dibenzofuran	120	98.4		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	140		ug/L		87	36 - 132
2,4-Dichlorophenol	120	88.9		ug/L		74	49 - 120
Diethyl phthalate	120	99.4		ug/L		83	50 - 137
2,4-Dimethylphenol	120	90.5		ug/L		75	48 - 120
Dimethyl phthalate	120	93.9		ug/L		78	57 - 124
Di-n-butyl phthalate	120	105		ug/L		87	58 - 126
4,6-Dinitro-ortho-cresol	240	214		ug/L		89	23 - 148
2,4-Dinitrophenol	240	222		ug/L		93	10 - 150
2,4-Dinitrotoluene	120	104		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	100		ug/L		83	55 - 130
Di-n-octyl phthalate	120	88.8		ug/L		74	57 - 138
1,4-Dioxane	120	56.7		ug/L		47	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	79.7		ug/L		66	45 - 124
Hexachlorobenzene	120	101		ug/L		84	52 - 129
Hexachlorocyclopentadiene	120	67.5		ug/L		56	10 - 134
Hexachloroethane	120	84.1		ug/L		70	20 - 120
Indene	120	92.4		ug/L		77	49 - 120
Isophorone	120	78.3		ug/L		65	48 - 120
2-Methylphenol	120	87.6		ug/L		73	46 - 124
3 & 4 Methylphenol	120	85.1		ug/L		71	45 - 120
2-Nitroaniline	120	89.7		ug/L		75	51 - 145
3-Nitroaniline	120	82.9		ug/L		69	37 - 127
4-Nitroaniline	120	104		ug/L		87	36 - 137
Nitrobenzene	120	76.2		ug/L		64	45 - 120
2-Nitrophenol	120	92.1		ug/L		77	40 - 124
4-Nitrophenol	240	191		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	79.7		ug/L		66	29 - 137
N-Nitrosodi-n-propylamine	120	84.9		ug/L		71	45 - 120
N-Nitrosodiphenylamine	119	86.7		ug/L		73	54 - 120
Pentachlorophenol	240	183		ug/L		76	31 - 130
Phenol	120	74.3		ug/L		62	11 - 120
Pyridine	240	129		ug/L		54	16 - 120
Quinoline	120	93.4		ug/L		78	49 - 130
2,4,5-Trichlorophenol	120	104		ug/L		86	51 - 136
2,4,6-Trichlorophenol	120	94.8		ug/L		79	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*42*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*

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

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*26 - 150*

Lab Sample ID: LCS 400-646105/4-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	3.31	J *-	ug/L		3	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*66*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*44*		*26 - 150*

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	79.2		ug/L		66	21 - 120	10	30
Benzoic acid	522	80.0	*1	ug/L		15	10 - 144	102	30
Benzyl alcohol	120	74.7		ug/L		62	28 - 120	10	30
Bis(2-chloroethoxy)methane	120	72.9		ug/L		61	47 - 120	5	30
Bis(2-chloroethyl)ether	120	69.7		ug/L		58	44 - 120	3	30
bis (2-chloroisopropyl) ether	120	72.8		ug/L		61	33 - 121	5	30
Bis(2-ethylhexyl) phthalate	120	85.0		ug/L		71	52 - 147	5	30
4-Bromophenyl phenyl ether	120	90.5		ug/L		75	54 - 122	4	30
Butyl benzyl phthalate	120	87.5		ug/L		73	54 - 133	5	30
4-Chloroaniline	120	73.8		ug/L		62	26 - 120	4	30
4-Chloro-3-methylphenol	120	75.0		ug/L		62	48 - 131	19	30
2-Chloronaphthalene	120	87.1		ug/L		73	52 - 121	4	30
2-Chlorophenol	120	37.1	*- *1	ug/L		31	40 - 120	67	30
4-Chlorophenyl phenyl ether	120	95.0		ug/L		79	56 - 125	5	30
Dibenz[a,h]acridine	120	102		ug/L		85	31 - 150	2	30
Dibenzofuran	120	93.1		ug/L		78	56 - 122	6	30
3,3'-Dichlorobenzidine	160	133		ug/L		83	36 - 132	5	30
2,4-Dichlorophenol	120	64.2	*1	ug/L		53	49 - 120	32	30
Diethyl phthalate	120	93.6		ug/L		78	50 - 137	6	30
2,4-Dimethylphenol	120	81.0		ug/L		67	48 - 120	11	30
Dimethyl phthalate	120	89.1		ug/L		74	57 - 124	5	30
Di-n-butyl phthalate	120	99.7		ug/L		83	58 - 126	5	30
4,6-Dinitro-ortho-cresol	240	181		ug/L		75	23 - 148	17	30
2,4-Dinitrophenol	240	160	*1	ug/L		67	10 - 150	32	30
2,4-Dinitrotoluene	120	96.1		ug/L		80	54 - 142	8	30
2,6-Dinitrotoluene	120	94.1		ug/L		78	55 - 130	6	30

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

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	84.9		ug/L		71	57 - 138	5	30
1,4-Dioxane			120	52.5		ug/L		44	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)			120	77.8		ug/L		65	45 - 124	2	30
Hexachlorobenzene			120	96.3		ug/L		80	52 - 129	5	30
Hexachlorocyclopentadiene			120	56.9		ug/L		47	10 - 134	17	30
Hexachloroethane			120	75.1		ug/L		63	20 - 120	11	30
Indene			120	85.5		ug/L		71	49 - 120	8	30
Isophorone			120	73.6		ug/L		61	48 - 120	6	30
2-Methylphenol			120	69.2		ug/L		58	46 - 124	23	30
3 & 4 Methylphenol			120	66.0		ug/L		55	45 - 120	25	30
2-Nitroaniline			120	84.5		ug/L		70	51 - 145	6	30
3-Nitroaniline			120	78.5		ug/L		65	37 - 127	5	30
4-Nitroaniline			120	94.1		ug/L		78	36 - 137	10	30
Nitrobenzene			120	71.7		ug/L		60	45 - 120	6	30
2-Nitrophenol			120	66.0	*1	ug/L		55	40 - 124	33	30
4-Nitrophenol			240	160		ug/L		67	23 - 146	17	30
N-Nitrosodimethylamine			120	72.7		ug/L		61	29 - 137	9	30
N-Nitrosodi-n-propylamine			120	79.6		ug/L		66	45 - 120	6	30
N-Nitrosodiphenylamine			119	82.2		ug/L		69	54 - 120	5	30
Pentachlorophenol			240	163		ug/L		68	31 - 130	11	30
Phenol			120	44.3	*1	ug/L		37	11 - 120	51	30
Pyridine			240	123		ug/L		51	16 - 120	5	30
Quinoline			120	87.2		ug/L		73	49 - 130	7	30
2,4,5-Trichlorophenol			120	88.9		ug/L		74	51 - 136	15	30
2,4,6-Trichlorophenol			120	80.7		ug/L		67	50 - 127	16	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*11*	*S1-*	*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*38*		*17 - 127*
Terphenyl-d14	*83*		*44 - 149*
2,4,6-Tribromophenol	*88*		*26 - 150*

Lab Sample ID: LCSD 400-646105/5-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.00	J *-	ug/L		3	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*62*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*

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

Lab Sample ID: LCSD 400-646105/5-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*65*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646684

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/18/23 12:44	10/23/23 14:23	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 12:44	10/23/23 14:23	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[a]anthracene	0.0695	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[b]fluoranthene	0.143	J	0.20	0.037	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[k]fluoranthene	0.0860	J	0.20	0.062	ug/L		10/18/23 12:44	10/23/23 14:23	1
Chrysene	0.0977	J	0.20	0.033	ug/L		10/18/23 12:44	10/23/23 14:23	1
Dibenz(a,h)anthracene	0.0866	J	0.20	0.048	ug/L		10/18/23 12:44	10/23/23 14:23	1
Fluoranthene	0.0812	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Fluorene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/23/23 14:23	1
Indeno[1,2,3-cd]pyrene	0.109	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Phenanthrene	ND		0.20	0.090	ug/L		10/18/23 12:44	10/23/23 14:23	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/23/23 14:23	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/18/23 12:44	10/23/23 14:23	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/18/23 12:44	10/23/23 14:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*18 - 147*	*10/18/23 12:44*	*10/23/23 14:23*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*10/18/23 12:44*	*10/23/23 14:23*	*1*
Nitrobenzene-d5	*60*		*10 - 144*	*10/18/23 12:44*	*10/23/23 14:23*	*1*

Lab Sample ID: LCS 400-646105/6-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.43		ug/L		71	40 - 140
Acenaphthylene	2.00	1.39		ug/L		69	40 - 140
Anthracene	2.00	1.46		ug/L		73	40 - 140
Benzo[a]anthracene	2.00	1.31		ug/L		66	40 - 140
Benzo[a]pyrene	2.00	1.11		ug/L		55	40 - 140
Benzo[b]fluoranthene	2.00	1.34		ug/L		67	40 - 140
Benzo[g,h,i]perylene	2.00	1.32		ug/L		66	40 - 140
Benzo[k]fluoranthene	2.00	1.33		ug/L		67	40 - 140
Chrysene	2.00	1.31		ug/L		65	40 - 140
Dibenz(a,h)anthracene	2.00	1.37		ug/L		68	40 - 140
Fluoranthene	2.00	1.53		ug/L		77	40 - 140

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-646105/6-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	2.00	1.41		ug/L		70	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.32		ug/L		66	40 - 140
Phenanthrene	2.00	1.69		ug/L		84	40 - 140
Pyrene	2.00	1.54		ug/L		77	40 - 140
1-Methylnaphthalene	2.00	1.36		ug/L		68	40 - 140
2-Methylnaphthalene	2.00	1.39		ug/L		70	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*115*		*18 - 147*
2-Fluorobiphenyl	*80*		*15 - 128*
Nitrobenzene-d5	*52*		*10 - 144*

Lab Sample ID: LCSD 400-646105/7-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.72		ug/L		86	40 - 140	18	40
Acenaphthylene	2.00	1.76		ug/L		88	40 - 140	23	40
Anthracene	2.00	1.68		ug/L		84	40 - 140	15	40
Benzo[a]anthracene	2.00	1.57		ug/L		79	40 - 140	18	40
Benzo[a]pyrene	2.00	1.32		ug/L		66	40 - 140	17	40
Benzo[b]fluoranthene	2.00	1.59		ug/L		79	40 - 140	17	40
Benzo[g,h,i]perylene	2.00	1.46		ug/L		73	40 - 140	10	40
Benzo[k]fluoranthene	2.00	1.48		ug/L		74	40 - 140	10	40
Chrysene	2.00	1.39		ug/L		69	40 - 140	6	40
Dibenz(a,h)anthracene	2.00	1.46		ug/L		73	40 - 140	7	40
Fluoranthene	2.00	1.81		ug/L		90	40 - 140	16	40
Fluorene	2.00	1.68		ug/L		84	40 - 140	18	40
Indeno[1,2,3-cd]pyrene	2.00	1.44		ug/L		72	40 - 140	9	40
Phenanthrene	2.00	1.87		ug/L		94	40 - 140	10	40
Pyrene	2.00	1.73		ug/L		86	40 - 140	11	40
1-Methylnaphthalene	2.00	1.62		ug/L		81	40 - 140	18	40
2-Methylnaphthalene	2.00	1.71		ug/L		86	40 - 140	21	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*134*		*18 - 147*
2-Fluorobiphenyl	*77*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-645864/1-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 10:40	10/17/23 22:44	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-645864/1-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 10:40	10/17/23 22:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*10/17/23 10:40*	*10/17/23 22:44*	*1*

Lab Sample ID: LCS 400-645864/2-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645864

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.111		ug/L		110	60 - 140		
1,2-Dibromoethane			0.101	0.114		ug/L		114	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*51 - 149*

Lab Sample ID: LCSD 400-645864/3-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645864

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.114		ug/L		113	60 - 140	3	30
1,2-Dibromoethane			0.101	0.109		ug/L		108	60 - 140	21	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*51 - 149*

LAB (LOCATION)

Shell Oil Products US Chain Of Custody Record

AECOM

400-245131 COC

] 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: 10/16/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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, C. McDavid

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.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.4.2

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	Container PID Readings or Laboratory Notes:
	TB-ROX-042123-8260-SS	10/16/2023	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-042123-8011-SS	10/16/2023	0000	Water	2					2		X			
	P93D-ROX-101623	10/16/2023	1245	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93C-ROX-101623	10/16/2023	1335	Water	6			2		8	X	X	X	X	SPLIT REPORT

10-16-23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
COURTNEY MCDAVID	FEDEX: 6339 6595 3156, 6339, 6595, 3178	10/16/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 10/17/23	Time: 855
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 2364883, 2364882, 2364880, 2364881

0.0°C IR8

10/30/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-245131-1

Login Number: 245131
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 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").	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: 400-245131-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245132-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/14/2023

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

Sample Identification	Sample Identification
TB-ROX-101623-8260	MW5-ROX-101623
TB-ROX-101623-8011	MW9-ROX-101623
ROST4PZC-ROX-101623	MW22-ROX-101623
ROST4PZC-ROX-101623-DUP	--

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 several PAHs were detected in the method blanks. LCS/LCSD recoveries for several analytes were outside evaluation criteria. The continuing calibration verifications (CCV) for several analytes 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 400-646105/1-A	SVOCs	Diethyl phthalate	0.500 ug/L
MB 400-646105/1-A	PAHs	Benzo[a]anthracene	0.0695 ug/L
MB 400-646105/1-A	PAHs	Benzo[b]fluoranthene	0.143 ug/L
MB 400-646105/1-A	PAHs	Benzo[k]fluoranthene	0.0860 ug/L

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-646105/1-A	PAHs	Chrysene	0.0977 ug/L
MB 400-646105/1-A	PAHs	Dibenz(a,h)anthracene	0.0866 ug/L
MB 400-646105/1-A	PAHs	Fluoranthene	0.0812 ug/L
MB 400-646105/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.109 ug/L

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

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST4PZC-ROX-101623	PAHs	Benzo[a]anthracene	-	**U**
ROST4PZC-ROX-101623	PAHs	Fluoranthene	-	**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 400-646105/2-A/3-A	SVOCs	Benzoic acid	47/15	**102**	10-144/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2-Chlorophenol	62/**31**	**67**	40-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2,4-Dichlorophenol	74/53	**32**	49-120/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2,4-Dinitrophenol	93/67	**32**	10-150/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	2-Nitrophenol	77/55	**33**	40-124/30
LCS/LCSD 400-646105/2-A/3-A	SVOCs	Phenol	62/37	**51**	11-120/30
LCS/LCSD 400-646105/4-A/ 5-A	SVOCs	Benzenethiol	**3/3**	10	10-120/30
LCS 400-646592/1001	VOCs	Acetone	**301**	NA	43-160
LCS 400-646592/1001	VOCs	2-Butanone (MEK)	**217**	NA	61-145
LCS 400-646592/1001	VOCs	2-Hexanone	**168**	NA	65-137
LCS 400-646651/1001	VOCs	Acetone	**307**	NA	43-160
LCS 400-646651/1001	VOCs	2-Butanone (MEK)	**226**	NA	61-145
LCS 400-646651/1001	VOCs	2-Hexanone	**202**	NA	65-137
LCS 400-646651/1001	VOCs	4-Methyl-2-pentanone (MIBK)	**143**	NA	69-138

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
LCS 400-646651/1001	VOCs	Tetrachloroethene	**138**	NA	65-130

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 reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
ROST4PZC-ROX-101623	SVOCs	2-Chlorophenol	**UJ**
ROST4PZC-ROX-101623-DUP	SVOCs	2-Chlorophenol	**UJ**
MW5-ROX-101623	SVOCs	2-Chlorophenol	**UJ**
MW9-ROX-101623	SVOCs	2-Chlorophenol	**UJ**
MW22-ROX-101623	SVOCs	2-Chlorophenol	**UJ**
ROST4PZC-ROX-101623	SVOCs	Benzenethiol	**UJ**
ROST4PZC-ROX-101623-DUP	SVOCs	Benzenethiol	**UJ**
MW5-ROX-101623	SVOCs	Benzenethiol	**UJ**
MW9-ROX-101623	SVOCs	Benzenethiol	**UJ**
MW22-ROX-101623	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
ROST4PZC-ROX-101623	SVOCs	2-Fluorophenol	**8**	13-113
LCSD 400-646105/3-A	SVOCs	2- Fluorophenol	**11**	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. Laboratory control sample duplicates 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
ROST4PZC-ROX-101623	ROST4PZC-ROX-101623-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 multiple analytes were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
ROST4PZC-ROX-101623	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
ROST4PZC-ROX-101623-DUP	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
MW5-ROX-101623	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
MW9-ROX-101623	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
MW22-ROX-101623	VOCs	1,1,2,2-Tetrachloroethane	**UJ**
ROST4PZC-ROX-101623	SVOCs	Benzyl alcohol	**UJ**
ROST4PZC-ROX-101623-DUP	SVOCs	Benzyl alcohol	**UJ**
MW5-ROX-101623	SVOCs	Benzyl alcohol	**UJ**
MW9-ROX-101623	SVOCs	Benzyl alcohol	**UJ**
MW22-ROX-101623	SVOCs	Benzyl alcohol	**UJ**
ROST4PZC-ROX-101623	SVOCs	Di-n-octyl phthalate	**UJ**
ROST4PZC-ROX-101623-DUP	SVOCs	Di-n-octyl phthalate	**UJ**
MW5-ROX-101623	SVOCs	Di-n-octyl phthalate	**UJ**
MW9-ROX-101623	SVOCs	Di-n-octyl phthalate	**UJ**
MW22-ROX-101623	SVOCs	Di-n-octyl phthalate	**UJ**
ROST4PZC-ROX-101623	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZC-ROX-101623-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW5-ROX-101623	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW9-ROX-101623	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW22-ROX-101623	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZC-ROX-101623-DUP	PAHs	Chrysene	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-101623	PAHs	Chrysene	**UJ**
MW9-ROX-101623	PAHs	Chrysene	**UJ**
MW22-ROX-101623	PAHs	Chrysene	**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 10/31/2023 5:12:20 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245132-1

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

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Job ID: 400-245132-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-245132-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/17/2023 8:55 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 0.0°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646592 recovered above the upper control limit for 2-Butanone (MEK), 2-Hexanone, Acetone and Tetrachloroethene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The laboratory control sample (LCS) for analytical batch 400-646592 recovered outside control limits for the following analytes: 2-Butanone (MEK), 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 8260D: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following sample was received preserved with hydrochloric acid: TB-ROX-101623-8260 (400-245132-1). 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 8260D: The initial calibration verification (ICV) analyzed in batch 400-627009 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646651 recovered outside acceptance criteria, low biased, for 1,1,2,2-Tetrachloroethane. 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 8260D: The laboratory control sample (LCS) for analytical batch 400-646651 recovered outside control limits for the following analytes: 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), 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 8260D: 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: ROST4PZC-ROX-101623 (400-245132-3), ROST4PZC-ROX-101623-DUP (400-245132-4), MW5-ROX-101623 (400-245132-5), MW9-ROX-101623 (400-245132-6) and MW22-ROX-101623 (400-245132-7). 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646651 recovered above the upper control limit for 2-Butanone (MEK), 2-Hexanone, Acetone and Tetrachloroethene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-245132-1 (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/MS Semi VOA

Method 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-646410 recovered outside acceptance criteria, low biased, for Benzyl alcohol, Di-n-octyl phthalate 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 8270E: The method blank for preparation batch 400-646105 and analytical batch 400-646410 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646105 and analytical batch 400-646410 recovered outside control limits for the following analytes: 2,4-Dichlorophenol, 2,4-Dinitrophenol, 2-Chlorophenol, 2-Nitrophenol, Benzoic acid and Phenol.

Method 8270E: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-646105 and analytical batch 400-646410: 2-Chlorophenol. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646105 and analytical batch 400-646410 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 8270E: 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: ROST4PZC-ROX-101623 (400-245132-3). These results have been reported and qualified.

Method 8270E: 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 LCSD contained an allowable number of surrogate compounds outside limits: (LCSD 400-646105/3-A). These results have been reported and qualified.

Method 8270E_SIM: The continuing calibration verification (CCV) associated with batch 400-646527 recovered outside acceptance criteria, low biased, for Chrysene. 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 8270E_SIM: The method blank for preparation batch 400-646105 and analytical batch 400-646684 contained Indeno[1,2,3-cd]pyrene, Benzo[b]fluoranthene, Fluoranthene, Benzo[k]fluoranthene, Chrysene, Benzo[a]anthracene and Dibenz(a,h)anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; 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 400-645889 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. The associated sample is impacted: (CCV 400-645805/25-A).

Job ID: 400-245132-1 (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: 400-245132-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245132-1	TB-ROX-101623-8260	Water	10/16/23 12:00	10/17/23 08:55
400-245132-2	TB-ROX-101623-8011	Water	10/16/23 12:00	10/17/23 08:55
400-245132-3	ROST4PZC-ROX-101623	Water	10/16/23 09:35	10/17/23 08:55
400-245132-4	ROST4PZC-ROX-101623-DUP	Water	10/16/23 09:35	10/17/23 08:55
400-245132-5	MW5-ROX-101623	Water	10/16/23 10:45	10/17/23 08:55
400-245132-6	MW9-ROX-101623	Water	10/16/23 12:00	10/17/23 08:55
400-245132-7	MW22-ROX-101623	Water	10/16/23 13:25	10/17/23 08:55

Detection Summary

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

Job ID: 400-245132-1

Client Sample ID: TB-ROX-101623-8260 — Lab Sample ID: 400-245132-1

No Detections.

Client Sample ID: TB-ROX-101623-8011 — Lab Sample ID: 400-245132-2

No Detections.

Client Sample ID: ROST4PZC-ROX-101623 — Lab Sample ID: 400-245132-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.57		0.19	0.096	ug/L	1		8270E SIM	Total/NA
Anthracene	0.25		0.19	0.045	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.039	J B	0.19	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.066	J B	0.19	0.033	ug/L	1		8270E SIM	Total/NA
Fluorene	0.57		0.19	0.086	ug/L	1		8270E SIM	Total/NA
Phenanthrene	1.0		0.19	0.087	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	8.1		0.19	0.077	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.18	J	0.19	0.064	ug/L	1		8270E SIM	Total/NA
Dibenzofuran	0.54	J	9.7	0.16	ug/L	1		8270E	Total/NA

Client Sample ID: ROST4PZC-ROX-101623-DUP — Lab Sample ID: 400-245132-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.60		0.19	0.095	ug/L	1		8270E SIM	Total/NA
Anthracene	0.24		0.19	0.045	ug/L	1		8270E SIM	Total/NA
Fluorene	0.61		0.19	0.085	ug/L	1		8270E SIM	Total/NA
Phenanthrene	1.2		0.19	0.086	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	9.4		0.19	0.077	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.28		0.19	0.063	ug/L	1		8270E SIM	Total/NA
Dibenzofuran	0.60	J	9.6	0.16	ug/L	1		8270E	Total/NA

Client Sample ID: MW5-ROX-101623 — Lab Sample ID: 400-245132-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.0		1.0	0.22	ug/L	1		8260D	Total/NA

Client Sample ID: MW9-ROX-101623 — Lab Sample ID: 400-245132-6

No Detections.

Client Sample ID: MW22-ROX-101623 — Lab Sample ID: 400-245132-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	6.1		1.0	0.50	ug/L	1		8260D	Total/NA
Ethylbenzene	22		1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	14		1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	130		5.0	0.63	ug/L	1		8260D	Total/NA
Naphthalene	34		5.0	3.0	ug/L	1		8260D	Total/NA
n-Butylbenzene	2.9		1.0	0.76	ug/L	1		8260D	Total/NA
N-Propylbenzene	27		1.0	0.69	ug/L	1		8260D	Total/NA
o-Xylene	6.1		5.0	0.60	ug/L	1		8260D	Total/NA
p-Isopropyltoluene	1.9		1.0	0.71	ug/L	1		8260D	Total/NA
sec-Butylbenzene	1.5		1.0	0.70	ug/L	1		8260D	Total/NA
tert-Butylbenzene	4.3		1.0	0.63	ug/L	1		8260D	Total/NA
Toluene	8.8		1.0	0.90	ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	49		1.0	0.82	ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	35		1.0	0.56	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW22-ROX-101623 (Continued)

Lab Sample ID: 400-245132-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	140		10	1.6	ug/L	1		8260D	Total/NA
Fluorene	0.14	J	0.20	0.087	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	3.7		0.20	0.078	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	3.9		0.20	0.065	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245132-1

Client Sample ID: TB-ROX-101623-8260
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/21/23 14:31	1
Acrolein	ND		20	3.3	ug/L			10/21/23 14:31	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 14:31	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 14:31	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 14:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 14:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 14:31	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 14:31	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 14:31	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/21/23 14:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 14:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 14:31	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 14:31	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 14:31	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 14:31	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 14:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 14:31	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 14:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 14:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 14:31	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 14:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 14:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 14:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 14:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 14:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 14:31	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 14:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 14:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 14:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 14:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 14:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 14:31	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 14:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 14:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 14:31	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/21/23 14:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 14:31	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 14:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 14:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 14:31	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 14:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 14:31	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 14:31	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 14:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 14:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 14:31	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 14:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 14:31	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/23 14:31	1

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

Job ID: 400-245132-1

Client Sample ID: TB-ROX-101623-8260
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 14:31	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 14:31	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 14:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 14:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 14:31	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 14:31	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 14:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 14:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 14:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 14:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 14:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 14:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 14:31	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 14:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 14:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 14:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 14:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 14:31	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 14:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 14:31	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 130*		*10/21/23 14:31*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*10/21/23 14:31*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/21/23 14:31*	*1*

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

Job ID: 400-245132-1

Client Sample ID: TB-ROX-101623-8011
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/18/23 09:18	10/18/23 14:51	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*51 - 149*	*10/18/23 09:18*	*10/18/23 14:51*	*1*

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

Job ID: 400-245132-1

Client Sample ID: ROST4PZC-ROX-101623
Date Collected: 10/16/23 09:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/23/23 17:31	1
Acrolein	ND		20	3.3	ug/L			10/23/23 17:31	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 17:31	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 17:31	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 17:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 17:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 17:31	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 17:31	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 17:31	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/23/23 17:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 17:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 17:31	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 17:31	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 17:31	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 17:31	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 17:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 17:31	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 17:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 17:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 17:31	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 17:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 17:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 17:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 17:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 17:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 17:31	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 17:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 17:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 17:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 17:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 17:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 17:31	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 17:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 17:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 17:31	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/23/23 17:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 17:31	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 17:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 17:31	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			10/23/23 17:31	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 17:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 17:31	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 17:31	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 17:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 17:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 17:31	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 17:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 17:31	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 17:31	1

Client Sample ID: ROST4PZC-ROX-101623
Date Collected: 10/16/23 09:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 17:31	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 17:31	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 17:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 17:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 17:31	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/23/23 17:31	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 17:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 17:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 17:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 17:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 17:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 17:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 17:31	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 17:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 17:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 17:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 17:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 17:31	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 17:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 17:31	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*10/23/23 17:31*	*1*
Dibromofluoromethane	*85*		*75 - 126*		*10/23/23 17:31*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*10/23/23 17:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.57**		0.19	0.096	ug/L		10/18/23 13:29	10/23/23 17:10	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/18/23 13:29	10/23/23 17:10	1
Anthracene	**0.25**		0.19	0.045	ug/L		10/18/23 13:29	10/23/23 17:10	1
Benzo[a]anthracene	**0.039**	**J B**	0.19	0.033	ug/L		10/18/23 13:29	10/23/23 17:10	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		10/18/23 13:29	10/23/23 17:10	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		10/18/23 13:29	10/23/23 17:10	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		10/18/23 13:29	10/23/23 17:10	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		10/18/23 13:29	10/23/23 17:10	1
Chrysene	ND		0.19	0.032	ug/L		10/18/23 13:29	10/23/23 17:10	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		10/18/23 13:29	10/23/23 17:10	1
Fluoranthene	**0.066**	**J B**	0.19	0.033	ug/L		10/18/23 13:29	10/23/23 17:10	1
Fluorene	**0.57**		0.19	0.086	ug/L		10/18/23 13:29	10/23/23 17:10	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		10/18/23 13:29	10/23/23 17:10	1
Phenanthrene	**1.0**		0.19	0.087	ug/L		10/18/23 13:29	10/23/23 17:10	1
Pyrene	ND		0.19	0.038	ug/L		10/18/23 13:29	10/23/23 17:10	1
1-Methylnaphthalene	**8.1**		0.19	0.077	ug/L		10/18/23 13:29	10/23/23 17:10	1
2-Methylnaphthalene	**0.18**	**J**	0.19	0.064	ug/L		10/18/23 13:29	10/23/23 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*67*		*18 - 147*	*10/18/23 13:29*	*10/23/23 17:10*	*1*
2-Fluorobiphenyl	*51*		*15 - 128*	*10/18/23 13:29*	*10/23/23 17:10*	*1*

Client Sample ID: ROST4PZC-ROX-101623
Date Collected: 10/16/23 09:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*47*		*10 - 144*	*10/18/23 13:29*	*10/23/23 17:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		10/18/23 13:29	10/20/23 18:15	1
Benzenethiol	ND	*-	9.7	1.6	ug/L		10/18/23 13:29	10/20/23 18:15	1
Benzoic acid	ND	*1	29	7.1	ug/L		10/18/23 13:29	10/20/23 18:15	1
Benzyl alcohol	ND		9.7	1.9	ug/L		10/18/23 13:29	10/20/23 18:15	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		10/18/23 13:29	10/20/23 18:15	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		10/18/23 13:29	10/20/23 18:15	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		10/18/23 13:29	10/20/23 18:15	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		10/18/23 13:29	10/20/23 18:15	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		10/18/23 13:29	10/20/23 18:15	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		10/18/23 13:29	10/20/23 18:15	1
4-Chloroaniline	ND		9.7	3.3	ug/L		10/18/23 13:29	10/20/23 18:15	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		10/18/23 13:29	10/20/23 18:15	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		10/18/23 13:29	10/20/23 18:15	1
2-Chlorophenol	ND	*- *1	9.7	2.1	ug/L		10/18/23 13:29	10/20/23 18:15	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		10/18/23 13:29	10/20/23 18:15	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		10/18/23 13:29	10/20/23 18:15	1
Dibenzofuran	**0.54**	**J**	9.7	0.16	ug/L		10/18/23 13:29	10/20/23 18:15	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		10/18/23 13:29	10/20/23 18:15	1
2,4-Dichlorophenol	ND	*1	9.7	2.9	ug/L		10/18/23 13:29	10/20/23 18:15	1
Diethyl phthalate	ND		9.7	0.23	ug/L		10/18/23 13:29	10/20/23 18:15	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		10/18/23 13:29	10/20/23 18:15	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		10/18/23 13:29	10/20/23 18:15	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		10/18/23 13:29	10/20/23 18:15	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		10/18/23 13:29	10/20/23 18:15	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/18/23 13:29	10/20/23 18:15	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		10/18/23 13:29	10/20/23 18:15	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		10/18/23 13:29	10/20/23 18:15	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		10/18/23 13:29	10/20/23 18:15	1
1,4-Dioxane	ND		9.7	0.97	ug/L		10/18/23 13:29	10/20/23 18:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		10/18/23 13:29	10/20/23 18:15	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		10/18/23 13:29	10/20/23 18:15	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/18/23 13:29	10/20/23 18:15	1
Hexachloroethane	ND		9.7	4.1	ug/L		10/18/23 13:29	10/20/23 18:15	1
Indene	ND		9.7	0.97	ug/L		10/18/23 13:29	10/20/23 18:15	1
Isophorone	ND		9.7	0.14	ug/L		10/18/23 13:29	10/20/23 18:15	1
2-Methylphenol	ND		9.7	1.7	ug/L		10/18/23 13:29	10/20/23 18:15	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		10/18/23 13:29	10/20/23 18:15	1
2-Nitroaniline	ND		9.7	2.1	ug/L		10/18/23 13:29	10/20/23 18:15	1
3-Nitroaniline	ND		9.7	1.7	ug/L		10/18/23 13:29	10/20/23 18:15	1
4-Nitroaniline	ND		9.7	1.4	ug/L		10/18/23 13:29	10/20/23 18:15	1
Nitrobenzene	ND		9.7	0.13	ug/L		10/18/23 13:29	10/20/23 18:15	1
2-Nitrophenol	ND	*1	9.7	5.0	ug/L		10/18/23 13:29	10/20/23 18:15	1
4-Nitrophenol	ND		9.7	2.0	ug/L		10/18/23 13:29	10/20/23 18:15	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		10/18/23 13:29	10/20/23 18:15	1

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

Job ID: 400-245132-1

Client Sample ID: ROST4PZC-ROX-101623
Date Collected: 10/16/23 09:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-3
Matrix: Water

Method: SW846 8270E - 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		10/18/23 13:29	10/20/23 18:15	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		10/18/23 13:29	10/20/23 18:15	1
Pentachlorophenol	ND		19	1.4	ug/L		10/18/23 13:29	10/20/23 18:15	1
Phenol	ND	*1	9.7	2.5	ug/L		10/18/23 13:29	10/20/23 18:15	1
Pyridine	ND		9.7	3.1	ug/L		10/18/23 13:29	10/20/23 18:15	1
Quinoline	ND		9.7	4.3	ug/L		10/18/23 13:29	10/20/23 18:15	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		10/18/23 13:29	10/20/23 18:15	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		10/18/23 13:29	10/20/23 18:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*46 - 124*	*10/18/23 13:29*	*10/20/23 18:15*	*1*
2-Fluorophenol	*8*	*S1-*	*13 - 113*	*10/18/23 13:29*	*10/20/23 18:15*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*10/18/23 13:29*	*10/20/23 18:15*	*1*
Phenol-d5	*30*		*17 - 127*	*10/18/23 13:29*	*10/20/23 18:15*	*1*
Terphenyl-d14	*89*		*44 - 149*	*10/18/23 13:29*	*10/20/23 18:15*	*1*
2,4,6-Tribromophenol	*65*		*26 - 150*	*10/18/23 13:29*	*10/20/23 18:15*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/18/23 09:18	10/18/23 15:12	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*10/18/23 09:18*	*10/18/23 15:12*	*1*

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

Job ID: 400-245132-1

Client Sample ID: ROST4PZC-ROX-101623-DUP
Date Collected: 10/16/23 09:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/23/23 17:56	1
Acrolein	ND		20	3.3	ug/L			10/23/23 17:56	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 17:56	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 17:56	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 17:56	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 17:56	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 17:56	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 17:56	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 17:56	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/23/23 17:56	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 17:56	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 17:56	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 17:56	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 17:56	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 17:56	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 17:56	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 17:56	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 17:56	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 17:56	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 17:56	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 17:56	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 17:56	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 17:56	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 17:56	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 17:56	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 17:56	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 17:56	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 17:56	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 17:56	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 17:56	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 17:56	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 17:56	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 17:56	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 17:56	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 17:56	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/23/23 17:56	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 17:56	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 17:56	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 17:56	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			10/23/23 17:56	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 17:56	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 17:56	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 17:56	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 17:56	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 17:56	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 17:56	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 17:56	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 17:56	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 17:56	1

Client Sample ID: ROST4PZC-ROX-101623-DUP
Date Collected: 10/16/23 09:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 17:56	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 17:56	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 17:56	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 17:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 17:56	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/23/23 17:56	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 17:56	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 17:56	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 17:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 17:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 17:56	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 17:56	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 17:56	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 17:56	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 17:56	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 17:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 17:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 17:56	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 17:56	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 17:56	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*10/23/23 17:56*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*10/23/23 17:56*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*10/23/23 17:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.60**		0.19	0.095	ug/L		10/18/23 13:29	10/21/23 07:07	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/18/23 13:29	10/21/23 07:07	1
Anthracene	**0.24**		0.19	0.045	ug/L		10/18/23 13:29	10/21/23 07:07	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		10/18/23 13:29	10/21/23 07:07	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		10/18/23 13:29	10/21/23 07:07	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		10/18/23 13:29	10/21/23 07:07	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		10/18/23 13:29	10/21/23 07:07	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		10/18/23 13:29	10/21/23 07:07	1
Chrysene	ND		0.19	0.032	ug/L		10/18/23 13:29	10/21/23 07:07	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		10/18/23 13:29	10/21/23 07:07	1
Fluoranthene	ND		0.19	0.033	ug/L		10/18/23 13:29	10/21/23 07:07	1
Fluorene	**0.61**		0.19	0.085	ug/L		10/18/23 13:29	10/21/23 07:07	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		10/18/23 13:29	10/21/23 07:07	1
Phenanthrene	**1.2**		0.19	0.086	ug/L		10/18/23 13:29	10/21/23 07:07	1
Pyrene	ND		0.19	0.037	ug/L		10/18/23 13:29	10/21/23 07:07	1
1-Methylnaphthalene	**9.4**		0.19	0.077	ug/L		10/18/23 13:29	10/21/23 07:07	1
2-Methylnaphthalene	**0.28**		0.19	0.063	ug/L		10/18/23 13:29	10/21/23 07:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*83*		*18 - 147*	*10/18/23 13:29*	*10/21/23 07:07*	*1*
2-Fluorobiphenyl	*67*		*15 - 128*	*10/18/23 13:29*	*10/21/23 07:07*	*1*

Client Sample ID: ROST4PZC-ROX-101623-DUP
Date Collected: 10/16/23 09:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*53*		*10 - 144*	*10/18/23 13:29*	*10/21/23 07:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		10/18/23 13:29	10/20/23 18:36	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		10/18/23 13:29	10/20/23 18:36	1
Benzoic acid	ND	*1	29	7.0	ug/L		10/18/23 13:29	10/20/23 18:36	1
Benzyl alcohol	ND		9.6	1.9	ug/L		10/18/23 13:29	10/20/23 18:36	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		10/18/23 13:29	10/20/23 18:36	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		10/18/23 13:29	10/20/23 18:36	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		10/18/23 13:29	10/20/23 18:36	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		10/18/23 13:29	10/20/23 18:36	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		10/18/23 13:29	10/20/23 18:36	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		10/18/23 13:29	10/20/23 18:36	1
4-Chloroaniline	ND		9.6	3.3	ug/L		10/18/23 13:29	10/20/23 18:36	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		10/18/23 13:29	10/20/23 18:36	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		10/18/23 13:29	10/20/23 18:36	1
2-Chlorophenol	ND	*- *1	9.6	2.1	ug/L		10/18/23 13:29	10/20/23 18:36	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		10/18/23 13:29	10/20/23 18:36	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		10/18/23 13:29	10/20/23 18:36	1
Dibenzofuran	**0.60**	**J**	9.6	0.16	ug/L		10/18/23 13:29	10/20/23 18:36	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		10/18/23 13:29	10/20/23 18:36	1
2,4-Dichlorophenol	ND	*1	9.6	2.9	ug/L		10/18/23 13:29	10/20/23 18:36	1
Diethyl phthalate	ND		9.6	0.23	ug/L		10/18/23 13:29	10/20/23 18:36	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		10/18/23 13:29	10/20/23 18:36	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		10/18/23 13:29	10/20/23 18:36	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		10/18/23 13:29	10/20/23 18:36	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		10/18/23 13:29	10/20/23 18:36	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/18/23 13:29	10/20/23 18:36	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		10/18/23 13:29	10/20/23 18:36	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		10/18/23 13:29	10/20/23 18:36	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		10/18/23 13:29	10/20/23 18:36	1
1,4-Dioxane	ND		9.6	0.96	ug/L		10/18/23 13:29	10/20/23 18:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		10/18/23 13:29	10/20/23 18:36	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		10/18/23 13:29	10/20/23 18:36	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/18/23 13:29	10/20/23 18:36	1
Hexachloroethane	ND		9.6	4.0	ug/L		10/18/23 13:29	10/20/23 18:36	1
Indene	ND		9.6	0.96	ug/L		10/18/23 13:29	10/20/23 18:36	1
Isophorone	ND		9.6	0.13	ug/L		10/18/23 13:29	10/20/23 18:36	1
2-Methylphenol	ND		9.6	1.7	ug/L		10/18/23 13:29	10/20/23 18:36	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/18/23 13:29	10/20/23 18:36	1
2-Nitroaniline	ND		9.6	2.1	ug/L		10/18/23 13:29	10/20/23 18:36	1
3-Nitroaniline	ND		9.6	1.7	ug/L		10/18/23 13:29	10/20/23 18:36	1
4-Nitroaniline	ND		9.6	1.4	ug/L		10/18/23 13:29	10/20/23 18:36	1
Nitrobenzene	ND		9.6	0.12	ug/L		10/18/23 13:29	10/20/23 18:36	1
2-Nitrophenol	ND	*1	9.6	5.0	ug/L		10/18/23 13:29	10/20/23 18:36	1
4-Nitrophenol	ND		9.6	2.0	ug/L		10/18/23 13:29	10/20/23 18:36	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		10/18/23 13:29	10/20/23 18:36	1

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

Job ID: 400-245132-1

Client Sample ID: ROST4PZC-ROX-101623-DUP
Date Collected: 10/16/23 09:35
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-4
Matrix: Water

Method: SW846 8270E - 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		10/18/23 13:29	10/20/23 18:36	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		10/18/23 13:29	10/20/23 18:36	1
Pentachlorophenol	ND		19	1.3	ug/L		10/18/23 13:29	10/20/23 18:36	1
Phenol	ND	*1	9.6	2.5	ug/L		10/18/23 13:29	10/20/23 18:36	1
Pyridine	ND		9.6	3.1	ug/L		10/18/23 13:29	10/20/23 18:36	1
Quinoline	ND		9.6	4.3	ug/L		10/18/23 13:29	10/20/23 18:36	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		10/18/23 13:29	10/20/23 18:36	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		10/18/23 13:29	10/20/23 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*46 - 124*	*10/18/23 13:29*	*10/20/23 18:36*	*1*
2-Fluorophenol	*21*		*13 - 113*	*10/18/23 13:29*	*10/20/23 18:36*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*10/18/23 13:29*	*10/20/23 18:36*	*1*
Phenol-d5	*48*		*17 - 127*	*10/18/23 13:29*	*10/20/23 18:36*	*1*
Terphenyl-d14	*98*		*44 - 149*	*10/18/23 13:29*	*10/20/23 18:36*	*1*
2,4,6-Tribromophenol	*83*		*26 - 150*	*10/18/23 13:29*	*10/20/23 18:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/18/23 09:18	10/18/23 15:33	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*10/18/23 09:18*	*10/18/23 15:33*	*1*

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

Job ID: 400-245132-1

Client Sample ID: MW5-ROX-101623
Date Collected: 10/16/23 10:45
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/23/23 18:21	1
Acrolein	ND		20	3.3	ug/L			10/23/23 18:21	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 18:21	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 18:21	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 18:21	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 18:21	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 18:21	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 18:21	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 18:21	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/23/23 18:21	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 18:21	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 18:21	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:21	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 18:21	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 18:21	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 18:21	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 18:21	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 18:21	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 18:21	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 18:21	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 18:21	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 18:21	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 18:21	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 18:21	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 18:21	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 18:21	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 18:21	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:21	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:21	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:21	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:21	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 18:21	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 18:21	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 18:21	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 18:21	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/23/23 18:21	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 18:21	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 18:21	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 18:21	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			10/23/23 18:21	1
Methyl tert-butyl ether	**2.0**		1.0	0.22	ug/L			10/23/23 18:21	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 18:21	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 18:21	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 18:21	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 18:21	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 18:21	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 18:21	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 18:21	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 18:21	1

Client Sample ID: MW5-ROX-101623

Date Collected: 10/16/23 10:45
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 18:21	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 18:21	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 18:21	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 18:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 18:21	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/23/23 18:21	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 18:21	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:21	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 18:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 18:21	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 18:21	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 18:21	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 18:21	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 18:21	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 18:21	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 18:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 18:21	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 18:21	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 18:21	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*10/23/23 18:21*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*10/23/23 18:21*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/23/23 18:21*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/18/23 13:29	10/21/23 07:27	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 13:29	10/21/23 07:27	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 13:29	10/21/23 07:27	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/18/23 13:29	10/21/23 07:27	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 13:29	10/21/23 07:27	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/18/23 13:29	10/21/23 07:27	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 13:29	10/21/23 07:27	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/18/23 13:29	10/21/23 07:27	1
Chrysene	ND		0.20	0.033	ug/L		10/18/23 13:29	10/21/23 07:27	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/18/23 13:29	10/21/23 07:27	1
Fluoranthene	ND		0.20	0.034	ug/L		10/18/23 13:29	10/21/23 07:27	1
Fluorene	ND		0.20	0.089	ug/L		10/18/23 13:29	10/21/23 07:27	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/18/23 13:29	10/21/23 07:27	1
Phenanthrene	ND		0.20	0.090	ug/L		10/18/23 13:29	10/21/23 07:27	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 13:29	10/21/23 07:27	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/18/23 13:29	10/21/23 07:27	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/18/23 13:29	10/21/23 07:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*59*		*18 - 147*	*10/18/23 13:29*	*10/21/23 07:27*	*1*
2-Fluorobiphenyl	*64*		*15 - 128*	*10/18/23 13:29*	*10/21/23 07:27*	*1*

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

Job ID: 400-245132-1

Client Sample ID: MW5-ROX-101623
Date Collected: 10/16/23 10:45
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*46*		*10 - 144*	*10/18/23 13:29*	*10/21/23 07:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/18/23 13:29	10/20/23 18:58	1
Benzenethiol	ND	*-	10	1.7	ug/L		10/18/23 13:29	10/20/23 18:58	1
Benzoic acid	ND	*1	30	7.3	ug/L		10/18/23 13:29	10/20/23 18:58	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 13:29	10/20/23 18:58	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 13:29	10/20/23 18:58	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/18/23 13:29	10/20/23 18:58	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 13:29	10/20/23 18:58	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/18/23 13:29	10/20/23 18:58	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 13:29	10/20/23 18:58	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 13:29	10/20/23 18:58	1
4-Chloroaniline	ND		10	3.4	ug/L		10/18/23 13:29	10/20/23 18:58	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/18/23 13:29	10/20/23 18:58	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 13:29	10/20/23 18:58	1
2-Chlorophenol	ND	*- *1	10	2.2	ug/L		10/18/23 13:29	10/20/23 18:58	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 13:29	10/20/23 18:58	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 18:58	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 18:58	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/18/23 13:29	10/20/23 18:58	1
2,4-Dichlorophenol	ND	*1	10	3.0	ug/L		10/18/23 13:29	10/20/23 18:58	1
Diethyl phthalate	ND		10	0.24	ug/L		10/18/23 13:29	10/20/23 18:58	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/18/23 13:29	10/20/23 18:58	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 18:58	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/18/23 13:29	10/20/23 18:58	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 13:29	10/20/23 18:58	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/18/23 13:29	10/20/23 18:58	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 13:29	10/20/23 18:58	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 13:29	10/20/23 18:58	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 18:58	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 18:58	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 18:58	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 13:29	10/20/23 18:58	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 13:29	10/20/23 18:58	1
Hexachloroethane	ND		10	4.2	ug/L		10/18/23 13:29	10/20/23 18:58	1
Indene	ND		10	1.0	ug/L		10/18/23 13:29	10/20/23 18:58	1
Isophorone	ND		10	0.14	ug/L		10/18/23 13:29	10/20/23 18:58	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 13:29	10/20/23 18:58	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 13:29	10/20/23 18:58	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 13:29	10/20/23 18:58	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 13:29	10/20/23 18:58	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 13:29	10/20/23 18:58	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 13:29	10/20/23 18:58	1
2-Nitrophenol	ND	*1	10	5.2	ug/L		10/18/23 13:29	10/20/23 18:58	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 13:29	10/20/23 18:58	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/18/23 13:29	10/20/23 18:58	1

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

Job ID: 400-245132-1

Client Sample ID: MW5-ROX-101623
Date Collected: 10/16/23 10:45
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-5
Matrix: Water

Method: SW846 8270E - 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		10/18/23 13:29	10/20/23 18:58	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 13:29	10/20/23 18:58	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 13:29	10/20/23 18:58	1
Phenol	ND	*1	10	2.6	ug/L		10/18/23 13:29	10/20/23 18:58	1
Pyridine	ND		10	3.2	ug/L		10/18/23 13:29	10/20/23 18:58	1
Quinoline	ND		10	4.5	ug/L		10/18/23 13:29	10/20/23 18:58	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/18/23 13:29	10/20/23 18:58	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/18/23 13:29	10/20/23 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*46 - 124*	*10/18/23 13:29*	*10/20/23 18:58*	*1*
2-Fluorophenol	*19*		*13 - 113*	*10/18/23 13:29*	*10/20/23 18:58*	*1*
Nitrobenzene-d5	*57*		*36 - 126*	*10/18/23 13:29*	*10/20/23 18:58*	*1*
Phenol-d5	*39*		*17 - 127*	*10/18/23 13:29*	*10/20/23 18:58*	*1*
Terphenyl-d14	*78*		*44 - 149*	*10/18/23 13:29*	*10/20/23 18:58*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*10/18/23 13:29*	*10/20/23 18:58*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/18/23 09:18	10/18/23 15:54	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*10/18/23 09:18*	*10/18/23 15:54*	*1*

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

Job ID: 400-245132-1

Client Sample ID: MW9-ROX-101623
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/23/23 18:47	1
Acrolein	ND		20	3.3	ug/L			10/23/23 18:47	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 18:47	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 18:47	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 18:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 18:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 18:47	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 18:47	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 18:47	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/23/23 18:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 18:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 18:47	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:47	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 18:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 18:47	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 18:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 18:47	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 18:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 18:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 18:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 18:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 18:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 18:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 18:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 18:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 18:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 18:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 18:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 18:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 18:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 18:47	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/23/23 18:47	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 18:47	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 18:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 18:47	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			10/23/23 18:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 18:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 18:47	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 18:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 18:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 18:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 18:47	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 18:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 18:47	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 18:47	1

Client Sample ID: MW9-ROX-101623
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 18:47	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 18:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 18:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 18:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 18:47	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/23/23 18:47	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 18:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 18:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 18:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 18:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 18:47	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 18:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 18:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 18:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 18:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 18:47	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 18:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 18:47	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*10/23/23 18:47*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*10/23/23 18:47*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*10/23/23 18:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.098	ug/L		10/18/23 13:29	10/21/23 09:29	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/18/23 13:29	10/21/23 09:29	1
Anthracene	ND		0.20	0.046	ug/L		10/18/23 13:29	10/21/23 09:29	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/18/23 13:29	10/21/23 09:29	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/18/23 13:29	10/21/23 09:29	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/18/23 13:29	10/21/23 09:29	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 13:29	10/21/23 09:29	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/18/23 13:29	10/21/23 09:29	1
Chrysene	ND		0.20	0.033	ug/L		10/18/23 13:29	10/21/23 09:29	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/18/23 13:29	10/21/23 09:29	1
Fluoranthene	ND		0.20	0.034	ug/L		10/18/23 13:29	10/21/23 09:29	1
Fluorene	ND		0.20	0.088	ug/L		10/18/23 13:29	10/21/23 09:29	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/18/23 13:29	10/21/23 09:29	1
Phenanthrene	ND		0.20	0.089	ug/L		10/18/23 13:29	10/21/23 09:29	1
Pyrene	ND		0.20	0.038	ug/L		10/18/23 13:29	10/21/23 09:29	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/18/23 13:29	10/21/23 09:29	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/18/23 13:29	10/21/23 09:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*100*		*18 - 147*	*10/18/23 13:29*	*10/21/23 09:29*	*1*
2-Fluorobiphenyl	*68*		*15 - 128*	*10/18/23 13:29*	*10/21/23 09:29*	*1*

Client Sample ID: MW9-ROX-101623
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*47*		*10 - 144*	*10/18/23 13:29*	*10/21/23 09:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		10/18/23 13:29	10/20/23 19:19	1
Benzenethiol	ND	*-	9.9	1.7	ug/L		10/18/23 13:29	10/20/23 19:19	1
Benzoic acid	ND	*1	30	7.2	ug/L		10/18/23 13:29	10/20/23 19:19	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/18/23 13:29	10/20/23 19:19	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/18/23 13:29	10/20/23 19:19	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/18/23 13:29	10/20/23 19:19	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/18/23 13:29	10/20/23 19:19	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		10/18/23 13:29	10/20/23 19:19	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/18/23 13:29	10/20/23 19:19	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/18/23 13:29	10/20/23 19:19	1
4-Chloroaniline	ND		9.9	3.4	ug/L		10/18/23 13:29	10/20/23 19:19	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		10/18/23 13:29	10/20/23 19:19	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/18/23 13:29	10/20/23 19:19	1
2-Chlorophenol	ND	*- *1	9.9	2.2	ug/L		10/18/23 13:29	10/20/23 19:19	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/18/23 13:29	10/20/23 19:19	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/18/23 13:29	10/20/23 19:19	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/18/23 13:29	10/20/23 19:19	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/18/23 13:29	10/20/23 19:19	1
2,4-Dichlorophenol	ND	*1	9.9	3.0	ug/L		10/18/23 13:29	10/20/23 19:19	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/18/23 13:29	10/20/23 19:19	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		10/18/23 13:29	10/20/23 19:19	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/18/23 13:29	10/20/23 19:19	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/18/23 13:29	10/20/23 19:19	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		10/18/23 13:29	10/20/23 19:19	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/18/23 13:29	10/20/23 19:19	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/18/23 13:29	10/20/23 19:19	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/18/23 13:29	10/20/23 19:19	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/18/23 13:29	10/20/23 19:19	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/18/23 13:29	10/20/23 19:19	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/18/23 13:29	10/20/23 19:19	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/18/23 13:29	10/20/23 19:19	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 13:29	10/20/23 19:19	1
Hexachloroethane	ND		9.9	4.1	ug/L		10/18/23 13:29	10/20/23 19:19	1
Indene	ND		9.9	0.99	ug/L		10/18/23 13:29	10/20/23 19:19	1
Isophorone	ND		9.9	0.14	ug/L		10/18/23 13:29	10/20/23 19:19	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/18/23 13:29	10/20/23 19:19	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/18/23 13:29	10/20/23 19:19	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/18/23 13:29	10/20/23 19:19	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/18/23 13:29	10/20/23 19:19	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/18/23 13:29	10/20/23 19:19	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/18/23 13:29	10/20/23 19:19	1
2-Nitrophenol	ND	*1	9.9	5.1	ug/L		10/18/23 13:29	10/20/23 19:19	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/18/23 13:29	10/20/23 19:19	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		10/18/23 13:29	10/20/23 19:19	1

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

Job ID: 400-245132-1

Client Sample ID: MW9-ROX-101623
Date Collected: 10/16/23 12:00
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-6
Matrix: Water

Method: SW846 8270E - 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		10/18/23 13:29	10/20/23 19:19	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/18/23 13:29	10/20/23 19:19	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 13:29	10/20/23 19:19	1
Phenol	ND	*1	9.9	2.6	ug/L		10/18/23 13:29	10/20/23 19:19	1
Pyridine	ND		9.9	3.2	ug/L		10/18/23 13:29	10/20/23 19:19	1
Quinoline	ND		9.9	4.4	ug/L		10/18/23 13:29	10/20/23 19:19	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/18/23 13:29	10/20/23 19:19	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/18/23 13:29	10/20/23 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*46 - 124*	*10/18/23 13:29*	*10/20/23 19:19*	*1*
2-Fluorophenol	*13*		*13 - 113*	*10/18/23 13:29*	*10/20/23 19:19*	*1*
Nitrobenzene-d5	*57*		*36 - 126*	*10/18/23 13:29*	*10/20/23 19:19*	*1*
Phenol-d5	*41*		*17 - 127*	*10/18/23 13:29*	*10/20/23 19:19*	*1*
Terphenyl-d14	*91*		*44 - 149*	*10/18/23 13:29*	*10/20/23 19:19*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*10/18/23 13:29*	*10/20/23 19:19*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		10/18/23 09:18	10/18/23 16:36	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*51 - 149*	*10/18/23 09:18*	*10/18/23 16:36*	*1*

Client Sample ID: MW22-ROX-101623
Date Collected: 10/16/23 13:25
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/23/23 19:12	1
Acrolein	ND		20	3.3	ug/L			10/23/23 19:12	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 19:12	1
Benzene	**6.1**		1.0	0.50	ug/L			10/23/23 19:12	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 19:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 19:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 19:12	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 19:12	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 19:12	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/23/23 19:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 19:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 19:12	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 19:12	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 19:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 19:12	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 19:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 19:12	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 19:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 19:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 19:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 19:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 19:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 19:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 19:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 19:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 19:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 19:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 19:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 19:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 19:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 19:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 19:12	1
Ethylbenzene	**22**		1.0	0.50	ug/L			10/23/23 19:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 19:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 19:12	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/23/23 19:12	1
Isopropylbenzene	**14**		1.0	0.53	ug/L			10/23/23 19:12	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 19:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 19:12	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			10/23/23 19:12	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 19:12	1
m-Xylene & p-Xylene	**130**		5.0	0.63	ug/L			10/23/23 19:12	1
Naphthalene	**34**		5.0	3.0	ug/L			10/23/23 19:12	1
n-Butylbenzene	**2.9**		1.0	0.76	ug/L			10/23/23 19:12	1
N-Propylbenzene	**27**		1.0	0.69	ug/L			10/23/23 19:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 19:12	1
o-Xylene	**6.1**		5.0	0.60	ug/L			10/23/23 19:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 19:12	1
p-Isopropyltoluene	**1.9**		1.0	0.71	ug/L			10/23/23 19:12	1

Client Sample ID: MW22-ROX-101623

Lab Sample ID: 400-245132-7

Date Collected: 10/16/23 13:25

Matrix: Water

Date Received: 10/17/23 08:55

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**1.5**		1.0	0.70	ug/L			10/23/23 19:12	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 19:12	1
tert-Butylbenzene	**4.3**		1.0	0.63	ug/L			10/23/23 19:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 19:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 19:12	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/23/23 19:12	1
Toluene	**8.8**		1.0	0.90	ug/L			10/23/23 19:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 19:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 19:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 19:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 19:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 19:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 19:12	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 19:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 19:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 19:12	1
1,2,4-Trimethylbenzene	**49**		1.0	0.82	ug/L			10/23/23 19:12	1
1,3,5-Trimethylbenzene	**35**		1.0	0.56	ug/L			10/23/23 19:12	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 19:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 19:12	1
Xylenes, Total	**140**		10	1.6	ug/L			10/23/23 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*10/23/23 19:12*	*1*
Dibromofluoromethane	*81*		*75 - 126*		*10/23/23 19:12*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/23/23 19:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/18/23 13:29	10/21/23 09:50	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/18/23 13:29	10/21/23 09:50	1
Anthracene	ND		0.20	0.046	ug/L		10/18/23 13:29	10/21/23 09:50	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		10/18/23 13:29	10/21/23 09:50	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/18/23 13:29	10/21/23 09:50	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/18/23 13:29	10/21/23 09:50	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/18/23 13:29	10/21/23 09:50	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/18/23 13:29	10/21/23 09:50	1
Chrysene	ND		0.20	0.032	ug/L		10/18/23 13:29	10/21/23 09:50	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/18/23 13:29	10/21/23 09:50	1
Fluoranthene	ND		0.20	0.033	ug/L		10/18/23 13:29	10/21/23 09:50	1
Fluorene	**0.14**	**J**	0.20	0.087	ug/L		10/18/23 13:29	10/21/23 09:50	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/18/23 13:29	10/21/23 09:50	1
Phenanthrene	ND		0.20	0.088	ug/L		10/18/23 13:29	10/21/23 09:50	1
Pyrene	ND		0.20	0.038	ug/L		10/18/23 13:29	10/21/23 09:50	1
1-Methylnaphthalene	**3.7**		0.20	0.078	ug/L		10/18/23 13:29	10/21/23 09:50	1
2-Methylnaphthalene	**3.9**		0.20	0.065	ug/L		10/18/23 13:29	10/21/23 09:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*18 - 147*	*10/18/23 13:29*	*10/21/23 09:50*	*1*
2-Fluorobiphenyl	*35*		*15 - 128*	*10/18/23 13:29*	*10/21/23 09:50*	*1*

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

Job ID: 400-245132-1

Client Sample ID: MW22-ROX-101623
Date Collected: 10/16/23 13:25
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-7
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*43*		*10 - 144*	*10/18/23 13:29*	*10/21/23 09:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/18/23 13:29	10/20/23 19:41	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		10/18/23 13:29	10/20/23 19:41	1
Benzoic acid	ND	*1	29	7.2	ug/L		10/18/23 13:29	10/20/23 19:41	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/18/23 13:29	10/20/23 19:41	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/18/23 13:29	10/20/23 19:41	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/18/23 13:29	10/20/23 19:41	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/18/23 13:29	10/20/23 19:41	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/18/23 13:29	10/20/23 19:41	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/18/23 13:29	10/20/23 19:41	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/18/23 13:29	10/20/23 19:41	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/18/23 13:29	10/20/23 19:41	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/18/23 13:29	10/20/23 19:41	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/18/23 13:29	10/20/23 19:41	1
2-Chlorophenol	ND	*- *1	9.8	2.2	ug/L		10/18/23 13:29	10/20/23 19:41	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/18/23 13:29	10/20/23 19:41	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/18/23 13:29	10/20/23 19:41	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/18/23 13:29	10/20/23 19:41	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		10/18/23 13:29	10/20/23 19:41	1
2,4-Dichlorophenol	ND	*1	9.8	2.9	ug/L		10/18/23 13:29	10/20/23 19:41	1
Diethyl phthalate	ND		9.8	0.24	ug/L		10/18/23 13:29	10/20/23 19:41	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/18/23 13:29	10/20/23 19:41	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/18/23 13:29	10/20/23 19:41	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/18/23 13:29	10/20/23 19:41	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		10/18/23 13:29	10/20/23 19:41	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/18/23 13:29	10/20/23 19:41	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 13:29	10/20/23 19:41	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/18/23 13:29	10/20/23 19:41	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/18/23 13:29	10/20/23 19:41	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/18/23 13:29	10/20/23 19:41	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/18/23 13:29	10/20/23 19:41	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/18/23 13:29	10/20/23 19:41	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 13:29	10/20/23 19:41	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/18/23 13:29	10/20/23 19:41	1
Indene	ND		9.8	0.98	ug/L		10/18/23 13:29	10/20/23 19:41	1
Isophorone	ND		9.8	0.14	ug/L		10/18/23 13:29	10/20/23 19:41	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/18/23 13:29	10/20/23 19:41	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/18/23 13:29	10/20/23 19:41	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/18/23 13:29	10/20/23 19:41	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/18/23 13:29	10/20/23 19:41	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/18/23 13:29	10/20/23 19:41	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/18/23 13:29	10/20/23 19:41	1
2-Nitrophenol	ND	*1	9.8	5.1	ug/L		10/18/23 13:29	10/20/23 19:41	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/18/23 13:29	10/20/23 19:41	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/18/23 13:29	10/20/23 19:41	1

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

Job ID: 400-245132-1

Client Sample ID: MW22-ROX-101623
Date Collected: 10/16/23 13:25
Date Received: 10/17/23 08:55

Lab Sample ID: 400-245132-7
Matrix: Water

Method: SW846 8270E - 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		10/18/23 13:29	10/20/23 19:41	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/18/23 13:29	10/20/23 19:41	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 13:29	10/20/23 19:41	1
Phenol	ND	*1	9.8	2.6	ug/L		10/18/23 13:29	10/20/23 19:41	1
Pyridine	ND		9.8	3.1	ug/L		10/18/23 13:29	10/20/23 19:41	1
Quinoline	ND		9.8	4.4	ug/L		10/18/23 13:29	10/20/23 19:41	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/18/23 13:29	10/20/23 19:41	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/18/23 13:29	10/20/23 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*60*		*46 - 124*	*10/18/23 13:29*	*10/20/23 19:41*	*1*
2-Fluorophenol	*18*		*13 - 113*	*10/18/23 13:29*	*10/20/23 19:41*	*1*
Nitrobenzene-d5	*54*		*36 - 126*	*10/18/23 13:29*	*10/20/23 19:41*	*1*
Phenol-d5	*41*		*17 - 127*	*10/18/23 13:29*	*10/20/23 19:41*	*1*
Terphenyl-d14	*77*		*44 - 149*	*10/18/23 13:29*	*10/20/23 19:41*	*1*
2,4,6-Tribromophenol	*82*		*26 - 150*	*10/18/23 13:29*	*10/20/23 19:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/18/23 09:18	10/18/23 16:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/18/23 09:18	10/18/23 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*51 - 149*	*10/18/23 09:18*	*10/18/23 16:58*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-245132-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
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.

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: 400-245132-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245132-1	TB-ROX-101623-8260	101	96	106
400-245132-3	ROST4PZC-ROX-101623	107	85	105
400-245132-4	ROST4PZC-ROX-101623-DUP	107	91	105
400-245132-5	MW5-ROX-101623	103	93	106
400-245132-6	MW9-ROX-101623	103	94	104
400-245132-7	MW22-ROX-101623	103	81	106
LCS 400-646592/1001	Lab Control Sample	100	99	101
LCS 400-646651/1001	Lab Control Sample	106	96	103
MB 400-646592/3	Method Blank	100	100	106
MB 400-646651/3	Method Blank	106	99	107

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245132-3	ROST4PZC-ROX-101623	68	8 S1-	61	30	89	65
400-245132-4	ROST4PZC-ROX-101623-DUP	71	21	65	48	98	83
400-245132-5	MW5-ROX-101623	64	19	57	39	78	79
400-245132-6	MW9-ROX-101623	65	13	57	41	91	61
400-245132-7	MW22-ROX-101623	60	18	54	41	77	82
LCS 400-646105/2-A	Lab Control Sample	77	42	73	64	87	98
LCS 400-646105/4-A	Lab Control Sample	77	30	66	55	98	44
LCSD 400-646105/3-A	Lab Control Sample Dup	72	11 S1-	68	38	83	88
LCSD 400-646105/5-A	Lab Control Sample Dup	81	43	72	62	95	65
MB 400-646105/1-A	Method Blank	82	21	71	52	100	71

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245132-3	ROST4PZC-ROX-101623	67	51	47
400-245132-4	ROST4PZC-ROX-101623-DUP	83	67	53
400-245132-5	MW5-ROX-101623	59	64	46
400-245132-6	MW9-ROX-101623	100	68	47

Surrogate Summary

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

Job ID: 400-245132-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245132-7	MW22-ROX-101623	82	35	43
LCS 400-646105/6-A	Lab Control Sample	115	80	52
LCSD 400-646105/7-A	Lab Control Sample Dup	134	77	66
MB 400-646105/1-A	Method Blank	82	72	60

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-245132-2	TB-ROX-101623-8011	111
400-245132-3	ROST4PZC-ROX-101623	99
400-245132-4	ROST4PZC-ROX-101623-DUP	104
400-245132-5	MW5-ROX-101623	94
400-245132-6	MW9-ROX-101623	114
400-245132-7	MW22-ROX-101623	103

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)
		BFB2
Lab Sample ID	Client Sample ID	(51-149)
LCS 400-645864/2-A	Lab Control Sample	106
LCSD 400-645864/3-A	Lab Control Sample Dup	100
MB 400-645864/1-A	Method Blank	94

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-245132-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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-101623-8260

Lab Sample ID: 400-245132-1

Date Collected: 10/16/23 12:00

Matrix: Water

Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646592	10/21/23 14:31	BPO	EET PEN

Client Sample ID: TB-ROX-101623-8011

Lab Sample ID: 400-245132-2

Date Collected: 10/16/23 12:00

Matrix: Water

Date Received: 10/17/23 08:55

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	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 14:51	PG	EET PEN

Client Sample ID: ROST4PZC-ROX-101623

Lab Sample ID: 400-245132-3

Date Collected: 10/16/23 09:35

Matrix: Water

Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646651	10/23/23 17:31	BPO	EET PEN
Total/NA	Prep	3520C			258.8 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 18:15	KJA	EET PEN
Total/NA	Prep	3520C			258.8 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646684	10/23/23 17:10	S1B	EET PEN
Total/NA	Prep	8011			35.3 mL	35 mL	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 15:12	PG	EET PEN

Client Sample ID: ROST4PZC-ROX-101623-DUP

Lab Sample ID: 400-245132-4

Date Collected: 10/16/23 09:35

Matrix: Water

Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646651	10/23/23 17:56	BPO	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 18:36	KJA	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 07:07	TH	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 15:33	PG	EET PEN

Client Sample ID: MW5-ROX-101623

Lab Sample ID: 400-245132-5

Date Collected: 10/16/23 10:45

Matrix: Water

Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646651	10/23/23 18:21	BPO	EET PEN
Total/NA	Prep	3520C			249.6 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 18:58	KJA	EET PEN

Client Sample ID: MW5-ROX-101623

Lab Sample ID: 400-245132-5

Date Collected: 10/16/23 10:45

Matrix: Water

Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			249.6 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 07:27	TH	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 15:54	PG	EET PEN

Client Sample ID: MW9-ROX-101623

Lab Sample ID: 400-245132-6

Date Collected: 10/16/23 12:00

Matrix: Water

Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646651	10/23/23 18:47	BPO	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 19:19	KJA	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 09:29	TH	EET PEN
Total/NA	Prep	8011			35.6 mL	35 mL	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 16:36	PG	EET PEN

Client Sample ID: MW22-ROX-101623

Lab Sample ID: 400-245132-7

Date Collected: 10/16/23 13:25

Matrix: Water

Date Received: 10/17/23 08:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646651	10/23/23 19:12	BPO	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 19:41	KJA	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	646105	10/18/23 13:29	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 09:50	TH	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	645864	10/18/23 09:18	PG	EET PEN
Total/NA	Analysis	8011		1			646062	10/18/23 16:58	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-645864/1-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 22:44	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646105/1-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 10:45	KJA	EET PEN

Lab Chronicle

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

Job ID: 400-245132-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646105/1-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646684	10/23/23 14:23	S1B	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646592/3
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	8260D		1	5 mL	5 mL	646592	10/21/23 10:14	BPO	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646651/3
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	8260D		1	5 mL	5 mL	646651	10/23/23 13:44	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-645864/2-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 23:05	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/2-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:06	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/4-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:49	KJA	EET PEN

Lab Chronicle

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

Job ID: 400-245132-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646105/6-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 03:43	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646592/1001
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	8260D		1	5 mL	5 mL	646592	10/21/23 09:12	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646651/1001
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	8260D		1	5 mL	5 mL	646651	10/23/23 12:41	BPO	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-645864/3-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	645864	10/17/23 10:40	PG	EET PEN
Total/NA	Analysis	8011		1			645889	10/17/23 23:26	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/3-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 11:28	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646105/5-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	646410	10/20/23 12:11	KJA	EET PEN

Lab Chronicle

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

Job ID: 400-245132-1

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-646105/7-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	646105	10/18/23 12:44	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	646527	10/21/23 04:03	TH	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245132-1	TB-ROX-101623-8260	Total/NA	Water	8260D	
MB 400-646592/3	Method Blank	Total/NA	Water	8260D	
LCS 400-646592/1001	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 646651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245132-3	ROST4PZC-ROX-101623	Total/NA	Water	8260D	
400-245132-4	ROST4PZC-ROX-101623-DUP	Total/NA	Water	8260D	
400-245132-5	MW5-ROX-101623	Total/NA	Water	8260D	
400-245132-6	MW9-ROX-101623	Total/NA	Water	8260D	
400-245132-7	MW22-ROX-101623	Total/NA	Water	8260D	
MB 400-646651/3	Method Blank	Total/NA	Water	8260D	
LCS 400-646651/1001	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245132-3	ROST4PZC-ROX-101623	Total/NA	Water	3520C	
400-245132-4	ROST4PZC-ROX-101623-DUP	Total/NA	Water	3520C	
400-245132-5	MW5-ROX-101623	Total/NA	Water	3520C	
400-245132-6	MW9-ROX-101623	Total/NA	Water	3520C	
400-245132-7	MW22-ROX-101623	Total/NA	Water	3520C	
MB 400-646105/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646105/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646105/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646105/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646105/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646105/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646105/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 646410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245132-3	ROST4PZC-ROX-101623	Total/NA	Water	8270E	646105
400-245132-4	ROST4PZC-ROX-101623-DUP	Total/NA	Water	8270E	646105
400-245132-5	MW5-ROX-101623	Total/NA	Water	8270E	646105
400-245132-6	MW9-ROX-101623	Total/NA	Water	8270E	646105
400-245132-7	MW22-ROX-101623	Total/NA	Water	8270E	646105
MB 400-646105/1-A	Method Blank	Total/NA	Water	8270E	646105
LCS 400-646105/2-A	Lab Control Sample	Total/NA	Water	8270E	646105
LCS 400-646105/4-A	Lab Control Sample	Total/NA	Water	8270E	646105
LCSD 400-646105/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646105
LCSD 400-646105/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646105

Analysis Batch: 646527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245132-4	ROST4PZC-ROX-101623-DUP	Total/NA	Water	8270E SIM	646105
400-245132-5	MW5-ROX-101623	Total/NA	Water	8270E SIM	646105
400-245132-6	MW9-ROX-101623	Total/NA	Water	8270E SIM	646105
400-245132-7	MW22-ROX-101623	Total/NA	Water	8270E SIM	646105
LCS 400-646105/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646105

GC/MS Semi VOA (Continued)

Analysis Batch: 646527 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-646105/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646105

Analysis Batch: 646684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245132-3	ROST4PZC-ROX-101623	Total/NA	Water	8270E SIM	646105
MB 400-646105/1-A	Method Blank	Total/NA	Water	8270E SIM	646105

GC Semi VOA

Prep Batch: 645864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245132-2	TB-ROX-101623-8011	Total/NA	Water	8011	
400-245132-3	ROST4PZC-ROX-101623	Total/NA	Water	8011	
400-245132-4	ROST4PZC-ROX-101623-DUP	Total/NA	Water	8011	
400-245132-5	MW5-ROX-101623	Total/NA	Water	8011	
400-245132-6	MW9-ROX-101623	Total/NA	Water	8011	
400-245132-7	MW22-ROX-101623	Total/NA	Water	8011	
MB 400-645864/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-645864/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-645864/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 645889

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-645864/1-A	Method Blank	Total/NA	Water	8011	645864
LCS 400-645864/2-A	Lab Control Sample	Total/NA	Water	8011	645864
LCSD 400-645864/3-A	Lab Control Sample Dup	Total/NA	Water	8011	645864

Analysis Batch: 646062

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245132-2	TB-ROX-101623-8011	Total/NA	Water	8011	645864
400-245132-3	ROST4PZC-ROX-101623	Total/NA	Water	8011	645864
400-245132-4	ROST4PZC-ROX-101623-DUP	Total/NA	Water	8011	645864
400-245132-5	MW5-ROX-101623	Total/NA	Water	8011	645864
400-245132-6	MW9-ROX-101623	Total/NA	Water	8011	645864
400-245132-7	MW22-ROX-101623	Total/NA	Water	8011	645864

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646592/3
Matrix: Water
Analysis Batch: 646592

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			10/21/23 10:14	1
Acrolein	ND		20	3.3	ug/L			10/21/23 10:14	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/23 10:14	1
Benzene	ND		1.0	0.50	ug/L			10/21/23 10:14	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/23 10:14	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/21/23 10:14	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/23 10:14	1
Bromoform	ND		5.0	0.25	ug/L			10/21/23 10:14	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/23 10:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/23 10:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/23 10:14	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/21/23 10:14	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/21/23 10:14	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/23 10:14	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/23 10:14	1
Chloroform	ND		1.0	0.90	ug/L			10/21/23 10:14	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/21/23 10:14	1
Chloromethane	ND		1.0	0.90	ug/L			10/21/23 10:14	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/21/23 10:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/23 10:14	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/21/23 10:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/23 10:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/23 10:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/23 10:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/23 10:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/23 10:14	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/21/23 10:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 10:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 10:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 10:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/23 10:14	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/23 10:14	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/23 10:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/23 10:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/23 10:14	1
2-Hexanone	ND		25	1.4	ug/L			10/21/23 10:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/23 10:14	1
Methylene bromide	ND		5.0	0.22	ug/L			10/21/23 10:14	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/23 10:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/23 10:14	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/21/23 10:14	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/21/23 10:14	1
Naphthalene	ND		5.0	3.0	ug/L			10/21/23 10:14	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/23 10:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/23 10:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/23 10:14	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/23 10:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/23 10:14	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646592/3
Matrix: Water
Analysis Batch: 646592

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			10/21/23 10:14	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/23 10:14	1
Styrene	ND		1.0	1.0	ug/L			10/21/23 10:14	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/23 10:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/21/23 10:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/23 10:14	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/21/23 10:14	1
Toluene	ND		1.0	0.90	ug/L			10/21/23 10:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/23 10:14	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/21/23 10:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/21/23 10:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/23 10:14	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/21/23 10:14	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/21/23 10:14	1
Trichloroethene	ND		1.0	0.15	ug/L			10/21/23 10:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/23 10:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/23 10:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/23 10:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/23 10:14	1
Vinyl acetate	ND		25	0.93	ug/L			10/21/23 10:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/23 10:14	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/23 10:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 130*		*10/21/23 10:14*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*10/21/23 10:14*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/21/23 10:14*	*1*

Lab Sample ID: LCS 400-646592/1001
Matrix: Water
Analysis Batch: 646592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	601	*+	ug/L		301	43 - 160
Acrolein	500	584		ug/L		117	38 - 160
Acrylonitrile	500	580		ug/L		116	64 - 142
Benzene	50.0	49.7		ug/L		99	70 - 130
Bromobenzene	50.0	43.9		ug/L		88	70 - 132
Bromochloromethane	50.0	43.2		ug/L		86	70 - 130
Bromodichloromethane	50.0	55.1		ug/L		110	67 - 133
Bromoform	50.0	44.5		ug/L		89	57 - 140
Bromomethane	50.0	57.0		ug/L		114	10 - 160
2-Butanone (MEK)	200	435	*+	ug/L		217	61 - 145
Carbon disulfide	50.0	40.3		ug/L		81	61 - 137
Carbon tetrachloride	50.0	48.5		ug/L		97	61 - 137
Chlorobenzene	50.0	49.6		ug/L		99	70 - 130
Chloroethane	50.0	52.8		ug/L		106	55 - 141
2-Chloroethyl vinyl ether	50.0	70.3		ug/L		141	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646592/1001
Matrix: Water
Analysis Batch: 646592

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	48.9		ug/L		98	69 - 130
1-Chlorohexane	50.0	47.7		ug/L		95	69 - 130
Chloromethane	50.0	58.4		ug/L		117	58 - 137
cis-1,2-Dichloroethene	50.0	48.3		ug/L		97	68 - 130
cis-1,3-Dichloropropene	50.0	52.2		ug/L		104	69 - 132
Dibromochloromethane	50.0	51.3		ug/L		103	67 - 135
1,2-Dichlorobenzene	50.0	46.6		ug/L		93	67 - 130
1,3-Dichlorobenzene	50.0	46.4		ug/L		93	70 - 130
1,4-Dichlorobenzene	50.0	46.7		ug/L		93	70 - 130
Dichlorodifluoromethane	50.0	58.6		ug/L		117	41 - 146
1,1-Dichloroethane	50.0	48.3		ug/L		97	70 - 130
1,2-Dichloroethane	50.0	52.4		ug/L		105	69 - 130
1,1-Dichloroethene	50.0	43.9		ug/L		88	63 - 134
1,2-Dichloropropane	50.0	56.0		ug/L		112	70 - 130
1,3-Dichloropropane	50.0	53.9		ug/L		108	70 - 130
2,2-Dichloropropane	50.0	42.6		ug/L		85	52 - 135
1,1-Dichloropropene	50.0	47.9		ug/L		96	70 - 130
Ethylbenzene	50.0	49.5		ug/L		99	70 - 130
Ethyl methacrylate	50.0	51.0		ug/L		102	68 - 130
Hexachlorobutadiene	50.0	47.4		ug/L		95	53 - 140
2-Hexanone	200	337	*+	ug/L		168	65 - 137
Isopropylbenzene	50.0	48.2		ug/L		96	70 - 130
Methylene bromide	50.0	56.3		ug/L		113	70 - 130
Methylene Chloride	50.0	45.7		ug/L		91	66 - 135
4-Methyl-2-pentanone (MIBK)	200	274		ug/L		137	69 - 138
Methyl tert-butyl ether	50.0	46.2		ug/L		92	66 - 130
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	70 - 130
Naphthalene	50.0	49.1		ug/L		98	47 - 149
n-Butylbenzene	50.0	52.5		ug/L		105	67 - 130
N-Propylbenzene	50.0	46.8		ug/L		94	70 - 130
o-Chlorotoluene	50.0	50.0		ug/L		100	70 - 130
o-Xylene	50.0	47.9		ug/L		96	70 - 130
p-Chlorotoluene	50.0	49.0		ug/L		98	70 - 130
p-Isopropyltoluene	50.0	47.8		ug/L		96	65 - 130
sec-Butylbenzene	50.0	48.1		ug/L		96	66 - 130
Styrene	50.0	45.3		ug/L		91	70 - 130
tert-Butylbenzene	50.0	47.4		ug/L		95	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.4		ug/L		93	67 - 131
1,1,2,2-Tetrachloroethane	50.0	40.8		ug/L		82	70 - 131
Tetrachloroethene	50.0	64.2		ug/L		128	65 - 130
Toluene	50.0	49.9		ug/L		100	70 - 130
trans-1,2-Dichloroethene	50.0	44.2		ug/L		88	70 - 130
trans-1,3-Dichloropropene	50.0	47.7		ug/L		95	63 - 130
1,2,3-Trichlorobenzene	50.0	45.1		ug/L		90	60 - 138
1,2,4-Trichlorobenzene	50.0	44.0		ug/L		88	60 - 140
1,1,1-Trichloroethane	50.0	46.9		ug/L		94	68 - 130
1,1,2-Trichloroethane	50.0	54.9		ug/L		110	70 - 130
Trichloroethene	50.0	55.4		ug/L		111	70 - 130
Trichlorofluoromethane	50.0	42.4		ug/L		85	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646592/1001
Matrix: Water
Analysis Batch: 646592

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	52.5		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	50.0	47.8		ug/L		96	70 - 130
1,3,5-Trimethylbenzene	50.0	47.2		ug/L		94	69 - 130
Vinyl acetate	100	109		ug/L		109	26 - 160
Vinyl chloride	50.0	55.9		ug/L		112	59 - 136
Xylenes, Total	100	97.1		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*72 - 130*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: MB 400-646651/3
Matrix: Water
Analysis Batch: 646651

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			10/23/23 13:44	1
Acrolein	ND		20	3.3	ug/L			10/23/23 13:44	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 13:44	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 13:44	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 13:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 13:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 13:44	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 13:44	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 13:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/23/23 13:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 13:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 13:44	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 13:44	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 13:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 13:44	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 13:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 13:44	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 13:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 13:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 13:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 13:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 13:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 13:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 13:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 13:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 13:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 13:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 13:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 13:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 13:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 13:44	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646651/3
Matrix: Water
Analysis Batch: 646651

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 13:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 13:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 13:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 13:44	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 13:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 13:44	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 13:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 13:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 13:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 13:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 13:44	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 13:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 13:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 13:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 13:44	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 13:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 13:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 13:44	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 13:44	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 13:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 13:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 13:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 13:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 13:44	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 13:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 13:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 13:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 13:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 13:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 13:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 13:44	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 13:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 13:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 13:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 13:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 13:44	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 13:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 13:44	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 13:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 130*		*10/23/23 13:44*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*10/23/23 13:44*	*1*
Toluene-d8 (Surr)	*107*		*64 - 132*		*10/23/23 13:44*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646651/1001
Matrix: Water
Analysis Batch: 646651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	614	*+	ug/L		307	43 - 160
Acrolein	500	517		ug/L		103	38 - 160
Acrylonitrile	500	549		ug/L		110	64 - 142
Benzene	50.0	50.9		ug/L		102	70 - 130
Bromobenzene	50.0	47.1		ug/L		94	70 - 132
Bromochloromethane	50.0	41.3		ug/L		83	70 - 130
Bromodichloromethane	50.0	55.7		ug/L		111	67 - 133
Bromoform	50.0	45.3		ug/L		91	57 - 140
Bromomethane	50.0	50.4		ug/L		101	10 - 160
2-Butanone (MEK)	200	452	*+	ug/L		226	61 - 145
Carbon disulfide	50.0	41.4		ug/L		83	61 - 137
Carbon tetrachloride	50.0	49.8		ug/L		100	61 - 137
Chlorobenzene	50.0	51.0		ug/L		102	70 - 130
Chloroethane	50.0	44.4		ug/L		89	55 - 141
2-Chloroethyl vinyl ether	50.0	69.0		ug/L		138	10 - 160
Chloroform	50.0	48.5		ug/L		97	69 - 130
1-Chlorohexane	50.0	54.3		ug/L		109	69 - 130
Chloromethane	50.0	58.1		ug/L		116	58 - 137
cis-1,2-Dichloroethene	50.0	50.3		ug/L		101	68 - 130
cis-1,3-Dichloropropene	50.0	56.0		ug/L		112	69 - 132
Dibromochloromethane	50.0	49.9		ug/L		100	67 - 135
1,2-Dichlorobenzene	50.0	49.3		ug/L		99	67 - 130
1,3-Dichlorobenzene	50.0	49.5		ug/L		99	70 - 130
1,4-Dichlorobenzene	50.0	50.1		ug/L		100	70 - 130
Dichlorodifluoromethane	50.0	51.3		ug/L		103	41 - 146
1,1-Dichloroethane	50.0	48.6		ug/L		97	70 - 130
1,2-Dichloroethane	50.0	52.1		ug/L		104	69 - 130
1,1-Dichloroethene	50.0	45.2		ug/L		90	63 - 134
1,2-Dichloropropane	50.0	56.9		ug/L		114	70 - 130
1,3-Dichloropropane	50.0	54.5		ug/L		109	70 - 130
2,2-Dichloropropane	50.0	46.4		ug/L		93	52 - 135
1,1-Dichloropropene	50.0	51.7		ug/L		103	70 - 130
Ethylbenzene	50.0	52.9		ug/L		106	70 - 130
Ethyl methacrylate	50.0	54.9		ug/L		110	68 - 130
Hexachlorobutadiene	50.0	54.9		ug/L		110	53 - 140
2-Hexanone	200	403	*+	ug/L		202	65 - 137
Isopropylbenzene	50.0	52.9		ug/L		106	70 - 130
Methylene bromide	50.0	56.1		ug/L		112	70 - 130
Methylene Chloride	50.0	45.7		ug/L		91	66 - 135
4-Methyl-2-pentanone (MIBK)	200	286	*+	ug/L		143	69 - 138
Methyl tert-butyl ether	50.0	47.8		ug/L		96	66 - 130
m-Xylene & p-Xylene	50.0	53.3		ug/L		107	70 - 130
Naphthalene	50.0	55.5		ug/L		111	47 - 149
n-Butylbenzene	50.0	58.4		ug/L		117	67 - 130
N-Propylbenzene	50.0	52.8		ug/L		106	70 - 130
o-Chlorotoluene	50.0	54.6		ug/L		109	70 - 130
o-Xylene	50.0	51.5		ug/L		103	70 - 130
p-Chlorotoluene	50.0	54.2		ug/L		108	70 - 130

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646651/1001
Matrix: Water
Analysis Batch: 646651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	50.0	53.7		ug/L		107	65 - 130
sec-Butylbenzene	50.0	54.2		ug/L		108	66 - 130
Styrene	50.0	47.4		ug/L		95	70 - 130
tert-Butylbenzene	50.0	53.5		ug/L		107	64 - 139
1,1,1,2-Tetrachloroethane	50.0	48.3		ug/L		97	67 - 131
1,1,2,2-Tetrachloroethane	50.0	38.6		ug/L		77	70 - 131
Tetrachloroethene	50.0	69.2	*+	ug/L		138	65 - 130
Toluene	50.0	52.3		ug/L		105	70 - 130
trans-1,2-Dichloroethene	50.0	44.6		ug/L		89	70 - 130
trans-1,3-Dichloropropene	50.0	50.2		ug/L		100	63 - 130
1,2,3-Trichlorobenzene	50.0	50.9		ug/L		102	60 - 138
1,2,4-Trichlorobenzene	50.0	50.6		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	48.4		ug/L		97	68 - 130
1,1,2-Trichloroethane	50.0	53.5		ug/L		107	70 - 130
Trichloroethene	50.0	57.6		ug/L		115	70 - 130
Trichlorofluoromethane	50.0	41.7		ug/L		83	65 - 138
1,2,3-Trichloropropane	50.0	53.8		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	50.0	53.2		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	50.0	52.6		ug/L		105	69 - 130
Vinyl acetate	100	102		ug/L		102	26 - 160
Vinyl chloride	50.0	54.2		ug/L		108	59 - 136
Xylenes, Total	100	105		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*72 - 130*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*103*		*64 - 132*

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzenethiol	ND		10	1.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzoic acid	ND		30	7.3	ug/L		10/18/23 12:44	10/20/23 10:45	1
Benzyl alcohol	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/18/23 12:44	10/20/23 10:45	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/18/23 12:44	10/20/23 10:45	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chloroaniline	ND		10	3.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Chlorophenol	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 10:45	1

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

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dibenzofuran	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Diethyl phthalate	0.500	J	10	0.24	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/18/23 12:44	10/20/23 10:45	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
1,4-Dioxane	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
Hexachloroethane	ND		10	4.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
Indene	ND		10	1.0	ug/L		10/18/23 12:44	10/20/23 10:45	1
Isophorone	ND		10	0.14	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Methylphenol	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Nitroaniline	ND		10	2.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
3-Nitroaniline	ND		10	1.8	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Nitroaniline	ND		10	1.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
Nitrobenzene	ND		10	0.13	ug/L		10/18/23 12:44	10/20/23 10:45	1
2-Nitrophenol	ND		10	5.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
4-Nitrophenol	ND		10	2.1	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/18/23 12:44	10/20/23 10:45	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/18/23 12:44	10/20/23 10:45	1
Pentachlorophenol	ND		20	1.4	ug/L		10/18/23 12:44	10/20/23 10:45	1
Phenol	ND		10	2.6	ug/L		10/18/23 12:44	10/20/23 10:45	1
Pyridine	ND		10	3.2	ug/L		10/18/23 12:44	10/20/23 10:45	1
Quinoline	ND		10	4.5	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/18/23 12:44	10/20/23 10:45	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/18/23 12:44	10/20/23 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
2-Fluorophenol	*21*		*13 - 113*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Phenol-d5	*52*		*17 - 127*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
Terphenyl-d14	*100*		*44 - 149*	*10/18/23 12:44*	*10/20/23 10:45*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*10/18/23 12:44*	*10/20/23 10:45*	*1*

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

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	87.5		ug/L		73	21 - 120
Benzoic acid	522	246		ug/L		47	10 - 144
Benzyl alcohol	120	82.2		ug/L		68	28 - 120
Bis(2-chloroethoxy)methane	120	76.2		ug/L		64	47 - 120
Bis(2-chloroethyl)ether	120	71.9		ug/L		60	44 - 120
bis (2-chloroisopropyl) ether	120	76.4		ug/L		64	33 - 121
Bis(2-ethylhexyl) phthalate	120	89.0		ug/L		74	52 - 147
4-Bromophenyl phenyl ether	120	94.1		ug/L		78	54 - 122
Butyl benzyl phthalate	120	91.8		ug/L		76	54 - 133
4-Chloroaniline	120	77.2		ug/L		64	26 - 120
4-Chloro-3-methylphenol	120	90.5		ug/L		75	48 - 131
2-Chloronaphthalene	120	90.6		ug/L		75	52 - 121
2-Chlorophenol	120	74.4		ug/L		62	40 - 120
4-Chlorophenyl phenyl ether	120	100		ug/L		84	56 - 125
Dibenz[a,h]acridine	120	104		ug/L		87	31 - 150
Dibenzofuran	120	98.4		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	140		ug/L		87	36 - 132
2,4-Dichlorophenol	120	88.9		ug/L		74	49 - 120
Diethyl phthalate	120	99.4		ug/L		83	50 - 137
2,4-Dimethylphenol	120	90.5		ug/L		75	48 - 120
Dimethyl phthalate	120	93.9		ug/L		78	57 - 124
Di-n-butyl phthalate	120	105		ug/L		87	58 - 126
4,6-Dinitro-ortho-cresol	240	214		ug/L		89	23 - 148
2,4-Dinitrophenol	240	222		ug/L		93	10 - 150
2,4-Dinitrotoluene	120	104		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	100		ug/L		83	55 - 130
Di-n-octyl phthalate	120	88.8		ug/L		74	57 - 138
1,4-Dioxane	120	56.7		ug/L		47	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	79.7		ug/L		66	45 - 124
Hexachlorobenzene	120	101		ug/L		84	52 - 129
Hexachlorocyclopentadiene	120	67.5		ug/L		56	10 - 134
Hexachloroethane	120	84.1		ug/L		70	20 - 120
Indene	120	92.4		ug/L		77	49 - 120
Isophorone	120	78.3		ug/L		65	48 - 120
2-Methylphenol	120	87.6		ug/L		73	46 - 124
3 & 4 Methylphenol	120	85.1		ug/L		71	45 - 120
2-Nitroaniline	120	89.7		ug/L		75	51 - 145
3-Nitroaniline	120	82.9		ug/L		69	37 - 127
4-Nitroaniline	120	104		ug/L		87	36 - 137
Nitrobenzene	120	76.2		ug/L		64	45 - 120
2-Nitrophenol	120	92.1		ug/L		77	40 - 124
4-Nitrophenol	240	191		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	79.7		ug/L		66	29 - 137
N-Nitrosodi-n-propylamine	120	84.9		ug/L		71	45 - 120
N-Nitrosodiphenylamine	119	86.7		ug/L		73	54 - 120
Pentachlorophenol	240	183		ug/L		76	31 - 130
Phenol	120	74.3		ug/L		62	11 - 120
Pyridine	240	129		ug/L		54	16 - 120

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

Lab Sample ID: LCS 400-646105/2-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	93.4		ug/L		78	49 - 130		
2,4,5-Trichlorophenol			120	104		ug/L		86	51 - 136		
2,4,6-Trichlorophenol			120	94.8		ug/L		79	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*42*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*98*		*26 - 150*

Lab Sample ID: LCS 400-646105/4-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.31	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*66*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*44*		*26 - 150*

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	79.2		ug/L		66	21 - 120	10	30
Benzoic acid			522	80.0	*1	ug/L		15	10 - 144	102	30
Benzyl alcohol			120	74.7		ug/L		62	28 - 120	10	30
Bis(2-chloroethoxy)methane			120	72.9		ug/L		61	47 - 120	5	30
Bis(2-chloroethyl)ether			120	69.7		ug/L		58	44 - 120	3	30
bis (2-chloroisopropyl) ether			120	72.8		ug/L		61	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	85.0		ug/L		71	52 - 147	5	30
4-Bromophenyl phenyl ether			120	90.5		ug/L		75	54 - 122	4	30
Butyl benzyl phthalate			120	87.5		ug/L		73	54 - 133	5	30
4-Chloroaniline			120	73.8		ug/L		62	26 - 120	4	30
4-Chloro-3-methylphenol			120	75.0		ug/L		62	48 - 131	19	30
2-Chloronaphthalene			120	87.1		ug/L		73	52 - 121	4	30
2-Chlorophenol			120	37.1	*- *1	ug/L		31	40 - 120	67	30
4-Chlorophenyl phenyl ether			120	95.0		ug/L		79	56 - 125	5	30
Dibenz[a,h]acridine			120	102		ug/L		85	31 - 150	2	30
Dibenzofuran			120	93.1		ug/L		78	56 - 122	6	30

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

Lab Sample ID: LCSD 400-646105/3-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine			160	133		ug/L		83	36 - 132	5	30
2,4-Dichlorophenol			120	64.2	*1	ug/L		53	49 - 120	32	30
Diethyl phthalate			120	93.6		ug/L		78	50 - 137	6	30
2,4-Dimethylphenol			120	81.0		ug/L		67	48 - 120	11	30
Dimethyl phthalate			120	89.1		ug/L		74	57 - 124	5	30
Di-n-butyl phthalate			120	99.7		ug/L		83	58 - 126	5	30
4,6-Dinitro-ortho-cresol			240	181		ug/L		75	23 - 148	17	30
2,4-Dinitrophenol			240	160	*1	ug/L		67	10 - 150	32	30
2,4-Dinitrotoluene			120	96.1		ug/L		80	54 - 142	8	30
2,6-Dinitrotoluene			120	94.1		ug/L		78	55 - 130	6	30
Di-n-octyl phthalate			120	84.9		ug/L		71	57 - 138	5	30
1,4-Dioxane			120	52.5		ug/L		44	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)			120	77.8		ug/L		65	45 - 124	2	30
Hexachlorobenzene			120	96.3		ug/L		80	52 - 129	5	30
Hexachlorocyclopentadiene			120	56.9		ug/L		47	10 - 134	17	30
Hexachloroethane			120	75.1		ug/L		63	20 - 120	11	30
Indene			120	85.5		ug/L		71	49 - 120	8	30
Isophorone			120	73.6		ug/L		61	48 - 120	6	30
2-Methylphenol			120	69.2		ug/L		58	46 - 124	23	30
3 & 4 Methylphenol			120	66.0		ug/L		55	45 - 120	25	30
2-Nitroaniline			120	84.5		ug/L		70	51 - 145	6	30
3-Nitroaniline			120	78.5		ug/L		65	37 - 127	5	30
4-Nitroaniline			120	94.1		ug/L		78	36 - 137	10	30
Nitrobenzene			120	71.7		ug/L		60	45 - 120	6	30
2-Nitrophenol			120	66.0	*1	ug/L		55	40 - 124	33	30
4-Nitrophenol			240	160		ug/L		67	23 - 146	17	30
N-Nitrosodimethylamine			120	72.7		ug/L		61	29 - 137	9	30
N-Nitrosodi-n-propylamine			120	79.6		ug/L		66	45 - 120	6	30
N-Nitrosodiphenylamine			119	82.2		ug/L		69	54 - 120	5	30
Pentachlorophenol			240	163		ug/L		68	31 - 130	11	30
Phenol			120	44.3	*1	ug/L		37	11 - 120	51	30
Pyridine			240	123		ug/L		51	16 - 120	5	30
Quinoline			120	87.2		ug/L		73	49 - 130	7	30
2,4,5-Trichlorophenol			120	88.9		ug/L		74	51 - 136	15	30
2,4,6-Trichlorophenol			120	80.7		ug/L		67	50 - 127	16	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*11*	*S1-*	*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*38*		*17 - 127*
Terphenyl-d14	*83*		*44 - 149*
2,4,6-Tribromophenol	*88*		*26 - 150*

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

Lab Sample ID: LCSD 400-646105/5-A
Matrix: Water
Analysis Batch: 646410

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.00	J *-	ug/L		3	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*62*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*65*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646105/1-A
Matrix: Water
Analysis Batch: 646684

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/18/23 12:44	10/23/23 14:23	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/18/23 12:44	10/23/23 14:23	1
Anthracene	ND		0.20	0.047	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[a]anthracene	0.0695	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[b]fluoranthene	0.143	J	0.20	0.037	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/18/23 12:44	10/23/23 14:23	1
Benzo[k]fluoranthene	0.0860	J	0.20	0.062	ug/L		10/18/23 12:44	10/23/23 14:23	1
Chrysene	0.0977	J	0.20	0.033	ug/L		10/18/23 12:44	10/23/23 14:23	1
Dibenz(a,h)anthracene	0.0866	J	0.20	0.048	ug/L		10/18/23 12:44	10/23/23 14:23	1
Fluoranthene	0.0812	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Fluorene	ND		0.20	0.089	ug/L		10/18/23 12:44	10/23/23 14:23	1
Indeno[1,2,3-cd]pyrene	0.109	J	0.20	0.034	ug/L		10/18/23 12:44	10/23/23 14:23	1
Phenanthrene	ND		0.20	0.090	ug/L		10/18/23 12:44	10/23/23 14:23	1
Pyrene	ND		0.20	0.039	ug/L		10/18/23 12:44	10/23/23 14:23	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/18/23 12:44	10/23/23 14:23	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/18/23 12:44	10/23/23 14:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*18 - 147*	*10/18/23 12:44*	*10/23/23 14:23*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*10/18/23 12:44*	*10/23/23 14:23*	*1*
Nitrobenzene-d5	*60*		*10 - 144*	*10/18/23 12:44*	*10/23/23 14:23*	*1*

Lab Sample ID: LCS 400-646105/6-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			2.00	1.43		ug/L		71	40 - 140		
Acenaphthylene			2.00	1.39		ug/L		69	40 - 140		
Anthracene			2.00	1.46		ug/L		73	40 - 140		

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-646105/6-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzo[a]anthracene			2.00	1.31		ug/L		66	40 - 140		
Benzo[a]pyrene			2.00	1.11		ug/L		55	40 - 140		
Benzo[b]fluoranthene			2.00	1.34		ug/L		67	40 - 140		
Benzo[g,h,i]perylene			2.00	1.32		ug/L		66	40 - 140		
Benzo[k]fluoranthene			2.00	1.33		ug/L		67	40 - 140		
Chrysene			2.00	1.31		ug/L		65	40 - 140		
Dibenz(a,h)anthracene			2.00	1.37		ug/L		68	40 - 140		
Fluoranthene			2.00	1.53		ug/L		77	40 - 140		
Fluorene			2.00	1.41		ug/L		70	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	1.32		ug/L		66	40 - 140		
Phenanthrene			2.00	1.69		ug/L		84	40 - 140		
Pyrene			2.00	1.54		ug/L		77	40 - 140		
1-Methylnaphthalene			2.00	1.36		ug/L		68	40 - 140		
2-Methylnaphthalene			2.00	1.39		ug/L		70	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*115*		*18 - 147*
2-Fluorobiphenyl	*80*		*15 - 128*
Nitrobenzene-d5	*52*		*10 - 144*

Lab Sample ID: LCSD 400-646105/7-A
Matrix: Water
Analysis Batch: 646527

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646105

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.72		ug/L		86	40 - 140	18	40
Acenaphthylene			2.00	1.76		ug/L		88	40 - 140	23	40
Anthracene			2.00	1.68		ug/L		84	40 - 140	15	40
Benzo[a]anthracene			2.00	1.57		ug/L		79	40 - 140	18	40
Benzo[a]pyrene			2.00	1.32		ug/L		66	40 - 140	17	40
Benzo[b]fluoranthene			2.00	1.59		ug/L		79	40 - 140	17	40
Benzo[g,h,i]perylene			2.00	1.46		ug/L		73	40 - 140	10	40
Benzo[k]fluoranthene			2.00	1.48		ug/L		74	40 - 140	10	40
Chrysene			2.00	1.39		ug/L		69	40 - 140	6	40
Dibenz(a,h)anthracene			2.00	1.46		ug/L		73	40 - 140	7	40
Fluoranthene			2.00	1.81		ug/L		90	40 - 140	16	40
Fluorene			2.00	1.68		ug/L		84	40 - 140	18	40
Indeno[1,2,3-cd]pyrene			2.00	1.44		ug/L		72	40 - 140	9	40
Phenanthrene			2.00	1.87		ug/L		94	40 - 140	10	40
Pyrene			2.00	1.73		ug/L		86	40 - 140	11	40
1-Methylnaphthalene			2.00	1.62		ug/L		81	40 - 140	18	40
2-Methylnaphthalene			2.00	1.71		ug/L		86	40 - 140	21	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*134*		*18 - 147*
2-Fluorobiphenyl	*77*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-645864/1-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 645864

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/17/23 10:40	10/17/23 22:44	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/17/23 10:40	10/17/23 22:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*10/17/23 10:40*	*10/17/23 22:44*	*1*

Lab Sample ID: LCS 400-645864/2-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 645864

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.111		ug/L		110	60 - 140		
1,2-Dibromoethane			0.101	0.114		ug/L		114	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*51 - 149*

Lab Sample ID: LCSD 400-645864/3-A
Matrix: Water
Analysis Batch: 645889

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 645864

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.114		ug/L		113	60 - 140	3	30
1,2-Dibromoethane			0.101	0.109		ug/L		108	60 - 140	21	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*51 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____) 400-245132 COC
☑ TESTAMERICA (TestAmerica Pen. 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: 10/16/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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:	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 – 3.4.2

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 8270 SIMS
	TB-ROX-101623-8260	10/16/2023	0000	Water	2					2	X			
	TB-ROX-101623-8011	10/16/2023	0000	Water	2					2		X		
	ROST4PZC-ROX-101623	10/16/2023	0935	Water	6			2		8	X	X	X	X
	ROST4PZC-ROX-101623-DUP	10/16/2023	0935	Water	6			2		8	X	X	X	X
	MW5-ROX-101623	10/16/2023	1045	Water	6			2		8	X	X	X	X
	MW9-ROX-101623	10/16/2023	1200	Water	6			2		8	X	X	X	X
	MW22-ROX-101623	10/16/2023	1325	Water	6			2		8	X	X	X	X

mm 10/16/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 6339 6595 3178, 6339 6595 3156	10/16/2023	1600
Relinquished by: (Signature)	Received by: (Signature) BR	Date: 10/17/23	Time 856
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

Version: 27Sept23

CUSTODY SEALS: 2364880, 2364881, 2364883, 2364882

0.0°C IR8

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10/31/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-245132-1

Login Number: 245132 **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	0.0°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").	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: 400-245132-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245246-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/18/2023

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

Sample Identification	Sample Identification
TB-ROX-101723-8260	TB-ROX-101723-8011
P57-ROX-101723	P74-ROX-101723
P74-ROX-101723-DUP	P58-ROX-101723

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 PAHs in samples P57-ROX-101723 and P58-ROX-101723, and field duplicate pair P74-ROX-101723/P74-ROX-101723-DUP, were re-extracted outside extraction time criteria. Several PAHs were detected in the method blanks. Several SVOC and VOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. VOCs in sample P58-ROX-101723 were diluted due to the abundance of non-target analytes. The continuing calibration verifications (CCV) for several analytes 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?

No, PAHs in samples P57-ROX-101723 and P58-ROX-101723, and field duplicate pair P74-ROX-101723/P74-ROX-101723-DUP and were re-extracted between 9 and 18 days outside of extraction time criteria (7 days) for confirmation due to method blank detections.

The initial analysis results for samples P57-ROX-101723, P74-ROX-101723, and P58-ROX-101723 were consistent with historical data. The results for the re-extracted and re-analyzed samples were comparable to the initial results; both sets of data are reported. Based on professional judgement, the results from the initial analysis were used for the

purposes of this report.

With regard to initial P74-ROX-101723-DUP PAH data, the laboratory previously 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. Fluoranthene in the secondary run for sample P74-ROX-101723-DUP are further qualified in Section 4.0 of this data review due to blank contamination.

Additionally, bis(2-ethylhexyl) phthalate in sample P74-ROX-101723-DUP was re-extracted 9 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. Based on professional judgement, the results from the re-analysis were used for the purposes of this report.

Sample ID	Parameter	Analyte	Qualification
P74-ROX-101723-DUP– RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**UJ**
P74-ROX-101723-DUP– Run #2	PAHs	Acenaphthene	**UJ**
P74-ROX-101723-DUP– Run #2	PAHs	Acenaphthylene	**UJ**
P74-ROX-101723-DUP– Run #2	PAHs	Anthracene	**UJ**
P74-ROX-101723-DUP– Run #2	PAHs	Benzo(a)anthracene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	Benzo[a]pyrene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	Benzo(b)fluoranthene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	Benzo[g,h,i]perylene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	Benzo[k]fluoranthene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	Chrysene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	Dibenz(a,h)anthracene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	Fluorene	**UJ**
P74-ROX-101723-DUP– Run #2	PAHs	Indeno[1,2,3-cd]pyrene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	1-Methylnaphthalene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	2-Methylnaphthalene	**J**
P74-ROX-101723-DUP– Run #2	PAHs	Phenanthrene	**UJ**
P74-ROX-101723-DUP– Run #2	PAHs	Pyrene	**UJ**

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 400-646681/1-A	PAHs	Benzo[a]anthracene	0.0553 µg/L
MB 400-646681/1-A	PAHs	Fluoranthene	0.0635 µg/L
MB 400-646681/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0365 µg/L
MB 400-648382/1-A	PAHs	Fluoranthene	0.0375 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
P57-ROX-101723	PAHs	Benzo[a]anthracene	-	U
P57-ROX-101723	PAHs	Fluoranthene	-	U
P57-ROX-101723	PAHs	Indeno[1,2,3-cd]pyrene	-	U
P74-ROX-101723	PAHs	Benzo[a]anthracene	-	U
P74-ROX-101723	PAHs	Fluoranthene	-	U
P74-ROX-101723	PAHs	Indeno[1,2,3-cd]pyrene	-	U
P74-ROX-101723-DUP- Run #2	PAHs	Fluoranthene	-	U
P58-ROX-101723	PAHs	Benzo[a]anthracene	-	U
P58-ROX-101723	PAHs	Fluoranthene	-	U
P58-ROX-101723	PAHs	Indeno[1,2,3-cd]pyrene	-	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 400-646866/1001	VOCs	Acetone	**312**	NA	43-160
LCS 400-646866/1001	VOCs	2-Butanone (MEK)	**227**	NA	61-145
LCS 400-646866/1001	VOCs	2-Hexanone	**190**	NA	65-137
LCS 400-646866/1001	VOCs	4-Methyl-2-pentanone (MIBK)	**144**	NA	69-138
LCS 400-646866/1001	VOCs	Tetrachloroethene	**140**	NA	65-130
LCS 400-647050/1001	VOCs	n-Butylbenzene	**132**	NA	67-130
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Benzoic acid	**6/5**	12	10-144/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	4,6-Dinitro-ortho-cresol	65/42	**43**	23-148/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	2,4-Dinitrophenol	46/19	**85**	10-150/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Pentachlorophenol	73/49	**38**	31-130/30
LCS/LCSD 400-646681/4-A/5-A	SVOCs	Benzenethiol	**3/2**	**38**	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. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification. Professional judgment was used to qualify, however not reject, data

associated with benzenethiol, and benzoic acid below evaluation criteria; benzenethiol, and benzoic acid have been identified as poor performing analytes under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P57-ROX-101723	SVOCs	Benzoic acid	**UJ**
P57-ROX-101723	SVOCs	Benzenethiol	**UJ**
P74-ROX-101723	SVOCs	Benzoic acid	**UJ**
P74-ROX-101723	SVOCs	Benzenethiol	**UJ**
P74-ROX-101723-DUP	SVOCs	Benzoic acid	**UJ**
P74-ROX-101723-DUP	SVOCs	Benzenethiol	**UJ**
P58-ROX-101723	SVOCs	Benzoic acid	**UJ**
P58-ROX-101723	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P58-ROX-101723	SVOCs	2-Fluorophenol	**6**	13-113
MB 400-646681/1-A	SVOCs	2-Fluorophenol	**8**	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. 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?

Yes

Field ID	Field Duplicate ID
P74-ROX-101723	P74-ROX-101723-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 with the exception of non-detect VOCs in sample P58-ROX-101723 to bring benzene into calibration range of the instrument. VOCs were non-detect at a dilution factor of 1000X, with raised reporting limits of between 1,000 and 25,000 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 verifications (CCV) for several analytes were outside evaluation criteria, biased low. 1,1,2,2-Tetrachloroethane and chloroethane in sample P58-ROX-101723 were previously qualified in Section 11 of this data review due to a sample dilution; no further qualification is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P57-ROX-101723	VOCs	Dibromochloromethane	**UJ**
P57-ROX-101723	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
P57-ROX-101723	VOCs	Bromoform	**UJ**
P57-ROX-101723	SVOCs	1,4-Dioxane	**UJ**
P57-ROX-101723	SVOCs	Hexachlorocyclopentadiene	**UJ**
P57-ROX-101723	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
P74-ROX-101723	VOCs	Dibromochloromethane	**UJ**
P74-ROX-101723	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
P74-ROX-101723	VOCs	Bromoform	**UJ**
P74-ROX-101723	SVOCs	1,4-Dioxane	**UJ**
P74-ROX-101723	SVOCs	Hexachlorocyclopentadiene	**UJ**
P74-ROX-101723	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
P74-ROX-101723-DUP	VOCs	Dibromochloromethane	**UJ**
P74-ROX-101723-DUP	VOCs	1,1,1,2-Tetrachloroethane	**UJ**
P74-ROX-101723-DUP	VOCs	Bromoform	**UJ**
P74-ROX-101723-DUP	SVOCs	1,4-Dioxane	**UJ**
P74-ROX-101723-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
P74-ROX-101723-DUP	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
P58-ROX-101723	SVOCs	1,4-Dioxane	**UJ**
P58-ROX-101723	SVOCs	Hexachlorocyclopentadiene	**UJ**
P58-ROX-101723	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**

Additionally, VOCs in sample P58-ROX-101723 were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
P58-ROX-101723	VOCs	All non-detect	**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 11/13/2023 10:19:11 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245246-1

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

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Job ID: 400-245246-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-245246-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/18/2023 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 2 coolers at receipt time were 0.2°C and 1.3°C

GC/MS VOA
Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-627009 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 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: P58-ROX-101723 (400-245246-6). Elevated reporting limits (RLs) are provided.

Method 8260D: The laboratory control sample (LCS) for analytical batch 400-646866 recovered outside control limits for the following analytes: 2-Butanone (MEK), 2-Hexanone, 4-Methyl-2-pentanone (MIBK), 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 8260D: The continuing calibration verification (CCV) associated with batch 400-646866 recovered above the upper control limit for 2-Butanone (MEK), 2-Chloroethyl vinyl ether, 2-Hexanone, Acetone, Chloromethane and Tetrachloroethene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646866 recovered outside acceptance criteria, low biased, for 1,1,2,2-Tetrachloroethane and Chloroethane. 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 8260D: The continuing calibration verification (CCV) associated with batch 400-647050 recovered outside acceptance criteria, low biased, for 1,1,1,2-Tetrachloroethane, Bromoform and Dibromochloromethane. 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 8260D: The continuing calibration verification (CCV) associated with batch 400-647050 recovered above the upper control limit for o-Chlorotoluene and Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The following samples were diluted to bring the concentration of target analytes within the calibration range: P74-ROX-101723 (400-245246-4) and P74-ROX-101723-DUP (400-245246-5). Elevated reporting limits (RLs) are provided.

Method 8260D: 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: P57-ROX-101723 (400-245246-3), P74-ROX-101723 (400-245246-4) and P74-ROX-101723-DUP (400-245246-5). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Job ID: 400-245246-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8260D: The laboratory control sample (LCS) for analytical batch 400-647050 recovered outside control limits for the following analytes: n-Butylbenzene. These analytes were biased high in the LCS and were not detected or not reported in the associated samples; therefore, the data have been reported.

Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-645025 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 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: P58-ROX-101723 (400-245246-6). Elevated reporting limits (RLs) are provided.

Method 8260D: 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-101723-8260 (400-245246-1) and P58-ROX-101723 (400-245246-6). The requested target analyte list includes 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analyte(s): Benzoic acid. Benzoic acid 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: 2,4-Dinitrophenol, 4,6-Dinitro-ortho-cresol and Pentachlorophenol.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646681 and analytical batch 400-647055 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-647055 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, 1,2-Diphenylhydrazine (as Azobenzene) 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 8270E: 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: P58-ROX-101723 (400-245246-6) and (MB 400-646681/1-A). These results have been reported and qualified.

Method 8270E: The laboratory control sample duplicate (LCSD) for preparation batch 400-648382 and analytical batch 400-648674 recovered outside control limits for the following analyte(s): 2,4-Dinitrophenol and Pentachlorophenol. 2,4-Dinitrophenol and Pentachlorophenol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis

Job ID: 400-245246-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270E: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-648382 and analytical batch 400-648674: 4-Nitrophenol, 4,6-Dinitro-ortho-cresol and 2-Nitrophenol. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270E: The samples were re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL) for the following sample(s): 400-245246-g5-a and 400-245328-h-8-a. Samples were re-prepared and/or re-analyzed outside holding time, and both sets of data have been reported.
P74-ROX-101723-DUP (400-245246-5)

Method 8270E_SIM: The method blank for preparation batch 400-646681 and analytical batch 400-647384 contained Indeno[1,2,3-cd]pyrene, Benzo[a]anthracene and Fluoranthene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E_SIM: Sample was not sent for re-extract for verification of detects as historical data confirms results. P57-ROX-101723 (400-245246-3) and P58-ROX-101723 (400-245246-6)

Method 8270E_SIM: The following samples were re-prepared outside of preparation holding time for confirmation: P57-ROX-101723 (400-245246-3), P74-ROX-101723 (400-245246-4) and P58-ROX-101723 (400-245246-6).

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

GC Semi VOA
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: 400-245246-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245246-1	TB-ROX-101723-8260	Water	10/17/23 00:00	10/18/23 09:11
400-245246-2	TB-ROX-101723-8011	Water	10/17/23 00:00	10/18/23 09:11
400-245246-3	P57-ROX-101723	Water	10/17/23 09:35	10/18/23 09:11
400-245246-4	P74-ROX-101723	Water	10/17/23 10:50	10/18/23 09:11
400-245246-5	P74-ROX-101723-DUP	Water	10/17/23 10:50	10/18/23 09:11
400-245246-6	P58-ROX-101723	Water	10/17/23 12:15	10/18/23 09:11

Detection Summary

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

Job ID: 400-245246-1

Client Sample ID: TB-ROX-101723-8260 — Lab Sample ID: 400-245246-1

No Detections.

Client Sample ID: TB-ROX-101723-8011 — Lab Sample ID: 400-245246-2

No Detections.

Client Sample ID: P57-ROX-101723 — Lab Sample ID: 400-245246-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17	J	25	10	ug/L	1		8260D	Total/NA
Benzene	84		1.0	0.50	ug/L	1		8260D	Total/NA
Ethylbenzene	1.5		1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	22		1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	0.75	J	5.0	0.63	ug/L	1		8260D	Total/NA
Naphthalene	13		5.0	3.0	ug/L	1		8260D	Total/NA
N-Propylbenzene	22		1.0	0.69	ug/L	1		8260D	Total/NA
sec-Butylbenzene	4.0		1.0	0.70	ug/L	1		8260D	Total/NA
tert-Butylbenzene	3.9		1.0	0.63	ug/L	1		8260D	Total/NA
Toluene	3.1		1.0	0.90	ug/L	1		8260D	Total/NA
n-Butylbenzene - RA	3.1		1.0	0.76	ug/L	1		8260D	Total/NA
Acenaphthene	0.22		0.20	0.098	ug/L	1		8270E SIM	Total/NA
Acenaphthene	0.16	J H	0.20	0.097	ug/L	1		8270E SIM	Total/NA
Acenaphthylene	0.048	J H	0.20	0.043	ug/L	1		8270E SIM	Total/NA
Anthracene	0.14	J	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Anthracene	0.10	J H	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.045	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.046	J H	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.054	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluorene	0.38		0.20	0.088	ug/L	1		8270E SIM	Total/NA
Fluorene	0.27	H	0.20	0.087	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.044	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.061	J H	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.33		0.20	0.089	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.19	J H	0.20	0.088	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	21		0.20	0.079	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	12	H	0.20	0.079	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	14		0.20	0.065	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	6.6	H	0.20	0.065	ug/L	1		8270E SIM	Total/NA
Dibenzofuran	0.51	J	9.9	0.17	ug/L	1		8270E	Total/NA
Phenol	6.1	J	9.9	2.6	ug/L	1		8270E	Total/NA

Client Sample ID: P74-ROX-101723 — Lab Sample ID: 400-245246-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	65	J	130	50	ug/L	5		8260D	Total/NA
Benzene	1000		5.0	2.5	ug/L	5		8260D	Total/NA
Ethylbenzene	5.5		5.0	2.5	ug/L	5		8260D	Total/NA
4-Methyl-2-pentanone (MIBK)	16	J	130	9.0	ug/L	5		8260D	Total/NA
Methyl tert-butyl ether	6.5		5.0	1.1	ug/L	5		8260D	Total/NA
m-Xylene & p-Xylene	11	J	25	3.2	ug/L	5		8260D	Total/NA
Toluene	8.6		5.0	4.5	ug/L	5		8260D	Total/NA
Xylenes, Total	11	J	50	8.0	ug/L	5		8260D	Total/NA
Acenaphthylene	0.075	J	0.20	0.043	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.057	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: P74-ROX-101723 (Continued)

Lab Sample ID: 400-245246-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.040	J H	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.071	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.041	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.075	J H	0.20	0.033	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.43		0.20	0.078	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.29	H	0.20	0.079	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.42		0.20	0.065	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.26	H	0.20	0.065	ug/L	1		8270E SIM	Total/NA
3 & 4 Methylphenol	1.4	J	20	0.38	ug/L	1		8270E	Total/NA
Phenol	20		9.8	2.5	ug/L	1		8270E	Total/NA

Client Sample ID: P74-ROX-101723-DUP

Lab Sample ID: 400-245246-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	71	J	130	50	ug/L	5		8260D	Total/NA
Benzene	1000		5.0	2.5	ug/L	5		8260D	Total/NA
Ethylbenzene	5.0		5.0	2.5	ug/L	5		8260D	Total/NA
4-Methyl-2-pentanone (MIBK)	15	J	130	9.0	ug/L	5		8260D	Total/NA
Methyl tert-butyl ether	6.5		5.0	1.1	ug/L	5		8260D	Total/NA
m-Xylene & p-Xylene	10	J	25	3.2	ug/L	5		8260D	Total/NA
Toluene	9.1		5.0	4.5	ug/L	5		8260D	Total/NA
Xylenes, Total	10	J	50	8.0	ug/L	5		8260D	Total/NA
Anthracene	0.19	J	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	1.6	B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.19	J H	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Benzo[a]pyrene	1.2		0.20	0.063	ug/L	1		8270E SIM	Total/NA
Benzo[a]pyrene	0.091	J H	0.20	0.063	ug/L	1		8270E SIM	Total/NA
Benzo[b]fluoranthene	1.5		0.20	0.037	ug/L	1		8270E SIM	Total/NA
Benzo[b]fluoranthene	0.15	J H	0.20	0.036	ug/L	1		8270E SIM	Total/NA
Benzo[g,h,i]perylene	1.1		0.20	0.027	ug/L	1		8270E SIM	Total/NA
Benzo[g,h,i]perylene	0.048	J H	0.20	0.026	ug/L	1		8270E SIM	Total/NA
Benzo[k]fluoranthene	0.43		0.20	0.061	ug/L	1		8270E SIM	Total/NA
Benzo[k]fluoranthene	0.092	J H	0.20	0.061	ug/L	1		8270E SIM	Total/NA
Chrysene	2.0		0.20	0.033	ug/L	1		8270E SIM	Total/NA
Chrysene	0.096	J H	0.20	0.032	ug/L	1		8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.40		0.20	0.047	ug/L	1		8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.11	J H	0.20	0.047	ug/L	1		8270E SIM	Total/NA
Fluoranthene	1.7	B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.049	J H B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.93	B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.11	J H	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.40		0.20	0.089	ug/L	1		8270E SIM	Total/NA
Pyrene	1.5		0.20	0.039	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.46		0.20	0.079	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.27	H	0.20	0.078	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.45		0.20	0.065	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.26	H	0.20	0.065	ug/L	1		8270E SIM	Total/NA
Bis(2-ethylhexyl) phthalate	28		9.9	4.9	ug/L	1		8270E	Total/NA
3 & 4 Methylphenol	2.4	J	20	0.39	ug/L	1		8270E	Total/NA
Phenol	23		9.9	2.6	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 400-245246-1

Client Sample ID: P58-ROX-101723

Lab Sample ID: 400-245246-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	570000		5000	2500	ug/L	5000		8260D	Total/NA
Acenaphthene	0.46		0.20	0.098	ug/L	1		8270E SIM	Total/NA
Acenaphthene	0.28	H	0.20	0.099	ug/L	1		8270E SIM	Total/NA
Acenaphthylene	0.096	J H	0.20	0.044	ug/L	1		8270E SIM	Total/NA
Anthracene	0.18	J	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Anthracene	0.12	J H	0.20	0.047	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.070	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.055	J H	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Benzo[g,h,i]perylene	0.035	J H	0.20	0.027	ug/L	1		8270E SIM	Total/NA
Chrysene	0.043	J	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.086	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Fluorene	1.0		0.20	0.088	ug/L	1		8270E SIM	Total/NA
Fluorene	0.66	H	0.20	0.089	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.034	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.077	J H	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.79		0.20	0.089	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.59	H	0.20	0.090	ug/L	1		8270E SIM	Total/NA
Pyrene	0.13	J	0.20	0.039	ug/L	1		8270E SIM	Total/NA
Pyrene	0.073	J H	0.20	0.039	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	35		0.20	0.079	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	28	H	0.20	0.080	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	25		0.20	0.065	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	20	H	0.20	0.066	ug/L	1		8270E SIM	Total/NA
N-Nitrosodiphenylamine	0.44	J	9.9	0.18	ug/L	1		8270E	Total/NA
Phenol	220		9.9	2.6	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245246-1

Client Sample ID: TB-ROX-101723-8260
Date Collected: 10/17/23 00:00
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			10/24/23 16:13	1
Acrolein	ND		20	3.3	ug/L			10/24/23 16:13	1
Acrylonitrile	ND		10	2.8	ug/L			10/24/23 16:13	1
Benzene	ND		1.0	0.50	ug/L			10/24/23 16:13	1
Bromobenzene	ND		1.0	0.54	ug/L			10/24/23 16:13	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/24/23 16:13	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/24/23 16:13	1
Bromoform	ND		5.0	0.25	ug/L			10/24/23 16:13	1
Bromomethane	ND		1.0	0.98	ug/L			10/24/23 16:13	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			10/24/23 16:13	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/24/23 16:13	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/24/23 16:13	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/24/23 16:13	1
Chloroethane	ND		1.0	0.76	ug/L			10/24/23 16:13	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/24/23 16:13	1
Chloroform	ND		1.0	0.90	ug/L			10/24/23 16:13	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/24/23 16:13	1
Chloromethane	ND		1.0	0.90	ug/L			10/24/23 16:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/24/23 16:13	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/24/23 16:13	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/24/23 16:13	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/24/23 16:13	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/24/23 16:13	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/24/23 16:13	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/24/23 16:13	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/24/23 16:13	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/24/23 16:13	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/24/23 16:13	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/24/23 16:13	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/24/23 16:13	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/24/23 16:13	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/24/23 16:13	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/24/23 16:13	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/24/23 16:13	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/24/23 16:13	1
2-Hexanone	ND	*+	25	1.4	ug/L			10/24/23 16:13	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/24/23 16:13	1
Methylene bromide	ND		5.0	0.22	ug/L			10/24/23 16:13	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/24/23 16:13	1
4-Methyl-2-pentanone (MIBK)	ND	*+	25	1.8	ug/L			10/24/23 16:13	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/24/23 16:13	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/24/23 16:13	1
Naphthalene	ND		5.0	3.0	ug/L			10/24/23 16:13	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/24/23 16:13	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/24/23 16:13	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/24/23 16:13	1
o-Xylene	ND		5.0	0.60	ug/L			10/24/23 16:13	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/24/23 16:13	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/24/23 16:13	1

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

Job ID: 400-245246-1

Client Sample ID: TB-ROX-101723-8260
Date Collected: 10/17/23 00:00
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/24/23 16:13	1
Styrene	ND		1.0	1.0	ug/L			10/24/23 16:13	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/24/23 16:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/24/23 16:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/24/23 16:13	1
Tetrachloroethene	ND	*+	1.0	0.90	ug/L			10/24/23 16:13	1
Toluene	ND		1.0	0.90	ug/L			10/24/23 16:13	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/24/23 16:13	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/24/23 16:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/24/23 16:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/24/23 16:13	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/24/23 16:13	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/24/23 16:13	1
Trichloroethene	ND		1.0	0.15	ug/L			10/24/23 16:13	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/24/23 16:13	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/24/23 16:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/24/23 16:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/24/23 16:13	1
Vinyl acetate	ND		25	0.93	ug/L			10/24/23 16:13	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/24/23 16:13	1
Xylenes, Total	ND		10	1.6	ug/L			10/24/23 16:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 130*		*10/24/23 16:13*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*10/24/23 16:13*	*1*
Toluene-d8 (Surr)	*108*		*64 - 132*		*10/24/23 16:13*	*1*

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

Job ID: 400-245246-1

Client Sample ID: TB-ROX-101723-8011
Date Collected: 10/17/23 00:00
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/23/23 18:41	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/23/23 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*10/23/23 12:43*	*10/23/23 18:41*	*1*

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

Job ID: 400-245246-1

Client Sample ID: P57-ROX-101723
Date Collected: 10/17/23 09:35
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**17**	**J**	25	10	ug/L			10/25/23 15:16	1
Acrolein	ND		20	3.3	ug/L			10/25/23 15:16	1
Acrylonitrile	ND		10	2.8	ug/L			10/25/23 15:16	1
Benzene	**84**		1.0	0.50	ug/L			10/25/23 15:16	1
Bromobenzene	ND		1.0	0.54	ug/L			10/25/23 15:16	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/25/23 15:16	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/25/23 15:16	1
Bromoform	ND		5.0	0.25	ug/L			10/25/23 15:16	1
Bromomethane	ND		1.0	0.98	ug/L			10/25/23 15:16	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/25/23 15:16	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/25/23 15:16	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/25/23 15:16	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/25/23 15:16	1
Chloroethane	ND		1.0	0.76	ug/L			10/25/23 15:16	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/25/23 15:16	1
Chloroform	ND		1.0	0.90	ug/L			10/25/23 15:16	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/25/23 15:16	1
Chloromethane	ND		1.0	0.90	ug/L			10/25/23 15:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/25/23 15:16	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/25/23 15:16	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/25/23 15:16	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/25/23 15:16	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/25/23 15:16	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/25/23 15:16	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/25/23 15:16	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/25/23 15:16	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/25/23 15:16	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/25/23 15:16	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/25/23 15:16	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/25/23 15:16	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/25/23 15:16	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/25/23 15:16	1
Ethylbenzene	**1.5**		1.0	0.50	ug/L			10/25/23 15:16	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/25/23 15:16	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/25/23 15:16	1
2-Hexanone	ND		25	1.4	ug/L			10/25/23 15:16	1
Isopropylbenzene	**22**		1.0	0.53	ug/L			10/25/23 15:16	1
Methylene bromide	ND		5.0	0.22	ug/L			10/25/23 15:16	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/25/23 15:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/25/23 15:16	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/25/23 15:16	1
m-Xylene & p-Xylene	**0.75**	**J**	5.0	0.63	ug/L			10/25/23 15:16	1
Naphthalene	**13**		5.0	3.0	ug/L			10/25/23 15:16	1
N-Propylbenzene	**22**		1.0	0.69	ug/L			10/25/23 15:16	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/25/23 15:16	1
o-Xylene	ND		5.0	0.60	ug/L			10/25/23 15:16	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/25/23 15:16	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/25/23 15:16	1
sec-Butylbenzene	**4.0**		1.0	0.70	ug/L			10/25/23 15:16	1

Client Sample ID: P57-ROX-101723
Date Collected: 10/17/23 09:35
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			10/25/23 15:16	1
tert-Butylbenzene	**3.9**		1.0	0.63	ug/L			10/25/23 15:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/25/23 15:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/25/23 15:16	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/25/23 15:16	1
Toluene	**3.1**		1.0	0.90	ug/L			10/25/23 15:16	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/25/23 15:16	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/25/23 15:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/25/23 15:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/25/23 15:16	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/25/23 15:16	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/25/23 15:16	1
Trichloroethene	ND		1.0	0.15	ug/L			10/25/23 15:16	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/25/23 15:16	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/25/23 15:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/25/23 15:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/25/23 15:16	1
Vinyl acetate	ND		25	0.93	ug/L			10/25/23 15:16	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/25/23 15:16	1
Xylenes, Total	ND		10	1.6	ug/L			10/25/23 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/25/23 15:16*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*10/25/23 15:16*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/25/23 15:16*	*1*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	**3.1**		1.0	0.76	ug/L			10/26/23 13:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*10/26/23 13:17*	*1*
Dibromofluoromethane	*90*		*75 - 126*		*10/26/23 13:17*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/26/23 13:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.22**		0.20	0.098	ug/L		10/23/23 11:01	10/26/23 15:48	1
Acenaphthene	**0.16**	**J H**	0.20	0.097	ug/L		11/08/23 13:07	11/10/23 17:56	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/23/23 11:01	10/26/23 15:48	1
Acenaphthylene	**0.048**	**J H**	0.20	0.043	ug/L		11/08/23 13:07	11/10/23 17:56	1
Anthracene	**0.14**	**J**	0.20	0.046	ug/L		10/23/23 11:01	10/26/23 15:48	1
Anthracene	**0.10**	**J H**	0.20	0.046	ug/L		11/08/23 13:07	11/10/23 17:56	1
Benzo[a]anthracene	**0.045**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 15:48	1
Benzo[a]anthracene	**0.046**	**J H**	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 17:56	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/23/23 11:01	10/26/23 15:48	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		11/08/23 13:07	11/10/23 17:56	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/23/23 11:01	10/26/23 15:48	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		11/08/23 13:07	11/10/23 17:56	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 15:48	1

Client Sample ID: P57-ROX-101723
Date Collected: 10/17/23 09:35
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		11/08/23 13:07	11/10/23 17:56	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/23/23 11:01	10/26/23 15:48	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		11/08/23 13:07	11/10/23 17:56	1
Chrysene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 15:48	1
Chrysene	ND	H	0.20	0.032	ug/L		11/08/23 13:07	11/10/23 17:56	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 15:48	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		11/08/23 13:07	11/10/23 17:56	1
Fluoranthene	**0.054**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 15:48	1
Fluoranthene	ND	H	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 17:56	1
Fluorene	**0.38**		0.20	0.088	ug/L		10/23/23 11:01	10/26/23 15:48	1
Fluorene	**0.27**	**H**	0.20	0.087	ug/L		11/08/23 13:07	11/10/23 17:56	1
Indeno[1,2,3-cd]pyrene	**0.044**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 15:48	1
Indeno[1,2,3-cd]pyrene	**0.061**	**J H**	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 17:56	1
Phenanthrene	**0.33**		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 15:48	1
Phenanthrene	**0.19**	**J H**	0.20	0.088	ug/L		11/08/23 13:07	11/10/23 17:56	1
Pyrene	ND		0.20	0.038	ug/L		10/23/23 11:01	10/26/23 15:48	1
Pyrene	ND	H	0.20	0.038	ug/L		11/08/23 13:07	11/10/23 17:56	1
1-Methylnaphthalene	**21**		0.20	0.079	ug/L		10/23/23 11:01	10/26/23 15:48	1
1-Methylnaphthalene	**12**	**H**	0.20	0.079	ug/L		11/08/23 13:07	11/10/23 17:56	1
2-Methylnaphthalene	**14**		0.20	0.065	ug/L		10/23/23 11:01	10/26/23 15:48	1
2-Methylnaphthalene	**6.6**	**H**	0.20	0.065	ug/L		11/08/23 13:07	11/10/23 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*65*		*18 - 147*	*10/23/23 11:01*	*10/26/23 15:48*	*1*
Terphenyl-d14	*45*		*18 - 147*	*11/08/23 13:07*	*11/10/23 17:56*	*1*
2-Fluorobiphenyl	*44*		*15 - 128*	*10/23/23 11:01*	*10/26/23 15:48*	*1*
2-Fluorobiphenyl	*38*		*15 - 128*	*11/08/23 13:07*	*11/10/23 17:56*	*1*
Nitrobenzene-d5	*58*		*10 - 144*	*10/23/23 11:01*	*10/26/23 15:48*	*1*
Nitrobenzene-d5	*53*		*10 - 144*	*11/08/23 13:07*	*11/10/23 17:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 17:30	1
Benzenethiol	ND	*- *1	9.9	1.7	ug/L		10/23/23 11:01	10/25/23 17:30	1
Benzoic acid	ND	*-	30	7.2	ug/L		10/23/23 11:01	10/25/23 17:30	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 17:30	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 17:30	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 17:30	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 17:30	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		10/23/23 11:01	10/25/23 17:30	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/23/23 11:01	10/25/23 17:30	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/23/23 11:01	10/25/23 17:30	1
4-Chloroaniline	ND		9.9	3.3	ug/L		10/23/23 11:01	10/25/23 17:30	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 17:30	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 17:30	1
2-Chlorophenol	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 17:30	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 17:30	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 17:30	1
Dibenzofuran	**0.51**	**J**	9.9	0.17	ug/L		10/23/23 11:01	10/25/23 17:30	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 17:30	1

Client Sample ID: P57-ROX-101723
Date Collected: 10/17/23 09:35
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		10/23/23 11:01	10/25/23 17:30	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/23/23 11:01	10/25/23 17:30	1
2,4-Dimethylphenol	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 17:30	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 17:30	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 17:30	1
4,6-Dinitro-ortho-cresol	ND	*1	9.9	1.6	ug/L		10/23/23 11:01	10/25/23 17:30	1
2,4-Dinitrophenol	ND	*1	30	3.3	ug/L		10/23/23 11:01	10/25/23 17:30	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 17:30	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 17:30	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 17:30	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 17:30	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 17:30	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 17:30	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 17:30	1
Hexachloroethane	ND		9.9	4.1	ug/L		10/23/23 11:01	10/25/23 17:30	1
Indene	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 17:30	1
Isophorone	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 17:30	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 17:30	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/23/23 11:01	10/25/23 17:30	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 17:30	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 17:30	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/23/23 11:01	10/25/23 17:30	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/23/23 11:01	10/25/23 17:30	1
2-Nitrophenol	ND		9.9	5.1	ug/L		10/23/23 11:01	10/25/23 17:30	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/23/23 11:01	10/25/23 17:30	1
N-Nitrosodimethylamine	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 17:30	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/23/23 11:01	10/25/23 17:30	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/23/23 11:01	10/25/23 17:30	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 17:30	1
Phenol	**6.1**	**J**	9.9	2.6	ug/L		10/23/23 11:01	10/25/23 17:30	1
Pyridine	ND		9.9	3.2	ug/L		10/23/23 11:01	10/25/23 17:30	1
Quinoline	ND		9.9	4.4	ug/L		10/23/23 11:01	10/25/23 17:30	1
2,4,5-Trichlorophenol	ND		9.9	3.6	ug/L		10/23/23 11:01	10/25/23 17:30	1
2,4,6-Trichlorophenol	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*10/23/23 11:01*	*10/25/23 17:30*	*1*
2-Fluorophenol	*24*		*13 - 113*	*10/23/23 11:01*	*10/25/23 17:30*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*10/23/23 11:01*	*10/25/23 17:30*	*1*
Phenol-d5	*54*		*17 - 127*	*10/23/23 11:01*	*10/25/23 17:30*	*1*
Terphenyl-d14	*69*		*44 - 149*	*10/23/23 11:01*	*10/25/23 17:30*	*1*
2,4,6-Tribromophenol	*93*		*26 - 150*	*10/23/23 11:01*	*10/25/23 17:30*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/23/23 19:03	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/23/23 19:03	1

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

Job ID: 400-245246-1

Client Sample ID: P57-ROX-101723
Date Collected: 10/17/23 09:35
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		51 - 149	10/23/23 12:43	10/23/23 19:03	1

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

Job ID: 400-245246-1

Client Sample ID: P74-ROX-101723
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**65**	**J**	130	50	ug/L			10/25/23 18:41	5
Acrolein	ND		100	17	ug/L			10/25/23 18:41	5
Acrylonitrile	ND		50	14	ug/L			10/25/23 18:41	5
Benzene	**1000**		5.0	2.5	ug/L			10/25/23 18:41	5
Bromobenzene	ND		5.0	2.7	ug/L			10/25/23 18:41	5
Bromochloromethane	ND		5.0	1.1	ug/L			10/25/23 18:41	5
Bromodichloromethane	ND		5.0	2.5	ug/L			10/25/23 18:41	5
Bromoform	ND		25	1.3	ug/L			10/25/23 18:41	5
Bromomethane	ND		5.0	4.9	ug/L			10/25/23 18:41	5
2-Butanone (MEK)	ND		130	13	ug/L			10/25/23 18:41	5
Carbon disulfide	ND		5.0	2.5	ug/L			10/25/23 18:41	5
Carbon tetrachloride	ND		5.0	0.95	ug/L			10/25/23 18:41	5
Chlorobenzene	ND		5.0	4.5	ug/L			10/25/23 18:41	5
Chloroethane	ND		5.0	3.8	ug/L			10/25/23 18:41	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			10/25/23 18:41	5
Chloroform	ND		5.0	4.5	ug/L			10/25/23 18:41	5
1-Chlorohexane	ND		5.0	1.6	ug/L			10/25/23 18:41	5
Chloromethane	ND		5.0	4.5	ug/L			10/25/23 18:41	5
cis-1,2-Dichloroethene	ND		5.0	1.0	ug/L			10/25/23 18:41	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			10/25/23 18:41	5
Dibromochloromethane	ND		5.0	1.2	ug/L			10/25/23 18:41	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			10/25/23 18:41	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			10/25/23 18:41	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			10/25/23 18:41	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			10/25/23 18:41	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			10/25/23 18:41	5
1,2-Dichloroethane	ND		5.0	0.95	ug/L			10/25/23 18:41	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			10/25/23 18:41	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			10/25/23 18:41	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			10/25/23 18:41	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			10/25/23 18:41	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			10/25/23 18:41	5
Ethylbenzene	**5.5**		5.0	2.5	ug/L			10/25/23 18:41	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			10/25/23 18:41	5
Hexachlorobutadiene	ND		25	4.5	ug/L			10/25/23 18:41	5
2-Hexanone	ND		130	7.0	ug/L			10/25/23 18:41	5
Isopropylbenzene	ND		5.0	2.7	ug/L			10/25/23 18:41	5
Methylene bromide	ND		25	1.1	ug/L			10/25/23 18:41	5
Methylene Chloride	ND		25	15	ug/L			10/25/23 18:41	5
4-Methyl-2-pentanone (MIBK)	**16**	**J**	130	9.0	ug/L			10/25/23 18:41	5
Methyl tert-butyl ether	**6.5**		5.0	1.1	ug/L			10/25/23 18:41	5
m-Xylene & p-Xylene	**11**	**J**	25	3.2	ug/L			10/25/23 18:41	5
Naphthalene	ND		25	15	ug/L			10/25/23 18:41	5
n-Butylbenzene	ND	*+	5.0	3.8	ug/L			10/25/23 18:41	5
N-Propylbenzene	ND		5.0	3.5	ug/L			10/25/23 18:41	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			10/25/23 18:41	5
o-Xylene	ND		25	3.0	ug/L			10/25/23 18:41	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			10/25/23 18:41	5
p-Isopropyltoluene	ND		5.0	3.6	ug/L			10/25/23 18:41	5

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

Job ID: 400-245246-1

Client Sample ID: P74-ROX-101723
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5.0	3.5	ug/L			10/25/23 18:41	5
Styrene	ND		5.0	5.0	ug/L			10/25/23 18:41	5
tert-Butylbenzene	ND		5.0	3.2	ug/L			10/25/23 18:41	5
1,1,1,2-Tetrachloroethane	ND		5.0	0.80	ug/L			10/25/23 18:41	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			10/25/23 18:41	5
Tetrachloroethene	ND		5.0	4.5	ug/L			10/25/23 18:41	5
Toluene	**8.6**		5.0	4.5	ug/L			10/25/23 18:41	5
trans-1,2-Dichloroethene	ND		5.0	2.5	ug/L			10/25/23 18:41	5
trans-1,3-Dichloropropene	ND		25	1.0	ug/L			10/25/23 18:41	5
1,2,3-Trichlorobenzene	ND		5.0	4.5	ug/L			10/25/23 18:41	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			10/25/23 18:41	5
1,1,1-Trichloroethane	ND		5.0	0.90	ug/L			10/25/23 18:41	5
1,1,2-Trichloroethane	ND		25	1.1	ug/L			10/25/23 18:41	5
Trichloroethene	ND		5.0	0.75	ug/L			10/25/23 18:41	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			10/25/23 18:41	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			10/25/23 18:41	5
1,2,4-Trimethylbenzene	ND		5.0	4.1	ug/L			10/25/23 18:41	5
1,3,5-Trimethylbenzene	ND		5.0	2.8	ug/L			10/25/23 18:41	5
Vinyl acetate	ND		130	4.7	ug/L			10/25/23 18:41	5
Vinyl chloride	ND		5.0	2.5	ug/L			10/25/23 18:41	5
Xylenes, Total	**11**	**J**	50	8.0	ug/L			10/25/23 18:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 130*		*10/25/23 18:41*	*5*
Dibromofluoromethane	*104*		*75 - 126*		*10/25/23 18:41*	*5*
Toluene-d8 (Surr)	*96*		*64 - 132*		*10/25/23 18:41*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/23/23 11:01	10/26/23 16:09	1
Acenaphthene	ND	H	0.20	0.097	ug/L		11/08/23 13:07	11/10/23 18:17	1
Acenaphthylene	**0.075**	**J**	0.20	0.043	ug/L		10/23/23 11:01	10/26/23 16:09	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		11/08/23 13:07	11/10/23 18:17	1
Anthracene	ND		0.20	0.046	ug/L		10/23/23 11:01	10/26/23 16:09	1
Anthracene	ND	H	0.20	0.046	ug/L		11/08/23 13:07	11/10/23 18:17	1
Benzo[a]anthracene	**0.057**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 16:09	1
Benzo[a]anthracene	**0.040**	**J H**	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 18:17	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/23/23 11:01	10/26/23 16:09	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		11/08/23 13:07	11/10/23 18:17	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/23/23 11:01	10/26/23 16:09	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		11/08/23 13:07	11/10/23 18:17	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/23/23 11:01	10/26/23 16:09	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		11/08/23 13:07	11/10/23 18:17	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/23/23 11:01	10/26/23 16:09	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		11/08/23 13:07	11/10/23 18:17	1
Chrysene	ND		0.20	0.032	ug/L		10/23/23 11:01	10/26/23 16:09	1
Chrysene	ND	H	0.20	0.032	ug/L		11/08/23 13:07	11/10/23 18:17	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 16:09	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		11/08/23 13:07	11/10/23 18:17	1
Fluoranthene	**0.071**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 16:09	1

Client Sample ID: P74-ROX-101723
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND	H	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 18:17	1
Fluorene	ND		0.20	0.087	ug/L		10/23/23 11:01	10/26/23 16:09	1
Fluorene	ND	H	0.20	0.087	ug/L		11/08/23 13:07	11/10/23 18:17	1
Indeno[1,2,3-cd]pyrene	**0.041**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 16:09	1
Indeno[1,2,3-cd]pyrene	**0.075**	**J H**	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 18:17	1
Phenanthrene	ND		0.20	0.088	ug/L		10/23/23 11:01	10/26/23 16:09	1
Phenanthrene	ND	H	0.20	0.088	ug/L		11/08/23 13:07	11/10/23 18:17	1
Pyrene	ND		0.20	0.038	ug/L		10/23/23 11:01	10/26/23 16:09	1
Pyrene	ND	H	0.20	0.038	ug/L		11/08/23 13:07	11/10/23 18:17	1
1-Methylnaphthalene	**0.43**		0.20	0.078	ug/L		10/23/23 11:01	10/26/23 16:09	1
1-Methylnaphthalene	**0.29**	**H**	0.20	0.079	ug/L		11/08/23 13:07	11/10/23 18:17	1
2-Methylnaphthalene	**0.42**		0.20	0.065	ug/L		10/23/23 11:01	10/26/23 16:09	1
2-Methylnaphthalene	**0.26**	**H**	0.20	0.065	ug/L		11/08/23 13:07	11/10/23 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*57*		*18 - 147*	*10/23/23 11:01*	*10/26/23 16:09*	*1*
Terphenyl-d14	*40*		*18 - 147*	*11/08/23 13:07*	*11/10/23 18:17*	*1*
2-Fluorobiphenyl	*47*		*15 - 128*	*10/23/23 11:01*	*10/26/23 16:09*	*1*
2-Fluorobiphenyl	*49*		*15 - 128*	*11/08/23 13:07*	*11/10/23 18:17*	*1*
Nitrobenzene-d5	*42*		*10 - 144*	*10/23/23 11:01*	*10/26/23 16:09*	*1*
Nitrobenzene-d5	*45*		*10 - 144*	*11/08/23 13:07*	*11/10/23 18:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/23/23 11:01	10/25/23 17:52	1
Benzenethiol	ND	*- *1	9.8	1.7	ug/L		10/23/23 11:01	10/25/23 17:52	1
Benzoic acid	ND	*-	29	7.1	ug/L		10/23/23 11:01	10/25/23 17:52	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/23/23 11:01	10/25/23 17:52	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/23/23 11:01	10/25/23 17:52	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 17:52	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/23/23 11:01	10/25/23 17:52	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/23/23 11:01	10/25/23 17:52	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/23/23 11:01	10/25/23 17:52	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/23/23 11:01	10/25/23 17:52	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/23/23 11:01	10/25/23 17:52	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/23/23 11:01	10/25/23 17:52	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/23/23 11:01	10/25/23 17:52	1
2-Chlorophenol	ND		9.8	2.2	ug/L		10/23/23 11:01	10/25/23 17:52	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/23/23 11:01	10/25/23 17:52	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 17:52	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 17:52	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		10/23/23 11:01	10/25/23 17:52	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		10/23/23 11:01	10/25/23 17:52	1
Diethyl phthalate	ND		9.8	0.23	ug/L		10/23/23 11:01	10/25/23 17:52	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 17:52	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 17:52	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 17:52	1
4,6-Dinitro-ortho-cresol	ND	*1	9.8	1.6	ug/L		10/23/23 11:01	10/25/23 17:52	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/23/23 11:01	10/25/23 17:52	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/23/23 11:01	10/25/23 17:52	1

Client Sample ID: P74-ROX-101723
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/23/23 11:01	10/25/23 17:52	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 17:52	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 17:52	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 17:52	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 17:52	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		10/23/23 11:01	10/25/23 17:52	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/23/23 11:01	10/25/23 17:52	1
Indene	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 17:52	1
Isophorone	ND		9.8	0.14	ug/L		10/23/23 11:01	10/25/23 17:52	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/23/23 11:01	10/25/23 17:52	1
3 & 4 Methylphenol	**1.4**	**J**	20	0.38	ug/L		10/23/23 11:01	10/25/23 17:52	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/23/23 11:01	10/25/23 17:52	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/23/23 11:01	10/25/23 17:52	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/23/23 11:01	10/25/23 17:52	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/23/23 11:01	10/25/23 17:52	1
2-Nitrophenol	ND		9.8	5.1	ug/L		10/23/23 11:01	10/25/23 17:52	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/23/23 11:01	10/25/23 17:52	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 17:52	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		10/23/23 11:01	10/25/23 17:52	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/23/23 11:01	10/25/23 17:52	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 17:52	1
Phenol	**20**		9.8	2.5	ug/L		10/23/23 11:01	10/25/23 17:52	1
Pyridine	ND		9.8	3.1	ug/L		10/23/23 11:01	10/25/23 17:52	1
Quinoline	ND		9.8	4.4	ug/L		10/23/23 11:01	10/25/23 17:52	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/23/23 11:01	10/25/23 17:52	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*10/23/23 11:01*	*10/25/23 17:52*	*1*
2-Fluorophenol	*24*		*13 - 113*	*10/23/23 11:01*	*10/25/23 17:52*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*10/23/23 11:01*	*10/25/23 17:52*	*1*
Phenol-d5	*49*		*17 - 127*	*10/23/23 11:01*	*10/25/23 17:52*	*1*
Terphenyl-d14	*78*		*44 - 149*	*10/23/23 11:01*	*10/25/23 17:52*	*1*
2,4,6-Tribromophenol	*81*		*26 - 150*	*10/23/23 11:01*	*10/25/23 17:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/23/23 19:24	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/23/23 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*51 - 149*	*10/23/23 12:43*	*10/23/23 19:24*	*1*

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

Job ID: 400-245246-1

Client Sample ID: P74-ROX-101723-DUP
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**71**	**J**	130	50	ug/L			10/25/23 18:23	5
Acrolein	ND		100	17	ug/L			10/25/23 18:23	5
Acrylonitrile	ND		50	14	ug/L			10/25/23 18:23	5
Benzene	**1000**		5.0	2.5	ug/L			10/25/23 18:23	5
Bromobenzene	ND		5.0	2.7	ug/L			10/25/23 18:23	5
Bromochloromethane	ND		5.0	1.1	ug/L			10/25/23 18:23	5
Bromodichloromethane	ND		5.0	2.5	ug/L			10/25/23 18:23	5
Bromoform	ND		25	1.3	ug/L			10/25/23 18:23	5
Bromomethane	ND		5.0	4.9	ug/L			10/25/23 18:23	5
2-Butanone (MEK)	ND		130	13	ug/L			10/25/23 18:23	5
Carbon disulfide	ND		5.0	2.5	ug/L			10/25/23 18:23	5
Carbon tetrachloride	ND		5.0	0.95	ug/L			10/25/23 18:23	5
Chlorobenzene	ND		5.0	4.5	ug/L			10/25/23 18:23	5
Chloroethane	ND		5.0	3.8	ug/L			10/25/23 18:23	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			10/25/23 18:23	5
Chloroform	ND		5.0	4.5	ug/L			10/25/23 18:23	5
1-Chlorohexane	ND		5.0	1.6	ug/L			10/25/23 18:23	5
Chloromethane	ND		5.0	4.5	ug/L			10/25/23 18:23	5
cis-1,2-Dichloroethene	ND		5.0	1.0	ug/L			10/25/23 18:23	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			10/25/23 18:23	5
Dibromochloromethane	ND		5.0	1.2	ug/L			10/25/23 18:23	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			10/25/23 18:23	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			10/25/23 18:23	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			10/25/23 18:23	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			10/25/23 18:23	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			10/25/23 18:23	5
1,2-Dichloroethane	ND		5.0	0.95	ug/L			10/25/23 18:23	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			10/25/23 18:23	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			10/25/23 18:23	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			10/25/23 18:23	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			10/25/23 18:23	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			10/25/23 18:23	5
Ethylbenzene	**5.0**		5.0	2.5	ug/L			10/25/23 18:23	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			10/25/23 18:23	5
Hexachlorobutadiene	ND		25	4.5	ug/L			10/25/23 18:23	5
2-Hexanone	ND		130	7.0	ug/L			10/25/23 18:23	5
Isopropylbenzene	ND		5.0	2.7	ug/L			10/25/23 18:23	5
Methylene bromide	ND		25	1.1	ug/L			10/25/23 18:23	5
Methylene Chloride	ND		25	15	ug/L			10/25/23 18:23	5
4-Methyl-2-pentanone (MIBK)	**15**	**J**	130	9.0	ug/L			10/25/23 18:23	5
Methyl tert-butyl ether	**6.5**		5.0	1.1	ug/L			10/25/23 18:23	5
m-Xylene & p-Xylene	**10**	**J**	25	3.2	ug/L			10/25/23 18:23	5
Naphthalene	ND		25	15	ug/L			10/25/23 18:23	5
n-Butylbenzene	ND	*+	5.0	3.8	ug/L			10/25/23 18:23	5
N-Propylbenzene	ND		5.0	3.5	ug/L			10/25/23 18:23	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			10/25/23 18:23	5
o-Xylene	ND		25	3.0	ug/L			10/25/23 18:23	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			10/25/23 18:23	5
p-Isopropyltoluene	ND		5.0	3.6	ug/L			10/25/23 18:23	5

Client Sample ID: P74-ROX-101723-DUP
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5.0	3.5	ug/L			10/25/23 18:23	5
Styrene	ND		5.0	5.0	ug/L			10/25/23 18:23	5
tert-Butylbenzene	ND		5.0	3.2	ug/L			10/25/23 18:23	5
1,1,1,2-Tetrachloroethane	ND		5.0	0.80	ug/L			10/25/23 18:23	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			10/25/23 18:23	5
Tetrachloroethene	ND		5.0	4.5	ug/L			10/25/23 18:23	5
Toluene	**9.1**		5.0	4.5	ug/L			10/25/23 18:23	5
trans-1,2-Dichloroethene	ND		5.0	2.5	ug/L			10/25/23 18:23	5
trans-1,3-Dichloropropene	ND		25	1.0	ug/L			10/25/23 18:23	5
1,2,3-Trichlorobenzene	ND		5.0	4.5	ug/L			10/25/23 18:23	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			10/25/23 18:23	5
1,1,1-Trichloroethane	ND		5.0	0.90	ug/L			10/25/23 18:23	5
1,1,2-Trichloroethane	ND		25	1.1	ug/L			10/25/23 18:23	5
Trichloroethene	ND		5.0	0.75	ug/L			10/25/23 18:23	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			10/25/23 18:23	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			10/25/23 18:23	5
1,2,4-Trimethylbenzene	ND		5.0	4.1	ug/L			10/25/23 18:23	5
1,3,5-Trimethylbenzene	ND		5.0	2.8	ug/L			10/25/23 18:23	5
Vinyl acetate	ND		130	4.7	ug/L			10/25/23 18:23	5
Vinyl chloride	ND		5.0	2.5	ug/L			10/25/23 18:23	5
Xylenes, Total	**10**	**J**	50	8.0	ug/L			10/25/23 18:23	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 130*		*10/25/23 18:23*	*5*
Dibromofluoromethane	*104*		*75 - 126*		*10/25/23 18:23*	*5*
Toluene-d8 (Surr)	*96*		*64 - 132*		*10/25/23 18:23*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.098	ug/L		10/23/23 11:01	10/26/23 16:30	1
Acenaphthene	ND	H	0.20	0.097	ug/L		11/02/23 09:54	11/11/23 13:19	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/23/23 11:01	10/26/23 16:30	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		11/02/23 09:54	11/11/23 13:19	1
Anthracene	**0.19**	**J**	0.20	0.046	ug/L		10/23/23 11:01	10/26/23 16:30	1
Anthracene	ND	H	0.20	0.046	ug/L		11/02/23 09:54	11/11/23 13:19	1
Benzo[a]anthracene	**1.6**	**B**	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 16:30	1
Benzo[a]anthracene	**0.19**	**J H**	0.20	0.033	ug/L		11/02/23 09:54	11/11/23 13:19	1
Benzo[a]pyrene	**1.2**		0.20	0.063	ug/L		10/23/23 11:01	10/26/23 16:30	1
Benzo[a]pyrene	**0.091**	**J H**	0.20	0.063	ug/L		11/02/23 09:54	11/11/23 13:19	1
Benzo[b]fluoranthene	**1.5**		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 16:30	1
Benzo[b]fluoranthene	**0.15**	**J H**	0.20	0.036	ug/L		11/02/23 09:54	11/11/23 13:19	1
Benzo[g,h,i]perylene	**1.1**		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 16:30	1
Benzo[g,h,i]perylene	**0.048**	**J H**	0.20	0.026	ug/L		11/02/23 09:54	11/11/23 13:19	1
Benzo[k]fluoranthene	**0.43**		0.20	0.061	ug/L		10/23/23 11:01	10/26/23 16:30	1
Benzo[k]fluoranthene	**0.092**	**J H**	0.20	0.061	ug/L		11/02/23 09:54	11/11/23 13:19	1
Chrysene	**2.0**		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 16:30	1
Chrysene	**0.096**	**J H**	0.20	0.032	ug/L		11/02/23 09:54	11/11/23 13:19	1
Dibenz(a,h)anthracene	**0.40**		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 16:30	1
Dibenz(a,h)anthracene	**0.11**	**J H**	0.20	0.047	ug/L		11/02/23 09:54	11/11/23 13:19	1
Fluoranthene	**1.7**	**B**	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 16:30	1

Client Sample ID: P74-ROX-101723-DUP
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**0.049**	**J H B**	0.20	0.033	ug/L		11/02/23 09:54	11/11/23 13:19	1
Fluorene	ND		0.20	0.088	ug/L		10/23/23 11:01	10/26/23 16:30	1
Fluorene	ND	H	0.20	0.087	ug/L		11/02/23 09:54	11/11/23 13:19	1
Indeno[1,2,3-cd]pyrene	**0.93**	**B**	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 16:30	1
Indeno[1,2,3-cd]pyrene	**0.11**	**J H**	0.20	0.033	ug/L		11/02/23 09:54	11/11/23 13:19	1
Phenanthrene	**0.40**		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 16:30	1
Phenanthrene	ND	H	0.20	0.088	ug/L		11/02/23 09:54	11/11/23 13:19	1
Pyrene	**1.5**		0.20	0.039	ug/L		10/23/23 11:01	10/26/23 16:30	1
Pyrene	ND	H	0.20	0.038	ug/L		11/02/23 09:54	11/11/23 13:19	1
1-Methylnaphthalene	**0.46**		0.20	0.079	ug/L		10/23/23 11:01	10/26/23 16:30	1
1-Methylnaphthalene	**0.27**	**H**	0.20	0.078	ug/L		11/02/23 09:54	11/11/23 13:19	1
2-Methylnaphthalene	**0.45**		0.20	0.065	ug/L		10/23/23 11:01	10/26/23 16:30	1
2-Methylnaphthalene	**0.26**	**H**	0.20	0.065	ug/L		11/02/23 09:54	11/11/23 13:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*55*		*18 - 147*	*10/23/23 11:01*	*10/26/23 16:30*	*1*
Terphenyl-d14	*44*		*18 - 147*	*11/02/23 09:54*	*11/11/23 13:19*	*1*
2-Fluorobiphenyl	*48*		*15 - 128*	*10/23/23 11:01*	*10/26/23 16:30*	*1*
2-Fluorobiphenyl	*41*		*15 - 128*	*11/02/23 09:54*	*11/11/23 13:19*	*1*
Nitrobenzene-d5	*43*		*10 - 144*	*10/23/23 11:01*	*10/26/23 16:30*	*1*
Nitrobenzene-d5	*41*		*10 - 144*	*11/02/23 09:54*	*11/11/23 13:19*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		10/23/23 11:01	10/25/23 18:13	1
Benzenethiol	ND	*- *1	9.9	1.7	ug/L		10/23/23 11:01	10/25/23 18:13	1
Benzoic acid	ND	*-	30	7.2	ug/L		10/23/23 11:01	10/25/23 18:13	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 18:13	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 18:13	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 18:13	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 18:13	1
Bis(2-ethylhexyl) phthalate	**28**		9.9	4.9	ug/L		10/23/23 11:01	10/25/23 18:13	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/23/23 11:01	10/25/23 18:13	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/23/23 11:01	10/25/23 18:13	1
4-Chloroaniline	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 18:13	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		10/23/23 11:01	10/25/23 18:13	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 18:13	1
2-Chlorophenol	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 18:13	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 18:13	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:13	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:13	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 18:13	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		10/23/23 11:01	10/25/23 18:13	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/23/23 11:01	10/25/23 18:13	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 18:13	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:13	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 18:13	1
4,6-Dinitro-ortho-cresol	ND	*1	9.9	1.6	ug/L		10/23/23 11:01	10/25/23 18:13	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/23/23 11:01	10/25/23 18:13	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 18:13	1

Client Sample ID: P74-ROX-101723-DUP
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 18:13	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:13	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:13	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:13	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:13	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 18:13	1
Hexachloroethane	ND		9.9	4.2	ug/L		10/23/23 11:01	10/25/23 18:13	1
Indene	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:13	1
Isophorone	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 18:13	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 18:13	1
3 & 4 Methylphenol	**2.4**	**J**	20	0.39	ug/L		10/23/23 11:01	10/25/23 18:13	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 18:13	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 18:13	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/23/23 11:01	10/25/23 18:13	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/23/23 11:01	10/25/23 18:13	1
2-Nitrophenol	ND		9.9	5.1	ug/L		10/23/23 11:01	10/25/23 18:13	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/23/23 11:01	10/25/23 18:13	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 18:13	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/23/23 11:01	10/25/23 18:13	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/23/23 11:01	10/25/23 18:13	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 18:13	1
Phenol	**23**		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 18:13	1
Pyridine	ND		9.9	3.2	ug/L		10/23/23 11:01	10/25/23 18:13	1
Quinoline	ND		9.9	4.4	ug/L		10/23/23 11:01	10/25/23 18:13	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 18:13	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*10/23/23 11:01*	*10/25/23 18:13*	*1*
2-Fluorophenol	*22*		*13 - 113*	*10/23/23 11:01*	*10/25/23 18:13*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*10/23/23 11:01*	*10/25/23 18:13*	*1*
Phenol-d5	*52*		*17 - 127*	*10/23/23 11:01*	*10/25/23 18:13*	*1*
Terphenyl-d14	*89*		*44 - 149*	*10/23/23 11:01*	*10/25/23 18:13*	*1*
2,4,6-Tribromophenol	*91*		*26 - 150*	*10/23/23 11:01*	*10/25/23 18:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H	9.8	4.9	ug/L		11/02/23 09:54	11/03/23 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*46 - 124*	*11/02/23 09:54*	*11/03/23 21:48*	*1*
Nitrobenzene-d5	*57*		*36 - 126*	*11/02/23 09:54*	*11/03/23 21:48*	*1*
Terphenyl-d14	*71*		*44 - 149*	*11/02/23 09:54*	*11/03/23 21:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/23/23 19:45	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/23/23 19:45	1

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

Job ID: 400-245246-1

Client Sample ID: P74-ROX-101723-DUP
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-5
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		51 - 149	10/23/23 12:43	10/23/23 19:45	1

Client Sample ID: P58-ROX-101723
Date Collected: 10/17/23 12:15
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25000	10000	ug/L			10/24/23 20:51	1000
Acrolein	ND		20000	3300	ug/L			10/24/23 20:51	1000
Acrylonitrile	ND		10000	2800	ug/L			10/24/23 20:51	1000
Bromobenzene	ND		1000	540	ug/L			10/24/23 20:51	1000
Bromochloromethane	ND		1000	210	ug/L			10/24/23 20:51	1000
Bromodichloromethane	ND		1000	500	ug/L			10/24/23 20:51	1000
Bromoform	ND		5000	250	ug/L			10/24/23 20:51	1000
Bromomethane	ND		1000	980	ug/L			10/24/23 20:51	1000
2-Butanone (MEK)	ND	*+	25000	2600	ug/L			10/24/23 20:51	1000
Carbon disulfide	ND		1000	500	ug/L			10/24/23 20:51	1000
Carbon tetrachloride	ND		1000	190	ug/L			10/24/23 20:51	1000
Chlorobenzene	ND		1000	900	ug/L			10/24/23 20:51	1000
Chloroethane	ND		1000	760	ug/L			10/24/23 20:51	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			10/24/23 20:51	1000
Chloroform	ND		1000	900	ug/L			10/24/23 20:51	1000
1-Chlorohexane	ND		1000	320	ug/L			10/24/23 20:51	1000
Chloromethane	ND		1000	900	ug/L			10/24/23 20:51	1000
cis-1,2-Dichloroethene	ND		1000	200	ug/L			10/24/23 20:51	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			10/24/23 20:51	1000
Dibromochloromethane	ND		1000	240	ug/L			10/24/23 20:51	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			10/24/23 20:51	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			10/24/23 20:51	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			10/24/23 20:51	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			10/24/23 20:51	1000
1,1-Dichloroethane	ND		1000	500	ug/L			10/24/23 20:51	1000
1,2-Dichloroethane	ND		1000	190	ug/L			10/24/23 20:51	1000
1,1-Dichloroethene	ND		1000	500	ug/L			10/24/23 20:51	1000
1,2-Dichloropropane	ND		1000	500	ug/L			10/24/23 20:51	1000
1,3-Dichloropropane	ND		1000	500	ug/L			10/24/23 20:51	1000
2,2-Dichloropropane	ND		1000	500	ug/L			10/24/23 20:51	1000
1,1-Dichloropropene	ND		1000	500	ug/L			10/24/23 20:51	1000
Ethylbenzene	ND		1000	500	ug/L			10/24/23 20:51	1000
Ethyl methacrylate	ND		1000	600	ug/L			10/24/23 20:51	1000
Hexachlorobutadiene	ND		5000	900	ug/L			10/24/23 20:51	1000
2-Hexanone	ND	*+	25000	1400	ug/L			10/24/23 20:51	1000
Isopropylbenzene	ND		1000	530	ug/L			10/24/23 20:51	1000
Methylene bromide	ND		5000	220	ug/L			10/24/23 20:51	1000
Methylene Chloride	ND		5000	3000	ug/L			10/24/23 20:51	1000
4-Methyl-2-pentanone (MIBK)	ND	*+	25000	1800	ug/L			10/24/23 20:51	1000
Methyl tert-butyl ether	ND		1000	220	ug/L			10/24/23 20:51	1000
m-Xylene & p-Xylene	ND		5000	630	ug/L			10/24/23 20:51	1000
Naphthalene	ND		5000	3000	ug/L			10/24/23 20:51	1000
n-Butylbenzene	ND		1000	760	ug/L			10/24/23 20:51	1000
N-Propylbenzene	ND		1000	690	ug/L			10/24/23 20:51	1000
o-Chlorotoluene	ND		1000	570	ug/L			10/24/23 20:51	1000
o-Xylene	ND		5000	600	ug/L			10/24/23 20:51	1000
p-Chlorotoluene	ND		1000	560	ug/L			10/24/23 20:51	1000
p-Isopropyltoluene	ND		1000	710	ug/L			10/24/23 20:51	1000
sec-Butylbenzene	ND		1000	700	ug/L			10/24/23 20:51	1000

Client Sample ID: P58-ROX-101723
Date Collected: 10/17/23 12:15
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1000	1000	ug/L			10/24/23 20:51	1000
tert-Butylbenzene	ND		1000	630	ug/L			10/24/23 20:51	1000
1,1,1,2-Tetrachloroethane	ND		1000	160	ug/L			10/24/23 20:51	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			10/24/23 20:51	1000
Tetrachloroethene	ND	*+	1000	900	ug/L			10/24/23 20:51	1000
Toluene	ND		1000	900	ug/L			10/24/23 20:51	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			10/24/23 20:51	1000
trans-1,3-Dichloropropene	ND		5000	200	ug/L			10/24/23 20:51	1000
1,2,3-Trichlorobenzene	ND		1000	900	ug/L			10/24/23 20:51	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			10/24/23 20:51	1000
1,1,1-Trichloroethane	ND		1000	180	ug/L			10/24/23 20:51	1000
1,1,2-Trichloroethane	ND		5000	210	ug/L			10/24/23 20:51	1000
Trichloroethene	ND		1000	150	ug/L			10/24/23 20:51	1000
Trichlorofluoromethane	ND		1000	520	ug/L			10/24/23 20:51	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			10/24/23 20:51	1000
1,2,4-Trimethylbenzene	ND		1000	820	ug/L			10/24/23 20:51	1000
1,3,5-Trimethylbenzene	ND		1000	560	ug/L			10/24/23 20:51	1000
Vinyl acetate	ND		25000	930	ug/L			10/24/23 20:51	1000
Vinyl chloride	ND		1000	500	ug/L			10/24/23 20:51	1000
Xylenes, Total	ND		10000	1600	ug/L			10/24/23 20:51	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*10/24/23 20:51*	*1000*
Dibromofluoromethane	*92*		*75 - 126*		*10/24/23 20:51*	*1000*
Toluene-d8 (Surr)	*108*		*64 - 132*		*10/24/23 20:51*	*1000*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**570000**		5000	2500	ug/L			10/26/23 14:58	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*10/26/23 14:58*	*5000*
Dibromofluoromethane	*92*		*75 - 126*		*10/26/23 14:58*	*5000*
Toluene-d8 (Surr)	*105*		*64 - 132*		*10/26/23 14:58*	*5000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.46**		0.20	0.098	ug/L		10/23/23 11:01	10/26/23 16:51	1
Acenaphthene	**0.28**	**H**	0.20	0.099	ug/L		11/08/23 13:07	11/10/23 18:37	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/23/23 11:01	10/26/23 16:51	1
Acenaphthylene	**0.096**	**J H**	0.20	0.044	ug/L		11/08/23 13:07	11/10/23 18:37	1
Anthracene	**0.18**	**J**	0.20	0.046	ug/L		10/23/23 11:01	10/26/23 16:51	1
Anthracene	**0.12**	**J H**	0.20	0.047	ug/L		11/08/23 13:07	11/10/23 18:37	1
Benzo[a]anthracene	**0.070**	**J B**	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 16:51	1
Benzo[a]anthracene	**0.055**	**J H**	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 18:37	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/23/23 11:01	10/26/23 16:51	1
Benzo[a]pyrene	ND	H	0.20	0.064	ug/L		11/08/23 13:07	11/10/23 18:37	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 16:51	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		11/08/23 13:07	11/10/23 18:37	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 16:51	1

Client Sample ID: P58-ROX-101723

Date Collected: 10/17/23 12:15
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	**0.035**	**J H**	0.20	0.027	ug/L		11/08/23 13:07	11/10/23 18:37	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/23/23 11:01	10/26/23 16:51	1
Benzo[k]fluoranthene	ND	H	0.20	0.062	ug/L		11/08/23 13:07	11/10/23 18:37	1
Chrysene	**0.043**	**J**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 16:51	1
Chrysene	ND	H	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 18:37	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 16:51	1
Dibenz(a,h)anthracene	ND	H	0.20	0.048	ug/L		11/08/23 13:07	11/10/23 18:37	1
Fluoranthene	**0.086**	**J B**	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 16:51	1
Fluoranthene	ND	H	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 18:37	1
Fluorene	**1.0**		0.20	0.088	ug/L		10/23/23 11:01	10/26/23 16:51	1
Fluorene	**0.66**	**H**	0.20	0.089	ug/L		11/08/23 13:07	11/10/23 18:37	1
Indeno[1,2,3-cd]pyrene	**0.034**	**J B**	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 16:51	1
Indeno[1,2,3-cd]pyrene	**0.077**	**J H**	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 18:37	1
Phenanthrene	**0.79**		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 16:51	1
Phenanthrene	**0.59**	**H**	0.20	0.090	ug/L		11/08/23 13:07	11/10/23 18:37	1
Pyrene	**0.13**	**J**	0.20	0.039	ug/L		10/23/23 11:01	10/26/23 16:51	1
Pyrene	**0.073**	**J H**	0.20	0.039	ug/L		11/08/23 13:07	11/10/23 18:37	1
1-Methylnaphthalene	**35**		0.20	0.079	ug/L		10/23/23 11:01	10/26/23 16:51	1
1-Methylnaphthalene	**28**	**H**	0.20	0.080	ug/L		11/08/23 13:07	11/10/23 18:37	1
2-Methylnaphthalene	**25**		0.20	0.065	ug/L		10/23/23 11:01	10/26/23 16:51	1
2-Methylnaphthalene	**20**	**H**	0.20	0.066	ug/L		11/08/23 13:07	11/10/23 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*56*		*18 - 147*	*10/23/23 11:01*	*10/26/23 16:51*	*1*
Terphenyl-d14	*40*		*18 - 147*	*11/08/23 13:07*	*11/10/23 18:37*	*1*
2-Fluorobiphenyl	*49*		*15 - 128*	*10/23/23 11:01*	*10/26/23 16:51*	*1*
2-Fluorobiphenyl	*34*		*15 - 128*	*11/08/23 13:07*	*11/10/23 18:37*	*1*
Nitrobenzene-d5	*46*		*10 - 144*	*10/23/23 11:01*	*10/26/23 16:51*	*1*
Nitrobenzene-d5	*43*		*10 - 144*	*11/08/23 13:07*	*11/10/23 18:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		10/23/23 11:01	10/25/23 18:34	1
Benzenethiol	ND	*- *1	9.9	1.7	ug/L		10/23/23 11:01	10/25/23 18:34	1
Benzoic acid	ND	*-	30	7.2	ug/L		10/23/23 11:01	10/25/23 18:34	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 18:34	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 18:34	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 18:34	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 18:34	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		10/23/23 11:01	10/25/23 18:34	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/23/23 11:01	10/25/23 18:34	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/23/23 11:01	10/25/23 18:34	1
4-Chloroaniline	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 18:34	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		10/23/23 11:01	10/25/23 18:34	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 18:34	1
2-Chlorophenol	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 18:34	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 18:34	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:34	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:34	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 18:34	1

Client Sample ID: P58-ROX-101723
Date Collected: 10/17/23 12:15
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		10/23/23 11:01	10/25/23 18:34	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/23/23 11:01	10/25/23 18:34	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 18:34	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:34	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 18:34	1
4,6-Dinitro-ortho-cresol	ND	*1	9.9	1.6	ug/L		10/23/23 11:01	10/25/23 18:34	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/23/23 11:01	10/25/23 18:34	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 18:34	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 18:34	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:34	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:34	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:34	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:34	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 18:34	1
Hexachloroethane	ND		9.9	4.2	ug/L		10/23/23 11:01	10/25/23 18:34	1
Indene	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:34	1
Isophorone	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 18:34	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 18:34	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/23/23 11:01	10/25/23 18:34	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 18:34	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 18:34	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/23/23 11:01	10/25/23 18:34	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/23/23 11:01	10/25/23 18:34	1
2-Nitrophenol	ND		9.9	5.1	ug/L		10/23/23 11:01	10/25/23 18:34	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/23/23 11:01	10/25/23 18:34	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 18:34	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/23/23 11:01	10/25/23 18:34	1
N-Nitrosodiphenylamine	**0.44**	**J**	9.9	0.18	ug/L		10/23/23 11:01	10/25/23 18:34	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 18:34	1
Phenol	**220**		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 18:34	1
Pyridine	ND		9.9	3.2	ug/L		10/23/23 11:01	10/25/23 18:34	1
Quinoline	ND		9.9	4.5	ug/L		10/23/23 11:01	10/25/23 18:34	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 18:34	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*46 - 124*	*10/23/23 11:01*	*10/25/23 18:34*	*1*
2-Fluorophenol	*6*	*S1-*	*13 - 113*	*10/23/23 11:01*	*10/25/23 18:34*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*10/23/23 11:01*	*10/25/23 18:34*	*1*
Phenol-d5	*31*		*17 - 127*	*10/23/23 11:01*	*10/25/23 18:34*	*1*
Terphenyl-d14	*68*		*44 - 149*	*10/23/23 11:01*	*10/25/23 18:34*	*1*
2,4,6-Tribromophenol	*92*		*26 - 150*	*10/23/23 11:01*	*10/25/23 18:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/23/23 20:07	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/23/23 20:07	1

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

Job ID: 400-245246-1

Client Sample ID: P58-ROX-101723
Date Collected: 10/17/23 12:15
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-6
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		51 - 149	10/23/23 12:43	10/23/23 20:07	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.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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.

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: 400-245246-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245246-1	TB-ROX-101723-8260	105	95	108
400-245246-3	P57-ROX-101723	94	96	98
400-245246-3 - RA	P57-ROX-101723	107	90	106
400-245246-4	P74-ROX-101723	90	104	96
400-245246-5	P74-ROX-101723-DUP	91	104	96
400-245246-6	P58-ROX-101723	103	92	108
400-245246-6 - DL	P58-ROX-101723	109	92	105
LCS 400-646866/1001	Lab Control Sample	108	95	103
LCS 400-647050/1001	Lab Control Sample	97	103	98
LCS 400-647265/1001	Lab Control Sample	107	96	102
MB 400-646866/3	Method Blank	106	96	108
MB 400-647050/5	Method Blank	93	105	98
MB 400-647265/3	Method Blank	107	95	106

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245246-3	P57-ROX-101723	74	24	66	54	69	93
400-245246-4	P74-ROX-101723	70	24	64	49	78	81
400-245246-5	P74-ROX-101723-DUP	78	22	68	52	89	91
400-245246-5 - RERA	P74-ROX-101723-DUP	63		57		71	
400-245246-6	P58-ROX-101723	71	6 S1-	65	31	68	92
LCS 400-646681/2-A	Lab Control Sample	79	36	79	65	95	101
LCS 400-646681/4-A	Lab Control Sample	79	32	68	50	98	70
LCS 400-648382/2-A	Lab Control Sample	71		72		80	
LCSD 400-646681/3-A	Lab Control Sample Dup	79	19	78	56	96	100
LCSD 400-646681/5-A	Lab Control Sample Dup	75	33	65	55	94	51
LCSD 400-648382/3-A	Lab Control Sample Dup	69		71		75	
MB 400-646681/1-A	Method Blank	77	8 S1-	67	37	94	55
MB 400-648382/1-A	Method Blank	69		59		81	

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: 400-245246-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245246-3	P57-ROX-101723	65	44	58
400-245246-3	P57-ROX-101723	45	38	53
400-245246-4	P74-ROX-101723	57	47	42
400-245246-4	P74-ROX-101723	40	49	45
400-245246-5	P74-ROX-101723-DUP	55	48	43
400-245246-5	P74-ROX-101723-DUP	44	41	41
400-245246-6	P58-ROX-101723	56	49	46
400-245246-6	P58-ROX-101723	40	34	43
LCS 400-646681/6-A	Lab Control Sample	76	70	57
LCS 400-648382/2-A	Lab Control Sample	71	85	88
LCS 400-649254/2-A	Lab Control Sample	58	59	53
LCSD 400-646681/7-A	Lab Control Sample Dup	79	75	61
LCSD 400-648382/3-A	Lab Control Sample Dup	70	84	90
LCSD 400-649254/3-A	Lab Control Sample Dup	58	60	56
MB 400-646681/1-A	Method Blank	69	56	50
MB 400-648382/1-A	Method Blank	76	80	72
MB 400-649254/1-A	Method Blank	74	69	65

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-245246-2	TB-ROX-101723-8011	99
400-245246-3	P57-ROX-101723	93
400-245246-4	P74-ROX-101723	91
400-245246-5	P74-ROX-101723-DUP	101
400-245246-6	P58-ROX-101723	109
LCS 400-646733/2-A	Lab Control Sample	98
LCSD 400-646733/3-A	Lab Control Sample Dup	99
MB 400-646733/1-A	Method Blank	94

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-245246-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-245246-1

Client Sample ID: TB-ROX-101723-8260
Date Collected: 10/17/23 00:00
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-1
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	8260D		1	5 mL	5 mL	646866	10/24/23 16:13	BPO	EET PEN

Client Sample ID: TB-ROX-101723-8011
Date Collected: 10/17/23 00:00
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-2
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			34.9 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 18:41	PG	EET PEN

Client Sample ID: P57-ROX-101723
Date Collected: 10/17/23 09:35
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-3
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	8260D	RA	1	5 mL	5 mL	647265	10/26/23 13:17	BPO	EET PEN
Total/NA	Analysis	8260D		1	5 mL	5 mL	647050	10/25/23 15:16	CAR	EET PEN
Total/NA	Prep	3520C			253.8 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 17:30	S1B	EET PEN
Total/NA	Prep	3520C			253.8 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:48	S1B	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 17:56	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 19:03	PG	EET PEN

Client Sample ID: P74-ROX-101723
Date Collected: 10/17/23 10:50
Date Received: 10/18/23 09:11

Lab Sample ID: 400-245246-4
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	8260D		5	5 mL	5 mL	647050	10/25/23 18:41	CAR	EET PEN
Total/NA	Prep	3520C			255.4 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 17:52	S1B	EET PEN
Total/NA	Prep	3520C			255.4 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 16:09	S1B	EET PEN
Total/NA	Prep	3520C			254.4 mL	1 mL	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 18:17	TH	EET PEN
Total/NA	Prep	8011			34.8 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 19:24	PG	EET PEN

Client Sample ID: P74-ROX-101723-DUP

Lab Sample ID: 400-245246-5

Date Collected: 10/17/23 10:50

Matrix: Water

Date Received: 10/18/23 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	8260D		5	5 mL	5 mL	647050	10/25/23 18:23	CAR	EET PEN
Total/NA	Prep	3520C			253 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 18:13	S1B	EET PEN
Total/NA	Prep	3520C	RERA		255.2 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E	RERA	1	0.4 mL	0.4 mL	648674	11/03/23 21:48	S1B	EET PEN
Total/NA	Prep	3520C			253 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 16:30	S1B	EET PEN
Total/NA	Prep	3520C			255.2 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649802	11/11/23 13:19	S1B	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 19:45	PG	EET PEN

Client Sample ID: P58-ROX-101723

Lab Sample ID: 400-245246-6

Date Collected: 10/17/23 12:15

Matrix: Water

Date Received: 10/18/23 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	8260D		1000	5 mL	5 mL	646866	10/24/23 20:51	BPO	EET PEN
Total/NA	Analysis	8260D	DL	5000	5 mL	5 mL	647265	10/26/23 14:58	BPO	EET PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 18:34	S1B	EET PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 16:51	S1B	EET PEN
Total/NA	Prep	3520C			250.2 mL	1 mL	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 18:37	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 20:07	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646681/1-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 15:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 14:45	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646733/1-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	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 17:38	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646866/3
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	8260D		1	5 mL	5 mL	646866	10/24/23 11:10	BPO	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-647050/5
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	8260D		1	5 mL	5 mL	647050	10/25/23 10:26	CAR	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-647265/3
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	8260D		1	5 mL	5 mL	647265	10/26/23 12:02	BPO	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-648382/1-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	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	648674	11/03/23 20:44	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 21:40	TH	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-649254/1-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 16:54	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/2-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:05	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-245246-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/4-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:47	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/6-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:06	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646733/2-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	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 17:59	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646866/1001
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	8260D		1	5 mL	5 mL	646866	10/24/23 10:07	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-647050/1001
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	8260D		1	5 mL	5 mL	647050	10/25/23 08:50	CAR	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-647265/1001
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	8260D		1	5 mL	5 mL	647265	10/26/23 10:49	BPO	EET PEN

Lab Chronicle

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

Job ID: 400-245246-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-648382/2-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	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	648674	11/03/23 21:05	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	649654	11/10/23 22:00	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-649254/2-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 17:15	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/3-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:26	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/5-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 17:09	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/7-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:27	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646733/3-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	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 18:20	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-245246-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-648382/3-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	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	648674	11/03/23 21:27	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	649654	11/10/23 22:21	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-649254/3-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 17:35	TH	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646866

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-1	TB-ROX-101723-8260	Total/NA	Water	8260D	
400-245246-6	P58-ROX-101723	Total/NA	Water	8260D	
MB 400-646866/3	Method Blank	Total/NA	Water	8260D	
LCS 400-646866/1001	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 647050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-3	P57-ROX-101723	Total/NA	Water	8260D	
400-245246-4	P74-ROX-101723	Total/NA	Water	8260D	
400-245246-5	P74-ROX-101723-DUP	Total/NA	Water	8260D	
MB 400-647050/5	Method Blank	Total/NA	Water	8260D	
LCS 400-647050/1001	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 647265

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-3 - RA	P57-ROX-101723	Total/NA	Water	8260D	
400-245246-6 - DL	P58-ROX-101723	Total/NA	Water	8260D	
MB 400-647265/3	Method Blank	Total/NA	Water	8260D	
LCS 400-647265/1001	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-3	P57-ROX-101723	Total/NA	Water	3520C	
400-245246-4	P74-ROX-101723	Total/NA	Water	3520C	
400-245246-5	P74-ROX-101723-DUP	Total/NA	Water	3520C	
400-245246-6	P58-ROX-101723	Total/NA	Water	3520C	
MB 400-646681/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 647055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-3	P57-ROX-101723	Total/NA	Water	8270E	646681
400-245246-4	P74-ROX-101723	Total/NA	Water	8270E	646681
400-245246-5	P74-ROX-101723-DUP	Total/NA	Water	8270E	646681
400-245246-6	P58-ROX-101723	Total/NA	Water	8270E	646681
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E	646681
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681

Analysis Batch: 647384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-3	P57-ROX-101723	Total/NA	Water	8270E SIM	646681

GC/MS Semi VOA (Continued)

Analysis Batch: 647384 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-4	P74-ROX-101723	Total/NA	Water	8270E SIM	646681
400-245246-5	P74-ROX-101723-DUP	Total/NA	Water	8270E SIM	646681
400-245246-6	P58-ROX-101723	Total/NA	Water	8270E SIM	646681
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E SIM	646681
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646681
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646681

Prep Batch: 648382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-5	P74-ROX-101723-DUP	Total/NA	Water	3520C	
400-245246-5 - RERA	P74-ROX-101723-DUP	Total/NA	Water	3520C	
MB 400-648382/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-648382/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-648382/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 648674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-5 - RERA	P74-ROX-101723-DUP	Total/NA	Water	8270E	648382
MB 400-648382/1-A	Method Blank	Total/NA	Water	8270E	648382
LCS 400-648382/2-A	Lab Control Sample	Total/NA	Water	8270E	648382
LCSD 400-648382/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	648382

Prep Batch: 649254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-3	P57-ROX-101723	Total/NA	Water	3520C	
400-245246-4	P74-ROX-101723	Total/NA	Water	3520C	
400-245246-6	P58-ROX-101723	Total/NA	Water	3520C	
MB 400-649254/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-649254/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-649254/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 649654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-3	P57-ROX-101723	Total/NA	Water	8270E SIM	649254
400-245246-4	P74-ROX-101723	Total/NA	Water	8270E SIM	649254
400-245246-6	P58-ROX-101723	Total/NA	Water	8270E SIM	649254
MB 400-648382/1-A	Method Blank	Total/NA	Water	8270E SIM	648382
MB 400-649254/1-A	Method Blank	Total/NA	Water	8270E SIM	649254
LCS 400-648382/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	648382
LCS 400-649254/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	649254
LCSD 400-648382/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	648382
LCSD 400-649254/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	649254

Analysis Batch: 649802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-5	P74-ROX-101723-DUP	Total/NA	Water	8270E SIM	648382

QC Association Summary

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

Job ID: 400-245246-1

GC Semi VOA

Analysis Batch: 646644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-2	TB-ROX-101723-8011	Total/NA	Water	8011	646733
400-245246-3	P57-ROX-101723	Total/NA	Water	8011	646733
400-245246-4	P74-ROX-101723	Total/NA	Water	8011	646733
400-245246-5	P74-ROX-101723-DUP	Total/NA	Water	8011	646733
400-245246-6	P58-ROX-101723	Total/NA	Water	8011	646733
MB 400-646733/1-A	Method Blank	Total/NA	Water	8011	646733
LCS 400-646733/2-A	Lab Control Sample	Total/NA	Water	8011	646733
LCSD 400-646733/3-A	Lab Control Sample Dup	Total/NA	Water	8011	646733

Prep Batch: 646733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245246-2	TB-ROX-101723-8011	Total/NA	Water	8011	
400-245246-3	P57-ROX-101723	Total/NA	Water	8011	
400-245246-4	P74-ROX-101723	Total/NA	Water	8011	
400-245246-5	P74-ROX-101723-DUP	Total/NA	Water	8011	
400-245246-6	P58-ROX-101723	Total/NA	Water	8011	
MB 400-646733/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-646733/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-646733/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646866/3
Matrix: Water
Analysis Batch: 646866

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			10/24/23 11:10	1
Acrolein	ND		20	3.3	ug/L			10/24/23 11:10	1
Acrylonitrile	ND		10	2.8	ug/L			10/24/23 11:10	1
Benzene	ND		1.0	0.50	ug/L			10/24/23 11:10	1
Bromobenzene	ND		1.0	0.54	ug/L			10/24/23 11:10	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/24/23 11:10	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/24/23 11:10	1
Bromoform	ND		5.0	0.25	ug/L			10/24/23 11:10	1
Bromomethane	ND		1.0	0.98	ug/L			10/24/23 11:10	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/24/23 11:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/24/23 11:10	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/24/23 11:10	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/24/23 11:10	1
Chloroethane	ND		1.0	0.76	ug/L			10/24/23 11:10	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/24/23 11:10	1
Chloroform	ND		1.0	0.90	ug/L			10/24/23 11:10	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/24/23 11:10	1
Chloromethane	ND		1.0	0.90	ug/L			10/24/23 11:10	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/24/23 11:10	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/24/23 11:10	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/24/23 11:10	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/24/23 11:10	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/24/23 11:10	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/24/23 11:10	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/24/23 11:10	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/24/23 11:10	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/24/23 11:10	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/24/23 11:10	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/24/23 11:10	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/24/23 11:10	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/24/23 11:10	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/24/23 11:10	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/24/23 11:10	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/24/23 11:10	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/24/23 11:10	1
2-Hexanone	ND		25	1.4	ug/L			10/24/23 11:10	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/24/23 11:10	1
Methylene bromide	ND		5.0	0.22	ug/L			10/24/23 11:10	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/24/23 11:10	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/24/23 11:10	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/24/23 11:10	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/24/23 11:10	1
Naphthalene	ND		5.0	3.0	ug/L			10/24/23 11:10	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/24/23 11:10	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/24/23 11:10	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/24/23 11:10	1
o-Xylene	ND		5.0	0.60	ug/L			10/24/23 11:10	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/24/23 11:10	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646866/3
Matrix: Water
Analysis Batch: 646866

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			10/24/23 11:10	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/24/23 11:10	1
Styrene	ND		1.0	1.0	ug/L			10/24/23 11:10	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/24/23 11:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/24/23 11:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/24/23 11:10	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/24/23 11:10	1
Toluene	ND		1.0	0.90	ug/L			10/24/23 11:10	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/24/23 11:10	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/24/23 11:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/24/23 11:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/24/23 11:10	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/24/23 11:10	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/24/23 11:10	1
Trichloroethene	ND		1.0	0.15	ug/L			10/24/23 11:10	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/24/23 11:10	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/24/23 11:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/24/23 11:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/24/23 11:10	1
Vinyl acetate	ND		25	0.93	ug/L			10/24/23 11:10	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/24/23 11:10	1
Xylenes, Total	ND		10	1.6	ug/L			10/24/23 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 130*		*10/24/23 11:10*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*10/24/23 11:10*	*1*
Toluene-d8 (Surr)	*108*		*64 - 132*		*10/24/23 11:10*	*1*

Lab Sample ID: LCS 400-646866/1001
Matrix: Water
Analysis Batch: 646866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	624	*+	ug/L		312	43 - 160
Acrolein	500	582		ug/L		116	38 - 160
Acrylonitrile	500	571		ug/L		114	64 - 142
Benzene	50.0	51.2		ug/L		102	70 - 130
Bromobenzene	50.0	47.3		ug/L		95	70 - 132
Bromochloromethane	50.0	41.5		ug/L		83	70 - 130
Bromodichloromethane	50.0	55.8		ug/L		112	67 - 133
Bromoform	50.0	45.5		ug/L		91	57 - 140
Bromomethane	50.0	54.5		ug/L		109	10 - 160
2-Butanone (MEK)	200	454	*+	ug/L		227	61 - 145
Carbon disulfide	50.0	41.8		ug/L		84	61 - 137
Carbon tetrachloride	50.0	50.2		ug/L		100	61 - 137
Chlorobenzene	50.0	51.1		ug/L		102	70 - 130
Chloroethane	50.0	37.5		ug/L		75	55 - 141
2-Chloroethyl vinyl ether	50.0	77.9		ug/L		156	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646866/1001
Matrix: Water
Analysis Batch: 646866

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	49.6		ug/L		99	69 - 130
1-Chlorohexane	50.0	54.5		ug/L		109	69 - 130
Chloromethane	50.0	61.7		ug/L		123	58 - 137
cis-1,2-Dichloroethene	50.0	51.1		ug/L		102	68 - 130
cis-1,3-Dichloropropene	50.0	57.0		ug/L		114	69 - 132
Dibromochloromethane	50.0	49.6		ug/L		99	67 - 135
1,2-Dichlorobenzene	50.0	49.4		ug/L		99	67 - 130
1,3-Dichlorobenzene	50.0	49.5		ug/L		99	70 - 130
1,4-Dichlorobenzene	50.0	49.6		ug/L		99	70 - 130
Dichlorodifluoromethane	50.0	55.4		ug/L		111	41 - 146
1,1-Dichloroethane	50.0	50.1		ug/L		100	70 - 130
1,2-Dichloroethane	50.0	53.1		ug/L		106	69 - 130
1,1-Dichloroethene	50.0	45.7		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	57.8		ug/L		116	70 - 130
1,3-Dichloropropane	50.0	54.9		ug/L		110	70 - 130
2,2-Dichloropropane	50.0	46.6		ug/L		93	52 - 135
1,1-Dichloropropene	50.0	52.0		ug/L		104	70 - 130
Ethylbenzene	50.0	53.6		ug/L		107	70 - 130
Ethyl methacrylate	50.0	55.3		ug/L		111	68 - 130
Hexachlorobutadiene	50.0	53.5		ug/L		107	53 - 140
2-Hexanone	200	380	*+	ug/L		190	65 - 137
Isopropylbenzene	50.0	52.8		ug/L		106	70 - 130
Methylene bromide	50.0	55.5		ug/L		111	70 - 130
Methylene Chloride	50.0	46.5		ug/L		93	66 - 135
4-Methyl-2-pentanone (MIBK)	200	287	*+	ug/L		144	69 - 138
Methyl tert-butyl ether	50.0	48.4		ug/L		97	66 - 130
m-Xylene & p-Xylene	50.0	53.5		ug/L		107	70 - 130
Naphthalene	50.0	54.4		ug/L		109	47 - 149
n-Butylbenzene	50.0	58.0		ug/L		116	67 - 130
N-Propylbenzene	50.0	53.2		ug/L		106	70 - 130
o-Chlorotoluene	50.0	55.6		ug/L		111	70 - 130
o-Xylene	50.0	51.8		ug/L		104	70 - 130
p-Chlorotoluene	50.0	54.4		ug/L		109	70 - 130
p-Isopropyltoluene	50.0	53.7		ug/L		107	65 - 130
sec-Butylbenzene	50.0	54.5		ug/L		109	66 - 130
Styrene	50.0	47.3		ug/L		95	70 - 130
tert-Butylbenzene	50.0	54.4		ug/L		109	64 - 139
1,1,1,2-Tetrachloroethane	50.0	48.1		ug/L		96	67 - 131
1,1,2,2-Tetrachloroethane	50.0	38.3		ug/L		77	70 - 131
Tetrachloroethene	50.0	70.0	*+	ug/L		140	65 - 130
Toluene	50.0	52.8		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	45.7		ug/L		91	70 - 130
trans-1,3-Dichloropropene	50.0	51.0		ug/L		102	63 - 130
1,2,3-Trichlorobenzene	50.0	48.7		ug/L		97	60 - 138
1,2,4-Trichlorobenzene	50.0	48.2		ug/L		96	60 - 140
1,1,1-Trichloroethane	50.0	49.1		ug/L		98	68 - 130
1,1,2-Trichloroethane	50.0	54.6		ug/L		109	70 - 130
Trichloroethene	50.0	58.8		ug/L		118	70 - 130
Trichlorofluoromethane	50.0	44.2		ug/L		88	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646866/1001
Matrix: Water
Analysis Batch: 646866

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	54.8		ug/L		110	70 - 130
1,2,4-Trimethylbenzene	50.0	53.6		ug/L		107	70 - 130
1,3,5-Trimethylbenzene	50.0	53.4		ug/L		107	69 - 130
Vinyl acetate	100	113		ug/L		113	26 - 160
Vinyl chloride	50.0	59.1		ug/L		118	59 - 136
Xylenes, Total	100	105		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*72 - 130*
Dibromofluoromethane	*95*		*75 - 126*
Toluene-d8 (Surr)	*103*		*64 - 132*

Lab Sample ID: MB 400-647050/5
Matrix: Water
Analysis Batch: 647050

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			10/25/23 10:26	1
Acrolein	ND		20	3.3	ug/L			10/25/23 10:26	1
Acrylonitrile	ND		10	2.8	ug/L			10/25/23 10:26	1
Benzene	ND		1.0	0.50	ug/L			10/25/23 10:26	1
Bromobenzene	ND		1.0	0.54	ug/L			10/25/23 10:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/25/23 10:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/25/23 10:26	1
Bromoform	ND		5.0	0.25	ug/L			10/25/23 10:26	1
Bromomethane	ND		1.0	0.98	ug/L			10/25/23 10:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/25/23 10:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/25/23 10:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/25/23 10:26	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/25/23 10:26	1
Chloroethane	ND		1.0	0.76	ug/L			10/25/23 10:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/25/23 10:26	1
Chloroform	ND		1.0	0.90	ug/L			10/25/23 10:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/25/23 10:26	1
Chloromethane	ND		1.0	0.90	ug/L			10/25/23 10:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/25/23 10:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/25/23 10:26	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/25/23 10:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/25/23 10:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/25/23 10:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/25/23 10:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/25/23 10:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/25/23 10:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/25/23 10:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/25/23 10:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/25/23 10:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/25/23 10:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/25/23 10:26	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-647050/5
Matrix: Water
Analysis Batch: 647050

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/25/23 10:26	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/25/23 10:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/25/23 10:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/25/23 10:26	1
2-Hexanone	ND		25	1.4	ug/L			10/25/23 10:26	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/25/23 10:26	1
Methylene bromide	ND		5.0	0.22	ug/L			10/25/23 10:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/25/23 10:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/25/23 10:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/25/23 10:26	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/25/23 10:26	1
Naphthalene	ND		5.0	3.0	ug/L			10/25/23 10:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/25/23 10:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/25/23 10:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/25/23 10:26	1
o-Xylene	ND		5.0	0.60	ug/L			10/25/23 10:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/25/23 10:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/25/23 10:26	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/25/23 10:26	1
Styrene	ND		1.0	1.0	ug/L			10/25/23 10:26	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/25/23 10:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/25/23 10:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/25/23 10:26	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/25/23 10:26	1
Toluene	ND		1.0	0.90	ug/L			10/25/23 10:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/25/23 10:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/25/23 10:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/25/23 10:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/25/23 10:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/25/23 10:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/25/23 10:26	1
Trichloroethene	ND		1.0	0.15	ug/L			10/25/23 10:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/25/23 10:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/25/23 10:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/25/23 10:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/25/23 10:26	1
Vinyl acetate	ND		25	0.93	ug/L			10/25/23 10:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/25/23 10:26	1
Xylenes, Total	ND		10	1.6	ug/L			10/25/23 10:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 130*		*10/25/23 10:26*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*10/25/23 10:26*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/25/23 10:26*	*1*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-647050/1001
Matrix: Water
Analysis Batch: 647050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	100	93.1		ug/L		93	43 - 160
Acrolein	500	492		ug/L		98	38 - 160
Acrylonitrile	250	261		ug/L		104	64 - 142
Benzene	25.0	25.1		ug/L		101	70 - 130
Bromobenzene	25.0	23.9		ug/L		96	70 - 132
Bromochloromethane	25.0	24.4		ug/L		97	70 - 130
Bromodichloromethane	25.0	21.5		ug/L		86	67 - 133
Bromoform	25.0	17.2		ug/L		69	57 - 140
Bromomethane	50.0	44.1		ug/L		88	10 - 160
2-Butanone (MEK)	100	84.1		ug/L		84	61 - 145
Carbon disulfide	25.0	24.1		ug/L		96	61 - 137
Carbon tetrachloride	25.0	21.5		ug/L		86	61 - 137
Chlorobenzene	25.0	25.2		ug/L		101	70 - 130
Chloroethane	50.0	57.9		ug/L		116	55 - 141
2-Chloroethyl vinyl ether	50.0	56.1		ug/L		112	10 - 160
Chloroform	25.0	24.8		ug/L		99	69 - 130
1-Chlorohexane	25.0	26.0		ug/L		104	69 - 130
Chloromethane	50.0	48.7		ug/L		97	58 - 137
cis-1,2-Dichloroethene	25.0	24.9		ug/L		100	68 - 130
cis-1,3-Dichloropropene	25.0	21.3		ug/L		85	69 - 132
Dibromochloromethane	25.0	19.4		ug/L		78	67 - 135
1,2-Dichlorobenzene	25.0	26.2		ug/L		105	67 - 130
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,4-Dichlorobenzene	25.0	25.6		ug/L		102	70 - 130
Dichlorodifluoromethane	50.0	32.8		ug/L		66	41 - 146
1,1-Dichloroethane	25.0	25.1		ug/L		101	70 - 130
1,2-Dichloroethane	25.0	24.9		ug/L		99	69 - 130
1,1-Dichloroethene	25.0	23.9		ug/L		96	63 - 134
1,2-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	24.0		ug/L		96	70 - 130
2,2-Dichloropropane	25.0	20.7		ug/L		83	52 - 135
1,1-Dichloropropene	25.0	24.1		ug/L		96	70 - 130
Ethylbenzene	25.0	25.3		ug/L		101	70 - 130
Ethyl methacrylate	25.0	21.1		ug/L		85	68 - 130
Hexachlorobutadiene	25.0	24.7		ug/L		99	53 - 140
2-Hexanone	100	88.7		ug/L		89	65 - 137
Isopropylbenzene	25.0	24.8		ug/L		99	70 - 130
Methylene bromide	25.0	24.1		ug/L		96	70 - 130
Methylene Chloride	25.0	26.5		ug/L		106	66 - 135
4-Methyl-2-pentanone (MIBK)	100	105		ug/L		105	69 - 138
Methyl tert-butyl ether	25.0	23.7		ug/L		95	66 - 130
m-Xylene & p-Xylene	25.0	24.9		ug/L		100	70 - 130
Naphthalene	25.0	21.4		ug/L		86	47 - 149
n-Butylbenzene	25.0	33.1	*+	ug/L		132	67 - 130
N-Propylbenzene	25.0	25.6		ug/L		102	70 - 130
o-Chlorotoluene	25.0	30.5		ug/L		122	70 - 130
o-Xylene	25.0	24.2		ug/L		97	70 - 130
p-Chlorotoluene	25.0	26.2		ug/L		105	70 - 130

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-647050/1001
Matrix: Water
Analysis Batch: 647050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	25.0	25.7		ug/L		103	65 - 130
sec-Butylbenzene	25.0	26.3		ug/L		105	66 - 130
Styrene	25.0	21.8		ug/L		87	70 - 130
tert-Butylbenzene	25.0	24.7		ug/L		99	64 - 139
1,1,1,2-Tetrachloroethane	25.0	19.8		ug/L		79	67 - 131
1,1,2,2-Tetrachloroethane	25.0	23.8		ug/L		95	70 - 131
Tetrachloroethene	25.0	24.5		ug/L		98	65 - 130
Toluene	25.0	24.0		ug/L		96	70 - 130
trans-1,2-Dichloroethene	25.0	24.9		ug/L		100	70 - 130
trans-1,3-Dichloropropene	25.0	20.7		ug/L		83	63 - 130
1,2,3-Trichlorobenzene	25.0	24.1		ug/L		96	60 - 138
1,2,4-Trichlorobenzene	25.0	24.6		ug/L		99	60 - 140
1,1,1-Trichloroethane	25.0	22.8		ug/L		91	68 - 130
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	70 - 130
Trichloroethene	25.0	22.8		ug/L		91	70 - 130
Trichlorofluoromethane	50.0	49.5		ug/L		99	65 - 138
1,2,3-Trichloropropane	25.0	24.5		ug/L		98	70 - 130
1,2,4-Trimethylbenzene	25.0	25.4		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	25.0	25.5		ug/L		102	69 - 130
Vinyl acetate	100	122		ug/L		122	26 - 160
Vinyl chloride	50.0	54.5		ug/L		109	59 - 136
Xylenes, Total	50.0	49.1		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 130*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: MB 400-647265/3
Matrix: Water
Analysis Batch: 647265

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	0.50	ug/L			10/26/23 12:02	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/23 12:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*10/26/23 12:02*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*10/26/23 12:02*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*10/26/23 12:02*	*1*

Lab Sample ID: LCS 400-647265/1001
Matrix: Water
Analysis Batch: 647265

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	49.5		ug/L		99	70 - 130
n-Butylbenzene	50.0	54.9		ug/L		110	67 - 130

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-647265/1001
Matrix: Water
Analysis Batch: 647265

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	*107*		*72 - 130*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzenethiol	ND		10	1.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzoic acid	ND		30	7.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzyl alcohol	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/23/23 11:01	10/25/23 15:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloroaniline	ND		10	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chlorophenol	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenzofuran	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Diethyl phthalate	ND		10	0.24	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
1,4-Dioxane	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachloroethane	ND		10	4.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Indene	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Isophorone	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Methylphenol	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/23/23 11:01	10/25/23 15:43	1

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
3-Nitroaniline	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitroaniline	ND		10	1.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Nitrobenzene	ND		10	0.13	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitrophenol	ND		10	5.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitrophenol	ND		10	2.1	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pentachlorophenol	ND		20	1.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
Phenol	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pyridine	ND		10	3.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Quinoline	ND		10	4.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
2-Fluorophenol	*8*	*S1-*	*13 - 113*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Phenol-d5	*37*		*17 - 127*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Terphenyl-d14	*94*		*44 - 149*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
2,4,6-Tribromophenol	*55*		*26 - 150*	*10/23/23 11:01*	*10/25/23 15:43*	*1*

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	80.0		ug/L		67	21 - 120
Benzoic acid	522	29.7	J *-	ug/L		6	10 - 144
Benzyl alcohol	120	89.4		ug/L		75	28 - 120
Bis(2-chloroethoxy)methane	120	81.3		ug/L		68	47 - 120
Bis(2-chloroethyl)ether	120	82.0		ug/L		68	44 - 120
bis (2-chloroisopropyl) ether	120	78.6		ug/L		66	33 - 121
Bis(2-ethylhexyl) phthalate	120	94.6		ug/L		79	52 - 147
4-Bromophenyl phenyl ether	120	99.6		ug/L		83	54 - 122
Butyl benzyl phthalate	120	101		ug/L		84	54 - 133
4-Chloroaniline	120	64.4		ug/L		54	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131
2-Chloronaphthalene	120	92.6		ug/L		77	52 - 121
2-Chlorophenol	120	75.0		ug/L		63	40 - 120
4-Chlorophenyl phenyl ether	120	104		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	103		ug/L		86	31 - 150
Dibenzofuran	120	101		ug/L		84	56 - 122
3,3'-Dichlorobenzidine	160	142		ug/L		89	36 - 132
2,4-Dichlorophenol	120	96.5		ug/L		80	49 - 120
Diethyl phthalate	120	105		ug/L		88	50 - 137

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

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dimethylphenol	120	97.5		ug/L		81	48 - 120
Dimethyl phthalate	120	97.6		ug/L		81	57 - 124
Di-n-butyl phthalate	120	114		ug/L		95	58 - 126
4,6-Dinitro-ortho-cresol	240	155		ug/L		65	23 - 148
2,4-Dinitrophenol	240	111		ug/L		46	10 - 150
2,4-Dinitrotoluene	120	106		ug/L		88	54 - 142
2,6-Dinitrotoluene	120	103		ug/L		86	55 - 130
Di-n-octyl phthalate	120	91.9		ug/L		77	57 - 138
1,4-Dioxane	120	54.7		ug/L		46	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	81.5		ug/L		68	45 - 124
Hexachlorobenzene	120	108		ug/L		90	52 - 129
Hexachlorocyclopentadiene	120	63.8		ug/L		53	10 - 134
Hexachloroethane	120	81.9		ug/L		68	20 - 120
Indene	120	95.3		ug/L		79	49 - 120
Isophorone	120	82.9		ug/L		69	48 - 120
2-Methylphenol	120	89.7		ug/L		75	46 - 124
3 & 4 Methylphenol	120	88.5		ug/L		74	45 - 120
2-Nitroaniline	120	91.0		ug/L		76	51 - 145
3-Nitroaniline	120	82.4		ug/L		69	37 - 127
4-Nitroaniline	120	80.4		ug/L		67	36 - 137
Nitrobenzene	120	82.9		ug/L		69	45 - 120
2-Nitrophenol	120	98.4		ug/L		82	40 - 124
4-Nitrophenol	240	189		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	81.7		ug/L		68	29 - 137
N-Nitrosodi-n-propylamine	120	86.4		ug/L		72	45 - 120
N-Nitrosodiphenylamine	119	89.7		ug/L		75	54 - 120
Pentachlorophenol	240	174		ug/L		73	31 - 130
Phenol	120	76.3		ug/L		64	11 - 120
Pyridine	240	128		ug/L		53	16 - 120
Quinoline	120	98.7		ug/L		82	49 - 130
2,4,5-Trichlorophenol	120	106		ug/L		88	51 - 136
2,4,6-Trichlorophenol	120	99.0		ug/L		82	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*101*		*26 - 150*

Lab Sample ID: LCS 400-646681/4-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	3.42	J *-	ug/L		3	10 - 120

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

Lab Sample ID: LCS 400-646681/4-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	79		46 - 124
2-Fluorophenol	32		13 - 113
Nitrobenzene-d5	68		36 - 126
Phenol-d5	50		17 - 127
Terphenyl-d14	98		44 - 149
2,4,6-Tribromophenol	70		26 - 150

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	84.3		ug/L		70	21 - 120	5	30
Benzoic acid			522	26.3	J *-	ug/L		5	10 - 144	12	30
Benzyl alcohol			120	88.5		ug/L		74	28 - 120	1	30
Bis(2-chloroethoxy)methane			120	81.3		ug/L		68	47 - 120	0	30
Bis(2-chloroethyl)ether			120	78.5		ug/L		65	44 - 120	4	30
bis (2-chloroisopropyl) ether			120	77.0		ug/L		64	33 - 121	2	30
Bis(2-ethylhexyl) phthalate			120	95.4		ug/L		80	52 - 147	1	30
4-Bromophenyl phenyl ether			120	99.5		ug/L		83	54 - 122	0	30
Butyl benzyl phthalate			120	102		ug/L		85	54 - 133	1	30
4-Chloroaniline			120	86.8		ug/L		72	26 - 120	30	30
4-Chloro-3-methylphenol			120	99.5		ug/L		83	48 - 131	1	30
2-Chloronaphthalene			120	93.0		ug/L		77	52 - 121	0	30
2-Chlorophenol			120	57.9		ug/L		48	40 - 120	26	30
4-Chlorophenyl phenyl ether			120	104		ug/L		87	56 - 125	1	30
Dibenz[a,h]acridine			120	103		ug/L		86	31 - 150	0	30
Dibenzofuran			120	101		ug/L		84	56 - 122	0	30
3,3'-Dichlorobenzidine			160	143		ug/L		89	36 - 132	1	30
2,4-Dichlorophenol			120	89.5		ug/L		75	49 - 120	8	30
Diethyl phthalate			120	106		ug/L		88	50 - 137	1	30
2,4-Dimethylphenol			120	97.1		ug/L		81	48 - 120	0	30
Dimethyl phthalate			120	98.5		ug/L		82	57 - 124	1	30
Di-n-butyl phthalate			120	115		ug/L		96	58 - 126	1	30
4,6-Dinitro-ortho-cresol			240	100	*1	ug/L		42	23 - 148	43	30
2,4-Dinitrophenol			240	44.4	*1	ug/L		19	10 - 150	85	30
2,4-Dinitrotoluene			120	108		ug/L		90	54 - 142	2	30
2,6-Dinitrotoluene			120	104		ug/L		87	55 - 130	1	30
Di-n-octyl phthalate			120	92.6		ug/L		77	57 - 138	1	30
1,4-Dioxane			120	50.3		ug/L		42	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)			120	81.2		ug/L		68	45 - 124	0	30
Hexachlorobenzene			120	107		ug/L		89	52 - 129	1	30
Hexachlorocyclopentadiene			120	61.1		ug/L		51	10 - 134	4	30
Hexachloroethane			120	77.4		ug/L		65	20 - 120	6	30
Indene			120	93.0		ug/L		77	49 - 120	3	30
Isophorone			120	83.6		ug/L		70	48 - 120	1	30
2-Methylphenol			120	85.2		ug/L		71	46 - 124	5	30
3 & 4 Methylphenol			120	85.2		ug/L		71	45 - 120	4	30

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

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Nitroaniline			120	92.8		ug/L		77	51 - 145	2	30
3-Nitroaniline			120	86.1		ug/L		72	37 - 127	4	30
4-Nitroaniline			120	98.7		ug/L		82	36 - 137	20	30
Nitrobenzene			120	82.7		ug/L		69	45 - 120	0	30
2-Nitrophenol			120	94.9		ug/L		79	40 - 124	4	30
4-Nitrophenol			240	193		ug/L		80	23 - 146	2	30
N-Nitrosodimethylamine			120	79.7		ug/L		66	29 - 137	2	30
N-Nitrosodi-n-propylamine			120	84.3		ug/L		70	45 - 120	3	30
N-Nitrosodiphenylamine			119	89.7		ug/L		75	54 - 120	0	30
Pentachlorophenol			240	119	*1	ug/L		49	31 - 130	38	30
Phenol			120	65.0		ug/L		54	11 - 120	16	30
Pyridine			240	128		ug/L		54	16 - 120	1	30
Quinoline			120	99.0		ug/L		83	49 - 130	0	30
2,4,5-Trichlorophenol			120	105		ug/L		88	51 - 136	1	30
2,4,6-Trichlorophenol			120	96.7		ug/L		81	50 - 127	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*19*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*100*		*26 - 150*

Lab Sample ID: LCSD 400-646681/5-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.32	J *- *1	ug/L		2	10 - 120	38	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*51*		*26 - 150*

Lab Sample ID: MB 400-648382/1-A
Matrix: Water
Analysis Batch: 648674

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 648382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/02/23 09:54	11/03/23 20:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*11/02/23 09:54*	*11/03/23 20:44*	*1*

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

Lab Sample ID: MB 400-648382/1-A
Matrix: Water
Analysis Batch: 648674

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 648382

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	59		36 - 126	11/02/23 09:54	11/03/23 20:44	1
Terphenyl-d14	81		44 - 149	11/02/23 09:54	11/03/23 20:44	1

Lab Sample ID: LCS 400-648382/2-A
Matrix: Water
Analysis Batch: 648674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bis(2-ethylhexyl) phthalate			120	86.6		ug/L		72	52 - 147		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	71		46 - 124
Nitrobenzene-d5	72		36 - 126
Terphenyl-d14	80		44 - 149

Lab Sample ID: LCSD 400-648382/3-A
Matrix: Water
Analysis Batch: 648674

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			120	82.9		ug/L		69	52 - 147	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	69		46 - 124
Nitrobenzene-d5	71		36 - 126
Terphenyl-d14	75		44 - 149

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/23/23 11:01	10/26/23 14:45	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/23/23 11:01	10/26/23 14:45	1
Anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]anthracene	0.0553	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/23/23 11:01	10/26/23 14:45	1
Chrysene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 14:45	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluoranthene	0.0635	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluorene	ND		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 14:45	1
Indeno[1,2,3-cd]pyrene	0.0365	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Phenanthrene	ND		0.20	0.090	ug/L		10/23/23 11:01	10/26/23 14:45	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.20	0.039	ug/L		10/23/23 11:01	10/26/23 14:45	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/23/23 11:01	10/26/23 14:45	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/23/23 11:01	10/26/23 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*18 - 147*	*10/23/23 11:01*	*10/26/23 14:45*	*1*
2-Fluorobiphenyl	*56*		*15 - 128*	*10/23/23 11:01*	*10/26/23 14:45*	*1*
Nitrobenzene-d5	*50*		*10 - 144*	*10/23/23 11:01*	*10/26/23 14:45*	*1*

Lab Sample ID: LCS 400-646681/6-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.79		ug/L		90	40 - 140
Acenaphthylene	2.00	1.81		ug/L		90	40 - 140
Anthracene	2.00	1.80		ug/L		90	40 - 140
Benzo[a]anthracene	2.00	1.81		ug/L		91	40 - 140
Benzo[a]pyrene	2.00	1.47		ug/L		74	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		77	40 - 140
Benzo[g,h,i]perylene	2.00	1.70		ug/L		85	40 - 140
Benzo[k]fluoranthene	2.00	1.52		ug/L		76	40 - 140
Chrysene	2.00	1.85		ug/L		93	40 - 140
Dibenz(a,h)anthracene	2.00	1.55		ug/L		78	40 - 140
Fluoranthene	2.00	1.84		ug/L		92	40 - 140
Fluorene	2.00	1.84		ug/L		92	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.60		ug/L		80	40 - 140
Phenanthrene	2.00	1.75		ug/L		88	40 - 140
Pyrene	2.00	1.85		ug/L		93	40 - 140
1-Methylnaphthalene	2.00	1.83		ug/L		92	40 - 140
2-Methylnaphthalene	2.00	1.80		ug/L		90	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*76*		*18 - 147*
2-Fluorobiphenyl	*70*		*15 - 128*
Nitrobenzene-d5	*57*		*10 - 144*

Lab Sample ID: LCSD 400-646681/7-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.93		ug/L		97	40 - 140	7	40
Acenaphthylene	2.00	1.95		ug/L		97	40 - 140	8	40
Anthracene	2.00	1.94		ug/L		97	40 - 140	8	40
Benzo[a]anthracene	2.00	1.97		ug/L		98	40 - 140	8	40
Benzo[a]pyrene	2.00	1.61		ug/L		80	40 - 140	9	40
Benzo[b]fluoranthene	2.00	1.65		ug/L		82	40 - 140	6	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-646681/7-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[g,h,i]perylene			2.00	1.77		ug/L		88	40 - 140	4	40
Benzo[k]fluoranthene			2.00	1.62		ug/L		81	40 - 140	6	40
Chrysene			2.00	1.94		ug/L		97	40 - 140	5	40
Dibenz(a,h)anthracene			2.00	1.59		ug/L		80	40 - 140	3	40
Fluoranthene			2.00	2.02		ug/L		101	40 - 140	9	40
Fluorene			2.00	2.01		ug/L		100	40 - 140	9	40
Indeno[1,2,3-cd]pyrene			2.00	1.67		ug/L		84	40 - 140	4	40
Phenanthrene			2.00	1.88		ug/L		94	40 - 140	7	40
Pyrene			2.00	1.93		ug/L		96	40 - 140	4	40
1-Methylnaphthalene			2.00	1.98		ug/L		99	40 - 140	7	40
2-Methylnaphthalene			2.00	1.93		ug/L		96	40 - 140	7	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*79*		*18 - 147*
2-Fluorobiphenyl	*75*		*15 - 128*
Nitrobenzene-d5	*61*		*10 - 144*

Lab Sample ID: MB 400-648382/1-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 648382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		11/02/23 09:54	11/10/23 21:40	1
Acenaphthylene	ND		0.20	0.044	ug/L		11/02/23 09:54	11/10/23 21:40	1
Anthracene	ND		0.20	0.047	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		11/02/23 09:54	11/10/23 21:40	1
Chrysene	ND		0.20	0.033	ug/L		11/02/23 09:54	11/10/23 21:40	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		11/02/23 09:54	11/10/23 21:40	1
Fluoranthene	0.0375	J	0.20	0.034	ug/L		11/02/23 09:54	11/10/23 21:40	1
Fluorene	ND		0.20	0.089	ug/L		11/02/23 09:54	11/10/23 21:40	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		11/02/23 09:54	11/10/23 21:40	1
Phenanthrene	ND		0.20	0.090	ug/L		11/02/23 09:54	11/10/23 21:40	1
Pyrene	ND		0.20	0.039	ug/L		11/02/23 09:54	11/10/23 21:40	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		11/02/23 09:54	11/10/23 21:40	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		11/02/23 09:54	11/10/23 21:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*76*		*18 - 147*	*11/02/23 09:54*	*11/10/23 21:40*	*1*
2-Fluorobiphenyl	*80*		*15 - 128*	*11/02/23 09:54*	*11/10/23 21:40*	*1*
Nitrobenzene-d5	*72*		*10 - 144*	*11/02/23 09:54*	*11/10/23 21:40*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-648382/2-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			120	112		ug/L		93	40 - 140		
Acenaphthylene			120	115		ug/L		96	40 - 140		
Anthracene			120	110		ug/L		92	40 - 140		
Benzo[a]anthracene			120	114		ug/L		95	40 - 140		
Benzo[a]pyrene			120	104		ug/L		87	40 - 140		
Benzo[b]fluoranthene			120	103		ug/L		86	40 - 140		
Benzo[g,h,i]perylene			120	95.0		ug/L		79	40 - 140		
Benzo[k]fluoranthene			120	110		ug/L		92	40 - 140		
Chrysene			120	107		ug/L		89	40 - 140		
Dibenz(a,h)anthracene			120	94.8		ug/L		79	40 - 140		
Fluoranthene			120	115		ug/L		96	40 - 140		
Fluorene			120	115		ug/L		96	40 - 140		
Indeno[1,2,3-cd]pyrene			120	97.7		ug/L		81	40 - 140		
Phenanthrene			120	110		ug/L		91	40 - 140		
Pyrene			120	107		ug/L		89	40 - 140		
1-Methylnaphthalene			120	106		ug/L		88	40 - 140		
2-Methylnaphthalene			120	106		ug/L		88	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*71*		*18 - 147*
2-Fluorobiphenyl	*85*		*15 - 128*
Nitrobenzene-d5	*88*		*10 - 144*

Lab Sample ID: LCSD 400-648382/3-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			120	112		ug/L		93	40 - 140	0	40
Acenaphthylene			120	115		ug/L		96	40 - 140	0	40
Anthracene			120	114		ug/L		95	40 - 140	4	40
Benzo[a]anthracene			120	116		ug/L		97	40 - 140	2	40
Benzo[a]pyrene			120	106		ug/L		88	40 - 140	1	40
Benzo[b]fluoranthene			120	104		ug/L		87	40 - 140	1	40
Benzo[g,h,i]perylene			120	93.9		ug/L		78	40 - 140	1	40
Benzo[k]fluoranthene			120	109		ug/L		91	40 - 140	1	40
Chrysene			120	108		ug/L		90	40 - 140	1	40
Dibenz(a,h)anthracene			120	97.4		ug/L		81	40 - 140	3	40
Fluoranthene			120	118		ug/L		99	40 - 140	3	40
Fluorene			120	114		ug/L		95	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			120	96.5		ug/L		80	40 - 140	1	40
Phenanthrene			120	113		ug/L		94	40 - 140	3	40
Pyrene			120	108		ug/L		90	40 - 140	1	40
1-Methylnaphthalene			120	107		ug/L		89	40 - 140	1	40
2-Methylnaphthalene			120	108		ug/L		90	40 - 140	2	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*70*		*18 - 147*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-648382/3-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 648382

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	84		15 - 128
Nitrobenzene-d5	90		10 - 144

Lab Sample ID: MB 400-649254/1-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		11/08/23 13:07	11/10/23 16:54	1
Acenaphthylene	ND		0.20	0.044	ug/L		11/08/23 13:07	11/10/23 16:54	1
Anthracene	ND		0.20	0.047	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		11/08/23 13:07	11/10/23 16:54	1
Chrysene	ND		0.20	0.033	ug/L		11/08/23 13:07	11/10/23 16:54	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		11/08/23 13:07	11/10/23 16:54	1
Fluoranthene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Fluorene	ND		0.20	0.089	ug/L		11/08/23 13:07	11/10/23 16:54	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Phenanthrene	ND		0.20	0.090	ug/L		11/08/23 13:07	11/10/23 16:54	1
Pyrene	ND		0.20	0.039	ug/L		11/08/23 13:07	11/10/23 16:54	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		11/08/23 13:07	11/10/23 16:54	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		11/08/23 13:07	11/10/23 16:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	74		18 - 147	11/08/23 13:07	11/10/23 16:54	1
2-Fluorobiphenyl	69		15 - 128	11/08/23 13:07	11/10/23 16:54	1
Nitrobenzene-d5	65		10 - 144	11/08/23 13:07	11/10/23 16:54	1

Lab Sample ID: LCS 400-649254/2-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	4.00	2.78		ug/L		70	40 - 140
Acenaphthylene	4.00	2.82		ug/L		71	40 - 140
Anthracene	4.00	2.75		ug/L		69	40 - 140
Benzo[a]anthracene	4.00	2.88		ug/L		72	40 - 140
Benzo[a]pyrene	4.00	2.68		ug/L		67	40 - 140
Benzo[b]fluoranthene	4.00	2.81		ug/L		70	40 - 140
Benzo[g,h,i]perylene	4.00	2.69		ug/L		67	40 - 140
Benzo[k]fluoranthene	4.00	2.94		ug/L		73	40 - 140
Chrysene	4.00	2.89		ug/L		72	40 - 140
Dibenz(a,h)anthracene	4.00	2.19		ug/L		55	40 - 140
Fluoranthene	4.00	2.80		ug/L		70	40 - 140
Fluorene	4.00	2.84		ug/L		71	40 - 140

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-649254/2-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649254

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Indeno[1,2,3-cd]pyrene			4.00	2.45		ug/L		61	40 - 140		
Phenanthrene			4.00	2.81		ug/L		70	40 - 140		
Pyrene			4.00	3.08		ug/L		77	40 - 140		
1-Methylnaphthalene			4.00	2.64		ug/L		66	40 - 140		
2-Methylnaphthalene			4.00	2.62		ug/L		65	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*58*		*18 - 147*
2-Fluorobiphenyl	*59*		*15 - 128*
Nitrobenzene-d5	*53*		*10 - 144*

Lab Sample ID: LCSD 400-649254/3-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 649254

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			4.00	2.84		ug/L		71	40 - 140	2	40
Acenaphthylene			4.00	2.89		ug/L		72	40 - 140	2	40
Anthracene			4.00	2.69		ug/L		67	40 - 140	2	40
Benzo[a]anthracene			4.00	3.00		ug/L		75	40 - 140	4	40
Benzo[a]pyrene			4.00	2.68		ug/L		67	40 - 140	0	40
Benzo[b]fluoranthene			4.00	2.82		ug/L		70	40 - 140	0	40
Benzo[g,h,i]perylene			4.00	2.77		ug/L		69	40 - 140	3	40
Benzo[k]fluoranthene			4.00	2.90		ug/L		72	40 - 140	1	40
Chrysene			4.00	2.89		ug/L		72	40 - 140	0	40
Dibenz(a,h)anthracene			4.00	2.55		ug/L		64	40 - 140	15	40
Fluoranthene			4.00	2.93		ug/L		73	40 - 140	5	40
Fluorene			4.00	2.86		ug/L		71	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			4.00	2.71		ug/L		68	40 - 140	10	40
Phenanthrene			4.00	2.80		ug/L		70	40 - 140	0	40
Pyrene			4.00	3.03		ug/L		76	40 - 140	2	40
1-Methylnaphthalene			4.00	2.73		ug/L		68	40 - 140	3	40
2-Methylnaphthalene			4.00	2.69		ug/L		67	40 - 140	3	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*58*		*18 - 147*
2-Fluorobiphenyl	*60*		*15 - 128*
Nitrobenzene-d5	*56*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-646733/1-A
Matrix: Water
Analysis Batch: 646644

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/23/23 17:38	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/23/23 17:38	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-646733/1-A
Matrix: Water
Analysis Batch: 646644

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646733

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		51 - 149	10/23/23 12:43	10/23/23 17:38	1

Lab Sample ID: LCS 400-646733/2-A
Matrix: Water
Analysis Batch: 646644

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646733

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.0993		ug/L		99	60 - 140		
1,2-Dibromoethane			0.101	0.100		ug/L		100	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	98		51 - 149

Lab Sample ID: LCSD 400-646733/3-A
Matrix: Water
Analysis Batch: 646644

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.0992		ug/L		99	60 - 140	0	30
1,2-Dibromoethane			0.101	0.104		ug/L		103	60 - 140	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	99		51 - 149

LAB (LOCATION)

400-245246 COC

Shell Oil Products US Chain Of Custody Record

AECOM

☐ 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: 10/17/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
0.2
1.3 IR8

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 8270 SIMS
	TB-ROX-101723-8260	10/17/2023	0000	Water	2					2	X			
	TB-ROX-101723-8011	10/17/2023	0000	Water	2					2		X		
	P57-ROX-101723	10/17/2023	0935	Water	6			2		8	X	X	X	X
	P74-ROX-101723	10/17/2023	1050	Water	6			2		8	X	X	X	X
	P74-ROX-101723-DUP	10/17/2023	1050	Water	6			2		8	X	X	X	X
	P58-ROX-101723	10/17/2023	1215	Water	6			2		8	X	X	X	X

10/17/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 6339 6595 3189, 6339 6595 3190	10/17/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		10.18.23	9:11
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 27Sep23

CUSTODY SEALS: 2364879, 2364878, 2364877, 2364876

11/13/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-245246-1

Login Number: 245246
List Number: 1
Creator: Earnest, Tamantha

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.	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	0.2°C & 1.3°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").	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: 400-245246-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245328-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/18/2023

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

Sample Identification	Sample Identification
TB-ROX-101823-8260	MW16-ROX-101823
TB-ROX-101823-8011	MW16-ROX-101823-DUP
MW27-ROX-101823-EB	MW13-ROX-101823
MW27-ROX-101823	P114R-ROX-101823

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 SVOCs and/or PAHs in samples MW27-ROX-101823-EB, MW16-ROX-101823-DUP and P114R-ROX-101823 were re-extracted outside extraction time criteria. PAHs were detected in one method blank and equipment blank MW27-ROX-101823-EB. Several VOC and SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. Several VOC MS/MSD recoveries were outside evaluation criteria in sample MW27-ROX-101823.The continuing calibration verifications (CCV) for several analytes 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?

No, PAHs in samples MW27-ROX-101823-EB, MW16-ROX-101823-DUP and P114R-ROX-101823 were re-extracted 14 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. Holding time exceedances were greater than two times (2X) criteria. The results for the re-extracted and re-analyzed samples were comparable to the initial results; both sets of data are reported. Based on professional judgement, the results from the initial analysis were used for the purposes of this report.

Bis(2-ethylhexyl) phthalate in sample P114R-ROX-101823 was re-extracted 8 days

outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. Holding time exceedances were not greater than two times (2X) criteria. With regard to initial P114R-ROX-101823 SVOC data, the laboratory previously issued a Corrective Action Report (CAR) stating that the reappearance of bis(2-ethylhexyl) phthalate as a laboratory contaminant would result in sample re-extraction/re-analysis for confirmation. Based on professional judgement, the results from the re-analysis were used for the purposes of this report. Data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P114R-ROX-101823 -RERA	SVOCs	Bis(2-ethylhexyl) phthalate	**UJ**

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 400-646681/1-A	PAHs	Benzo[a]anthracene	0.0553 µg/L
MB 400-646681/1-A	PAHs	Fluoranthene	0.0635 µg/L
MB 400-646681/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0365 µg/L
MW27-ROX-101823-EB	PAHs	Benzo[a]anthracene	0.077 µg/L
MW27-ROX-101823-EB	PAHs	Fluoranthene	0.11 µg/L
MW27-ROX-101823-EB	PAHs	Indeno[1,2,3-cd]pyrene	0.079 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, or previously qualified did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW16-ROX-101823-DUP	PAHs	Benzo[a]anthracene	-	**U**
MW16-ROX-101823-DUP	PAHs	Fluoranthene	-	**U**
MW16-ROX-101823-DUP	PAHs	Indeno[1,2,3-cd]pyrene	-	**U**
P114R-ROX-101823	PAHs	Benzo[a]anthracene	-	**U**
P114R-ROX-101823	PAHs	Fluoranthene	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSDs RPD Criteria
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Benzoic acid	**6/5**	12	10-144/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	4,6-Dinitro-ortho-cresol	65/42	**43**	23-148/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	2,4-Dinitrophenol	46/19	**85**	10-150/30

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSDs RPD Criteria
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Pentachlorophenol	73/49	**38**	31-130/30
LCS/LCSD 400-646681/4-A/5-A	SVOCs	Benzenethiol	**3/2**	**38**	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/LCSD 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 and benzoic acid below evaluation criteria; benzenethiol and benzoic acid have been identified as poor performing analytes under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW27-ROX-101823	SVOCs	Benzenethiol	**UJ**
MW16-ROX-101823	SVOCs	Benzenethiol	**UJ**
MW16-ROX-101823-DUP	SVOCs	Benzenethiol	**UJ**
MW13-ROX-101823	SVOCs	Benzenethiol	**UJ**
P114R-ROX-101823	SVOCs	Benzenethiol	**UJ**
MW27-ROX-101823	SVOCs	Benzoic acid	**UJ**
MW16-ROX-101823	SVOCs	Benzoic acid	**UJ**
MW16-ROX-101823-DUP	SVOCs	Benzoic acid	**UJ**
MW13-ROX-101823	SVOCs	Benzoic acid	**UJ**
P114R-ROX-101823	SVOCs	Benzoic acid	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW27-ROX-101823-EB	SVOCs	2-Fluorophenol	**11**	13-113
MW13-ROX-101823	SVOCs	2-Fluorophenol	**0**	13-113
MW13-ROX-101823	SVOCs	Phenol-d5	**8**	17-127
P114R-ROX-101823	SVOCs	2-Fluorophenol	**10**	13-113
MB 400-646681/1-A	SVOCs	2-Fluorophenol	**8**	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. Equipment blanks and method blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW13-ROX-101823	SVOCs	Phenol	**UJ**
MW13-ROX-101823	SVOCs	2,4,5-Trichlorophenol	**UJ**
MW13-ROX-101823	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
MW13-ROX-101823	SVOCs	2,4,6-Trichlorophenol	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW13-ROX-101823	SVOCs	2,4-Dimethylphenol	**UJ**
MW13-ROX-101823	SVOCs	2,4-Dinitrophenol	**UJ**
MW13-ROX-101823	SVOCs	2,4-Dichlorophenol	**UJ**
MW13-ROX-101823	SVOCs	2-Chlorophenol	**UJ**
MW13-ROX-101823	SVOCs	2-Methylphenol	**UJ**
MW13-ROX-101823	SVOCs	2-Nitrophenol	**UJ**
MW13-ROX-101823	SVOCs	3 & 4 Methylphenol	**UJ**
MW13-ROX-101823	SVOCs	4-Chloro-3-methylphenol	**UJ**
MW13-ROX-101823	SVOCs	4-Nitrophenol	**UJ**
MW13-ROX-101823	SVOCs	Benzyl Alcohol	**UJ**
MW13-ROX-101823	SVOCs	Pentachlorophenol	**UJ**

Benzoic acid in sample MW13-ROX-101823 was previously qualified in Section 5.0 of this data review due to LCS/LCSD outside evaluation criteria; no further qualification is required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW27-ROX-101823 MS/MSD	VOCs	Acetone	**275/274**	0	43-150/30
MW27-ROX-101823 MS/MSD	VOCs	2-Butanone (MEK)	**161/159**	1	55-150/30
MW27-ROX-101823 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50

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
MW27-ROX-101823	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?

Yes

Field ID	Field Duplicate ID
MW16-ROX-101823	MW16-ROX-101823-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 multiple analytes were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW27-ROX-101823	VOCs	Dibromochloromethane	**UJ**
MW16-ROX-101823	VOCs	Dibromochloromethane	**UJ**
MW16-ROX-101823-DUP	VOCs	Dibromochloromethane	**UJ**
MW13-ROX-101823	VOCs	Dibromochloromethane	**UJ**
P114R-ROX-101823	VOCs	Dibromochloromethane	**UJ**
MW27-ROX-101823	VOCs	Bromoform	**UJ**
MW16-ROX-101823	VOCs	Bromoform	**UJ**
MW16-ROX-101823-DUP	VOCs	Bromoform	**UJ**
MW13-ROX-101823	VOCs	Bromoform	**UJ**
P114R-ROX-101823	VOCs	Bromoform	**UJ**
MW27-ROX-101823	VOCs	Acrolein	**UJ**
MW16-ROX-101823	VOCs	Acrolein	**UJ**
MW16-ROX-101823-DUP	VOCs	Acrolein	**UJ**
MW13-ROX-101823	VOCs	Acrolein	**UJ**
P114R-ROX-101823	VOCs	Acrolein	**UJ**
MW27-ROX-101823	SVOCs	1,4-Dioxane	**UJ**
MW16-ROX-101823	SVOCs	1,4-Dioxane	**UJ**
MW16-ROX-101823-DUP	SVOCs	1,4-Dioxane	**UJ**
MW13-ROX-101823	SVOCs	1,4-Dioxane	**UJ**
P114R-ROX-101823	SVOCs	1,4-Dioxane	**UJ**
MW27-ROX-101823	SVOCs	Hexachlorocyclopentadiene	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW16-ROX-101823	SVOCs	Hexachlorocyclopentadiene	UJ
MW16-ROX-101823-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
MW13-ROX-101823	SVOCs	Hexachlorocyclopentadiene	UJ
P114R-ROX-101823	SVOCs	Hexachlorocyclopentadiene	UJ
MW27-ROX-101823	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW16-ROX-101823	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW16-ROX-101823-DUP	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW13-ROX-101823	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
P114R-ROX-101823	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	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 11/13/2023 10:04:03 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245328-1

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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11/13/2023 10:04:03 AM

Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

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Job ID: 400-245328-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-245328-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/19/2023 9:26 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 0.5°C and 4.3°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-646671 recovered outside acceptance criteria, low biased, for Acrolein, Bromoform and Dibromochloromethane. 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-646671 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-646671 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-646671 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 8260D: 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-101823-8260 (400-245328-1), MW27-ROX-101823-EB (400-245328-3), MW16-ROX-101823 (400-245328-5), MW16-ROX-101823-DUP (400-245328-6), MW13-ROX-101823 (400-245328-7) and P114R-ROX-101823 (400-245328-8). 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 8260D: The initial calibration verification (ICV) analyzed in batch 400-645025 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analyte(s): Benzoic acid. Benzoic acid has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Job ID: 400-245328-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: 2,4-Dinitrophenol, 4,6-Dinitro-ortho-cresol and Pentachlorophenol.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646681 and analytical batch 400-647055 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-647055 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, 1,2-Diphenylhydrazine (as Azobenzene) 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 8270E: 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: MW27-ROX-101823-EB (400-245328-3), P114R-ROX-101823 (400-245328-8) and (MB 400-646681/1-A). These results have been reported and qualified.

Method 8270E: Surrogate recovery for the following sample was outside control limits: MW13-ROX-101823 (400-245328-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270E: The laboratory control sample duplicate (LCSD) for preparation batch 400-648382 and analytical batch 400-648674 recovered outside control limits for the following analyte(s): 2,4-Dinitrophenol and Pentachlorophenol. 2,4-Dinitrophenol and Pentachlorophenol 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 8270E: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-648382 and analytical batch 400-648674: 4-Nitrophenol, 4,6-Dinitro-ortho-cresol and 2-Nitrophenol. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270E: The samples were re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL) for the following sample(s): 400-245246-g5-a and 400-245328-h-8-a. Samples were re-prepared and/or re-analyzed outside holding time, and both sets of data have been reported.
P114R-ROX-101823 (400-245328-8)

Method 8270E_SIM: The method blank for preparation batch 400-646681 and analytical batch 400-647384 contained Indeno[1,2,3-cd]pyrene, Benzo[a]anthracene and Fluoranthene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E_SIM: Sample was not sent for re-extract for verification of detects as historical data confirms results. MW13-ROX-101823 (400-245328-7)

Method 8270E_SIM: The following samples were re-prepared outside of preparation holding time for confirmation: MW27-ROX-101823-EB (400-245328-3) and MW16-ROX-101823-DUP (400-245328-6).

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

Job ID: 400-245328-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

GC Semi VOA

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: 400-245328-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245328-1	TB-ROX-101823-8260	Water	10/18/23 12:00	10/19/23 09:26
400-245328-2	TB-ROX-101823-8011	Water	10/18/23 12:00	10/19/23 09:26
400-245328-3	MW27-ROX-101823-EB	Water	10/18/23 08:30	10/19/23 09:26
400-245328-4	MW27-ROX-101823	Water	10/18/23 09:30	10/19/23 09:26
400-245328-5	MW16-ROX-101823	Water	10/18/23 10:20	10/19/23 09:26
400-245328-6	MW16-ROX-101823-DUP	Water	10/18/23 10:20	10/19/23 09:26
400-245328-7	MW13-ROX-101823	Water	10/18/23 12:20	10/19/23 09:26
400-245328-8	P114R-ROX-101823	Water	10/18/23 13:30	10/19/23 09:26

Detection Summary

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

Job ID: 400-245328-1

Client Sample ID: TB-ROX-101823-8260 — Lab Sample ID: 400-245328-1

No Detections.

Client Sample ID: TB-ROX-101823-8011 — Lab Sample ID: 400-245328-2

No Detections.

Client Sample ID: MW27-ROX-101823-EB — Lab Sample ID: 400-245328-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.054	J	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.077	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.037	J H	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Benzo[g,h,i]perylene	0.034	J	0.20	0.027	ug/L	1		8270E SIM	Total/NA
Chrysene	0.034	J	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.11	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.079	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.064	J H	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.13	J	0.20	0.089	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.12	J H	0.20	0.090	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW27-ROX-101823 — Lab Sample ID: 400-245328-4

No Detections.

Client Sample ID: MW16-ROX-101823 — Lab Sample ID: 400-245328-5

No Detections.

Client Sample ID: MW16-ROX-101823-DUP — Lab Sample ID: 400-245328-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11	J	25	10	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.047	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.062	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.048	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW13-ROX-101823 — Lab Sample ID: 400-245328-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	25	10	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.70	J	1.0	0.22	ug/L	1		8260D	Total/NA
Acenaphthene	0.34		0.20	0.098	ug/L	1		8270E SIM	Total/NA
Anthracene	0.10	J	0.20	0.046	ug/L	1		8270E SIM	Total/NA

Client Sample ID: P114R-ROX-101823 — Lab Sample ID: 400-245328-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19	J	25	10	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	1.5		1.0	0.22	ug/L	1		8260D	Total/NA
Acenaphthene	0.99		0.20	0.097	ug/L	1		8270E SIM	Total/NA
Acenaphthene	0.96	H	0.20	0.098	ug/L	1		8270E SIM	Total/NA
Anthracene	0.085	J	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.047	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.072	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.25		0.20	0.078	ug/L	1		8270E SIM	Total/NA
Bis(2-ethylhexyl) phthalate	13		9.8	4.9	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245328-1

Client Sample ID: TB-ROX-101823-8260
Date Collected: 10/18/23 12:00
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/23/23 16:12	1
Acrolein	ND		20	3.3	ug/L			10/23/23 16:12	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 16:12	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 16:12	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 16:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 16:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 16:12	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 16:12	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 16:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/23/23 16:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 16:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 16:12	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 16:12	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 16:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 16:12	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 16:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 16:12	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 16:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 16:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 16:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 16:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 16:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 16:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 16:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 16:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 16:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 16:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 16:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 16:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 16:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 16:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 16:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 16:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 16:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 16:12	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 16:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 16:12	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 16:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 16:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 16:12	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 16:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 16:12	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 16:12	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 16:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 16:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 16:12	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 16:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 16:12	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 16:12	1

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

Job ID: 400-245328-1

Client Sample ID: TB-ROX-101823-8260
Date Collected: 10/18/23 12:00
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 16:12	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 16:12	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 16:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 16:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 16:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 16:12	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 16:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 16:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 16:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 16:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 16:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 16:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 16:12	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 16:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 16:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 16:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 16:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 16:12	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 16:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 16:12	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 130*		*10/23/23 16:12*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*10/23/23 16:12*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/23/23 16:12*	*1*

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

Job ID: 400-245328-1

Client Sample ID: TB-ROX-101823-8011
Date Collected: 10/18/23 12:00
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/24/23 00:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/24/23 00:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*116*		*51 - 149*	*10/23/23 12:43*	*10/24/23 00:00*	*1*

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

Job ID: 400-245328-1

Client Sample ID: MW27-ROX-101823-EB
Date Collected: 10/18/23 08:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/23/23 16:31	1
Acrolein	ND		20	3.3	ug/L			10/23/23 16:31	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 16:31	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 16:31	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 16:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 16:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 16:31	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 16:31	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 16:31	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/23/23 16:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 16:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 16:31	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 16:31	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 16:31	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 16:31	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 16:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 16:31	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 16:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 16:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 16:31	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 16:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 16:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 16:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 16:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 16:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 16:31	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 16:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 16:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 16:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 16:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 16:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 16:31	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 16:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 16:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 16:31	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 16:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 16:31	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 16:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 16:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 16:31	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 16:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 16:31	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 16:31	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 16:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 16:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 16:31	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 16:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 16:31	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 16:31	1

Client Sample ID: MW27-ROX-101823-EB
Date Collected: 10/18/23 08:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 16:31	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 16:31	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 16:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 16:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 16:31	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 16:31	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 16:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 16:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 16:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 16:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 16:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 16:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 16:31	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 16:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 16:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 16:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 16:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 16:31	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 16:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 16:31	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 16:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 130*		*10/23/23 16:31*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*10/23/23 16:31*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*10/23/23 16:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.098	ug/L		10/23/23 11:01	10/26/23 17:56	1
Acenaphthene	ND	H	0.20	0.099	ug/L		11/08/23 13:07	11/10/23 18:57	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/23/23 11:01	10/26/23 17:56	1
Acenaphthylene	ND	H	0.20	0.044	ug/L		11/08/23 13:07	11/10/23 18:57	1
Anthracene	**0.054**	**J**	0.20	0.046	ug/L		10/23/23 11:01	10/26/23 17:56	1
Anthracene	ND	H	0.20	0.047	ug/L		11/08/23 13:07	11/10/23 18:57	1
Benzo[a]anthracene	**0.077**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 17:56	1
Benzo[a]anthracene	**0.037**	**J H**	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 18:57	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/23/23 11:01	10/26/23 17:56	1
Benzo[a]pyrene	ND	H	0.20	0.064	ug/L		11/08/23 13:07	11/10/23 18:57	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/23/23 11:01	10/26/23 17:56	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		11/08/23 13:07	11/10/23 18:57	1
Benzo[g,h,i]perylene	**0.034**	**J**	0.20	0.027	ug/L		10/23/23 11:01	10/26/23 17:56	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		11/08/23 13:07	11/10/23 18:57	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/23/23 11:01	10/26/23 17:56	1
Benzo[k]fluoranthene	ND	H	0.20	0.062	ug/L		11/08/23 13:07	11/10/23 18:57	1
Chrysene	**0.034**	**J**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 17:56	1
Chrysene	ND	H	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 18:57	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 17:56	1
Dibenz(a,h)anthracene	ND	H	0.20	0.048	ug/L		11/08/23 13:07	11/10/23 18:57	1
Fluoranthene	**0.11**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 17:56	1

Client Sample ID: MW27-ROX-101823-EB
Date Collected: 10/18/23 08:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND	H	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 18:57	1
Fluorene	ND		0.20	0.088	ug/L		10/23/23 11:01	10/26/23 17:56	1
Fluorene	ND	H	0.20	0.089	ug/L		11/08/23 13:07	11/10/23 18:57	1
Indeno[1,2,3-cd]pyrene	**0.079**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 17:56	1
Indeno[1,2,3-cd]pyrene	**0.064**	**J H**	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 18:57	1
Phenanthrene	**0.13**	**J**	0.20	0.089	ug/L		10/23/23 11:01	10/26/23 17:56	1
Phenanthrene	**0.12**	**J H**	0.20	0.090	ug/L		11/08/23 13:07	11/10/23 18:57	1
Pyrene	ND		0.20	0.038	ug/L		10/23/23 11:01	10/26/23 17:56	1
Pyrene	ND	H	0.20	0.039	ug/L		11/08/23 13:07	11/10/23 18:57	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/23/23 11:01	10/26/23 17:56	1
1-Methylnaphthalene	ND	H	0.20	0.080	ug/L		11/08/23 13:07	11/10/23 18:57	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/23/23 11:01	10/26/23 17:56	1
2-Methylnaphthalene	ND	H	0.20	0.066	ug/L		11/08/23 13:07	11/10/23 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*79*		*18 - 147*	*10/23/23 11:01*	*10/26/23 17:56*	*1*
Terphenyl-d14	*55*		*18 - 147*	*11/08/23 13:07*	*11/10/23 18:57*	*1*
2-Fluorobiphenyl	*70*		*15 - 128*	*10/23/23 11:01*	*10/26/23 17:56*	*1*
2-Fluorobiphenyl	*60*		*15 - 128*	*11/08/23 13:07*	*11/10/23 18:57*	*1*
Nitrobenzene-d5	*58*		*10 - 144*	*10/23/23 11:01*	*10/26/23 17:56*	*1*
Nitrobenzene-d5	*54*		*10 - 144*	*11/08/23 13:07*	*11/10/23 18:57*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 18:55	1
Benzenethiol	ND	*- *1	9.9	1.7	ug/L		10/23/23 11:01	10/25/23 18:55	1
Benzoic acid	ND	*-	30	7.2	ug/L		10/23/23 11:01	10/25/23 18:55	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 18:55	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 18:55	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 18:55	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 18:55	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		10/23/23 11:01	10/25/23 18:55	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/23/23 11:01	10/25/23 18:55	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/23/23 11:01	10/25/23 18:55	1
4-Chloroaniline	ND		9.9	3.3	ug/L		10/23/23 11:01	10/25/23 18:55	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 18:55	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 18:55	1
2-Chlorophenol	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 18:55	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 18:55	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:55	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:55	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 18:55	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		10/23/23 11:01	10/25/23 18:55	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/23/23 11:01	10/25/23 18:55	1
2,4-Dimethylphenol	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 18:55	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:55	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 18:55	1
4,6-Dinitro-ortho-cresol	ND	*1	9.9	1.6	ug/L		10/23/23 11:01	10/25/23 18:55	1
2,4-Dinitrophenol	ND	*1	30	3.3	ug/L		10/23/23 11:01	10/25/23 18:55	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 18:55	1

Client Sample ID: MW27-ROX-101823-EB
Date Collected: 10/18/23 08:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 18:55	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:55	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:55	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:55	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 18:55	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 18:55	1
Hexachloroethane	ND		9.9	4.1	ug/L		10/23/23 11:01	10/25/23 18:55	1
Indene	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 18:55	1
Isophorone	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 18:55	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 18:55	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/23/23 11:01	10/25/23 18:55	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 18:55	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 18:55	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/23/23 11:01	10/25/23 18:55	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/23/23 11:01	10/25/23 18:55	1
2-Nitrophenol	ND		9.9	5.1	ug/L		10/23/23 11:01	10/25/23 18:55	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/23/23 11:01	10/25/23 18:55	1
N-Nitrosodimethylamine	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 18:55	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/23/23 11:01	10/25/23 18:55	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/23/23 11:01	10/25/23 18:55	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 18:55	1
Phenol	ND		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 18:55	1
Pyridine	ND		9.9	3.2	ug/L		10/23/23 11:01	10/25/23 18:55	1
Quinoline	ND		9.9	4.4	ug/L		10/23/23 11:01	10/25/23 18:55	1
2,4,5-Trichlorophenol	ND		9.9	3.6	ug/L		10/23/23 11:01	10/25/23 18:55	1
2,4,6-Trichlorophenol	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 18:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*46 - 124*	*10/23/23 11:01*	*10/25/23 18:55*	*1*
2-Fluorophenol	*11*	*S1-*	*13 - 113*	*10/23/23 11:01*	*10/25/23 18:55*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*10/23/23 11:01*	*10/25/23 18:55*	*1*
Phenol-d5	*33*		*17 - 127*	*10/23/23 11:01*	*10/25/23 18:55*	*1*
Terphenyl-d14	*86*		*44 - 149*	*10/23/23 11:01*	*10/25/23 18:55*	*1*
2,4,6-Tribromophenol	*66*		*26 - 150*	*10/23/23 11:01*	*10/25/23 18:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/24/23 00:21	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/24/23 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*10/23/23 12:43*	*10/24/23 00:21*	*1*

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

Job ID: 400-245328-1

Client Sample ID: MW27-ROX-101823
Date Collected: 10/18/23 09:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	F1	25	10	ug/L			10/23/23 14:58	1
Acrolein	ND		20	3.3	ug/L			10/23/23 14:58	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 14:58	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 14:58	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 14:58	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 14:58	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 14:58	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 14:58	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 14:58	1
2-Butanone (MEK)	ND	F1	25	2.6	ug/L			10/23/23 14:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 14:58	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 14:58	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 14:58	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 14:58	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			10/23/23 14:58	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 14:58	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 14:58	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 14:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 14:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 14:58	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 14:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 14:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 14:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 14:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 14:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 14:58	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 14:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 14:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 14:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 14:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 14:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 14:58	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 14:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 14:58	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 14:58	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 14:58	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 14:58	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 14:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 14:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 14:58	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 14:58	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 14:58	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 14:58	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 14:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 14:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 14:58	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 14:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 14:58	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 14:58	1

Client Sample ID: MW27-ROX-101823
Date Collected: 10/18/23 09:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 14:58	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 14:58	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 14:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 14:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 14:58	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 14:58	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 14:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 14:58	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 14:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 14:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 14:58	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 14:58	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 14:58	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 14:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 14:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 14:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 14:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 14:58	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 14:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 14:58	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/23/23 14:58*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*10/23/23 14:58*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*10/23/23 14:58*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/23/23 11:01	10/26/23 18:17	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/23/23 11:01	10/26/23 18:17	1
Anthracene	ND		0.20	0.046	ug/L		10/23/23 11:01	10/26/23 18:17	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 18:17	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/23/23 11:01	10/26/23 18:17	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/23/23 11:01	10/26/23 18:17	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 18:17	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/23/23 11:01	10/26/23 18:17	1
Chrysene	ND		0.20	0.032	ug/L		10/23/23 11:01	10/26/23 18:17	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 18:17	1
Fluoranthene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 18:17	1
Fluorene	ND		0.20	0.087	ug/L		10/23/23 11:01	10/26/23 18:17	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 18:17	1
Phenanthrene	ND		0.20	0.088	ug/L		10/23/23 11:01	10/26/23 18:17	1
Pyrene	ND		0.20	0.038	ug/L		10/23/23 11:01	10/26/23 18:17	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/23/23 11:01	10/26/23 18:17	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/23/23 11:01	10/26/23 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*93*		*18 - 147*	*10/23/23 11:01*	*10/26/23 18:17*	*1*
2-Fluorobiphenyl	*71*		*15 - 128*	*10/23/23 11:01*	*10/26/23 18:17*	*1*

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

Job ID: 400-245328-1

Client Sample ID: MW27-ROX-101823
Date Collected: 10/18/23 09:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*56*		*10 - 144*	*10/23/23 11:01*	*10/26/23 18:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/23/23 11:01	10/25/23 19:16	1
Benzenethiol	ND	*- *1	9.8	1.7	ug/L		10/23/23 11:01	10/25/23 19:16	1
Benzoic acid	ND	*-	29	7.2	ug/L		10/23/23 11:01	10/25/23 19:16	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/23/23 11:01	10/25/23 19:16	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/23/23 11:01	10/25/23 19:16	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		10/23/23 11:01	10/25/23 19:16	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/23/23 11:01	10/25/23 19:16	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/23/23 11:01	10/25/23 19:16	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/23/23 11:01	10/25/23 19:16	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/23/23 11:01	10/25/23 19:16	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/23/23 11:01	10/25/23 19:16	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/23/23 11:01	10/25/23 19:16	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/23/23 11:01	10/25/23 19:16	1
2-Chlorophenol	ND		9.8	2.2	ug/L		10/23/23 11:01	10/25/23 19:16	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/23/23 11:01	10/25/23 19:16	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 19:16	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 19:16	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 19:16	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		10/23/23 11:01	10/25/23 19:16	1
Diethyl phthalate	ND		9.8	0.24	ug/L		10/23/23 11:01	10/25/23 19:16	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 19:16	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 19:16	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		10/23/23 11:01	10/25/23 19:16	1
4,6-Dinitro-ortho-cresol	ND	*1	9.8	1.6	ug/L		10/23/23 11:01	10/25/23 19:16	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/23/23 11:01	10/25/23 19:16	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/23/23 11:01	10/25/23 19:16	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/23/23 11:01	10/25/23 19:16	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 19:16	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 19:16	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 19:16	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 19:16	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 19:16	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/23/23 11:01	10/25/23 19:16	1
Indene	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 19:16	1
Isophorone	ND		9.8	0.14	ug/L		10/23/23 11:01	10/25/23 19:16	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/23/23 11:01	10/25/23 19:16	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/23/23 11:01	10/25/23 19:16	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/23/23 11:01	10/25/23 19:16	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/23/23 11:01	10/25/23 19:16	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/23/23 11:01	10/25/23 19:16	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/23/23 11:01	10/25/23 19:16	1
2-Nitrophenol	ND		9.8	5.1	ug/L		10/23/23 11:01	10/25/23 19:16	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/23/23 11:01	10/25/23 19:16	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 19:16	1

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

Job ID: 400-245328-1

Client Sample ID: MW27-ROX-101823
Date Collected: 10/18/23 09:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-4
Matrix: Water

Method: SW846 8270E - 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		10/23/23 11:01	10/25/23 19:16	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/23/23 11:01	10/25/23 19:16	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 19:16	1
Phenol	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 19:16	1
Pyridine	ND		9.8	3.1	ug/L		10/23/23 11:01	10/25/23 19:16	1
Quinoline	ND		9.8	4.4	ug/L		10/23/23 11:01	10/25/23 19:16	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/23/23 11:01	10/25/23 19:16	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 19:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*10/23/23 11:01*	*10/25/23 19:16*	*1*
2-Fluorophenol	*13*		*13 - 113*	*10/23/23 11:01*	*10/25/23 19:16*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*10/23/23 11:01*	*10/25/23 19:16*	*1*
Phenol-d5	*44*		*17 - 127*	*10/23/23 11:01*	*10/25/23 19:16*	*1*
Terphenyl-d14	*95*		*44 - 149*	*10/23/23 11:01*	*10/25/23 19:16*	*1*
2,4,6-Tribromophenol	*66*		*26 - 150*	*10/23/23 11:01*	*10/25/23 19:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.016	ug/L		10/23/23 12:43	10/24/23 00:42	1
1,2-Dibromoethane	ND		0.019	0.014	ug/L		10/23/23 12:43	10/24/23 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*10/23/23 12:43*	*10/24/23 00:42*	*1*

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

Job ID: 400-245328-1

Client Sample ID: MW16-ROX-101823
Date Collected: 10/18/23 10:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/23/23 18:04	1
Acrolein	ND		20	3.3	ug/L			10/23/23 18:04	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 18:04	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 18:04	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 18:04	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 18:04	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 18:04	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 18:04	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 18:04	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/23/23 18:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 18:04	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 18:04	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:04	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 18:04	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 18:04	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 18:04	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 18:04	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 18:04	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 18:04	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 18:04	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 18:04	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 18:04	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 18:04	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 18:04	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 18:04	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 18:04	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 18:04	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:04	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:04	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:04	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:04	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 18:04	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 18:04	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 18:04	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 18:04	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 18:04	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 18:04	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 18:04	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 18:04	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 18:04	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 18:04	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 18:04	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 18:04	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 18:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 18:04	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 18:04	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 18:04	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 18:04	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 18:04	1

Client Sample ID: MW16-ROX-101823
Date Collected: 10/18/23 10:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 18:04	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 18:04	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 18:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 18:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 18:04	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 18:04	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 18:04	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:04	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 18:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 18:04	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 18:04	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 18:04	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 18:04	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 18:04	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 18:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 18:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 18:04	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 18:04	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 18:04	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 18:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/23/23 18:04*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*10/23/23 18:04*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/23/23 18:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/23/23 11:01	10/26/23 18:37	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/23/23 11:01	10/26/23 18:37	1
Anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 18:37	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/23/23 11:01	10/26/23 18:37	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/23/23 11:01	10/26/23 18:37	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 18:37	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 18:37	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/23/23 11:01	10/26/23 18:37	1
Chrysene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 18:37	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/23/23 11:01	10/26/23 18:37	1
Fluoranthene	ND		0.20	0.034	ug/L		10/23/23 11:01	10/26/23 18:37	1
Fluorene	ND		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 18:37	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/23/23 11:01	10/26/23 18:37	1
Phenanthrene	ND		0.20	0.090	ug/L		10/23/23 11:01	10/26/23 18:37	1
Pyrene	ND		0.20	0.039	ug/L		10/23/23 11:01	10/26/23 18:37	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/23/23 11:01	10/26/23 18:37	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/23/23 11:01	10/26/23 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*78*		*18 - 147*	*10/23/23 11:01*	*10/26/23 18:37*	*1*
2-Fluorobiphenyl	*70*		*15 - 128*	*10/23/23 11:01*	*10/26/23 18:37*	*1*

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

Job ID: 400-245328-1

Client Sample ID: MW16-ROX-101823
Date Collected: 10/18/23 10:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*57*		*10 - 144*	*10/23/23 11:01*	*10/26/23 18:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 19:38	1
Benzenethiol	ND	*- *1	10	1.7	ug/L		10/23/23 11:01	10/25/23 19:38	1
Benzoic acid	ND	*-	30	7.3	ug/L		10/23/23 11:01	10/25/23 19:38	1
Benzyl alcohol	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 19:38	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 19:38	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 19:38	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 19:38	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/23/23 11:01	10/25/23 19:38	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/23/23 11:01	10/25/23 19:38	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/23/23 11:01	10/25/23 19:38	1
4-Chloroaniline	ND		10	3.4	ug/L		10/23/23 11:01	10/25/23 19:38	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 19:38	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 19:38	1
2-Chlorophenol	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 19:38	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 19:38	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 19:38	1
Dibenzofuran	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 19:38	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 19:38	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/23/23 11:01	10/25/23 19:38	1
Diethyl phthalate	ND		10	0.24	ug/L		10/23/23 11:01	10/25/23 19:38	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 19:38	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 19:38	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 19:38	1
4,6-Dinitro-ortho-cresol	ND	*1	10	1.6	ug/L		10/23/23 11:01	10/25/23 19:38	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/23/23 11:01	10/25/23 19:38	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 19:38	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 19:38	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 19:38	1
1,4-Dioxane	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 19:38	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 19:38	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 19:38	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 19:38	1
Hexachloroethane	ND		10	4.2	ug/L		10/23/23 11:01	10/25/23 19:38	1
Indene	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 19:38	1
Isophorone	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 19:38	1
2-Methylphenol	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 19:38	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/23/23 11:01	10/25/23 19:38	1
2-Nitroaniline	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 19:38	1
3-Nitroaniline	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 19:38	1
4-Nitroaniline	ND		10	1.5	ug/L		10/23/23 11:01	10/25/23 19:38	1
Nitrobenzene	ND		10	0.13	ug/L		10/23/23 11:01	10/25/23 19:38	1
2-Nitrophenol	ND		10	5.2	ug/L		10/23/23 11:01	10/25/23 19:38	1
4-Nitrophenol	ND		10	2.1	ug/L		10/23/23 11:01	10/25/23 19:38	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 19:38	1

Client Sample ID: MW16-ROX-101823

Lab Sample ID: 400-245328-5

Date Collected: 10/18/23 10:20

Matrix: Water

Date Received: 10/19/23 09:26

Method: SW846 8270E - 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		10/23/23 11:01	10/25/23 19:38	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/23/23 11:01	10/25/23 19:38	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 19:38	1
Phenol	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 19:38	1
Pyridine	ND		10	3.2	ug/L		10/23/23 11:01	10/25/23 19:38	1
Quinoline	ND		10	4.5	ug/L		10/23/23 11:01	10/25/23 19:38	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/23/23 11:01	10/25/23 19:38	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*10/23/23 11:01*	*10/25/23 19:38*	*1*
2-Fluorophenol	*21*		*13 - 113*	*10/23/23 11:01*	*10/25/23 19:38*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*10/23/23 11:01*	*10/25/23 19:38*	*1*
Phenol-d5	*50*		*17 - 127*	*10/23/23 11:01*	*10/25/23 19:38*	*1*
Terphenyl-d14	*91*		*44 - 149*	*10/23/23 11:01*	*10/25/23 19:38*	*1*
2,4,6-Tribromophenol	*60*		*26 - 150*	*10/23/23 11:01*	*10/25/23 19:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/24/23 01:24	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/24/23 01:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*10/23/23 12:43*	*10/24/23 01:24*	*1*

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

Job ID: 400-245328-1

Client Sample ID: MW16-ROX-101823-DUP

Date Collected: 10/18/23 10:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-6

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**11**	**J**	25	10	ug/L			10/23/23 18:22	1
Acrolein	ND		20	3.3	ug/L			10/23/23 18:22	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 18:22	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 18:22	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 18:22	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 18:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 18:22	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 18:22	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 18:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/23/23 18:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 18:22	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 18:22	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:22	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 18:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 18:22	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 18:22	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 18:22	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 18:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 18:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 18:22	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 18:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 18:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 18:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 18:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 18:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 18:22	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 18:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 18:22	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 18:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 18:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 18:22	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 18:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 18:22	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 18:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 18:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 18:22	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 18:22	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 18:22	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 18:22	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 18:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 18:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 18:22	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 18:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 18:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 18:22	1

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

Job ID: 400-245328-1

Client Sample ID: MW16-ROX-101823-DUP

Date Collected: 10/18/23 10:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 18:22	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 18:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 18:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 18:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 18:22	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 18:22	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 18:22	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:22	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 18:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 18:22	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 18:22	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 18:22	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 18:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 18:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 18:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 18:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 18:22	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 18:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 18:22	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 130*		*10/23/23 18:22*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/23/23 18:22*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*10/23/23 18:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		10/23/23 11:01	10/26/23 18:58	1
Acenaphthene	ND	H	0.20	0.098	ug/L		11/08/23 13:07	11/10/23 19:18	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/23/23 11:01	10/26/23 18:58	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		11/08/23 13:07	11/10/23 19:18	1
Anthracene	ND		0.20	0.046	ug/L		10/23/23 11:01	10/26/23 18:58	1
Anthracene	ND	H	0.20	0.046	ug/L		11/08/23 13:07	11/10/23 19:18	1
Benzo[a]anthracene	**0.047**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 18:58	1
Benzo[a]anthracene	ND	H	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 19:18	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/23/23 11:01	10/26/23 18:58	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		11/08/23 13:07	11/10/23 19:18	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/23/23 11:01	10/26/23 18:58	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		11/08/23 13:07	11/10/23 19:18	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 18:58	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		11/08/23 13:07	11/10/23 19:18	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/23/23 11:01	10/26/23 18:58	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		11/08/23 13:07	11/10/23 19:18	1
Chrysene	ND		0.20	0.032	ug/L		10/23/23 11:01	10/26/23 18:58	1
Chrysene	ND	H	0.20	0.033	ug/L		11/08/23 13:07	11/10/23 19:18	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 18:58	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		11/08/23 13:07	11/10/23 19:18	1
Fluoranthene	**0.062**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 18:58	1

Client Sample ID: MW16-ROX-101823-DUP
Date Collected: 10/18/23 10:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND	H	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 19:18	1
Fluorene	ND		0.20	0.088	ug/L		10/23/23 11:01	10/26/23 18:58	1
Fluorene	ND	H	0.20	0.088	ug/L		11/08/23 13:07	11/10/23 19:18	1
Indeno[1,2,3-cd]pyrene	**0.048**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/26/23 18:58	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.034	ug/L		11/08/23 13:07	11/10/23 19:18	1
Phenanthrene	ND		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 18:58	1
Phenanthrene	ND	H	0.20	0.089	ug/L		11/08/23 13:07	11/10/23 19:18	1
Pyrene	ND		0.20	0.038	ug/L		10/23/23 11:01	10/26/23 18:58	1
Pyrene	ND	H	0.20	0.039	ug/L		11/08/23 13:07	11/10/23 19:18	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/23/23 11:01	10/26/23 18:58	1
1-Methylnaphthalene	ND	H	0.20	0.079	ug/L		11/08/23 13:07	11/10/23 19:18	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/23/23 11:01	10/26/23 18:58	1
2-Methylnaphthalene	ND	H	0.20	0.065	ug/L		11/08/23 13:07	11/10/23 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*78*		*18 - 147*	*10/23/23 11:01*	*10/26/23 18:58*	*1*
Terphenyl-d14	*54*		*18 - 147*	*11/08/23 13:07*	*11/10/23 19:18*	*1*
2-Fluorobiphenyl	*69*		*15 - 128*	*10/23/23 11:01*	*10/26/23 18:58*	*1*
2-Fluorobiphenyl	*61*		*15 - 128*	*11/08/23 13:07*	*11/10/23 19:18*	*1*
Nitrobenzene-d5	*60*		*10 - 144*	*10/23/23 11:01*	*10/26/23 18:58*	*1*
Nitrobenzene-d5	*52*		*10 - 144*	*11/08/23 13:07*	*11/10/23 19:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/23/23 11:01	10/25/23 19:59	1
Benzenethiol	ND	*- *1	9.8	1.7	ug/L		10/23/23 11:01	10/25/23 19:59	1
Benzoic acid	ND	*-	30	7.2	ug/L		10/23/23 11:01	10/25/23 19:59	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/23/23 11:01	10/25/23 19:59	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/23/23 11:01	10/25/23 19:59	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		10/23/23 11:01	10/25/23 19:59	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/23/23 11:01	10/25/23 19:59	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/23/23 11:01	10/25/23 19:59	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/23/23 11:01	10/25/23 19:59	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/23/23 11:01	10/25/23 19:59	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/23/23 11:01	10/25/23 19:59	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/23/23 11:01	10/25/23 19:59	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/23/23 11:01	10/25/23 19:59	1
2-Chlorophenol	ND		9.8	2.2	ug/L		10/23/23 11:01	10/25/23 19:59	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/23/23 11:01	10/25/23 19:59	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 19:59	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 19:59	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 19:59	1
2,4-Dichlorophenol	ND		9.8	3.0	ug/L		10/23/23 11:01	10/25/23 19:59	1
Diethyl phthalate	ND		9.8	0.24	ug/L		10/23/23 11:01	10/25/23 19:59	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 19:59	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 19:59	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		10/23/23 11:01	10/25/23 19:59	1
4,6-Dinitro-ortho-cresol	ND	*1	9.8	1.6	ug/L		10/23/23 11:01	10/25/23 19:59	1
2,4-Dinitrophenol	ND	*1	30	3.3	ug/L		10/23/23 11:01	10/25/23 19:59	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/23/23 11:01	10/25/23 19:59	1

Client Sample ID: MW16-ROX-101823-DUP
Date Collected: 10/18/23 10:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/23/23 11:01	10/25/23 19:59	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 19:59	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 19:59	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 19:59	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 19:59	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 19:59	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/23/23 11:01	10/25/23 19:59	1
Indene	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 19:59	1
Isophorone	ND		9.8	0.14	ug/L		10/23/23 11:01	10/25/23 19:59	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/23/23 11:01	10/25/23 19:59	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/23/23 11:01	10/25/23 19:59	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/23/23 11:01	10/25/23 19:59	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/23/23 11:01	10/25/23 19:59	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/23/23 11:01	10/25/23 19:59	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/23/23 11:01	10/25/23 19:59	1
2-Nitrophenol	ND		9.8	5.1	ug/L		10/23/23 11:01	10/25/23 19:59	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/23/23 11:01	10/25/23 19:59	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 19:59	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		10/23/23 11:01	10/25/23 19:59	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/23/23 11:01	10/25/23 19:59	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 19:59	1
Phenol	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 19:59	1
Pyridine	ND		9.8	3.1	ug/L		10/23/23 11:01	10/25/23 19:59	1
Quinoline	ND		9.8	4.4	ug/L		10/23/23 11:01	10/25/23 19:59	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/23/23 11:01	10/25/23 19:59	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*10/23/23 11:01*	*10/25/23 19:59*	*1*
2-Fluorophenol	*28*		*13 - 113*	*10/23/23 11:01*	*10/25/23 19:59*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*10/23/23 11:01*	*10/25/23 19:59*	*1*
Phenol-d5	*57*		*17 - 127*	*10/23/23 11:01*	*10/25/23 19:59*	*1*
Terphenyl-d14	*89*		*44 - 149*	*10/23/23 11:01*	*10/25/23 19:59*	*1*
2,4,6-Tribromophenol	*75*		*26 - 150*	*10/23/23 11:01*	*10/25/23 19:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/24/23 01:45	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/24/23 01:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*51 - 149*	*10/23/23 12:43*	*10/24/23 01:45*	*1*

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

Job ID: 400-245328-1

Client Sample ID: MW13-ROX-101823
Date Collected: 10/18/23 12:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**13**	**J**	25	10	ug/L			10/23/23 18:41	1
Acrolein	ND		20	3.3	ug/L			10/23/23 18:41	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 18:41	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 18:41	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 18:41	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 18:41	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 18:41	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 18:41	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 18:41	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/23/23 18:41	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 18:41	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 18:41	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:41	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 18:41	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 18:41	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 18:41	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 18:41	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 18:41	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 18:41	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 18:41	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 18:41	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 18:41	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 18:41	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 18:41	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 18:41	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 18:41	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 18:41	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:41	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:41	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:41	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 18:41	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 18:41	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 18:41	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 18:41	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 18:41	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 18:41	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 18:41	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 18:41	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 18:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 18:41	1
Methyl tert-butyl ether	**0.70**	**J**	1.0	0.22	ug/L			10/23/23 18:41	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 18:41	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 18:41	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 18:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 18:41	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 18:41	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 18:41	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 18:41	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 18:41	1

Client Sample ID: MW13-ROX-101823
Date Collected: 10/18/23 12:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 18:41	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 18:41	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 18:41	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 18:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 18:41	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 18:41	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 18:41	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 18:41	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 18:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 18:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 18:41	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 18:41	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 18:41	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 18:41	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 18:41	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 18:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 18:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 18:41	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 18:41	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 18:41	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*10/23/23 18:41*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/23/23 18:41*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/23/23 18:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.34**		0.20	0.098	ug/L		10/23/23 11:01	10/26/23 19:19	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/23/23 11:01	10/26/23 19:19	1
Anthracene	**0.10**	**J**	0.20	0.046	ug/L		10/23/23 11:01	10/26/23 19:19	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		10/23/23 11:01	10/26/23 19:19	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/23/23 11:01	10/26/23 19:19	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 19:19	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 19:19	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/23/23 11:01	10/26/23 19:19	1
Chrysene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 19:19	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 19:19	1
Fluoranthene	ND		0.20	0.034	ug/L		10/23/23 11:01	10/26/23 19:19	1
Fluorene	ND		0.20	0.088	ug/L		10/23/23 11:01	10/26/23 19:19	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		10/23/23 11:01	10/26/23 19:19	1
Phenanthrene	ND		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 19:19	1
Pyrene	ND		0.20	0.038	ug/L		10/23/23 11:01	10/26/23 19:19	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		10/23/23 11:01	10/26/23 19:19	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/23/23 11:01	10/26/23 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*57*		*18 - 147*	*10/23/23 11:01*	*10/26/23 19:19*	*1*
2-Fluorobiphenyl	*36*		*15 - 128*	*10/23/23 11:01*	*10/26/23 19:19*	*1*

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

Job ID: 400-245328-1

Client Sample ID: MW13-ROX-101823
Date Collected: 10/18/23 12:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-7
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*54*		*10 - 144*	*10/23/23 11:01*	*10/26/23 19:19*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 20:20	1
Benzenethiol	ND	*- *1	9.9	1.7	ug/L		10/23/23 11:01	10/25/23 20:20	1
Benzoic acid	ND	*-	30	7.2	ug/L		10/23/23 11:01	10/25/23 20:20	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 20:20	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 20:20	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 20:20	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/23/23 11:01	10/25/23 20:20	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		10/23/23 11:01	10/25/23 20:20	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/23/23 11:01	10/25/23 20:20	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/23/23 11:01	10/25/23 20:20	1
4-Chloroaniline	ND		9.9	3.4	ug/L		10/23/23 11:01	10/25/23 20:20	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 20:20	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 20:20	1
2-Chlorophenol	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 20:20	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/23/23 11:01	10/25/23 20:20	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 20:20	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 20:20	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 20:20	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		10/23/23 11:01	10/25/23 20:20	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/23/23 11:01	10/25/23 20:20	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 20:20	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 20:20	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/23/23 11:01	10/25/23 20:20	1
4,6-Dinitro-ortho-cresol	ND	*1	9.9	1.6	ug/L		10/23/23 11:01	10/25/23 20:20	1
2,4-Dinitrophenol	ND	*1	30	3.4	ug/L		10/23/23 11:01	10/25/23 20:20	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 20:20	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/23/23 11:01	10/25/23 20:20	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 20:20	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 20:20	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 20:20	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/23/23 11:01	10/25/23 20:20	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 20:20	1
Hexachloroethane	ND		9.9	4.1	ug/L		10/23/23 11:01	10/25/23 20:20	1
Indene	ND		9.9	0.99	ug/L		10/23/23 11:01	10/25/23 20:20	1
Isophorone	ND		9.9	0.14	ug/L		10/23/23 11:01	10/25/23 20:20	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 20:20	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/23/23 11:01	10/25/23 20:20	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/23/23 11:01	10/25/23 20:20	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/23/23 11:01	10/25/23 20:20	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/23/23 11:01	10/25/23 20:20	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/23/23 11:01	10/25/23 20:20	1
2-Nitrophenol	ND		9.9	5.1	ug/L		10/23/23 11:01	10/25/23 20:20	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/23/23 11:01	10/25/23 20:20	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 20:20	1

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

Job ID: 400-245328-1

Client Sample ID: MW13-ROX-101823
Date Collected: 10/18/23 12:20
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-7
Matrix: Water

Method: SW846 8270E - 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		10/23/23 11:01	10/25/23 20:20	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/23/23 11:01	10/25/23 20:20	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 20:20	1
Phenol	ND		9.9	2.6	ug/L		10/23/23 11:01	10/25/23 20:20	1
Pyridine	ND		9.9	3.2	ug/L		10/23/23 11:01	10/25/23 20:20	1
Quinoline	ND		9.9	4.4	ug/L		10/23/23 11:01	10/25/23 20:20	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/23/23 11:01	10/25/23 20:20	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/23/23 11:01	10/25/23 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*46 - 124*	*10/23/23 11:01*	*10/25/23 20:20*	*1*
2-Fluorophenol	*0*	*S1-*	*13 - 113*	*10/23/23 11:01*	*10/25/23 20:20*	*1*
Nitrobenzene-d5	*60*		*36 - 126*	*10/23/23 11:01*	*10/25/23 20:20*	*1*
Phenol-d5	*8*	*S1-*	*17 - 127*	*10/23/23 11:01*	*10/25/23 20:20*	*1*
Terphenyl-d14	*69*		*44 - 149*	*10/23/23 11:01*	*10/25/23 20:20*	*1*
2,4,6-Tribromophenol	*64*		*26 - 150*	*10/23/23 11:01*	*10/25/23 20:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.017	ug/L		10/23/23 12:43	10/24/23 02:07	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/24/23 02:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*51 - 149*	*10/23/23 12:43*	*10/24/23 02:07*	*1*

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

Job ID: 400-245328-1

Client Sample ID: P114R-ROX-101823
Date Collected: 10/18/23 13:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**19**	**J**	25	10	ug/L			10/23/23 19:00	1
Acrolein	ND		20	3.3	ug/L			10/23/23 19:00	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 19:00	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 19:00	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 19:00	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 19:00	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 19:00	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 19:00	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 19:00	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/23/23 19:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 19:00	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 19:00	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 19:00	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 19:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 19:00	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 19:00	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 19:00	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 19:00	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 19:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 19:00	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 19:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 19:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 19:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 19:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 19:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 19:00	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 19:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 19:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 19:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 19:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 19:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 19:00	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 19:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 19:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 19:00	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 19:00	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 19:00	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 19:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 19:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 19:00	1
Methyl tert-butyl ether	**1.5**		1.0	0.22	ug/L			10/23/23 19:00	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 19:00	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 19:00	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 19:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 19:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 19:00	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 19:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 19:00	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/23/23 19:00	1

Client Sample ID: P114R-ROX-101823
Date Collected: 10/18/23 13:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 19:00	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 19:00	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 19:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 19:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 19:00	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 19:00	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 19:00	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 19:00	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 19:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 19:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 19:00	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 19:00	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 19:00	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 19:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 19:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 19:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 19:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 19:00	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 19:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 19:00	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 130*		*10/23/23 19:00*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*10/23/23 19:00*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*10/23/23 19:00*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.99**		0.20	0.097	ug/L		10/23/23 11:01	10/28/23 13:07	1
Acenaphthene	**0.96**	**H**	0.20	0.098	ug/L		11/02/23 09:54	11/10/23 19:38	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/23/23 11:01	10/28/23 13:07	1
Acenaphthylene	ND	H	0.20	0.044	ug/L		11/02/23 09:54	11/10/23 19:38	1
Anthracene	**0.085**	**J**	0.20	0.046	ug/L		10/23/23 11:01	10/28/23 13:07	1
Anthracene	ND	H	0.20	0.047	ug/L		11/02/23 09:54	11/10/23 19:38	1
Benzo[a]anthracene	**0.047**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/28/23 13:07	1
Benzo[a]anthracene	ND	H	0.20	0.034	ug/L		11/02/23 09:54	11/10/23 19:38	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		10/23/23 11:01	10/28/23 13:07	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		11/02/23 09:54	11/10/23 19:38	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/23/23 11:01	10/28/23 13:07	1
Benzo[b]fluoranthene	ND	H	0.20	0.037	ug/L		11/02/23 09:54	11/10/23 19:38	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/23/23 11:01	10/28/23 13:07	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		11/02/23 09:54	11/10/23 19:38	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		10/23/23 11:01	10/28/23 13:07	1
Benzo[k]fluoranthene	ND	H	0.20	0.062	ug/L		11/02/23 09:54	11/10/23 19:38	1
Chrysene	ND		0.20	0.032	ug/L		10/23/23 11:01	10/28/23 13:07	1
Chrysene	ND	H	0.20	0.033	ug/L		11/02/23 09:54	11/10/23 19:38	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/28/23 13:07	1
Dibenz(a,h)anthracene	ND	H	0.20	0.048	ug/L		11/02/23 09:54	11/10/23 19:38	1
Fluoranthene	**0.072**	**J B**	0.20	0.033	ug/L		10/23/23 11:01	10/28/23 13:07	1

Client Sample ID: P114R-ROX-101823
Date Collected: 10/18/23 13:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND	H	0.20	0.034	ug/L		11/02/23 09:54	11/10/23 19:38	1
Fluorene	ND		0.20	0.087	ug/L		10/23/23 11:01	10/28/23 13:07	1
Fluorene	ND	H	0.20	0.088	ug/L		11/02/23 09:54	11/10/23 19:38	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/28/23 13:07	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.034	ug/L		11/02/23 09:54	11/10/23 19:38	1
Phenanthrene	ND		0.20	0.088	ug/L		10/23/23 11:01	10/28/23 13:07	1
Phenanthrene	ND	H	0.20	0.089	ug/L		11/02/23 09:54	11/10/23 19:38	1
Pyrene	ND		0.20	0.038	ug/L		10/23/23 11:01	10/28/23 13:07	1
Pyrene	ND	H	0.20	0.039	ug/L		11/02/23 09:54	11/10/23 19:38	1
1-Methylnaphthalene	**0.25**		0.20	0.078	ug/L		10/23/23 11:01	10/28/23 13:07	1
1-Methylnaphthalene	ND	H *3	0.20	0.079	ug/L		11/02/23 09:54	11/10/23 19:38	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		10/23/23 11:01	10/28/23 13:07	1
2-Methylnaphthalene	ND	H *3	0.20	0.065	ug/L		11/02/23 09:54	11/10/23 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*68*		*18 - 147*	*10/23/23 11:01*	*10/28/23 13:07*	*1*
Terphenyl-d14	*39*		*18 - 147*	*11/02/23 09:54*	*11/10/23 19:38*	*1*
2-Fluorobiphenyl	*56*		*15 - 128*	*10/23/23 11:01*	*10/28/23 13:07*	*1*
2-Fluorobiphenyl	*71*		*15 - 128*	*11/02/23 09:54*	*11/10/23 19:38*	*1*
Nitrobenzene-d5	*57*		*10 - 144*	*10/23/23 11:01*	*10/28/23 13:07*	*1*
Nitrobenzene-d5	*29*	*3	*10 - 144*	*11/02/23 09:54*	*11/10/23 19:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/23/23 11:01	10/25/23 20:41	1
Benzenethiol	ND	*- *1	9.8	1.7	ug/L		10/23/23 11:01	10/25/23 20:41	1
Benzoic acid	ND	*-	29	7.2	ug/L		10/23/23 11:01	10/25/23 20:41	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/23/23 11:01	10/25/23 20:41	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/23/23 11:01	10/25/23 20:41	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 20:41	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/23/23 11:01	10/25/23 20:41	1
Bis(2-ethylhexyl) phthalate	**13**		9.8	4.9	ug/L		10/23/23 11:01	10/25/23 20:41	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/23/23 11:01	10/25/23 20:41	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/23/23 11:01	10/25/23 20:41	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/23/23 11:01	10/25/23 20:41	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/23/23 11:01	10/25/23 20:41	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/23/23 11:01	10/25/23 20:41	1
2-Chlorophenol	ND		9.8	2.2	ug/L		10/23/23 11:01	10/25/23 20:41	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/23/23 11:01	10/25/23 20:41	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 20:41	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 20:41	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 20:41	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		10/23/23 11:01	10/25/23 20:41	1
Diethyl phthalate	ND		9.8	0.24	ug/L		10/23/23 11:01	10/25/23 20:41	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 20:41	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 20:41	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 20:41	1
4,6-Dinitro-ortho-cresol	ND	*1	9.8	1.6	ug/L		10/23/23 11:01	10/25/23 20:41	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/23/23 11:01	10/25/23 20:41	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/23/23 11:01	10/25/23 20:41	1

Client Sample ID: P114R-ROX-101823
Date Collected: 10/18/23 13:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/23/23 11:01	10/25/23 20:41	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 20:41	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 20:41	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 20:41	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/23/23 11:01	10/25/23 20:41	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 20:41	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/23/23 11:01	10/25/23 20:41	1
Indene	ND		9.8	0.98	ug/L		10/23/23 11:01	10/25/23 20:41	1
Isophorone	ND		9.8	0.14	ug/L		10/23/23 11:01	10/25/23 20:41	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/23/23 11:01	10/25/23 20:41	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		10/23/23 11:01	10/25/23 20:41	1
2-Nitroaniline	ND		9.8	2.2	ug/L		10/23/23 11:01	10/25/23 20:41	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/23/23 11:01	10/25/23 20:41	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/23/23 11:01	10/25/23 20:41	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/23/23 11:01	10/25/23 20:41	1
2-Nitrophenol	ND		9.8	5.1	ug/L		10/23/23 11:01	10/25/23 20:41	1
4-Nitrophenol	ND		9.8	2.1	ug/L		10/23/23 11:01	10/25/23 20:41	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 20:41	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		10/23/23 11:01	10/25/23 20:41	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/23/23 11:01	10/25/23 20:41	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/23/23 11:01	10/25/23 20:41	1
Phenol	ND		9.8	2.6	ug/L		10/23/23 11:01	10/25/23 20:41	1
Pyridine	ND		9.8	3.1	ug/L		10/23/23 11:01	10/25/23 20:41	1
Quinoline	ND		9.8	4.4	ug/L		10/23/23 11:01	10/25/23 20:41	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/23/23 11:01	10/25/23 20:41	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/23/23 11:01	10/25/23 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*10/23/23 11:01*	*10/25/23 20:41*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*10/23/23 11:01*	*10/25/23 20:41*	*1*
Nitrobenzene-d5	*69*		*36 - 126*	*10/23/23 11:01*	*10/25/23 20:41*	*1*
Phenol-d5	*47*		*17 - 127*	*10/23/23 11:01*	*10/25/23 20:41*	*1*
Terphenyl-d14	*92*		*44 - 149*	*10/23/23 11:01*	*10/25/23 20:41*	*1*
2,4,6-Tribromophenol	*108*		*26 - 150*	*10/23/23 11:01*	*10/25/23 20:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H	9.9	5.0	ug/L		11/02/23 09:54	11/03/23 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*46 - 124*	*11/02/23 09:54*	*11/03/23 22:09*	*1*
Nitrobenzene-d5	*58*		*36 - 126*	*11/02/23 09:54*	*11/03/23 22:09*	*1*
Terphenyl-d14	*48*		*44 - 149*	*11/02/23 09:54*	*11/03/23 22:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.032	0.018	ug/L		10/24/23 07:31	10/24/23 13:26	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		10/24/23 07:31	10/24/23 13:26	1

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

Job ID: 400-245328-1

Client Sample ID: P114R-ROX-101823
Date Collected: 10/18/23 13:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-8
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		51 - 149	10/24/23 07:31	10/24/23 13:26	1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
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.
*1	LCS/LCSD RPD exceeds control limits.
*3	ISTD response or retention time outside acceptable limits.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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.

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: 400-245328-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245328-1	TB-ROX-101823-8260	93	103	98
400-245328-3	MW27-ROX-101823-EB	97	99	101
400-245328-4	MW27-ROX-101823	94	105	99
400-245328-4 MS	MW27-ROX-101823	95	103	101
400-245328-4 MSD	MW27-ROX-101823	96	100	101
400-245328-5	MW16-ROX-101823	94	105	98
400-245328-6	MW16-ROX-101823-DUP	95	104	100
400-245328-7	MW13-ROX-101823	94	104	98
400-245328-8	P114R-ROX-101823	99	105	98
LCS 400-646671/1001	Lab Control Sample	97	102	101
MB 400-646671/4	Method Blank	96	104	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245328-3	MW27-ROX-101823-EB	71	11 S1-	63	33	86	66
400-245328-4	MW27-ROX-101823	74	13	65	44	95	66
400-245328-5	MW16-ROX-101823	77	21	66	50	91	60
400-245328-6	MW16-ROX-101823-DUP	75	28	64	57	89	75
400-245328-7	MW13-ROX-101823	71	0 S1-	60	8 S1-	69	64
400-245328-8	P114R-ROX-101823	80	10 S1-	69	47	92	108
400-245328-8 - RERA	P114R-ROX-101823	65		58		48	
LCS 400-646681/2-A	Lab Control Sample	79	36	79	65	95	101
LCS 400-646681/4-A	Lab Control Sample	79	32	68	50	98	70
LCS 400-648382/2-A	Lab Control Sample	71		72		80	
LCSD 400-646681/3-A	Lab Control Sample Dup	79	19	78	56	96	100
LCSD 400-646681/5-A	Lab Control Sample Dup	75	33	65	55	94	51
LCSD 400-648382/3-A	Lab Control Sample Dup	69		71		75	
MB 400-646681/1-A	Method Blank	77	8 S1-	67	37	94	55
MB 400-648382/1-A	Method Blank	69		59		81	

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: 400-245328-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TPHL (18-147)	FBP (15-128)	NBZ (10-144)
400-245328-3	MW27-ROX-101823-EB	79	70	58
400-245328-3	MW27-ROX-101823-EB	55	60	54
400-245328-4	MW27-ROX-101823	93	71	56
400-245328-5	MW16-ROX-101823	78	70	57
400-245328-6	MW16-ROX-101823-DUP	78	69	60
400-245328-6	MW16-ROX-101823-DUP	54	61	52
400-245328-7	MW13-ROX-101823	57	36	54
400-245328-8	P114R-ROX-101823	68	56	57
400-245328-8	P114R-ROX-101823	39	71	29 *3
LCS 400-646681/6-A	Lab Control Sample	76	70	57
LCS 400-648382/2-A	Lab Control Sample	71	85	88
LCS 400-649254/2-A	Lab Control Sample	58	59	53
LCSD 400-646681/7-A	Lab Control Sample Dup	79	75	61
LCSD 400-648382/3-A	Lab Control Sample Dup	70	84	90
LCSD 400-649254/3-A	Lab Control Sample Dup	58	60	56
MB 400-646681/1-A	Method Blank	69	56	50
MB 400-648382/1-A	Method Blank	76	80	72
MB 400-649254/1-A	Method Blank	74	69	65

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-245328-2	TB-ROX-101823-8011	116
400-245328-3	MW27-ROX-101823-EB	118
400-245328-4	MW27-ROX-101823	104
400-245328-5	MW16-ROX-101823	110
400-245328-6	MW16-ROX-101823-DUP	119
400-245328-7	MW13-ROX-101823	107
400-245328-8	P114R-ROX-101823	86
LCS 400-646733/2-A	Lab Control Sample	98
LCS 400-646856/2-A	Lab Control Sample	99
LCSD 400-646733/3-A	Lab Control Sample Dup	99
LCSD 400-646856/3-A	Lab Control Sample Dup	107
MB 400-646733/1-A	Method Blank	94
MB 400-646856/1-A	Method Blank	104

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-245328-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-245328-1

Client Sample ID: TB-ROX-101823-8260
Lab Sample ID: 400-245328-1
Date Collected: 10/18/23 12:00
Matrix: Water
Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 16:12	WPD	EET PEN

Client Sample ID: TB-ROX-101823-8011
Lab Sample ID: 400-245328-2
Date Collected: 10/18/23 12:00
Matrix: Water
Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.6 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/24/23 00:00	PG	EET PEN

Client Sample ID: MW27-ROX-101823-EB
Lab Sample ID: 400-245328-3
Date Collected: 10/18/23 08:30
Matrix: Water
Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 16:31	WPD	EET PEN
Total/NA	Prep	3520C			253.8 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 18:55	S1B	EET PEN
Total/NA	Prep	3520C			253.8 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 17:56	S1B	EET PEN
Total/NA	Prep	3520C			249.4 mL	1 mL	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 18:57	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/24/23 00:21	PG	EET PEN

Client Sample ID: MW27-ROX-101823
Lab Sample ID: 400-245328-4
Date Collected: 10/18/23 09:30
Matrix: Water
Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 14:58	WPD	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 19:16	S1B	EET PEN
Total/NA	Prep	3520C			254.6 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 18:17	S1B	EET PEN
Total/NA	Prep	8011			36.5 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/24/23 00:42	PG	EET PEN

Client Sample ID: MW16-ROX-101823
Lab Sample ID: 400-245328-5
Date Collected: 10/18/23 10:20
Matrix: Water
Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 18:04	WPD	EET PEN

Client Sample ID: MW16-ROX-101823

Lab Sample ID: 400-245328-5

Date Collected: 10/18/23 10:20

Matrix: Water

Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			251 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 19:38	S1B	EET PEN
Total/NA	Prep	3520C			251 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 18:37	S1B	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/24/23 01:24	PG	EET PEN

Client Sample ID: MW16-ROX-101823-DUP

Lab Sample ID: 400-245328-6

Date Collected: 10/18/23 10:20

Matrix: Water

Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 18:22	WPD	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 19:59	S1B	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 18:58	S1B	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 19:18	TH	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/24/23 01:45	PG	EET PEN

Client Sample ID: MW13-ROX-101823

Lab Sample ID: 400-245328-7

Date Collected: 10/18/23 12:20

Matrix: Water

Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 18:41	WPD	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 20:20	S1B	EET PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 19:19	S1B	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/24/23 02:07	PG	EET PEN

Client Sample ID: P114R-ROX-101823

Lab Sample ID: 400-245328-8

Date Collected: 10/18/23 13:30

Matrix: Water

Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 19:00	WPD	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 20:41	S1B	EET PEN
Total/NA	Prep	3520C	RERA		252 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E	RERA	1	0.4 mL	0.4 mL	648674	11/03/23 22:09	S1B	EET PEN

Client Sample ID: P114R-ROX-101823

Lab Sample ID: 400-245328-8

Date Collected: 10/18/23 13:30

Matrix: Water

Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			254.8 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647669	10/28/23 13:07	S1B	EET PEN
Total/NA	Prep	3520C			252 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 19:38	TH	EET PEN
Total/NA	Prep	8011			33.2 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 13:26	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646671/4

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	8260D		1	5 mL	5 mL	646671	10/23/23 12:29	WPD	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646681/1-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 15:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 14:45	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646733/1-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	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 17:38	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646856/1-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 12:23	PG	EET PEN

Lab Chronicle

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

Job ID: 400-245328-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-648382/1-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	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	648674	11/03/23 20:44	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 21:40	TH	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-649254/1-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 16:54	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646671/1001
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	8260D		1	5 mL	5 mL	646671	10/23/23 11:38	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/2-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:05	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/4-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:47	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/6-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:06	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-245328-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646733/2-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	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 17:59	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646856/2-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 12:44	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-648382/2-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	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	648674	11/03/23 21:05	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	649654	11/10/23 22:00	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-649254/2-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 17:15	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/3-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:26	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/5-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 17:09	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/7-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:27	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646733/3-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	646733	10/23/23 12:43	PG	EET PEN
Total/NA	Analysis	8011		1			646644	10/23/23 18:20	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646856/3-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 13:05	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-648382/3-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	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	648674	11/03/23 21:27	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	648382	11/02/23 09:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	649654	11/10/23 22:21	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-649254/3-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 17:35	TH	EET PEN

Client Sample ID: MW27-ROX-101823
Lab Sample ID: 400-245328-4 MS
Date Collected: 10/18/23 09:30
Matrix: Water
Date Received: 10/19/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	646671	10/23/23 15:16	WPD	EET PEN

Lab Chronicle

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

Job ID: 400-245328-1

Client Sample ID: MW27-ROX-101823
Date Collected: 10/18/23 09:30
Date Received: 10/19/23 09:26

Lab Sample ID: 400-245328-4 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	8260D		1	5 mL	5 mL	646671	10/23/23 15:35	WPD	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 646671

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-1	TB-ROX-101823-8260	Total/NA	Water	8260D	
400-245328-3	MW27-ROX-101823-EB	Total/NA	Water	8260D	
400-245328-4	MW27-ROX-101823	Total/NA	Water	8260D	
400-245328-5	MW16-ROX-101823	Total/NA	Water	8260D	
400-245328-6	MW16-ROX-101823-DUP	Total/NA	Water	8260D	
400-245328-7	MW13-ROX-101823	Total/NA	Water	8260D	
400-245328-8	P114R-ROX-101823	Total/NA	Water	8260D	
MB 400-646671/4	Method Blank	Total/NA	Water	8260D	
LCS 400-646671/1001	Lab Control Sample	Total/NA	Water	8260D	
400-245328-4 MS	MW27-ROX-101823	Total/NA	Water	8260D	
400-245328-4 MSD	MW27-ROX-101823	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-3	MW27-ROX-101823-EB	Total/NA	Water	3520C	
400-245328-4	MW27-ROX-101823	Total/NA	Water	3520C	
400-245328-5	MW16-ROX-101823	Total/NA	Water	3520C	
400-245328-6	MW16-ROX-101823-DUP	Total/NA	Water	3520C	
400-245328-7	MW13-ROX-101823	Total/NA	Water	3520C	
400-245328-8	P114R-ROX-101823	Total/NA	Water	3520C	
MB 400-646681/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 647055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-3	MW27-ROX-101823-EB	Total/NA	Water	8270E	646681
400-245328-4	MW27-ROX-101823	Total/NA	Water	8270E	646681
400-245328-5	MW16-ROX-101823	Total/NA	Water	8270E	646681
400-245328-6	MW16-ROX-101823-DUP	Total/NA	Water	8270E	646681
400-245328-7	MW13-ROX-101823	Total/NA	Water	8270E	646681
400-245328-8	P114R-ROX-101823	Total/NA	Water	8270E	646681
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E	646681
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681

Analysis Batch: 647384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-3	MW27-ROX-101823-EB	Total/NA	Water	8270E SIM	646681
400-245328-4	MW27-ROX-101823	Total/NA	Water	8270E SIM	646681
400-245328-5	MW16-ROX-101823	Total/NA	Water	8270E SIM	646681
400-245328-6	MW16-ROX-101823-DUP	Total/NA	Water	8270E SIM	646681
400-245328-7	MW13-ROX-101823	Total/NA	Water	8270E SIM	646681

GC/MS Semi VOA (Continued)

Analysis Batch: 647384 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E SIM	646681
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646681
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646681

Analysis Batch: 647669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-8	P114R-ROX-101823	Total/NA	Water	8270E SIM	646681

Prep Batch: 648382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-8	P114R-ROX-101823	Total/NA	Water	3520C	
400-245328-8 - RERA	P114R-ROX-101823	Total/NA	Water	3520C	
MB 400-648382/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-648382/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-648382/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 648674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-8 - RERA	P114R-ROX-101823	Total/NA	Water	8270E	648382
MB 400-648382/1-A	Method Blank	Total/NA	Water	8270E	648382
LCS 400-648382/2-A	Lab Control Sample	Total/NA	Water	8270E	648382
LCSD 400-648382/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	648382

Prep Batch: 649254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-3	MW27-ROX-101823-EB	Total/NA	Water	3520C	
400-245328-6	MW16-ROX-101823-DUP	Total/NA	Water	3520C	
MB 400-649254/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-649254/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-649254/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 649654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-3	MW27-ROX-101823-EB	Total/NA	Water	8270E SIM	649254
400-245328-6	MW16-ROX-101823-DUP	Total/NA	Water	8270E SIM	649254
400-245328-8	P114R-ROX-101823	Total/NA	Water	8270E SIM	648382
MB 400-648382/1-A	Method Blank	Total/NA	Water	8270E SIM	648382
MB 400-649254/1-A	Method Blank	Total/NA	Water	8270E SIM	649254
LCS 400-648382/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	648382
LCS 400-649254/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	649254
LCSD 400-648382/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	648382
LCSD 400-649254/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	649254

GC Semi VOA

Analysis Batch: 646644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-2	TB-ROX-101823-8011	Total/NA	Water	8011	646733
400-245328-3	MW27-ROX-101823-EB	Total/NA	Water	8011	646733
400-245328-4	MW27-ROX-101823	Total/NA	Water	8011	646733
400-245328-5	MW16-ROX-101823	Total/NA	Water	8011	646733

GC Semi VOA (Continued)

Analysis Batch: 646644 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-6	MW16-ROX-101823-DUP	Total/NA	Water	8011	646733
400-245328-7	MW13-ROX-101823	Total/NA	Water	8011	646733
MB 400-646733/1-A	Method Blank	Total/NA	Water	8011	646733
LCS 400-646733/2-A	Lab Control Sample	Total/NA	Water	8011	646733
LCSD 400-646733/3-A	Lab Control Sample Dup	Total/NA	Water	8011	646733

Prep Batch: 646733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-2	TB-ROX-101823-8011	Total/NA	Water	8011	
400-245328-3	MW27-ROX-101823-EB	Total/NA	Water	8011	
400-245328-4	MW27-ROX-101823	Total/NA	Water	8011	
400-245328-5	MW16-ROX-101823	Total/NA	Water	8011	
400-245328-6	MW16-ROX-101823-DUP	Total/NA	Water	8011	
400-245328-7	MW13-ROX-101823	Total/NA	Water	8011	
MB 400-646733/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-646733/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-646733/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 646856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-8	P114R-ROX-101823	Total/NA	Water	8011	
MB 400-646856/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-646856/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-646856/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 646913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245328-8	P114R-ROX-101823	Total/NA	Water	8011	646856
MB 400-646856/1-A	Method Blank	Total/NA	Water	8011	646856
LCS 400-646856/2-A	Lab Control Sample	Total/NA	Water	8011	646856
LCSD 400-646856/3-A	Lab Control Sample Dup	Total/NA	Water	8011	646856

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-646671/4
Matrix: Water
Analysis Batch: 646671

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			10/23/23 12:29	1
Acrolein	ND		20	3.3	ug/L			10/23/23 12:29	1
Acrylonitrile	ND		10	2.8	ug/L			10/23/23 12:29	1
Benzene	ND		1.0	0.50	ug/L			10/23/23 12:29	1
Bromobenzene	ND		1.0	0.54	ug/L			10/23/23 12:29	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/23/23 12:29	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/23/23 12:29	1
Bromoform	ND		5.0	0.25	ug/L			10/23/23 12:29	1
Bromomethane	ND		1.0	0.98	ug/L			10/23/23 12:29	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/23/23 12:29	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/23/23 12:29	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/23/23 12:29	1
Chlorobenzene	ND		1.0	0.90	ug/L			10/23/23 12:29	1
Chloroethane	ND		1.0	0.76	ug/L			10/23/23 12:29	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/23/23 12:29	1
Chloroform	ND		1.0	0.90	ug/L			10/23/23 12:29	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/23/23 12:29	1
Chloromethane	ND		1.0	0.90	ug/L			10/23/23 12:29	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/23/23 12:29	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/23/23 12:29	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/23/23 12:29	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/23/23 12:29	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/23/23 12:29	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/23/23 12:29	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/23/23 12:29	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/23/23 12:29	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/23/23 12:29	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 12:29	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 12:29	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 12:29	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/23/23 12:29	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/23/23 12:29	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/23/23 12:29	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/23/23 12:29	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/23/23 12:29	1
2-Hexanone	ND		25	1.4	ug/L			10/23/23 12:29	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/23/23 12:29	1
Methylene bromide	ND		5.0	0.22	ug/L			10/23/23 12:29	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/23/23 12:29	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/23/23 12:29	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/23/23 12:29	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/23/23 12:29	1
Naphthalene	ND		5.0	3.0	ug/L			10/23/23 12:29	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/23/23 12:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/23/23 12:29	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/23/23 12:29	1
o-Xylene	ND		5.0	0.60	ug/L			10/23/23 12:29	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/23/23 12:29	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-646671/4
Matrix: Water
Analysis Batch: 646671

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			10/23/23 12:29	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/23/23 12:29	1
Styrene	ND		1.0	1.0	ug/L			10/23/23 12:29	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/23/23 12:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/23/23 12:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/23/23 12:29	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/23/23 12:29	1
Toluene	ND		1.0	0.90	ug/L			10/23/23 12:29	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/23/23 12:29	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/23/23 12:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/23/23 12:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/23/23 12:29	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/23/23 12:29	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/23/23 12:29	1
Trichloroethene	ND		1.0	0.15	ug/L			10/23/23 12:29	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/23/23 12:29	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/23/23 12:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/23/23 12:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/23/23 12:29	1
Vinyl acetate	ND		25	0.93	ug/L			10/23/23 12:29	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/23/23 12:29	1
Xylenes, Total	ND		10	1.6	ug/L			10/23/23 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 130*		*10/23/23 12:29*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/23/23 12:29*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*10/23/23 12:29*	*1*

Lab Sample ID: LCS 400-646671/1001
Matrix: Water
Analysis Batch: 646671

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	100	83.2		ug/L		83	43 - 160
Acrolein	500	397		ug/L		79	38 - 160
Acrylonitrile	250	256		ug/L		102	64 - 142
Benzene	25.0	24.7		ug/L		99	70 - 130
Bromobenzene	25.0	23.1		ug/L		92	70 - 132
Bromochloromethane	25.0	24.2		ug/L		97	70 - 130
Bromodichloromethane	25.0	22.1		ug/L		89	67 - 133
Bromoform	25.0	17.2		ug/L		69	57 - 140
Bromomethane	50.0	40.3		ug/L		81	10 - 160
2-Butanone (MEK)	100	87.0		ug/L		87	61 - 145
Carbon disulfide	25.0	24.0		ug/L		96	61 - 137
Carbon tetrachloride	25.0	21.8		ug/L		87	61 - 137
Chlorobenzene	25.0	24.7		ug/L		99	70 - 130
Chloroethane	50.0	51.2		ug/L		102	55 - 141
2-Chloroethyl vinyl ether	50.0	50.7		ug/L		101	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646671/1001
Matrix: Water
Analysis Batch: 646671

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	25.0	25.4		ug/L		102	69 - 130
1-Chlorohexane	25.0	26.2		ug/L		105	69 - 130
Chloromethane	50.0	48.2		ug/L		96	58 - 137
cis-1,2-Dichloroethene	25.0	25.6		ug/L		103	68 - 130
cis-1,3-Dichloropropene	25.0	22.2		ug/L		89	69 - 132
Dibromochloromethane	25.0	19.3		ug/L		77	67 - 135
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	67 - 130
1,3-Dichlorobenzene	25.0	23.7		ug/L		95	70 - 130
1,4-Dichlorobenzene	25.0	24.1		ug/L		97	70 - 130
Dichlorodifluoromethane	50.0	41.7		ug/L		83	41 - 146
1,1-Dichloroethane	25.0	25.5		ug/L		102	70 - 130
1,2-Dichloroethane	25.0	26.1		ug/L		104	69 - 130
1,1-Dichloroethene	25.0	24.1		ug/L		96	63 - 134
1,2-Dichloropropane	25.0	25.3		ug/L		101	70 - 130
1,3-Dichloropropane	25.0	24.5		ug/L		98	70 - 130
2,2-Dichloropropane	25.0	22.1		ug/L		88	52 - 135
1,1-Dichloropropene	25.0	23.8		ug/L		95	70 - 130
Ethylbenzene	25.0	25.4		ug/L		102	70 - 130
Ethyl methacrylate	25.0	22.8		ug/L		91	68 - 130
Hexachlorobutadiene	25.0	22.0		ug/L		88	53 - 140
2-Hexanone	100	97.5		ug/L		98	65 - 137
Isopropylbenzene	25.0	24.6		ug/L		99	70 - 130
Methylene bromide	25.0	24.3		ug/L		97	70 - 130
Methylene Chloride	25.0	25.9		ug/L		104	66 - 135
4-Methyl-2-pentanone (MIBK)	100	108		ug/L		108	69 - 138
Methyl tert-butyl ether	25.0	24.5		ug/L		98	66 - 130
m-Xylene & p-Xylene	25.0	25.0		ug/L		100	70 - 130
Naphthalene	25.0	22.2		ug/L		89	47 - 149
n-Butylbenzene	25.0	30.0		ug/L		120	67 - 130
N-Propylbenzene	25.0	23.4		ug/L		94	70 - 130
o-Chlorotoluene	25.0	28.3		ug/L		113	70 - 130
o-Xylene	25.0	24.7		ug/L		99	70 - 130
p-Chlorotoluene	25.0	24.6		ug/L		98	70 - 130
p-Isopropyltoluene	25.0	24.2		ug/L		97	65 - 130
sec-Butylbenzene	25.0	24.4		ug/L		98	66 - 130
Styrene	25.0	22.2		ug/L		89	70 - 130
tert-Butylbenzene	25.0	23.8		ug/L		95	64 - 139
1,1,1,2-Tetrachloroethane	25.0	20.7		ug/L		83	67 - 131
1,1,2,2-Tetrachloroethane	25.0	22.7		ug/L		91	70 - 131
Tetrachloroethene	25.0	22.7		ug/L		91	65 - 130
Toluene	25.0	24.0		ug/L		96	70 - 130
trans-1,2-Dichloroethene	25.0	24.6		ug/L		98	70 - 130
trans-1,3-Dichloropropene	25.0	21.6		ug/L		87	63 - 130
1,2,3-Trichlorobenzene	25.0	24.1		ug/L		96	60 - 138
1,2,4-Trichlorobenzene	25.0	23.5		ug/L		94	60 - 140
1,1,1-Trichloroethane	25.0	22.9		ug/L		92	68 - 130
1,1,2-Trichloroethane	25.0	23.9		ug/L		96	70 - 130
Trichloroethene	25.0	23.0		ug/L		92	70 - 130
Trichlorofluoromethane	50.0	44.5		ug/L		89	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-646671/1001
Matrix: Water
Analysis Batch: 646671

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	25.0	22.9		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	25.0	24.2		ug/L		97	70 - 130
1,3,5-Trimethylbenzene	25.0	24.1		ug/L		96	69 - 130
Vinyl acetate	100	111		ug/L		111	26 - 160
Vinyl chloride	50.0	49.4		ug/L		99	59 - 136
Xylenes, Total	50.0	49.7		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 130*
Dibromofluoromethane	*102*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: 400-245328-4 MS
Matrix: Water
Analysis Batch: 646671

Client Sample ID: MW27-ROX-101823
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND	F1	200	550	E F1	ug/L		275	43 - 150
Acrolein	ND		500	493		ug/L		99	38 - 150
Acrylonitrile	ND		500	596		ug/L		119	62 - 149
Benzene	ND		50.0	51.1		ug/L		102	56 - 142
Bromobenzene	ND		50.0	45.0		ug/L		90	59 - 136
Bromochloromethane	ND		50.0	49.2		ug/L		98	64 - 140
Bromodichloromethane	ND		50.0	45.4		ug/L		91	59 - 143
Bromoform	ND		50.0	38.9		ug/L		78	50 - 140
Bromomethane	ND		50.0	57.7		ug/L		115	10 - 150
2-Butanone (MEK)	ND	F1	200	323	F1	ug/L		161	55 - 150
Carbon disulfide	ND		50.0	52.0		ug/L		104	48 - 150
Carbon tetrachloride	ND		50.0	47.8		ug/L		96	55 - 145
Chlorobenzene	ND		50.0	47.6		ug/L		95	64 - 130
Chloroethane	ND		50.0	60.1		ug/L		120	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	52.0		ug/L		104	60 - 141
1-Chlorohexane	ND		50.0	49.1		ug/L		98	56 - 136
Chloromethane	ND		50.0	52.3		ug/L		105	49 - 148
cis-1,2-Dichloroethene	ND		50.0	52.3		ug/L		105	59 - 143
cis-1,3-Dichloropropene	ND		50.0	44.7		ug/L		89	57 - 140
Dibromochloromethane	ND		50.0	42.4		ug/L		85	56 - 143
1,2-Dichlorobenzene	ND		50.0	46.9		ug/L		94	52 - 137
1,3-Dichlorobenzene	ND		50.0	44.8		ug/L		90	54 - 135
1,4-Dichlorobenzene	ND		50.0	45.0		ug/L		90	53 - 135
Dichlorodifluoromethane	ND		50.0	47.2		ug/L		94	16 - 150
1,1-Dichloroethane	ND		50.0	52.5		ug/L		105	61 - 144
1,2-Dichloroethane	ND		50.0	51.4		ug/L		103	60 - 141
1,1-Dichloroethene	ND		50.0	53.8		ug/L		108	54 - 147
1,2-Dichloropropane	ND		50.0	51.6		ug/L		103	66 - 137
1,3-Dichloropropane	ND		50.0	50.4		ug/L		101	66 - 133
2,2-Dichloropropane	ND		50.0	48.4		ug/L		97	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-245328-4 MS
Matrix: Water
Analysis Batch: 646671

Client Sample ID: MW27-ROX-101823
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	52.3		ug/L		105	65 - 136
Ethylbenzene	ND		50.0	48.4		ug/L		97	58 - 131
Ethyl methacrylate	ND		50.0	46.1		ug/L		92	64 - 130
Hexachlorobutadiene	ND		50.0	37.8		ug/L		76	31 - 149
2-Hexanone	ND		200	230		ug/L		115	65 - 140
Isopropylbenzene	ND		50.0	46.4		ug/L		93	56 - 133
Methylene bromide	ND		50.0	50.0		ug/L		100	63 - 138
Methylene Chloride	ND		50.0	54.1		ug/L		108	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	228		ug/L		114	63 - 146
Methyl tert-butyl ether	ND		50.0	47.3		ug/L		95	59 - 137
m-Xylene & p-Xylene	ND		50.0	48.0		ug/L		96	57 - 130
Naphthalene	ND		50.0	46.8		ug/L		94	25 - 150
n-Butylbenzene	ND		50.0	44.4		ug/L		89	41 - 142
N-Propylbenzene	ND		50.0	44.0		ug/L		88	51 - 138
o-Chlorotoluene	ND		50.0	45.9		ug/L		92	53 - 134
o-Xylene	ND		50.0	47.6		ug/L		95	61 - 130
p-Chlorotoluene	ND		50.0	45.7		ug/L		91	54 - 133
p-Isopropyltoluene	ND		50.0	44.1		ug/L		88	48 - 139
sec-Butylbenzene	ND		50.0	45.9		ug/L		92	50 - 138
Styrene	ND		50.0	43.3		ug/L		87	58 - 131
tert-Butylbenzene	ND		50.0	45.1		ug/L		90	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	43.5		ug/L		87	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	50.5		ug/L		101	66 - 135
Tetrachloroethene	ND		50.0	45.3		ug/L		91	52 - 133
Toluene	ND		50.0	48.5		ug/L		97	65 - 130
trans-1,2-Dichloroethene	ND		50.0	51.8		ug/L		104	61 - 143
trans-1,3-Dichloropropene	ND		50.0	45.1		ug/L		90	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	45.1		ug/L		90	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	44.0		ug/L		88	39 - 148
1,1,1-Trichloroethane	ND		50.0	50.2		ug/L		100	57 - 142
1,1,2-Trichloroethane	ND		50.0	50.9		ug/L		102	66 - 131
Trichloroethene	ND		50.0	48.4		ug/L		97	64 - 136
Trichlorofluoromethane	ND		50.0	50.4		ug/L		101	54 - 150
1,2,3-Trichloropropane	ND		50.0	51.7		ug/L		103	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	45.2		ug/L		90	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	46.6		ug/L		93	52 - 135
Vinyl acetate	ND		100	114		ug/L		114	26 - 150
Vinyl chloride	ND		50.0	58.2		ug/L		116	46 - 150
Xylenes, Total	ND		100	95.6		ug/L		96	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 130*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-245328-4 MSD
Matrix: Water
Analysis Batch: 646671

Client Sample ID: MW27-ROX-101823
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	548	E F1	ug/L		274	43 - 150	0	30
Acrolein	ND		500	492		ug/L		98	38 - 150	0	31
Acrylonitrile	ND		500	573		ug/L		115	62 - 149	4	30
Benzene	ND		50.0	47.8		ug/L		96	56 - 142	7	30
Bromobenzene	ND		50.0	43.2		ug/L		86	59 - 136	4	30
Bromochloromethane	ND		50.0	45.6		ug/L		91	64 - 140	8	30
Bromodichloromethane	ND		50.0	43.1		ug/L		86	59 - 143	5	30
Bromoform	ND		50.0	38.1		ug/L		76	50 - 140	2	30
Bromomethane	ND		50.0	43.1		ug/L		86	10 - 150	29	50
2-Butanone (MEK)	ND	F1	200	319	F1	ug/L		159	55 - 150	1	30
Carbon disulfide	ND		50.0	47.1		ug/L		94	48 - 150	10	30
Carbon tetrachloride	ND		50.0	43.9		ug/L		88	55 - 145	9	30
Chlorobenzene	ND		50.0	44.9		ug/L		90	64 - 130	6	30
Chloroethane	ND		50.0	53.5		ug/L		107	50 - 150	12	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	46.8		ug/L		94	60 - 141	11	30
1-Chlorohexane	ND		50.0	43.9		ug/L		88	56 - 136	11	30
Chloromethane	ND		50.0	49.4		ug/L		99	49 - 148	6	31
cis-1,2-Dichloroethene	ND		50.0	48.8		ug/L		98	59 - 143	7	30
cis-1,3-Dichloropropene	ND		50.0	43.0		ug/L		86	57 - 140	4	30
Dibromochloromethane	ND		50.0	41.6		ug/L		83	56 - 143	2	30
1,2-Dichlorobenzene	ND		50.0	43.0		ug/L		86	52 - 137	9	30
1,3-Dichlorobenzene	ND		50.0	40.8		ug/L		82	54 - 135	9	30
1,4-Dichlorobenzene	ND		50.0	41.3		ug/L		83	53 - 135	9	30
Dichlorodifluoromethane	ND		50.0	44.0		ug/L		88	16 - 150	7	31
1,1-Dichloroethane	ND		50.0	48.6		ug/L		97	61 - 144	8	30
1,2-Dichloroethane	ND		50.0	48.7		ug/L		97	60 - 141	5	30
1,1-Dichloroethene	ND		50.0	47.7		ug/L		95	54 - 147	12	30
1,2-Dichloropropane	ND		50.0	49.1		ug/L		98	66 - 137	5	30
1,3-Dichloropropane	ND		50.0	49.3		ug/L		99	66 - 133	2	30
2,2-Dichloropropane	ND		50.0	44.8		ug/L		90	42 - 144	8	31
1,1-Dichloropropene	ND		50.0	49.0		ug/L		98	65 - 136	7	30
Ethylbenzene	ND		50.0	44.2		ug/L		88	58 - 131	9	30
Ethyl methacrylate	ND		50.0	46.3		ug/L		93	64 - 130	0	30
Hexachlorobutadiene	ND		50.0	31.9		ug/L		64	31 - 149	17	36
2-Hexanone	ND		200	241		ug/L		121	65 - 140	5	30
Isopropylbenzene	ND		50.0	42.2		ug/L		84	56 - 133	10	30
Methylene bromide	ND		50.0	47.1		ug/L		94	63 - 138	6	30
Methylene Chloride	ND		50.0	49.7		ug/L		99	60 - 146	8	32
4-Methyl-2-pentanone (MIBK)	ND		200	233		ug/L		117	63 - 146	2	30
Methyl tert-butyl ether	ND		50.0	47.6		ug/L		95	59 - 137	1	30
m-Xylene & p-Xylene	ND		50.0	43.0		ug/L		86	57 - 130	11	30
Naphthalene	ND		50.0	46.5		ug/L		93	25 - 150	1	30
n-Butylbenzene	ND		50.0	39.6		ug/L		79	41 - 142	11	31
N-Propylbenzene	ND		50.0	38.7		ug/L		77	51 - 138	13	30
o-Chlorotoluene	ND		50.0	42.2		ug/L		84	53 - 134	9	30
o-Xylene	ND		50.0	43.3		ug/L		87	61 - 130	9	30
p-Chlorotoluene	ND		50.0	40.9		ug/L		82	54 - 133	11	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-245328-4 MSD
Matrix: Water
Analysis Batch: 646671

Client Sample ID: MW27-ROX-101823
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	38.5		ug/L		77	48 - 139	14	30
sec-Butylbenzene	ND		50.0	40.1		ug/L		80	50 - 138	13	30
Styrene	ND		50.0	40.4		ug/L		81	58 - 131	7	30
tert-Butylbenzene	ND		50.0	40.0		ug/L		80	54 - 146	12	30
1,1,1,2-Tetrachloroethane	ND		50.0	40.4		ug/L		81	59 - 137	7	30
1,1,2,2-Tetrachloroethane	ND		50.0	49.4		ug/L		99	66 - 135	2	30
Tetrachloroethene	ND		50.0	41.5		ug/L		83	52 - 133	9	30
Toluene	ND		50.0	44.8		ug/L		90	65 - 130	8	30
trans-1,2-Dichloroethene	ND		50.0	47.2		ug/L		94	61 - 143	9	30
trans-1,3-Dichloropropene	ND		50.0	43.6		ug/L		87	53 - 133	3	30
1,2,3-Trichlorobenzene	ND		50.0	42.4		ug/L		85	43 - 145	6	30
1,2,4-Trichlorobenzene	ND		50.0	40.5		ug/L		81	39 - 148	8	30
1,1,1-Trichloroethane	ND		50.0	46.2		ug/L		92	57 - 142	8	30
1,1,2-Trichloroethane	ND		50.0	49.0		ug/L		98	66 - 131	4	30
Trichloroethene	ND		50.0	45.5		ug/L		91	64 - 136	6	30
Trichlorofluoromethane	ND		50.0	45.8		ug/L		92	54 - 150	10	30
1,2,3-Trichloropropane	ND		50.0	50.1		ug/L		100	65 - 133	3	30
1,2,4-Trimethylbenzene	ND		50.0	41.0		ug/L		82	50 - 139	10	30
1,3,5-Trimethylbenzene	ND		50.0	40.9		ug/L		82	52 - 135	13	30
Vinyl acetate	ND		100	119		ug/L		119	26 - 150	5	33
Vinyl chloride	ND		50.0	53.8		ug/L		108	46 - 150	8	30
Xylenes, Total	ND		100	86.4		ug/L		86	59 - 130	10	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 130*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzenethiol	ND		10	1.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzoic acid	ND		30	7.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzyl alcohol	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/23/23 11:01	10/25/23 15:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloroaniline	ND		10	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chlorophenol	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenzofuran	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Diethyl phthalate	ND		10	0.24	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
1,4-Dioxane	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachloroethane	ND		10	4.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Indene	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Isophorone	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Methylphenol	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitroaniline	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
3-Nitroaniline	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitroaniline	ND		10	1.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Nitrobenzene	ND		10	0.13	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitrophenol	ND		10	5.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitrophenol	ND		10	2.1	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pentachlorophenol	ND		20	1.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
Phenol	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pyridine	ND		10	3.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Quinoline	ND		10	4.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
2-Fluorophenol	*8*	*S1-*	*13 - 113*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Phenol-d5	*37*		*17 - 127*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Terphenyl-d14	*94*		*44 - 149*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
2,4,6-Tribromophenol	*55*		*26 - 150*	*10/23/23 11:01*	*10/25/23 15:43*	*1*

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

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	80.0		ug/L		67	21 - 120
Benzoic acid	522	29.7	J *-	ug/L		6	10 - 144
Benzyl alcohol	120	89.4		ug/L		75	28 - 120
Bis(2-chloroethoxy)methane	120	81.3		ug/L		68	47 - 120
Bis(2-chloroethyl)ether	120	82.0		ug/L		68	44 - 120
bis (2-chloroisopropyl) ether	120	78.6		ug/L		66	33 - 121
Bis(2-ethylhexyl) phthalate	120	94.6		ug/L		79	52 - 147
4-Bromophenyl phenyl ether	120	99.6		ug/L		83	54 - 122
Butyl benzyl phthalate	120	101		ug/L		84	54 - 133
4-Chloroaniline	120	64.4		ug/L		54	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131
2-Chloronaphthalene	120	92.6		ug/L		77	52 - 121
2-Chlorophenol	120	75.0		ug/L		63	40 - 120
4-Chlorophenyl phenyl ether	120	104		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	103		ug/L		86	31 - 150
Dibenzofuran	120	101		ug/L		84	56 - 122
3,3'-Dichlorobenzidine	160	142		ug/L		89	36 - 132
2,4-Dichlorophenol	120	96.5		ug/L		80	49 - 120
Diethyl phthalate	120	105		ug/L		88	50 - 137
2,4-Dimethylphenol	120	97.5		ug/L		81	48 - 120
Dimethyl phthalate	120	97.6		ug/L		81	57 - 124
Di-n-butyl phthalate	120	114		ug/L		95	58 - 126
4,6-Dinitro-ortho-cresol	240	155		ug/L		65	23 - 148
2,4-Dinitrophenol	240	111		ug/L		46	10 - 150
2,4-Dinitrotoluene	120	106		ug/L		88	54 - 142
2,6-Dinitrotoluene	120	103		ug/L		86	55 - 130
Di-n-octyl phthalate	120	91.9		ug/L		77	57 - 138
1,4-Dioxane	120	54.7		ug/L		46	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	81.5		ug/L		68	45 - 124
Hexachlorobenzene	120	108		ug/L		90	52 - 129
Hexachlorocyclopentadiene	120	63.8		ug/L		53	10 - 134
Hexachloroethane	120	81.9		ug/L		68	20 - 120
Indene	120	95.3		ug/L		79	49 - 120
Isophorone	120	82.9		ug/L		69	48 - 120
2-Methylphenol	120	89.7		ug/L		75	46 - 124
3 & 4 Methylphenol	120	88.5		ug/L		74	45 - 120
2-Nitroaniline	120	91.0		ug/L		76	51 - 145
3-Nitroaniline	120	82.4		ug/L		69	37 - 127
4-Nitroaniline	120	80.4		ug/L		67	36 - 137
Nitrobenzene	120	82.9		ug/L		69	45 - 120
2-Nitrophenol	120	98.4		ug/L		82	40 - 124
4-Nitrophenol	240	189		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	81.7		ug/L		68	29 - 137
N-Nitrosodi-n-propylamine	120	86.4		ug/L		72	45 - 120
N-Nitrosodiphenylamine	119	89.7		ug/L		75	54 - 120
Pentachlorophenol	240	174		ug/L		73	31 - 130
Phenol	120	76.3		ug/L		64	11 - 120
Pyridine	240	128		ug/L		53	16 - 120

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

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	98.7		ug/L		82	49 - 130		
2,4,5-Trichlorophenol			120	106		ug/L		88	51 - 136		
2,4,6-Trichlorophenol			120	99.0		ug/L		82	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*101*		*26 - 150*

Lab Sample ID: LCS 400-646681/4-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.42	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*50*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	84.3		ug/L		70	21 - 120	5	30
Benzoic acid			522	26.3	J *-	ug/L		5	10 - 144	12	30
Benzyl alcohol			120	88.5		ug/L		74	28 - 120	1	30
Bis(2-chloroethoxy)methane			120	81.3		ug/L		68	47 - 120	0	30
Bis(2-chloroethyl)ether			120	78.5		ug/L		65	44 - 120	4	30
bis (2-chloroisopropyl) ether			120	77.0		ug/L		64	33 - 121	2	30
Bis(2-ethylhexyl) phthalate			120	95.4		ug/L		80	52 - 147	1	30
4-Bromophenyl phenyl ether			120	99.5		ug/L		83	54 - 122	0	30
Butyl benzyl phthalate			120	102		ug/L		85	54 - 133	1	30
4-Chloroaniline			120	86.8		ug/L		72	26 - 120	30	30
4-Chloro-3-methylphenol			120	99.5		ug/L		83	48 - 131	1	30
2-Chloronaphthalene			120	93.0		ug/L		77	52 - 121	0	30
2-Chlorophenol			120	57.9		ug/L		48	40 - 120	26	30
4-Chlorophenyl phenyl ether			120	104		ug/L		87	56 - 125	1	30
Dibenz[a,h]acridine			120	103		ug/L		86	31 - 150	0	30
Dibenzofuran			120	101		ug/L		84	56 - 122	0	30

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

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine			160	143		ug/L		89	36 - 132	1	30
2,4-Dichlorophenol			120	89.5		ug/L		75	49 - 120	8	30
Diethyl phthalate			120	106		ug/L		88	50 - 137	1	30
2,4-Dimethylphenol			120	97.1		ug/L		81	48 - 120	0	30
Dimethyl phthalate			120	98.5		ug/L		82	57 - 124	1	30
Di-n-butyl phthalate			120	115		ug/L		96	58 - 126	1	30
4,6-Dinitro-ortho-cresol			240	100	*1	ug/L		42	23 - 148	43	30
2,4-Dinitrophenol			240	44.4	*1	ug/L		19	10 - 150	85	30
2,4-Dinitrotoluene			120	108		ug/L		90	54 - 142	2	30
2,6-Dinitrotoluene			120	104		ug/L		87	55 - 130	1	30
Di-n-octyl phthalate			120	92.6		ug/L		77	57 - 138	1	30
1,4-Dioxane			120	50.3		ug/L		42	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)			120	81.2		ug/L		68	45 - 124	0	30
Hexachlorobenzene			120	107		ug/L		89	52 - 129	1	30
Hexachlorocyclopentadiene			120	61.1		ug/L		51	10 - 134	4	30
Hexachloroethane			120	77.4		ug/L		65	20 - 120	6	30
Indene			120	93.0		ug/L		77	49 - 120	3	30
Isophorone			120	83.6		ug/L		70	48 - 120	1	30
2-Methylphenol			120	85.2		ug/L		71	46 - 124	5	30
3 & 4 Methylphenol			120	85.2		ug/L		71	45 - 120	4	30
2-Nitroaniline			120	92.8		ug/L		77	51 - 145	2	30
3-Nitroaniline			120	86.1		ug/L		72	37 - 127	4	30
4-Nitroaniline			120	98.7		ug/L		82	36 - 137	20	30
Nitrobenzene			120	82.7		ug/L		69	45 - 120	0	30
2-Nitrophenol			120	94.9		ug/L		79	40 - 124	4	30
4-Nitrophenol			240	193		ug/L		80	23 - 146	2	30
N-Nitrosodimethylamine			120	79.7		ug/L		66	29 - 137	2	30
N-Nitrosodi-n-propylamine			120	84.3		ug/L		70	45 - 120	3	30
N-Nitrosodiphenylamine			119	89.7		ug/L		75	54 - 120	0	30
Pentachlorophenol			240	119	*1	ug/L		49	31 - 130	38	30
Phenol			120	65.0		ug/L		54	11 - 120	16	30
Pyridine			240	128		ug/L		54	16 - 120	1	30
Quinoline			120	99.0		ug/L		83	49 - 130	0	30
2,4,5-Trichlorophenol			120	105		ug/L		88	51 - 136	1	30
2,4,6-Trichlorophenol			120	96.7		ug/L		81	50 - 127	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*19*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*100*		*26 - 150*

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

Lab Sample ID: LCSD 400-646681/5-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.32	J *- *1	ug/L		2	10 - 120	38	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*51*		*26 - 150*

Lab Sample ID: MB 400-648382/1-A
Matrix: Water
Analysis Batch: 648674

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 648382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/02/23 09:54	11/03/23 20:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*11/02/23 09:54*	*11/03/23 20:44*	*1*
Nitrobenzene-d5	*59*		*36 - 126*	*11/02/23 09:54*	*11/03/23 20:44*	*1*
Terphenyl-d14	*81*		*44 - 149*	*11/02/23 09:54*	*11/03/23 20:44*	*1*

Lab Sample ID: LCS 400-648382/2-A
Matrix: Water
Analysis Batch: 648674

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bis(2-ethylhexyl) phthalate			120	86.6		ug/L		72	52 - 147		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*71*		*46 - 124*
Nitrobenzene-d5	*72*		*36 - 126*
Terphenyl-d14	*80*		*44 - 149*

Lab Sample ID: LCSD 400-648382/3-A
Matrix: Water
Analysis Batch: 648674

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			120	82.9		ug/L		69	52 - 147	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*69*		*46 - 124*
Nitrobenzene-d5	*71*		*36 - 126*
Terphenyl-d14	*75*		*44 - 149*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/23/23 11:01	10/26/23 14:45	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/23/23 11:01	10/26/23 14:45	1
Anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]anthracene	0.0553	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/23/23 11:01	10/26/23 14:45	1
Chrysene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 14:45	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluoranthene	0.0635	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluorene	ND		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 14:45	1
Indeno[1,2,3-cd]pyrene	0.0365	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Phenanthrene	ND		0.20	0.090	ug/L		10/23/23 11:01	10/26/23 14:45	1
Pyrene	ND		0.20	0.039	ug/L		10/23/23 11:01	10/26/23 14:45	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/23/23 11:01	10/26/23 14:45	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/23/23 11:01	10/26/23 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*18 - 147*	*10/23/23 11:01*	*10/26/23 14:45*	*1*
2-Fluorobiphenyl	*56*		*15 - 128*	*10/23/23 11:01*	*10/26/23 14:45*	*1*
Nitrobenzene-d5	*50*		*10 - 144*	*10/23/23 11:01*	*10/26/23 14:45*	*1*

Lab Sample ID: LCS 400-646681/6-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.79		ug/L		90	40 - 140
Acenaphthylene	2.00	1.81		ug/L		90	40 - 140
Anthracene	2.00	1.80		ug/L		90	40 - 140
Benzo[a]anthracene	2.00	1.81		ug/L		91	40 - 140
Benzo[a]pyrene	2.00	1.47		ug/L		74	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		77	40 - 140
Benzo[g,h,i]perylene	2.00	1.70		ug/L		85	40 - 140
Benzo[k]fluoranthene	2.00	1.52		ug/L		76	40 - 140
Chrysene	2.00	1.85		ug/L		93	40 - 140
Dibenz(a,h)anthracene	2.00	1.55		ug/L		78	40 - 140
Fluoranthene	2.00	1.84		ug/L		92	40 - 140
Fluorene	2.00	1.84		ug/L		92	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.60		ug/L		80	40 - 140
Phenanthrene	2.00	1.75		ug/L		88	40 - 140
Pyrene	2.00	1.85		ug/L		93	40 - 140
1-Methylnaphthalene	2.00	1.83		ug/L		92	40 - 140
2-Methylnaphthalene	2.00	1.80		ug/L		90	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*76*		*18 - 147*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-646681/6-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	70		15 - 128
Nitrobenzene-d5	57		10 - 144

Lab Sample ID: LCSD 400-646681/7-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.93		ug/L		97	40 - 140	7	40
Acenaphthylene			2.00	1.95		ug/L		97	40 - 140	8	40
Anthracene			2.00	1.94		ug/L		97	40 - 140	8	40
Benzo[a]anthracene			2.00	1.97		ug/L		98	40 - 140	8	40
Benzo[a]pyrene			2.00	1.61		ug/L		80	40 - 140	9	40
Benzo[b]fluoranthene			2.00	1.65		ug/L		82	40 - 140	6	40
Benzo[g,h,i]perylene			2.00	1.77		ug/L		88	40 - 140	4	40
Benzo[k]fluoranthene			2.00	1.62		ug/L		81	40 - 140	6	40
Chrysene			2.00	1.94		ug/L		97	40 - 140	5	40
Dibenz(a,h)anthracene			2.00	1.59		ug/L		80	40 - 140	3	40
Fluoranthene			2.00	2.02		ug/L		101	40 - 140	9	40
Fluorene			2.00	2.01		ug/L		100	40 - 140	9	40
Indeno[1,2,3-cd]pyrene			2.00	1.67		ug/L		84	40 - 140	4	40
Phenanthrene			2.00	1.88		ug/L		94	40 - 140	7	40
Pyrene			2.00	1.93		ug/L		96	40 - 140	4	40
1-Methylnaphthalene			2.00	1.98		ug/L		99	40 - 140	7	40
2-Methylnaphthalene			2.00	1.93		ug/L		96	40 - 140	7	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Terphenyl-d14	79		18 - 147
2-Fluorobiphenyl	75		15 - 128
Nitrobenzene-d5	61		10 - 144

Lab Sample ID: MB 400-648382/1-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 648382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		11/02/23 09:54	11/10/23 21:40	1
Acenaphthylene	ND		0.20	0.044	ug/L		11/02/23 09:54	11/10/23 21:40	1
Anthracene	ND		0.20	0.047	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		11/02/23 09:54	11/10/23 21:40	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		11/02/23 09:54	11/10/23 21:40	1
Chrysene	ND		0.20	0.033	ug/L		11/02/23 09:54	11/10/23 21:40	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		11/02/23 09:54	11/10/23 21:40	1
Fluoranthene	0.0375	J	0.20	0.034	ug/L		11/02/23 09:54	11/10/23 21:40	1
Fluorene	ND		0.20	0.089	ug/L		11/02/23 09:54	11/10/23 21:40	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-648382/1-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 648382

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		11/02/23 09:54	11/10/23 21:40	1
Phenanthrene	ND		0.20	0.090	ug/L		11/02/23 09:54	11/10/23 21:40	1
Pyrene	ND		0.20	0.039	ug/L		11/02/23 09:54	11/10/23 21:40	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		11/02/23 09:54	11/10/23 21:40	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		11/02/23 09:54	11/10/23 21:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*76*		*18 - 147*	*11/02/23 09:54*	*11/10/23 21:40*	*1*
2-Fluorobiphenyl	*80*		*15 - 128*	*11/02/23 09:54*	*11/10/23 21:40*	*1*
Nitrobenzene-d5	*72*		*10 - 144*	*11/02/23 09:54*	*11/10/23 21:40*	*1*

Lab Sample ID: LCS 400-648382/2-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			120	112		ug/L		93	40 - 140		
Acenaphthylene			120	115		ug/L		96	40 - 140		
Anthracene			120	110		ug/L		92	40 - 140		
Benzo[a]anthracene			120	114		ug/L		95	40 - 140		
Benzo[a]pyrene			120	104		ug/L		87	40 - 140		
Benzo[b]fluoranthene			120	103		ug/L		86	40 - 140		
Benzo[g,h,i]perylene			120	95.0		ug/L		79	40 - 140		
Benzo[k]fluoranthene			120	110		ug/L		92	40 - 140		
Chrysene			120	107		ug/L		89	40 - 140		
Dibenz(a,h)anthracene			120	94.8		ug/L		79	40 - 140		
Fluoranthene			120	115		ug/L		96	40 - 140		
Fluorene			120	115		ug/L		96	40 - 140		
Indeno[1,2,3-cd]pyrene			120	97.7		ug/L		81	40 - 140		
Phenanthrene			120	110		ug/L		91	40 - 140		
Pyrene			120	107		ug/L		89	40 - 140		
1-Methylnaphthalene			120	106		ug/L		88	40 - 140		
2-Methylnaphthalene			120	106		ug/L		88	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*71*		*18 - 147*
2-Fluorobiphenyl	*85*		*15 - 128*
Nitrobenzene-d5	*88*		*10 - 144*

Lab Sample ID: LCSD 400-648382/3-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			120	112		ug/L		93	40 - 140	0	40
Acenaphthylene			120	115		ug/L		96	40 - 140	0	40
Anthracene			120	114		ug/L		95	40 - 140	4	40
Benzo[a]anthracene			120	116		ug/L		97	40 - 140	2	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-648382/3-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 648382

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[a]pyrene			120	106		ug/L		88	40 - 140	1	40
Benzo[b]fluoranthene			120	104		ug/L		87	40 - 140	1	40
Benzo[g,h,i]perylene			120	93.9		ug/L		78	40 - 140	1	40
Benzo[k]fluoranthene			120	109		ug/L		91	40 - 140	1	40
Chrysene			120	108		ug/L		90	40 - 140	1	40
Dibenz(a,h)anthracene			120	97.4		ug/L		81	40 - 140	3	40
Fluoranthene			120	118		ug/L		99	40 - 140	3	40
Fluorene			120	114		ug/L		95	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			120	96.5		ug/L		80	40 - 140	1	40
Phenanthrene			120	113		ug/L		94	40 - 140	3	40
Pyrene			120	108		ug/L		90	40 - 140	1	40
1-Methylnaphthalene			120	107		ug/L		89	40 - 140	1	40
2-Methylnaphthalene			120	108		ug/L		90	40 - 140	2	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*70*		*18 - 147*
2-Fluorobiphenyl	*84*		*15 - 128*
Nitrobenzene-d5	*90*		*10 - 144*

Lab Sample ID: MB 400-649254/1-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		11/08/23 13:07	11/10/23 16:54	1
Acenaphthylene	ND		0.20	0.044	ug/L		11/08/23 13:07	11/10/23 16:54	1
Anthracene	ND		0.20	0.047	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		11/08/23 13:07	11/10/23 16:54	1
Chrysene	ND		0.20	0.033	ug/L		11/08/23 13:07	11/10/23 16:54	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		11/08/23 13:07	11/10/23 16:54	1
Fluoranthene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Fluorene	ND		0.20	0.089	ug/L		11/08/23 13:07	11/10/23 16:54	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Phenanthrene	ND		0.20	0.090	ug/L		11/08/23 13:07	11/10/23 16:54	1
Pyrene	ND		0.20	0.039	ug/L		11/08/23 13:07	11/10/23 16:54	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		11/08/23 13:07	11/10/23 16:54	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		11/08/23 13:07	11/10/23 16:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*74*		*18 - 147*	*11/08/23 13:07*	*11/10/23 16:54*	*1*
2-Fluorobiphenyl	*69*		*15 - 128*	*11/08/23 13:07*	*11/10/23 16:54*	*1*
Nitrobenzene-d5	*65*		*10 - 144*	*11/08/23 13:07*	*11/10/23 16:54*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-649254/2-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649254

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			4.00	2.78		ug/L		70	40 - 140		
Acenaphthylene			4.00	2.82		ug/L		71	40 - 140		
Anthracene			4.00	2.75		ug/L		69	40 - 140		
Benzo[a]anthracene			4.00	2.88		ug/L		72	40 - 140		
Benzo[a]pyrene			4.00	2.68		ug/L		67	40 - 140		
Benzo[b]fluoranthene			4.00	2.81		ug/L		70	40 - 140		
Benzo[g,h,i]perylene			4.00	2.69		ug/L		67	40 - 140		
Benzo[k]fluoranthene			4.00	2.94		ug/L		73	40 - 140		
Chrysene			4.00	2.89		ug/L		72	40 - 140		
Dibenz(a,h)anthracene			4.00	2.19		ug/L		55	40 - 140		
Fluoranthene			4.00	2.80		ug/L		70	40 - 140		
Fluorene			4.00	2.84		ug/L		71	40 - 140		
Indeno[1,2,3-cd]pyrene			4.00	2.45		ug/L		61	40 - 140		
Phenanthrene			4.00	2.81		ug/L		70	40 - 140		
Pyrene			4.00	3.08		ug/L		77	40 - 140		
1-Methylnaphthalene			4.00	2.64		ug/L		66	40 - 140		
2-Methylnaphthalene			4.00	2.62		ug/L		65	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*58*		*18 - 147*
2-Fluorobiphenyl	*59*		*15 - 128*
Nitrobenzene-d5	*53*		*10 - 144*

Lab Sample ID: LCSD 400-649254/3-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 649254

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			4.00	2.84		ug/L		71	40 - 140	2	40
Acenaphthylene			4.00	2.89		ug/L		72	40 - 140	2	40
Anthracene			4.00	2.69		ug/L		67	40 - 140	2	40
Benzo[a]anthracene			4.00	3.00		ug/L		75	40 - 140	4	40
Benzo[a]pyrene			4.00	2.68		ug/L		67	40 - 140	0	40
Benzo[b]fluoranthene			4.00	2.82		ug/L		70	40 - 140	0	40
Benzo[g,h,i]perylene			4.00	2.77		ug/L		69	40 - 140	3	40
Benzo[k]fluoranthene			4.00	2.90		ug/L		72	40 - 140	1	40
Chrysene			4.00	2.89		ug/L		72	40 - 140	0	40
Dibenz(a,h)anthracene			4.00	2.55		ug/L		64	40 - 140	15	40
Fluoranthene			4.00	2.93		ug/L		73	40 - 140	5	40
Fluorene			4.00	2.86		ug/L		71	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			4.00	2.71		ug/L		68	40 - 140	10	40
Phenanthrene			4.00	2.80		ug/L		70	40 - 140	0	40
Pyrene			4.00	3.03		ug/L		76	40 - 140	2	40
1-Methylnaphthalene			4.00	2.73		ug/L		68	40 - 140	3	40
2-Methylnaphthalene			4.00	2.69		ug/L		67	40 - 140	3	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*58*		*18 - 147*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-649254/3-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 649254

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*60*		*15 - 128*
Nitrobenzene-d5	*56*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-646733/1-A
Matrix: Water
Analysis Batch: 646644

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646733

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/23/23 12:43	10/23/23 17:38	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/23/23 12:43	10/23/23 17:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*10/23/23 12:43*	*10/23/23 17:38*	*1*

Lab Sample ID: LCS 400-646733/2-A
Matrix: Water
Analysis Batch: 646644

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646733

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.0993		ug/L		99	60 - 140		
1,2-Dibromoethane			0.101	0.100		ug/L		100	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*51 - 149*

Lab Sample ID: LCSD 400-646733/3-A
Matrix: Water
Analysis Batch: 646644

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646733

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.0992		ug/L		99	60 - 140	0	30
1,2-Dibromoethane			0.101	0.104		ug/L		103	60 - 140	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*51 - 149*

Lab Sample ID: MB 400-646856/1-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646856

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 12:23	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 12:23	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-646856/1-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646856

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		51 - 149	10/24/23 07:31	10/24/23 12:23	1

Lab Sample ID: LCS 400-646856/2-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646856

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.0990		ug/L		98	60 - 140		
1,2-Dibromoethane			0.101	0.103		ug/L		102	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		51 - 149

Lab Sample ID: LCSD 400-646856/3-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.104		ug/L		103	60 - 140	5	30
1,2-Dibromoethane			0.101	0.105		ug/L		104	60 - 140	1	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	107		51 - 149

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____ 400-245328 COC

☐ 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: 10/18/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 0.5 4.3 IR8

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 8270 SIMS
	TB-ROX-101823-8260	10/18/2023	0000	Water	2					2	X			
	TB-ROX-101823-8011	10/18/2023	0000	Water	2					2		X		
	MW27-ROX-101823-EB	10/18/2023	0830	Water	6			2		8	X	X	X	X
	MW27-ROX-101823	10/18/2023	0930	Water	6			2		8	X	X	X	X
	MW16-ROX-101823	10/18/2023	1020	Water	6			2		8	X	X	X	X
	MW16-ROX-101823-DUP	10/18/2023	1020	Water	6			2		8	X	X	X	X
	MW13-ROX-101823	10/18/2023	1220	Water	6			2		8	X	X	X	X
	P114R-ROX-101823	10/18/2023	1330	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date	Time:
MARY MASSA	FEDEX: 6339 6595 3204, 6339 6595 3215	10/18/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 10.19.23	Time: 9:26
Relinquished by: (Signature)	Received by: (Signature)	Date	Time:

Version: 27Sept23

CUSTODY SEALS: 2364872, 2364873, 2364874, 2364875

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11/13/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-245328-1

Login Number: 245328 **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	0.5°C, 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: 400-245328-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245330-1-Rev.2

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/18/2023

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

Sample Identification	Sample Identification
TB-ROX-101823-8260-SS	P93A-ROX-101823
TB-ROX-101823-8011-SS	P59-ROX-101823
P56-ROX-101823	--

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 VOCs were re-analyzed outside extraction time criteria in sample P93A-ROX-101823. PAHs were detected in one method blank. Several VOC and SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. The continuing calibration verifications (CCV) for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on November 09, 2023, to include 8260 tetrachloroethene results. The laboratory report was revised on December 27, 2023 to include missing QC that had inadvertently been omitted by the laboratory.

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?

No, VOC in sample P93A-ROX-101823 was re-analyzed 5 days outside of extraction time criteria (14 days) due to contamination of the initial analysis; the reanalyzed results were non-detect. Holding time exceedances were not greater than two times (2X) criteria; both sets of data are reported. Based on professional judgement, the results from the re-analysis were used for the purposes of this report. Data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93A-ROX-101823-Run #2	VOCs	Tetrachloroethene	**UJ**

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 400-646681/1-A	PAHs	Benzo[a]anthracene	0.0553 µg/L
MB 400-646681/1-A	PAHs	Fluoranthene	0.0635 µg/L
MB 400-646681/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0365 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, or previously qualified did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P93A-ROX-101823	PAHs	Benzo[a]anthracene	-	**U**
P93A-ROX-101823	PAHs	Fluoranthene	-	**U**
P59-ROX-101823	PAHs	Benzo[a]anthracene	-	**U**
P59-ROX-101823	PAHs	Fluoranthene	-	**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 400-648138/1002	VOCs	Hexachlorobutadiene	**149**	NA	53-140
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Benzoic acid	**6/5**	12	10-144/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	4,6-Dinitro-ortho-cresol	65/42	**43**	23-148/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	2,4-Dinitrophenol	46/19	**85**	10-150/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Pentachlorophenol	73/49	**38**	31-130/30
LCS/LCSD 400-646681/4-A/5-A	SVOCs	Benzenethiol	**3/2**	**38**	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/LCSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol and benzoic acid below evaluation criteria; benzenethiol and benzoic acid have been identified as poor performing analytes under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P56-ROX-101823	SVOCs	Benzoic acid	**UJ**
P56-ROX-101823	SVOCs	Benzenethiol	**UJ**
P93A-ROX-101823	SVOCs	Benzoic acid	**UJ**
P93A-ROX-101823	SVOCs	Benzenethiol	**UJ**
P59-ROX-101823	SVOCs	Benzoic acid	**UJ**
P59-ROX-101823	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P56-ROX-101823	SVOCs	2-Fluorophenol	**5**	13-113
P59-ROX-101823	SVOCs	2-Fluorophenol	**9**	13-113
MB 400-646681/1-A	SVOCs	2-Fluorophenol	**8**	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. 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 verifications (CCV) for multiple analytes were outside evaluation criteria, biased low. Benzenethiol in samples P56-ROX-101823, P93A-ROX-

1018213, and P59-ROX-101823 was previously qualified in Section 5.0 of this data review due to LCS/LCSD outside evaluation criteria; no further qualification is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P56-ROX-101823	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93A-ROX-101823	SVOCs	Hexachlorocyclopentadiene	**UJ**
P59-ROX-101823	SVOCs	Hexachlorocyclopentadiene	**UJ**
P56-ROX-101823	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
P93A-ROX-101823	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
P59-ROX-101823	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
P56-ROX-101823	SVOCs	Aniline	**UJ**
P93A-ROX-101823	SVOCs	Aniline	**UJ**
P59-ROX-101823	SVOCs	Aniline	**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 12/27/2023 11:47:19 AM Revision 2

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245330-1

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

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Job ID: 400-245330-1 Eurofins Pensacola

Job Narrative
400-245330-1

REVISION
Report revised to include missing QC.
Supersedes report dated 12-12-2023.

Report revised to add re-analysis results for P93A-ROX-101823 (400-245330-4) for tetrachloroethene. For P59-ROX-101823 (400-245330-5), the PCP data was reviewed and the result appeared to be calculated correctly, however, based on historical data, it is likely a false positive. Re-extraction and analysis at this time would not be considered reliable.
Supersedes report dated 11-9-2023.

The report being provided is a revision of the original report sent on 11/9/2023. The report (revision 1) is being revised due to report revised to confirm 8260 pce & tce.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/20/2023 9:26 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 0.5°C and 4.3°C

GC/MS VOA
Method 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: P59-ROX-101823 (400-245330-5). Elevated reporting limits (RLs) are provided.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-648138 recovered above the upper control limit for 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1-Chlorohexane, Bromoform and Hexachlorobutadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: 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-101823-8260-SS (400-245330-1), P56-ROX-101823 (400-245330-3), P93A-ROX-101823 (400-245330-4) and P59-ROX-101823 (400-245330-5). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260D: The laboratory control sample (LCS) for analytical batch 400-648138 recovered outside control limits for the following analyte: Hexachlorobutadiene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-633903 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 8260D: Reanalysis of the following sample(s) was performed outside of the analytical holding time due to contamination of Carbon tetrachloride, Chloroform, tert-Butylbenzene, Tetrachloroethene and Trichloroethene in the initial analysis. : P93A-ROX-101823 (400-245330-4).

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-648851 recovered outside acceptance criteria, low biased, for Carbon tetrachloride. 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 8260D: Sample P93A-ROX-101823 (400-245330-4) contained low levels of Carbon tetrachloride, Chloroform, Tetrachloroethene, tert-Butylbenzene and Trichloroethene which are suspected to be a result of cross contamination. Reanalysis was performed outside of holding time. The original analysis is reported as primary and the reanalysis is reported as secondary for these analytes.

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

GC/MS Semi VOA
Method 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analyte(s): Benzoic acid. Benzoic acid 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: 2,4-Dinitrophenol, 4,6-Dinitro-ortho-cresol and Pentachlorophenol.

Method 8270E: 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 400-646681/1-A). These results have been reported and qualified.

Method 8270E: 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: P56-ROX-101823 (400-245330-3) and P59-ROX-101823 (400-245330-5). These results have been reported and qualified.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-647241 recovered outside acceptance criteria, low biased, for Benzenethiol. 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 8270E: The continuing calibration verification (CCV) associated with batch 400-647241 recovered outside acceptance criteria, low biased, for Aniline, Hexachlorocyclopentadiene and 1,2-Diphenylhydrazine (as Azobenzene). 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.

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

GC Semi VOA
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: 400-245330-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245330-1	TB-ROX-101823-8260-SS	Water	10/18/23 12:00	10/20/23 09:26
400-245330-2	TB-ROX-101823-8011-SS	Water	10/18/23 12:00	10/20/23 09:26
400-245330-3	P56-ROX-101823	Water	10/18/23 11:15	10/20/23 09:26
400-245330-4	P93A-ROX-101823	Water	10/18/23 12:05	10/20/23 09:26
400-245330-5	P59-ROX-101823	Water	10/18/23 13:00	10/20/23 09:26

Detection Summary

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

Job ID: 400-245330-1

Client Sample ID: TB-ROX-101823-8260-SS — Lab Sample ID: 400-245330-1

No Detections.

Client Sample ID: TB-ROX-101823-8011-SS — Lab Sample ID: 400-245330-2

No Detections.

Client Sample ID: P56-ROX-101823 — Lab Sample ID: 400-245330-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.59	J	1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	11		1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	1.5	J	5.0	0.63	ug/L	1		8260D	Total/NA
N-Propylbenzene	14		1.0	0.69	ug/L	1		8260D	Total/NA
p-Isopropyltoluene	0.75	J	1.0	0.71	ug/L	1		8260D	Total/NA
sec-Butylbenzene	2.5		1.0	0.70	ug/L	1		8260D	Total/NA
Acenaphthene	0.43		0.21	0.10	ug/L	1		8270E SIM	Total/NA
Anthracene	0.072	J	0.21	0.049	ug/L	1		8270E SIM	Total/NA
Fluorene	0.23		0.21	0.093	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.36		0.21	0.094	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	3.2		0.21	0.083	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.7		0.21	0.069	ug/L	1		8270E SIM	Total/NA
Dibenzofuran	0.25	J	10	0.18	ug/L	1		8270E	Total/NA

Client Sample ID: P93A-ROX-101823 — Lab Sample ID: 400-245330-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	1.2		1.0	0.19	ug/L	1		8260D	Total/NA
Chloroform	3.0		1.0	0.90	ug/L	1		8260D	Total/NA
tert-Butylbenzene	0.70	J	1.0	0.63	ug/L	1		8260D	Total/NA
Tetrachloroethene	6.5		1.0	0.90	ug/L	1		8260D	Total/NA
Trichloroethene	0.47	J	1.0	0.15	ug/L	1		8260D	Total/NA
Benzo[a]anthracene	0.036	J B	0.20	0.035	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.062	J B	0.20	0.035	ug/L	1		8270E SIM	Total/NA
Diethyl phthalate	0.34	J	10	0.24	ug/L	1		8270E	Total/NA

Client Sample ID: P59-ROX-101823 — Lab Sample ID: 400-245330-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1800		10	5.0	ug/L	10		8260D	Total/NA
Ethylbenzene	120		10	5.0	ug/L	10		8260D	Total/NA
Isopropylbenzene	48		10	5.3	ug/L	10		8260D	Total/NA
m-Xylene & p-Xylene	120		50	6.3	ug/L	10		8260D	Total/NA
Naphthalene	43	J	50	30	ug/L	10		8260D	Total/NA
N-Propylbenzene	75		10	6.9	ug/L	10		8260D	Total/NA
Toluene	86		10	9.0	ug/L	10		8260D	Total/NA
1,2,4-Trimethylbenzene	37		10	8.2	ug/L	10		8260D	Total/NA
1,3,5-Trimethylbenzene	31		10	5.6	ug/L	10		8260D	Total/NA
Xylenes, Total	120		100	16	ug/L	10		8260D	Total/NA
Acenaphthene	0.56		0.21	0.10	ug/L	1		8270E SIM	Total/NA
Anthracene	0.29		0.21	0.049	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.088	J B	0.21	0.035	ug/L	1		8270E SIM	Total/NA
Chrysene	0.068	J	0.21	0.034	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.19	J B	0.21	0.035	ug/L	1		8270E SIM	Total/NA
Fluorene	0.40		0.21	0.093	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: P59-ROX-101823 (Continued)

Lab Sample ID: 400-245330-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.65		0.21	0.094	ug/L	1		8270E SIM	Total/NA
Pyrene	0.43		0.21	0.041	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	9.8		0.21	0.083	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	13		0.21	0.069	ug/L	1		8270E SIM	Total/NA
Pentachlorophenol	8.8	J *1	21	1.5	ug/L	1		8270E	Total/NA
Phenol	13		10	2.7	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245330-1

Client Sample ID: TB-ROX-101823-8260-SS
Date Collected: 10/18/23 12:00
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/23 11:40	1
Acrolein	ND		20	3.3	ug/L			11/01/23 11:40	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/23 11:40	1
Benzene	ND		1.0	0.50	ug/L			11/01/23 11:40	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/23 11:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/23 11:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/23 11:40	1
Bromoform	ND		5.0	0.25	ug/L			11/01/23 11:40	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/23 11:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/23 11:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/23 11:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/23 11:40	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/01/23 11:40	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/23 11:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/23 11:40	1
Chloroform	ND		1.0	0.90	ug/L			11/01/23 11:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/23 11:40	1
Chloromethane	ND		1.0	0.90	ug/L			11/01/23 11:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/23 11:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/23 11:40	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/23 11:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/23 11:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/23 11:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/23 11:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/23 11:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/23 11:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/23 11:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 11:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 11:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 11:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 11:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/23 11:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/23 11:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/23 11:40	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/01/23 11:40	1
2-Hexanone	ND		25	1.4	ug/L			11/01/23 11:40	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/23 11:40	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/23 11:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/23 11:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/23 11:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/23 11:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/23 11:40	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/23 11:40	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/23 11:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/23 11:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/23 11:40	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/23 11:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/23 11:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/23 11:40	1

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

Job ID: 400-245330-1

Client Sample ID: TB-ROX-101823-8260-SS
Date Collected: 10/18/23 12:00
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/01/23 11:40	1
Styrene	ND		1.0	1.0	ug/L			11/01/23 11:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/23 11:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/23 11:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/23 11:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/23 11:40	1
Toluene	ND		1.0	0.90	ug/L			11/01/23 11:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 11:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/23 11:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/23 11:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/23 11:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/23 11:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/23 11:40	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/23 11:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/23 11:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/23 11:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/23 11:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/23 11:40	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/23 11:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/23 11:40	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/23 11:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 130*		*11/01/23 11:40*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*11/01/23 11:40*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*11/01/23 11:40*	*1*

Client Sample Results

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

Job ID: 400-245330-1

Client Sample ID: TB-ROX-101823-8011-SS

Date Collected: 10/18/23 12:00
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-2

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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 13:47	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*51 - 149*	*10/24/23 07:31*	*10/24/23 13:47*	*1*

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

Job ID: 400-245330-1

Client Sample ID: P56-ROX-101823

Date Collected: 10/18/23 11:15
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-3

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/23 12:04	1
Acrolein	ND		20	3.3	ug/L			11/01/23 12:04	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/23 12:04	1
Benzene	ND		1.0	0.50	ug/L			11/01/23 12:04	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/23 12:04	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/23 12:04	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/23 12:04	1
Bromoform	ND		5.0	0.25	ug/L			11/01/23 12:04	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/23 12:04	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/23 12:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/23 12:04	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/23 12:04	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/01/23 12:04	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/23 12:04	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/23 12:04	1
Chloroform	ND		1.0	0.90	ug/L			11/01/23 12:04	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/23 12:04	1
Chloromethane	ND		1.0	0.90	ug/L			11/01/23 12:04	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/23 12:04	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/23 12:04	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/23 12:04	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/23 12:04	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/23 12:04	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/23 12:04	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/23 12:04	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/23 12:04	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/23 12:04	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 12:04	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 12:04	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 12:04	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 12:04	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/23 12:04	1
Ethylbenzene	**0.59**	**J**	1.0	0.50	ug/L			11/01/23 12:04	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/23 12:04	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/01/23 12:04	1
2-Hexanone	ND		25	1.4	ug/L			11/01/23 12:04	1
Isopropylbenzene	**11**		1.0	0.53	ug/L			11/01/23 12:04	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/23 12:04	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/23 12:04	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/23 12:04	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/23 12:04	1
m-Xylene & p-Xylene	**1.5**	**J**	5.0	0.63	ug/L			11/01/23 12:04	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/23 12:04	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/23 12:04	1
N-Propylbenzene	**14**		1.0	0.69	ug/L			11/01/23 12:04	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/23 12:04	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/23 12:04	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/23 12:04	1
p-Isopropyltoluene	**0.75**	**J**	1.0	0.71	ug/L			11/01/23 12:04	1

Client Sample ID: P56-ROX-101823
Date Collected: 10/18/23 11:15
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**2.5**		1.0	0.70	ug/L			11/01/23 12:04	1
Styrene	ND		1.0	1.0	ug/L			11/01/23 12:04	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/23 12:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/23 12:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/23 12:04	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/23 12:04	1
Toluene	ND		1.0	0.90	ug/L			11/01/23 12:04	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 12:04	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/23 12:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/23 12:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/23 12:04	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/23 12:04	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/23 12:04	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/23 12:04	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/23 12:04	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/23 12:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/23 12:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/23 12:04	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/23 12:04	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/23 12:04	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/23 12:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*11/01/23 12:04*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*11/01/23 12:04*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*11/01/23 12:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.43**		0.21	0.10	ug/L		10/24/23 10:15	10/26/23 20:00	1
Acenaphthylene	ND		0.21	0.046	ug/L		10/24/23 10:15	10/26/23 20:00	1
Anthracene	**0.072**	**J**	0.21	0.049	ug/L		10/24/23 10:15	10/26/23 20:00	1
Benzo[a]anthracene	ND		0.21	0.035	ug/L		10/24/23 10:15	10/26/23 20:00	1
Benzo[a]pyrene	ND		0.21	0.067	ug/L		10/24/23 10:15	10/26/23 20:00	1
Benzo[b]fluoranthene	ND		0.21	0.039	ug/L		10/24/23 10:15	10/26/23 20:00	1
Benzo[g,h,i]perylene	ND		0.21	0.028	ug/L		10/24/23 10:15	10/26/23 20:00	1
Benzo[k]fluoranthene	ND		0.21	0.065	ug/L		10/24/23 10:15	10/26/23 20:00	1
Chrysene	ND		0.21	0.034	ug/L		10/24/23 10:15	10/26/23 20:00	1
Dibenz(a,h)anthracene	ND		0.21	0.050	ug/L		10/24/23 10:15	10/26/23 20:00	1
Fluoranthene	ND		0.21	0.035	ug/L		10/24/23 10:15	10/26/23 20:00	1
Fluorene	**0.23**		0.21	0.093	ug/L		10/24/23 10:15	10/26/23 20:00	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.035	ug/L		10/24/23 10:15	10/26/23 20:00	1
Phenanthrene	**0.36**		0.21	0.094	ug/L		10/24/23 10:15	10/26/23 20:00	1
Pyrene	ND		0.21	0.041	ug/L		10/24/23 10:15	10/26/23 20:00	1
1-Methylnaphthalene	**3.2**		0.21	0.083	ug/L		10/24/23 10:15	10/26/23 20:00	1
2-Methylnaphthalene	**1.7**		0.21	0.069	ug/L		10/24/23 10:15	10/26/23 20:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*18 - 147*	*10/24/23 10:15*	*10/26/23 20:00*	*1*
2-Fluorobiphenyl	*62*		*15 - 128*	*10/24/23 10:15*	*10/26/23 20:00*	*1*

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

Job ID: 400-245330-1

Client Sample ID: P56-ROX-101823
Date Collected: 10/18/23 11:15
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*64*		*10 - 144*	*10/24/23 10:15*	*10/26/23 20:00*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	4.0	ug/L		10/24/23 10:15	10/26/23 12:36	1
Benzenethiol	ND		10	1.8	ug/L		10/24/23 10:15	10/26/23 12:36	1
Benzoic acid	ND	*-	31	7.6	ug/L		10/24/23 10:15	10/26/23 12:36	1
Benzyl alcohol	ND		10	2.1	ug/L		10/24/23 10:15	10/26/23 12:36	1
Bis(2-chloroethoxy)methane	ND		10	0.17	ug/L		10/24/23 10:15	10/26/23 12:36	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		10/24/23 10:15	10/26/23 12:36	1
bis (2-chloroisopropyl) ether	ND		10	0.17	ug/L		10/24/23 10:15	10/26/23 12:36	1
Bis(2-ethylhexyl) phthalate	ND		10	5.2	ug/L		10/24/23 10:15	10/26/23 12:36	1
4-Bromophenyl phenyl ether	ND		10	0.21	ug/L		10/24/23 10:15	10/26/23 12:36	1
Butyl benzyl phthalate	ND		10	0.20	ug/L		10/24/23 10:15	10/26/23 12:36	1
4-Chloroaniline	ND		10	3.5	ug/L		10/24/23 10:15	10/26/23 12:36	1
4-Chloro-3-methylphenol	ND		10	4.0	ug/L		10/24/23 10:15	10/26/23 12:36	1
2-Chloronaphthalene	ND		10	0.15	ug/L		10/24/23 10:15	10/26/23 12:36	1
2-Chlorophenol	ND		10	2.3	ug/L		10/24/23 10:15	10/26/23 12:36	1
4-Chlorophenyl phenyl ether	ND		10	2.1	ug/L		10/24/23 10:15	10/26/23 12:36	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 12:36	1
Dibenzofuran	**0.25**	**J**	10	0.18	ug/L		10/24/23 10:15	10/26/23 12:36	1
3,3'-Dichlorobenzidine	ND		10	2.7	ug/L		10/24/23 10:15	10/26/23 12:36	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		10/24/23 10:15	10/26/23 12:36	1
Diethyl phthalate	ND		10	0.25	ug/L		10/24/23 10:15	10/26/23 12:36	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 12:36	1
Dimethyl phthalate	ND		10	0.18	ug/L		10/24/23 10:15	10/26/23 12:36	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		10/24/23 10:15	10/26/23 12:36	1
4,6-Dinitro-ortho-cresol	ND	*1	10	1.7	ug/L		10/24/23 10:15	10/26/23 12:36	1
2,4-Dinitrophenol	ND	*1	31	3.5	ug/L		10/24/23 10:15	10/26/23 12:36	1
2,4-Dinitrotoluene	ND		10	2.0	ug/L		10/24/23 10:15	10/26/23 12:36	1
2,6-Dinitrotoluene	ND		10	2.0	ug/L		10/24/23 10:15	10/26/23 12:36	1
Di-n-octyl phthalate	ND		10	0.18	ug/L		10/24/23 10:15	10/26/23 12:36	1
1,4-Dioxane	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 12:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 12:36	1
Hexachlorobenzene	ND		10	0.18	ug/L		10/24/23 10:15	10/26/23 12:36	1
Hexachlorocyclopentadiene	ND		21	2.7	ug/L		10/24/23 10:15	10/26/23 12:36	1
Hexachloroethane	ND		10	4.4	ug/L		10/24/23 10:15	10/26/23 12:36	1
Indene	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 12:36	1
Isophorone	ND		10	0.15	ug/L		10/24/23 10:15	10/26/23 12:36	1
2-Methylphenol	ND		10	1.9	ug/L		10/24/23 10:15	10/26/23 12:36	1
3 & 4 Methylphenol	ND		21	0.41	ug/L		10/24/23 10:15	10/26/23 12:36	1
2-Nitroaniline	ND		10	2.3	ug/L		10/24/23 10:15	10/26/23 12:36	1
3-Nitroaniline	ND		10	1.9	ug/L		10/24/23 10:15	10/26/23 12:36	1
4-Nitroaniline	ND		10	1.6	ug/L		10/24/23 10:15	10/26/23 12:36	1
Nitrobenzene	ND		10	0.14	ug/L		10/24/23 10:15	10/26/23 12:36	1
2-Nitrophenol	ND		10	5.4	ug/L		10/24/23 10:15	10/26/23 12:36	1
4-Nitrophenol	ND		10	2.2	ug/L		10/24/23 10:15	10/26/23 12:36	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 12:36	1

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

Job ID: 400-245330-1

Client Sample ID: P56-ROX-101823
Date Collected: 10/18/23 11:15
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		10/24/23 10:15	10/26/23 12:36	1
N-Nitrosodiphenylamine	ND		10	0.19	ug/L		10/24/23 10:15	10/26/23 12:36	1
Pentachlorophenol	ND	*1	21	1.5	ug/L		10/24/23 10:15	10/26/23 12:36	1
Phenol	ND		10	2.7	ug/L		10/24/23 10:15	10/26/23 12:36	1
Pyridine	ND		10	3.3	ug/L		10/24/23 10:15	10/26/23 12:36	1
Quinoline	ND		10	4.7	ug/L		10/24/23 10:15	10/26/23 12:36	1
2,4,5-Trichlorophenol	ND		10	3.9	ug/L		10/24/23 10:15	10/26/23 12:36	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/24/23 10:15*	*10/26/23 12:36*	*1*
2-Fluorophenol	*5*	*S1-*	*13 - 113*	*10/24/23 10:15*	*10/26/23 12:36*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*10/24/23 10:15*	*10/26/23 12:36*	*1*
Phenol-d5	*41*		*17 - 127*	*10/24/23 10:15*	*10/26/23 12:36*	*1*
Terphenyl-d14	*89*		*44 - 149*	*10/24/23 10:15*	*10/26/23 12:36*	*1*
2,4,6-Tribromophenol	*84*		*26 - 150*	*10/24/23 10:15*	*10/26/23 12:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 14:09	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*51 - 149*	*10/24/23 07:31*	*10/24/23 14:09*	*1*

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

Job ID: 400-245330-1

Client Sample ID: P93A-ROX-101823
Date Collected: 10/18/23 12:05
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/23 12:26	1
Acrolein	ND		20	3.3	ug/L			11/01/23 12:26	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/23 12:26	1
Benzene	ND		1.0	0.50	ug/L			11/01/23 12:26	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/23 12:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/23 12:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/23 12:26	1
Bromoform	ND		5.0	0.25	ug/L			11/01/23 12:26	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/23 12:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/23 12:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/23 12:26	1
Carbon tetrachloride	**1.2**		1.0	0.19	ug/L			11/01/23 12:26	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/01/23 12:26	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/23 12:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/23 12:26	1
Chloroform	**3.0**		1.0	0.90	ug/L			11/01/23 12:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/23 12:26	1
Chloromethane	ND		1.0	0.90	ug/L			11/01/23 12:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/23 12:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/23 12:26	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/23 12:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/23 12:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/23 12:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/23 12:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/23 12:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/23 12:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/23 12:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 12:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 12:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 12:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 12:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/23 12:26	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/23 12:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/23 12:26	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/01/23 12:26	1
2-Hexanone	ND		25	1.4	ug/L			11/01/23 12:26	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/23 12:26	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/23 12:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/23 12:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/23 12:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/23 12:26	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/23 12:26	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/23 12:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/23 12:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/23 12:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/23 12:26	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/23 12:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/23 12:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/23 12:26	1

Client Sample ID: P93A-ROX-101823
Date Collected: 10/18/23 12:05
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/01/23 12:26	1
Styrene	ND		1.0	1.0	ug/L			11/01/23 12:26	1
tert-Butylbenzene	**0.70**	**J**	1.0	0.63	ug/L			11/01/23 12:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/23 12:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/23 12:26	1
Tetrachloroethene	**6.5**		1.0	0.90	ug/L			11/01/23 12:26	1
Toluene	ND		1.0	0.90	ug/L			11/01/23 12:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 12:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/23 12:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/23 12:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/23 12:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/23 12:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/23 12:26	1
Trichloroethene	**0.47**	**J**	1.0	0.15	ug/L			11/01/23 12:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/23 12:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/23 12:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/23 12:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/23 12:26	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/23 12:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/23 12:26	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/23 12:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*11/01/23 12:26*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*11/01/23 12:26*	*1*
Toluene-d8 (Surr)	*107*		*64 - 132*		*11/01/23 12:26*	*1*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND	H	1.0	0.90	ug/L			11/06/23 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 130*		*11/06/23 15:18*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*11/06/23 15:18*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*11/06/23 15:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.10	ug/L		10/24/23 10:15	10/26/23 20:21	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/24/23 10:15	10/26/23 20:21	1
Anthracene	ND		0.20	0.048	ug/L		10/24/23 10:15	10/26/23 20:21	1
Benzo[a]anthracene	**0.036**	**J B**	0.20	0.035	ug/L		10/24/23 10:15	10/26/23 20:21	1
Benzo[a]pyrene	ND		0.20	0.065	ug/L		10/24/23 10:15	10/26/23 20:21	1
Benzo[b]fluoranthene	ND		0.20	0.038	ug/L		10/24/23 10:15	10/26/23 20:21	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/24/23 10:15	10/26/23 20:21	1
Benzo[k]fluoranthene	ND		0.20	0.063	ug/L		10/24/23 10:15	10/26/23 20:21	1
Chrysene	ND		0.20	0.034	ug/L		10/24/23 10:15	10/26/23 20:21	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		10/24/23 10:15	10/26/23 20:21	1
Fluoranthene	**0.062**	**J B**	0.20	0.035	ug/L		10/24/23 10:15	10/26/23 20:21	1
Fluorene	ND		0.20	0.091	ug/L		10/24/23 10:15	10/26/23 20:21	1

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

Job ID: 400-245330-1

Client Sample ID: P93A-ROX-101823
Date Collected: 10/18/23 12:05
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.20	0.035	ug/L		10/24/23 10:15	10/26/23 20:21	1
Phenanthrene	ND		0.20	0.092	ug/L		10/24/23 10:15	10/26/23 20:21	1
Pyrene	ND		0.20	0.040	ug/L		10/24/23 10:15	10/26/23 20:21	1
1-Methylnaphthalene	ND		0.20	0.081	ug/L		10/24/23 10:15	10/26/23 20:21	1
2-Methylnaphthalene	ND		0.20	0.067	ug/L		10/24/23 10:15	10/26/23 20:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*92*		*18 - 147*	*10/24/23 10:15*	*10/26/23 20:21*	*1*
2-Fluorobiphenyl	*77*		*15 - 128*	*10/24/23 10:15*	*10/26/23 20:21*	*1*
Nitrobenzene-d5	*60*		*10 - 144*	*10/24/23 10:15*	*10/26/23 20:21*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		10/24/23 10:15	10/26/23 12:57	1
Benzenethiol	ND		10	1.7	ug/L		10/24/23 10:15	10/26/23 12:57	1
Benzoic acid	ND	*-	31	7.4	ug/L		10/24/23 10:15	10/26/23 12:57	1
Benzyl alcohol	ND		10	2.0	ug/L		10/24/23 10:15	10/26/23 12:57	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/24/23 10:15	10/26/23 12:57	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/24/23 10:15	10/26/23 12:57	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/24/23 10:15	10/26/23 12:57	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		10/24/23 10:15	10/26/23 12:57	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/24/23 10:15	10/26/23 12:57	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/24/23 10:15	10/26/23 12:57	1
4-Chloroaniline	ND		10	3.5	ug/L		10/24/23 10:15	10/26/23 12:57	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		10/24/23 10:15	10/26/23 12:57	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/24/23 10:15	10/26/23 12:57	1
2-Chlorophenol	ND		10	2.2	ug/L		10/24/23 10:15	10/26/23 12:57	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/24/23 10:15	10/26/23 12:57	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 12:57	1
Dibenzofuran	ND		10	0.17	ug/L		10/24/23 10:15	10/26/23 12:57	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/24/23 10:15	10/26/23 12:57	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		10/24/23 10:15	10/26/23 12:57	1
Diethyl phthalate	**0.34**	**J**	10	0.24	ug/L		10/24/23 10:15	10/26/23 12:57	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 12:57	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/24/23 10:15	10/26/23 12:57	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/24/23 10:15	10/26/23 12:57	1
4,6-Dinitro-ortho-cresol	ND	*1	10	1.6	ug/L		10/24/23 10:15	10/26/23 12:57	1
2,4-Dinitrophenol	ND	*1	31	3.5	ug/L		10/24/23 10:15	10/26/23 12:57	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/24/23 10:15	10/26/23 12:57	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/24/23 10:15	10/26/23 12:57	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/24/23 10:15	10/26/23 12:57	1
1,4-Dioxane	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 12:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 12:57	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/24/23 10:15	10/26/23 12:57	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/24/23 10:15	10/26/23 12:57	1
Hexachloroethane	ND		10	4.3	ug/L		10/24/23 10:15	10/26/23 12:57	1
Indene	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 12:57	1
Isophorone	ND		10	0.14	ug/L		10/24/23 10:15	10/26/23 12:57	1
2-Methylphenol	ND		10	1.8	ug/L		10/24/23 10:15	10/26/23 12:57	1

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

Job ID: 400-245330-1

Client Sample ID: P93A-ROX-101823

Lab Sample ID: 400-245330-4

Date Collected: 10/18/23 12:05

Matrix: Water

Date Received: 10/20/23 09:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	ND		20	0.40	ug/L		10/24/23 10:15	10/26/23 12:57	1
2-Nitroaniline	ND		10	2.2	ug/L		10/24/23 10:15	10/26/23 12:57	1
3-Nitroaniline	ND		10	1.8	ug/L		10/24/23 10:15	10/26/23 12:57	1
4-Nitroaniline	ND		10	1.5	ug/L		10/24/23 10:15	10/26/23 12:57	1
Nitrobenzene	ND		10	0.13	ug/L		10/24/23 10:15	10/26/23 12:57	1
2-Nitrophenol	ND		10	5.3	ug/L		10/24/23 10:15	10/26/23 12:57	1
4-Nitrophenol	ND		10	2.1	ug/L		10/24/23 10:15	10/26/23 12:57	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 12:57	1
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		10/24/23 10:15	10/26/23 12:57	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/24/23 10:15	10/26/23 12:57	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/24/23 10:15	10/26/23 12:57	1
Phenol	ND		10	2.6	ug/L		10/24/23 10:15	10/26/23 12:57	1
Pyridine	ND		10	3.3	ug/L		10/24/23 10:15	10/26/23 12:57	1
Quinoline	ND		10	4.6	ug/L		10/24/23 10:15	10/26/23 12:57	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		10/24/23 10:15	10/26/23 12:57	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 12:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*10/24/23 10:15*	*10/26/23 12:57*	*1*
2-Fluorophenol	*24*		*13 - 113*	*10/24/23 10:15*	*10/26/23 12:57*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*10/24/23 10:15*	*10/26/23 12:57*	*1*
Phenol-d5	*57*		*17 - 127*	*10/24/23 10:15*	*10/26/23 12:57*	*1*
Terphenyl-d14	*81*		*44 - 149*	*10/24/23 10:15*	*10/26/23 12:57*	*1*
2,4,6-Tribromophenol	*75*		*26 - 150*	*10/24/23 10:15*	*10/26/23 12:57*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.016	ug/L		10/24/23 07:31	10/24/23 14:30	1
1,2-Dibromoethane	ND		0.019	0.015	ug/L		10/24/23 07:31	10/24/23 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*10/24/23 07:31*	*10/24/23 14:30*	*1*

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

Job ID: 400-245330-1

Client Sample ID: P59-ROX-101823
Date Collected: 10/18/23 13:00
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		250	100	ug/L			11/01/23 14:21	10
Acrolein	ND		200	33	ug/L			11/01/23 14:21	10
Acrylonitrile	ND		100	28	ug/L			11/01/23 14:21	10
Benzene	**1800**		10	5.0	ug/L			11/01/23 14:21	10
Bromobenzene	ND		10	5.4	ug/L			11/01/23 14:21	10
Bromochloromethane	ND		10	2.1	ug/L			11/01/23 14:21	10
Bromodichloromethane	ND		10	5.0	ug/L			11/01/23 14:21	10
Bromoform	ND		50	2.5	ug/L			11/01/23 14:21	10
Bromomethane	ND		10	9.8	ug/L			11/01/23 14:21	10
2-Butanone (MEK)	ND		250	26	ug/L			11/01/23 14:21	10
Carbon disulfide	ND		10	5.0	ug/L			11/01/23 14:21	10
Carbon tetrachloride	ND		10	1.9	ug/L			11/01/23 14:21	10
Chlorobenzene	ND		10	9.0	ug/L			11/01/23 14:21	10
Chloroethane	ND		10	7.6	ug/L			11/01/23 14:21	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			11/01/23 14:21	10
Chloroform	ND		10	9.0	ug/L			11/01/23 14:21	10
1-Chlorohexane	ND		10	3.2	ug/L			11/01/23 14:21	10
Chloromethane	ND		10	9.0	ug/L			11/01/23 14:21	10
cis-1,2-Dichloroethene	ND		10	2.0	ug/L			11/01/23 14:21	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			11/01/23 14:21	10
Dibromochloromethane	ND		10	2.4	ug/L			11/01/23 14:21	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			11/01/23 14:21	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			11/01/23 14:21	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			11/01/23 14:21	10
Dichlorodifluoromethane	ND		10	8.5	ug/L			11/01/23 14:21	10
1,1-Dichloroethane	ND		10	5.0	ug/L			11/01/23 14:21	10
1,2-Dichloroethane	ND		10	1.9	ug/L			11/01/23 14:21	10
1,1-Dichloroethene	ND		10	5.0	ug/L			11/01/23 14:21	10
1,2-Dichloropropane	ND		10	5.0	ug/L			11/01/23 14:21	10
1,3-Dichloropropane	ND		10	5.0	ug/L			11/01/23 14:21	10
2,2-Dichloropropane	ND		10	5.0	ug/L			11/01/23 14:21	10
1,1-Dichloropropene	ND		10	5.0	ug/L			11/01/23 14:21	10
Ethylbenzene	**120**		10	5.0	ug/L			11/01/23 14:21	10
Ethyl methacrylate	ND		10	6.0	ug/L			11/01/23 14:21	10
Hexachlorobutadiene	ND	*+	50	9.0	ug/L			11/01/23 14:21	10
2-Hexanone	ND		250	14	ug/L			11/01/23 14:21	10
Isopropylbenzene	**48**		10	5.3	ug/L			11/01/23 14:21	10
Methylene bromide	ND		50	2.2	ug/L			11/01/23 14:21	10
Methylene Chloride	ND		50	30	ug/L			11/01/23 14:21	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			11/01/23 14:21	10
Methyl tert-butyl ether	ND		10	2.2	ug/L			11/01/23 14:21	10
m-Xylene & p-Xylene	**120**		50	6.3	ug/L			11/01/23 14:21	10
Naphthalene	**43**	**J**	50	30	ug/L			11/01/23 14:21	10
n-Butylbenzene	ND		10	7.6	ug/L			11/01/23 14:21	10
N-Propylbenzene	**75**		10	6.9	ug/L			11/01/23 14:21	10
o-Chlorotoluene	ND		10	5.7	ug/L			11/01/23 14:21	10
o-Xylene	ND		50	6.0	ug/L			11/01/23 14:21	10
p-Chlorotoluene	ND		10	5.6	ug/L			11/01/23 14:21	10
p-Isopropyltoluene	ND		10	7.1	ug/L			11/01/23 14:21	10

Client Sample ID: P59-ROX-101823
Date Collected: 10/18/23 13:00
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		10	7.0	ug/L			11/01/23 14:21	10
Styrene	ND		10	10	ug/L			11/01/23 14:21	10
tert-Butylbenzene	ND		10	6.3	ug/L			11/01/23 14:21	10
1,1,1,2-Tetrachloroethane	ND		10	1.6	ug/L			11/01/23 14:21	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			11/01/23 14:21	10
Tetrachloroethene	ND		10	9.0	ug/L			11/01/23 14:21	10
Toluene	**86**		10	9.0	ug/L			11/01/23 14:21	10
trans-1,2-Dichloroethene	ND		10	5.0	ug/L			11/01/23 14:21	10
trans-1,3-Dichloropropene	ND		50	2.0	ug/L			11/01/23 14:21	10
1,2,3-Trichlorobenzene	ND		10	9.0	ug/L			11/01/23 14:21	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			11/01/23 14:21	10
1,1,1-Trichloroethane	ND		10	1.8	ug/L			11/01/23 14:21	10
1,1,2-Trichloroethane	ND		50	2.1	ug/L			11/01/23 14:21	10
Trichloroethene	ND		10	1.5	ug/L			11/01/23 14:21	10
Trichlorofluoromethane	ND		10	5.2	ug/L			11/01/23 14:21	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			11/01/23 14:21	10
1,2,4-Trimethylbenzene	**37**		10	8.2	ug/L			11/01/23 14:21	10
1,3,5-Trimethylbenzene	**31**		10	5.6	ug/L			11/01/23 14:21	10
Vinyl acetate	ND		250	9.3	ug/L			11/01/23 14:21	10
Vinyl chloride	ND		10	5.0	ug/L			11/01/23 14:21	10
Xylenes, Total	**120**		100	16	ug/L			11/01/23 14:21	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 130*		*11/01/23 14:21*	*10*
Dibromofluoromethane	*94*		*75 - 126*		*11/01/23 14:21*	*10*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/01/23 14:21*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.56**		0.21	0.10	ug/L		10/24/23 10:15	10/26/23 20:42	1
Acenaphthylene	ND		0.21	0.046	ug/L		10/24/23 10:15	10/26/23 20:42	1
Anthracene	**0.29**		0.21	0.049	ug/L		10/24/23 10:15	10/26/23 20:42	1
Benzo[a]anthracene	**0.088**	**J B**	0.21	0.035	ug/L		10/24/23 10:15	10/26/23 20:42	1
Benzo[a]pyrene	ND		0.21	0.067	ug/L		10/24/23 10:15	10/26/23 20:42	1
Benzo[b]fluoranthene	ND		0.21	0.039	ug/L		10/24/23 10:15	10/26/23 20:42	1
Benzo[g,h,i]perylene	ND		0.21	0.028	ug/L		10/24/23 10:15	10/26/23 20:42	1
Benzo[k]fluoranthene	ND		0.21	0.065	ug/L		10/24/23 10:15	10/26/23 20:42	1
Chrysene	**0.068**	**J**	0.21	0.034	ug/L		10/24/23 10:15	10/26/23 20:42	1
Dibenz(a,h)anthracene	ND		0.21	0.050	ug/L		10/24/23 10:15	10/26/23 20:42	1
Fluoranthene	**0.19**	**J B**	0.21	0.035	ug/L		10/24/23 10:15	10/26/23 20:42	1
Fluorene	**0.40**		0.21	0.093	ug/L		10/24/23 10:15	10/26/23 20:42	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.035	ug/L		10/24/23 10:15	10/26/23 20:42	1
Phenanthrene	**0.65**		0.21	0.094	ug/L		10/24/23 10:15	10/26/23 20:42	1
Pyrene	**0.43**		0.21	0.041	ug/L		10/24/23 10:15	10/26/23 20:42	1
1-Methylnaphthalene	**9.8**		0.21	0.083	ug/L		10/24/23 10:15	10/26/23 20:42	1
2-Methylnaphthalene	**13**		0.21	0.069	ug/L		10/24/23 10:15	10/26/23 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*57*		*18 - 147*	*10/24/23 10:15*	*10/26/23 20:42*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*10/24/23 10:15*	*10/26/23 20:42*	*1*

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

Job ID: 400-245330-1

Client Sample ID: P59-ROX-101823
Date Collected: 10/18/23 13:00
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*48*		*10 - 144*	*10/24/23 10:15*	*10/26/23 20:42*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	4.0	ug/L		10/24/23 10:15	10/26/23 13:18	1
Benzenethiol	ND		10	1.8	ug/L		10/24/23 10:15	10/26/23 13:18	1
Benzoic acid	ND	*-	31	7.6	ug/L		10/24/23 10:15	10/26/23 13:18	1
Benzyl alcohol	ND		10	2.1	ug/L		10/24/23 10:15	10/26/23 13:18	1
Bis(2-chloroethoxy)methane	ND		10	0.17	ug/L		10/24/23 10:15	10/26/23 13:18	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		10/24/23 10:15	10/26/23 13:18	1
bis (2-chloroisopropyl) ether	ND		10	0.17	ug/L		10/24/23 10:15	10/26/23 13:18	1
Bis(2-ethylhexyl) phthalate	ND		10	5.2	ug/L		10/24/23 10:15	10/26/23 13:18	1
4-Bromophenyl phenyl ether	ND		10	0.21	ug/L		10/24/23 10:15	10/26/23 13:18	1
Butyl benzyl phthalate	ND		10	0.20	ug/L		10/24/23 10:15	10/26/23 13:18	1
4-Chloroaniline	ND		10	3.5	ug/L		10/24/23 10:15	10/26/23 13:18	1
4-Chloro-3-methylphenol	ND		10	4.0	ug/L		10/24/23 10:15	10/26/23 13:18	1
2-Chloronaphthalene	ND		10	0.15	ug/L		10/24/23 10:15	10/26/23 13:18	1
2-Chlorophenol	ND		10	2.3	ug/L		10/24/23 10:15	10/26/23 13:18	1
4-Chlorophenyl phenyl ether	ND		10	2.1	ug/L		10/24/23 10:15	10/26/23 13:18	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 13:18	1
Dibenzofuran	ND		10	0.18	ug/L		10/24/23 10:15	10/26/23 13:18	1
3,3'-Dichlorobenzidine	ND		10	2.7	ug/L		10/24/23 10:15	10/26/23 13:18	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		10/24/23 10:15	10/26/23 13:18	1
Diethyl phthalate	ND		10	0.25	ug/L		10/24/23 10:15	10/26/23 13:18	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 13:18	1
Dimethyl phthalate	ND		10	0.18	ug/L		10/24/23 10:15	10/26/23 13:18	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		10/24/23 10:15	10/26/23 13:18	1
4,6-Dinitro-ortho-cresol	ND	*1	10	1.7	ug/L		10/24/23 10:15	10/26/23 13:18	1
2,4-Dinitrophenol	ND	*1	31	3.5	ug/L		10/24/23 10:15	10/26/23 13:18	1
2,4-Dinitrotoluene	ND		10	2.0	ug/L		10/24/23 10:15	10/26/23 13:18	1
2,6-Dinitrotoluene	ND		10	2.0	ug/L		10/24/23 10:15	10/26/23 13:18	1
Di-n-octyl phthalate	ND		10	0.18	ug/L		10/24/23 10:15	10/26/23 13:18	1
1,4-Dioxane	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 13:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 13:18	1
Hexachlorobenzene	ND		10	0.18	ug/L		10/24/23 10:15	10/26/23 13:18	1
Hexachlorocyclopentadiene	ND		21	2.7	ug/L		10/24/23 10:15	10/26/23 13:18	1
Hexachloroethane	ND		10	4.4	ug/L		10/24/23 10:15	10/26/23 13:18	1
Indene	ND		10	1.0	ug/L		10/24/23 10:15	10/26/23 13:18	1
Isophorone	ND		10	0.15	ug/L		10/24/23 10:15	10/26/23 13:18	1
2-Methylphenol	ND		10	1.9	ug/L		10/24/23 10:15	10/26/23 13:18	1
3 & 4 Methylphenol	ND		21	0.41	ug/L		10/24/23 10:15	10/26/23 13:18	1
2-Nitroaniline	ND		10	2.3	ug/L		10/24/23 10:15	10/26/23 13:18	1
3-Nitroaniline	ND		10	1.9	ug/L		10/24/23 10:15	10/26/23 13:18	1
4-Nitroaniline	ND		10	1.6	ug/L		10/24/23 10:15	10/26/23 13:18	1
Nitrobenzene	ND		10	0.14	ug/L		10/24/23 10:15	10/26/23 13:18	1
2-Nitrophenol	ND		10	5.4	ug/L		10/24/23 10:15	10/26/23 13:18	1
4-Nitrophenol	ND		10	2.2	ug/L		10/24/23 10:15	10/26/23 13:18	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 13:18	1

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

Job ID: 400-245330-1

Client Sample ID: P59-ROX-101823
Date Collected: 10/18/23 13:00
Date Received: 10/20/23 09:26

Lab Sample ID: 400-245330-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		10/24/23 10:15	10/26/23 13:18	1
N-Nitrosodiphenylamine	ND		10	0.19	ug/L		10/24/23 10:15	10/26/23 13:18	1
Pentachlorophenol	**8.8**	**J *1**	21	1.5	ug/L		10/24/23 10:15	10/26/23 13:18	1
Phenol	**13**		10	2.7	ug/L		10/24/23 10:15	10/26/23 13:18	1
Pyridine	ND		10	3.3	ug/L		10/24/23 10:15	10/26/23 13:18	1
Quinoline	ND		10	4.7	ug/L		10/24/23 10:15	10/26/23 13:18	1
2,4,5-Trichlorophenol	ND		10	3.9	ug/L		10/24/23 10:15	10/26/23 13:18	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		10/24/23 10:15	10/26/23 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*10/24/23 10:15*	*10/26/23 13:18*	*1*
2-Fluorophenol	*9*	*S1-*	*13 - 113*	*10/24/23 10:15*	*10/26/23 13:18*	*1*
Nitrobenzene-d5	*62*		*36 - 126*	*10/24/23 10:15*	*10/26/23 13:18*	*1*
Phenol-d5	*39*		*17 - 127*	*10/24/23 10:15*	*10/26/23 13:18*	*1*
Terphenyl-d14	*62*		*44 - 149*	*10/24/23 10:15*	*10/26/23 13:18*	*1*
2,4,6-Tribromophenol	*93*		*26 - 150*	*10/24/23 10:15*	*10/26/23 13:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.017	ug/L		10/24/23 07:31	10/24/23 14:51	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 14:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*10/24/23 07:31*	*10/24/23 14:51*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-245330-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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.
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.

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: 400-245330-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245330-1	TB-ROX-101823-8260-SS	106	94	103
400-245330-3	P56-ROX-101823	110	97	105
400-245330-4	P93A-ROX-101823	110	96	107
400-245330-4 - RA	P93A-ROX-101823	94	106	96
400-245330-5	P59-ROX-101823	102	94	100
LCS 400-648138/1002	Lab Control Sample	103	93	103
LCS 400-648851/1001	Lab Control Sample	95	106	99
MB 400-648138/5	Method Blank	105	95	102
MB 400-648851/5	Method Blank	89	109	96

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245330-3	P56-ROX-101823	79	5 S1-	67	41	89	84
400-245330-4	P93A-ROX-101823	75	24	64	57	81	75
400-245330-5	P59-ROX-101823	72	9 S1-	62	39	62	93
LCS 400-646681/2-A	Lab Control Sample	79	36	79	65	95	101
LCS 400-646681/4-A	Lab Control Sample	79	32	68	50	98	70
LCSD 400-646681/3-A	Lab Control Sample Dup	79	19	78	56	96	100
LCSD 400-646681/5-A	Lab Control Sample Dup	75	33	65	55	94	51
MB 400-646681/1-A	Method Blank	77	8 S1-	67	37	94	55

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245330-3	P56-ROX-101823	82	62	64
400-245330-4	P93A-ROX-101823	92	77	60
400-245330-5	P59-ROX-101823	57	72	48
LCS 400-646681/6-A	Lab Control Sample	76	70	57
LCSD 400-646681/7-A	Lab Control Sample Dup	79	75	61
MB 400-646681/1-A	Method Blank	69	56	50

Surrogate Legend

Surrogate Summary

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

Job ID: 400-245330-1

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-245330-2	TB-ROX-101823-8011-SS	109
400-245330-3	P56-ROX-101823	102
400-245330-4	P93A-ROX-101823	83
400-245330-5	P59-ROX-101823	101
LCS 400-646856/2-A	Lab Control Sample	99
LCSD 400-646856/3-A	Lab Control Sample Dup	107
MB 400-646856/1-A	Method Blank	104

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-245330-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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-101823-8260-SS
Lab Sample ID: 400-245330-1
Date Collected: 10/18/23 12:00
Matrix: Water
Date Received: 10/20/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	648138	11/01/23 11:40	WPD	EET PEN

Client Sample ID: TB-ROX-101823-8011-SS
Lab Sample ID: 400-245330-2
Date Collected: 10/18/23 12:00
Matrix: Water
Date Received: 10/20/23 09:26

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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 13:47	PG	EET PEN

Client Sample ID: P56-ROX-101823
Lab Sample ID: 400-245330-3
Date Collected: 10/18/23 11:15
Matrix: Water
Date Received: 10/20/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	648138	11/01/23 12:04	WPD	EET PEN
Total/NA	Prep	3520C			240.2 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647241	10/26/23 12:36	S1B	EET PEN
Total/NA	Prep	3520C			240.2 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 20:00	S1B	EET PEN
Total/NA	Prep	8011			34.6 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 14:09	PG	EET PEN

Client Sample ID: P93A-ROX-101823
Lab Sample ID: 400-245330-4
Date Collected: 10/18/23 12:05
Matrix: Water
Date Received: 10/20/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	648138	11/01/23 12:26	WPD	EET PEN
Total/NA	Analysis	8260D	RA	1	5 mL	5 mL	648851	11/06/23 15:18	CAR	EET PEN
Total/NA	Prep	3520C			245.6 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647241	10/26/23 12:57	S1B	EET PEN
Total/NA	Prep	3520C			245.6 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 20:21	S1B	EET PEN
Total/NA	Prep	8011			36.1 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 14:30	PG	EET PEN

Client Sample ID: P59-ROX-101823
Lab Sample ID: 400-245330-5
Date Collected: 10/18/23 13:00
Matrix: Water
Date Received: 10/20/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	5 mL	5 mL	648138	11/01/23 14:21	WPD	EET PEN
Total/NA	Prep	3520C			240.2 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647241	10/26/23 13:18	S1B	EET PEN

Client Sample ID: P59-ROX-101823

Lab Sample ID: 400-245330-5

Date Collected: 10/18/23 13:00

Matrix: Water

Date Received: 10/20/23 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			240.2 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 20:42	S1B	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 14:51	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646681/1-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 15:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 14:45	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646856/1-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 12:23	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-648138/5

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	8260D		1	5 mL	5 mL	648138	11/01/23 09:00	WPD	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-648851/5

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	8260D		1	5 mL	5 mL	648851	11/06/23 12:31	CAR	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-646681/2-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:05	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/4-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:47	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/6-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:06	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646856/2-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 12:44	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-648138/1002
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	8260D		1	5 mL	5 mL	648138	11/01/23 08:17	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-648851/1001
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	8260D		1	5 mL	5 mL	648851	11/06/23 10:50	CAR	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/3-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:26	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-245330-1

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/5-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 17:09	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/7-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:27	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646856/3-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 13:05	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 648138

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245330-1	TB-ROX-101823-8260-SS	Total/NA	Water	8260D	
400-245330-3	P56-ROX-101823	Total/NA	Water	8260D	
400-245330-4	P93A-ROX-101823	Total/NA	Water	8260D	
400-245330-5	P59-ROX-101823	Total/NA	Water	8260D	
MB 400-648138/5	Method Blank	Total/NA	Water	8260D	
LCS 400-648138/1002	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 648851

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245330-4 - RA	P93A-ROX-101823	Total/NA	Water	8260D	
MB 400-648851/5	Method Blank	Total/NA	Water	8260D	
LCS 400-648851/1001	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245330-3	P56-ROX-101823	Total/NA	Water	3520C	
400-245330-4	P93A-ROX-101823	Total/NA	Water	3520C	
400-245330-5	P59-ROX-101823	Total/NA	Water	3520C	
MB 400-646681/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 647055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E	646681
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681

Analysis Batch: 647241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245330-3	P56-ROX-101823	Total/NA	Water	8270E	646681
400-245330-4	P93A-ROX-101823	Total/NA	Water	8270E	646681
400-245330-5	P59-ROX-101823	Total/NA	Water	8270E	646681

Analysis Batch: 647384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245330-3	P56-ROX-101823	Total/NA	Water	8270E SIM	646681
400-245330-4	P93A-ROX-101823	Total/NA	Water	8270E SIM	646681
400-245330-5	P59-ROX-101823	Total/NA	Water	8270E SIM	646681
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E SIM	646681
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646681
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646681

QC Association Summary

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

Job ID: 400-245330-1

GC Semi VOA

Prep Batch: 646856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245330-2	TB-ROX-101823-8011-SS	Total/NA	Water	8011	
400-245330-3	P56-ROX-101823	Total/NA	Water	8011	
400-245330-4	P93A-ROX-101823	Total/NA	Water	8011	
400-245330-5	P59-ROX-101823	Total/NA	Water	8011	
MB 400-646856/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-646856/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-646856/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 646913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245330-2	TB-ROX-101823-8011-SS	Total/NA	Water	8011	646856
400-245330-3	P56-ROX-101823	Total/NA	Water	8011	646856
400-245330-4	P93A-ROX-101823	Total/NA	Water	8011	646856
400-245330-5	P59-ROX-101823	Total/NA	Water	8011	646856
MB 400-646856/1-A	Method Blank	Total/NA	Water	8011	646856
LCS 400-646856/2-A	Lab Control Sample	Total/NA	Water	8011	646856
LCSD 400-646856/3-A	Lab Control Sample Dup	Total/NA	Water	8011	646856

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-648138/5
Matrix: Water
Analysis Batch: 648138

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			11/01/23 09:00	1
Acrolein	ND		20	3.3	ug/L			11/01/23 09:00	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/23 09:00	1
Benzene	ND		1.0	0.50	ug/L			11/01/23 09:00	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/23 09:00	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/23 09:00	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/23 09:00	1
Bromoform	ND		5.0	0.25	ug/L			11/01/23 09:00	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/23 09:00	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/23 09:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/23 09:00	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/23 09:00	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/01/23 09:00	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/23 09:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/23 09:00	1
Chloroform	ND		1.0	0.90	ug/L			11/01/23 09:00	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/23 09:00	1
Chloromethane	ND		1.0	0.90	ug/L			11/01/23 09:00	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/23 09:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/23 09:00	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/23 09:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/23 09:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/23 09:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/23 09:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/23 09:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/23 09:00	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/23 09:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 09:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 09:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 09:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 09:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/23 09:00	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/23 09:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/23 09:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/23 09:00	1
2-Hexanone	ND		25	1.4	ug/L			11/01/23 09:00	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/23 09:00	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/23 09:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/23 09:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/23 09:00	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/23 09:00	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/23 09:00	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/23 09:00	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/23 09:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/23 09:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/23 09:00	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/23 09:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/23 09:00	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-648138/5
Matrix: Water
Analysis Batch: 648138

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			11/01/23 09:00	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/01/23 09:00	1
Styrene	ND		1.0	1.0	ug/L			11/01/23 09:00	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/23 09:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/23 09:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/23 09:00	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/23 09:00	1
Toluene	ND		1.0	0.90	ug/L			11/01/23 09:00	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 09:00	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/23 09:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/23 09:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/23 09:00	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/23 09:00	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/23 09:00	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/23 09:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/23 09:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/23 09:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/23 09:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/23 09:00	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/23 09:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/23 09:00	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/23 09:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 130*		*11/01/23 09:00*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*11/01/23 09:00*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/01/23 09:00*	*1*

Lab Sample ID: LCS 400-648138/1002
Matrix: Water
Analysis Batch: 648138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	211		ug/L		105	43 - 160
Acrolein	250	271		ug/L		109	38 - 160
Acrylonitrile	500	521		ug/L		104	64 - 142
Benzene	50.0	56.1		ug/L		112	70 - 130
Bromobenzene	50.0	58.1		ug/L		116	70 - 132
Bromochloromethane	50.0	50.2		ug/L		100	70 - 130
Bromodichloromethane	50.0	55.0		ug/L		110	67 - 133
Bromoform	50.0	61.2		ug/L		122	57 - 140
Bromomethane	25.0	24.5		ug/L		98	10 - 160
2-Butanone (MEK)	200	237		ug/L		119	61 - 145
Carbon disulfide	50.0	46.8		ug/L		94	61 - 137
Carbon tetrachloride	50.0	52.2		ug/L		104	61 - 137
Chlorobenzene	50.0	57.9		ug/L		116	70 - 130
Chloroethane	25.0	23.0		ug/L		92	55 - 141
2-Chloroethyl vinyl ether	25.0	20.7		ug/L		83	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-648138/1002
Matrix: Water
Analysis Batch: 648138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	51.7		ug/L		103	69 - 130
1-Chlorohexane	50.0	61.8		ug/L		124	69 - 130
Chloromethane	25.0	25.9		ug/L		104	58 - 137
cis-1,2-Dichloroethene	50.0	55.2		ug/L		110	68 - 130
cis-1,3-Dichloropropene	50.0	56.9		ug/L		114	69 - 132
Dibromochloromethane	50.0	57.5		ug/L		115	67 - 135
1,2-Dichlorobenzene	50.0	55.5		ug/L		111	67 - 130
1,3-Dichlorobenzene	50.0	57.9		ug/L		116	70 - 130
1,4-Dichlorobenzene	50.0	57.7		ug/L		115	70 - 130
Dichlorodifluoromethane	25.0	15.1		ug/L		61	41 - 146
1,1-Dichloroethane	50.0	53.9		ug/L		108	70 - 130
1,2-Dichloroethane	50.0	46.6		ug/L		93	69 - 130
1,1-Dichloroethene	50.0	49.5		ug/L		99	63 - 134
1,2-Dichloropropane	50.0	59.4		ug/L		119	70 - 130
1,3-Dichloropropane	50.0	57.5		ug/L		115	70 - 130
2,2-Dichloropropane	50.0	51.3		ug/L		103	52 - 135
1,1-Dichloropropene	50.0	53.8		ug/L		108	70 - 130
Ethylbenzene	50.0	58.9		ug/L		118	70 - 130
Ethyl methacrylate	50.0	56.7		ug/L		113	68 - 130
Hexachlorobutadiene	50.0	74.5	*+	ug/L		149	53 - 140
2-Hexanone	200	252		ug/L		126	65 - 137
Isopropylbenzene	50.0	57.3		ug/L		115	70 - 130
Methylene bromide	50.0	50.2		ug/L		100	70 - 130
Methylene Chloride	50.0	50.4		ug/L		101	66 - 135
4-Methyl-2-pentanone (MIBK)	200	202		ug/L		101	69 - 138
Methyl tert-butyl ether	50.0	51.3		ug/L		103	66 - 130
m-Xylene & p-Xylene	50.0	59.0		ug/L		118	70 - 130
Naphthalene	50.0	50.2		ug/L		100	47 - 149
n-Butylbenzene	50.0	55.1		ug/L		110	67 - 130
N-Propylbenzene	50.0	57.9		ug/L		116	70 - 130
o-Chlorotoluene	50.0	57.3		ug/L		115	70 - 130
o-Xylene	50.0	58.5		ug/L		117	70 - 130
p-Chlorotoluene	50.0	56.6		ug/L		113	70 - 130
p-Isopropyltoluene	50.0	56.9		ug/L		114	65 - 130
sec-Butylbenzene	50.0	57.7		ug/L		115	66 - 130
Styrene	50.0	55.7		ug/L		111	70 - 130
tert-Butylbenzene	50.0	55.5		ug/L		111	64 - 139
1,1,1,2-Tetrachloroethane	50.0	59.1		ug/L		118	67 - 131
1,1,2,2-Tetrachloroethane	50.0	52.8		ug/L		106	70 - 131
Tetrachloroethene	50.0	58.5		ug/L		117	65 - 130
Toluene	50.0	59.5		ug/L		119	70 - 130
trans-1,2-Dichloroethene	50.0	53.7		ug/L		107	70 - 130
trans-1,3-Dichloropropene	50.0	56.8		ug/L		114	63 - 130
1,2,3-Trichlorobenzene	50.0	62.5		ug/L		125	60 - 138
1,2,4-Trichlorobenzene	50.0	61.1		ug/L		122	60 - 140
1,1,1-Trichloroethane	50.0	51.2		ug/L		102	68 - 130
1,1,2-Trichloroethane	50.0	57.6		ug/L		115	70 - 130
Trichloroethene	50.0	54.7		ug/L		109	70 - 130
Trichlorofluoromethane	25.0	22.1		ug/L		89	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-648138/1002
Matrix: Water
Analysis Batch: 648138

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	47.9		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	55.2		ug/L		110	70 - 130
1,3,5-Trimethylbenzene	50.0	56.6		ug/L		113	69 - 130
Vinyl acetate	50.0	51.6		ug/L		103	26 - 160
Vinyl chloride	25.0	24.7		ug/L		99	59 - 136
Xylenes, Total	100	118		ug/L		118	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*72 - 130*
Dibromofluoromethane	*93*		*75 - 126*
Toluene-d8 (Surr)	*103*		*64 - 132*

Lab Sample ID: MB 400-648851/5
Matrix: Water
Analysis Batch: 648851

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.90	ug/L			11/06/23 12:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*72 - 130*		*11/06/23 12:31*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*11/06/23 12:31*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*11/06/23 12:31*	*1*

Lab Sample ID: LCS 400-648851/1001
Matrix: Water
Analysis Batch: 648851

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	25.0	21.2		ug/L		85	65 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 130*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzenethiol	ND		10	1.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzoic acid	ND		30	7.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzyl alcohol	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/23/23 11:01	10/25/23 15:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloroaniline	ND		10	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chlorophenol	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenzofuran	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Diethyl phthalate	ND		10	0.24	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
1,4-Dioxane	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachloroethane	ND		10	4.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Indene	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Isophorone	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Methylphenol	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitroaniline	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
3-Nitroaniline	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitroaniline	ND		10	1.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Nitrobenzene	ND		10	0.13	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitrophenol	ND		10	5.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitrophenol	ND		10	2.1	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pentachlorophenol	ND		20	1.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
Phenol	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pyridine	ND		10	3.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Quinoline	ND		10	4.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		46 - 124	10/23/23 11:01	10/25/23 15:43	1
2-Fluorophenol	8	S1-	13 - 113	10/23/23 11:01	10/25/23 15:43	1
Nitrobenzene-d5	67		36 - 126	10/23/23 11:01	10/25/23 15:43	1
Phenol-d5	37		17 - 127	10/23/23 11:01	10/25/23 15:43	1
Terphenyl-d14	94		44 - 149	10/23/23 11:01	10/25/23 15:43	1
2,4,6-Tribromophenol	55		26 - 150	10/23/23 11:01	10/25/23 15:43	1

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	80.0		ug/L		67	21 - 120
Benzoic acid	522	29.7	J *-	ug/L		6	10 - 144
Benzyl alcohol	120	89.4		ug/L		75	28 - 120
Bis(2-chloroethoxy)methane	120	81.3		ug/L		68	47 - 120
Bis(2-chloroethyl)ether	120	82.0		ug/L		68	44 - 120
bis (2-chloroisopropyl) ether	120	78.6		ug/L		66	33 - 121
Bis(2-ethylhexyl) phthalate	120	94.6		ug/L		79	52 - 147
4-Bromophenyl phenyl ether	120	99.6		ug/L		83	54 - 122
Butyl benzyl phthalate	120	101		ug/L		84	54 - 133
4-Chloroaniline	120	64.4		ug/L		54	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131
2-Chloronaphthalene	120	92.6		ug/L		77	52 - 121
2-Chlorophenol	120	75.0		ug/L		63	40 - 120
4-Chlorophenyl phenyl ether	120	104		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	103		ug/L		86	31 - 150
Dibenzofuran	120	101		ug/L		84	56 - 122
3,3'-Dichlorobenzidine	160	142		ug/L		89	36 - 132
2,4-Dichlorophenol	120	96.5		ug/L		80	49 - 120
Diethyl phthalate	120	105		ug/L		88	50 - 137
2,4-Dimethylphenol	120	97.5		ug/L		81	48 - 120
Dimethyl phthalate	120	97.6		ug/L		81	57 - 124
Di-n-butyl phthalate	120	114		ug/L		95	58 - 126
4,6-Dinitro-ortho-cresol	240	155		ug/L		65	23 - 148
2,4-Dinitrophenol	240	111		ug/L		46	10 - 150
2,4-Dinitrotoluene	120	106		ug/L		88	54 - 142
2,6-Dinitrotoluene	120	103		ug/L		86	55 - 130
Di-n-octyl phthalate	120	91.9		ug/L		77	57 - 138
1,4-Dioxane	120	54.7		ug/L		46	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	81.5		ug/L		68	45 - 124
Hexachlorobenzene	120	108		ug/L		90	52 - 129
Hexachlorocyclopentadiene	120	63.8		ug/L		53	10 - 134
Hexachloroethane	120	81.9		ug/L		68	20 - 120
Indene	120	95.3		ug/L		79	49 - 120
Isophorone	120	82.9		ug/L		69	48 - 120
2-Methylphenol	120	89.7		ug/L		75	46 - 124
3 & 4 Methylphenol	120	88.5		ug/L		74	45 - 120

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

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	120	91.0		ug/L		76	51 - 145
3-Nitroaniline	120	82.4		ug/L		69	37 - 127
4-Nitroaniline	120	80.4		ug/L		67	36 - 137
Nitrobenzene	120	82.9		ug/L		69	45 - 120
2-Nitrophenol	120	98.4		ug/L		82	40 - 124
4-Nitrophenol	240	189		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	81.7		ug/L		68	29 - 137
N-Nitrosodi-n-propylamine	120	86.4		ug/L		72	45 - 120
N-Nitrosodiphenylamine	119	89.7		ug/L		75	54 - 120
Pentachlorophenol	240	174		ug/L		73	31 - 130
Phenol	120	76.3		ug/L		64	11 - 120
Pyridine	240	128		ug/L		53	16 - 120
Quinoline	120	98.7		ug/L		82	49 - 130
2,4,5-Trichlorophenol	120	106		ug/L		88	51 - 136
2,4,6-Trichlorophenol	120	99.0		ug/L		82	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*101*		*26 - 150*

Lab Sample ID: LCS 400-646681/4-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	3.42	J *-	ug/L		3	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*50*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	84.3		ug/L		70	21 - 120	5	30
Benzoic acid	522	26.3	J *-	ug/L		5	10 - 144	12	30
Benzyl alcohol	120	88.5		ug/L		74	28 - 120	1	30
Bis(2-chloroethoxy)methane	120	81.3		ug/L		68	47 - 120	0	30

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

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-chloroethyl)ether	120	78.5		ug/L		65	44 - 120	4	30
bis (2-chloroisopropyl) ether	120	77.0		ug/L		64	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	95.4		ug/L		80	52 - 147	1	30
4-Bromophenyl phenyl ether	120	99.5		ug/L		83	54 - 122	0	30
Butyl benzyl phthalate	120	102		ug/L		85	54 - 133	1	30
4-Chloroaniline	120	86.8		ug/L		72	26 - 120	30	30
4-Chloro-3-methylphenol	120	99.5		ug/L		83	48 - 131	1	30
2-Chloronaphthalene	120	93.0		ug/L		77	52 - 121	0	30
2-Chlorophenol	120	57.9		ug/L		48	40 - 120	26	30
4-Chlorophenyl phenyl ether	120	104		ug/L		87	56 - 125	1	30
Dibenz[a,h]acridine	120	103		ug/L		86	31 - 150	0	30
Dibenzofuran	120	101		ug/L		84	56 - 122	0	30
3,3'-Dichlorobenzidine	160	143		ug/L		89	36 - 132	1	30
2,4-Dichlorophenol	120	89.5		ug/L		75	49 - 120	8	30
Diethyl phthalate	120	106		ug/L		88	50 - 137	1	30
2,4-Dimethylphenol	120	97.1		ug/L		81	48 - 120	0	30
Dimethyl phthalate	120	98.5		ug/L		82	57 - 124	1	30
Di-n-butyl phthalate	120	115		ug/L		96	58 - 126	1	30
4,6-Dinitro-ortho-cresol	240	100	*1	ug/L		42	23 - 148	43	30
2,4-Dinitrophenol	240	44.4	*1	ug/L		19	10 - 150	85	30
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142	2	30
2,6-Dinitrotoluene	120	104		ug/L		87	55 - 130	1	30
Di-n-octyl phthalate	120	92.6		ug/L		77	57 - 138	1	30
1,4-Dioxane	120	50.3		ug/L		42	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)	120	81.2		ug/L		68	45 - 124	0	30
Hexachlorobenzene	120	107		ug/L		89	52 - 129	1	30
Hexachlorocyclopentadiene	120	61.1		ug/L		51	10 - 134	4	30
Hexachloroethane	120	77.4		ug/L		65	20 - 120	6	30
Indene	120	93.0		ug/L		77	49 - 120	3	30
Isophorone	120	83.6		ug/L		70	48 - 120	1	30
2-Methylphenol	120	85.2		ug/L		71	46 - 124	5	30
3 & 4 Methylphenol	120	85.2		ug/L		71	45 - 120	4	30
2-Nitroaniline	120	92.8		ug/L		77	51 - 145	2	30
3-Nitroaniline	120	86.1		ug/L		72	37 - 127	4	30
4-Nitroaniline	120	98.7		ug/L		82	36 - 137	20	30
Nitrobenzene	120	82.7		ug/L		69	45 - 120	0	30
2-Nitrophenol	120	94.9		ug/L		79	40 - 124	4	30
4-Nitrophenol	240	193		ug/L		80	23 - 146	2	30
N-Nitrosodimethylamine	120	79.7		ug/L		66	29 - 137	2	30
N-Nitrosodi-n-propylamine	120	84.3		ug/L		70	45 - 120	3	30
N-Nitrosodiphenylamine	119	89.7		ug/L		75	54 - 120	0	30
Pentachlorophenol	240	119	*1	ug/L		49	31 - 130	38	30
Phenol	120	65.0		ug/L		54	11 - 120	16	30
Pyridine	240	128		ug/L		54	16 - 120	1	30
Quinoline	120	99.0		ug/L		83	49 - 130	0	30
2,4,5-Trichlorophenol	120	105		ug/L		88	51 - 136	1	30
2,4,6-Trichlorophenol	120	96.7		ug/L		81	50 - 127	2	30

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

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	79		46 - 124
2-Fluorophenol	19		13 - 113
Nitrobenzene-d5	78		36 - 126
Phenol-d5	56		17 - 127
Terphenyl-d14	96		44 - 149
2,4,6-Tribromophenol	100		26 - 150

Lab Sample ID: LCSD 400-646681/5-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.32	J *- *1	ug/L		2	10 - 120	38	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	75		46 - 124
2-Fluorophenol	33		13 - 113
Nitrobenzene-d5	65		36 - 126
Phenol-d5	55		17 - 127
Terphenyl-d14	94		44 - 149
2,4,6-Tribromophenol	51		26 - 150

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/23/23 11:01	10/26/23 14:45	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/23/23 11:01	10/26/23 14:45	1
Anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]anthracene	0.0553	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/23/23 11:01	10/26/23 14:45	1
Chrysene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 14:45	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluoranthene	0.0635	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluorene	ND		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 14:45	1
Indeno[1,2,3-cd]pyrene	0.0365	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Phenanthrene	ND		0.20	0.090	ug/L		10/23/23 11:01	10/26/23 14:45	1
Pyrene	ND		0.20	0.039	ug/L		10/23/23 11:01	10/26/23 14:45	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/23/23 11:01	10/26/23 14:45	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/23/23 11:01	10/26/23 14:45	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	69		18 - 147	10/23/23 11:01	10/26/23 14:45	1
2-Fluorobiphenyl	56		15 - 128	10/23/23 11:01	10/26/23 14:45	1
Nitrobenzene-d5	50		10 - 144	10/23/23 11:01	10/26/23 14:45	1

Lab Sample ID: LCS 400-646681/6-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.79		ug/L		90	40 - 140
Acenaphthylene	2.00	1.81		ug/L		90	40 - 140
Anthracene	2.00	1.80		ug/L		90	40 - 140
Benzo[a]anthracene	2.00	1.81		ug/L		91	40 - 140
Benzo[a]pyrene	2.00	1.47		ug/L		74	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		77	40 - 140
Benzo[g,h,i]perylene	2.00	1.70		ug/L		85	40 - 140
Benzo[k]fluoranthene	2.00	1.52		ug/L		76	40 - 140
Chrysene	2.00	1.85		ug/L		93	40 - 140
Dibenz(a,h)anthracene	2.00	1.55		ug/L		78	40 - 140
Fluoranthene	2.00	1.84		ug/L		92	40 - 140
Fluorene	2.00	1.84		ug/L		92	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.60		ug/L		80	40 - 140
Phenanthrene	2.00	1.75		ug/L		88	40 - 140
Pyrene	2.00	1.85		ug/L		93	40 - 140
1-Methylnaphthalene	2.00	1.83		ug/L		92	40 - 140
2-Methylnaphthalene	2.00	1.80		ug/L		90	40 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14	76		18 - 147
2-Fluorobiphenyl	70		15 - 128
Nitrobenzene-d5	57		10 - 144

Lab Sample ID: LCSD 400-646681/7-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.93		ug/L		97	40 - 140	7	40
Acenaphthylene	2.00	1.95		ug/L		97	40 - 140	8	40
Anthracene	2.00	1.94		ug/L		97	40 - 140	8	40
Benzo[a]anthracene	2.00	1.97		ug/L		98	40 - 140	8	40
Benzo[a]pyrene	2.00	1.61		ug/L		80	40 - 140	9	40
Benzo[b]fluoranthene	2.00	1.65		ug/L		82	40 - 140	6	40
Benzo[g,h,i]perylene	2.00	1.77		ug/L		88	40 - 140	4	40
Benzo[k]fluoranthene	2.00	1.62		ug/L		81	40 - 140	6	40
Chrysene	2.00	1.94		ug/L		97	40 - 140	5	40
Dibenz(a,h)anthracene	2.00	1.59		ug/L		80	40 - 140	3	40
Fluoranthene	2.00	2.02		ug/L		101	40 - 140	9	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-646681/7-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene			2.00	2.01		ug/L		100	40 - 140	9	40
Indeno[1,2,3-cd]pyrene			2.00	1.67		ug/L		84	40 - 140	4	40
Phenanthrene			2.00	1.88		ug/L		94	40 - 140	7	40
Pyrene			2.00	1.93		ug/L		96	40 - 140	4	40
1-Methylnaphthalene			2.00	1.98		ug/L		99	40 - 140	7	40
2-Methylnaphthalene			2.00	1.93		ug/L		96	40 - 140	7	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*79*		*18 - 147*
2-Fluorobiphenyl	*75*		*15 - 128*
Nitrobenzene-d5	*61*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-646856/1-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646856

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 12:23	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*10/24/23 07:31*	*10/24/23 12:23*	*1*

Lab Sample ID: LCS 400-646856/2-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646856

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.0990		ug/L		98	60 - 140		
1,2-Dibromoethane			0.101	0.103		ug/L		102	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*51 - 149*

Lab Sample ID: LCSD 400-646856/3-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.104		ug/L		103	60 - 140	5	30
1,2-Dibromoethane			0.101	0.105		ug/L		104	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*51 - 149*

LAB (LOCATION)

Shell Oil Products US Chain Of Custody Record

AECOM

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola, 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

400-245330 COC

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: 10/18/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2
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, C. McDavid
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 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 0.5 4.3 IR8

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 8270 SIMS	Container PID Readings or Laboratory Notes:
	TB-ROX-101823-8260-SS	10/18/2023	0000	Water	2					2	X				
	TB-ROX-101823-8011-SS	10/18/2023	0000	Water	2					2		X			
	P56-ROX-101823	10/18/2023	1115	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93A-ROX-101823	10/18/2023	1205	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P59-ROX-101823	10/18/2023	1300	Water	6			2		8	X	X	X	X	SPLIT REPORT

C McDavid 10-16-23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time
COURTNEY MCDAVID	FEDEX: 6339 6595 3204, 6339 6595 3215	10/18/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 10.19.23	Time 9:26
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

CUSTODY SEALS: 2364872, 2364873, 2364874, 2364875

Version. 27Sept23

12/27/2023 (Rev. 2)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-245330-1

Login Number: 245330 **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	0.5°C, 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: 400-245330-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245427-1-Rev.1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/14/2023

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

Sample Identification	Sample Identification
TB-ROX-102023-8260	MW25-ROX-102023
TB-ROX-102023-8011	MW7-ROX-102023
MW4-ROX-102023	MW7-ROX-102023-DUP

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 PAHs were detected in one method blank. Several VOC and SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. The continuing calibration verifications (CCV) for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on December 18, 2023, to include missing initial calibration verification for method 8270E.

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 400-646681/1-A	PAHs	Benzo[a]anthracene	0.0553 µg/L
MB 400-646681/1-A	PAHs	Fluoranthene	0.0635 µg/L
MB 400-646681/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0365 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
MW7-ROX-102023	PAHs	Fluoranthene	-	**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 400-648340/1002	VOCs	Hexachlorobutadiene	**141**	NA	53-140
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Benzoic acid	**6/5**	12	10-144/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	4,6-Dinitro-ortho-cresol	65/42	**43**	23-148/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	2,4-Dinitrophenol	46/19	**85**	10-150/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Pentachlorophenol	73/49	**38**	31-130/30
LCS/LCSD 400-646681/4-A/5-A	SVOCs	Benzenethiol	**3/2**	**38**	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. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol and benzoic acid below evaluation criteria; benzenethiol and benzoic acid have been identified as a poor performing analytes under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-102023	SVOCs	Benzoic acid	**UJ**
MW25-ROX-102023	SVOCs	Benzoic acid	**UJ**
MW7-ROX-102023	SVOCs	Benzoic acid	**UJ**
MW7-ROX-102023-DUP	SVOCs	Benzoic acid	**UJ**
MW4-ROX-102023	SVOCs	Benzenethiol	**UJ**
MW25-ROX-102023	SVOCs	Benzenethiol	**UJ**
MW7-ROX-102023	SVOCs	Benzenethiol	**UJ**
MW7-ROX-102023-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW7-ROX-102023-DUP	SVOCs	2-Fluorophenol	**11**	13-113
MB 400-646681/1-A	SVOCs	2- Fluorophenol	**8**	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. 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?

Yes

Field ID	Field Duplicate ID
MW7-ROX-102023	MW7-ROX-102023-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 verifications (CCV) for multiple analytes were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-102023	SVOCs	1,4-Dioxane	UJ
MW25-ROX-102023	SVOCs	1,4-Dioxane	UJ
MW7-ROX-102023	SVOCs	1,4-Dioxane	UJ
MW7-ROX-102023-DUP	SVOCs	1,4-Dioxane	UJ
MW4-ROX-102023	SVOCs	Hexachlorocyclopentadiene	UJ
MW25-ROX-102023	SVOCs	Hexachlorocyclopentadiene	UJ
MW7-ROX-102023	SVOCs	Hexachlorocyclopentadiene	UJ
MW7-ROX-102023-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
MW4-ROX-102023	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW25-ROX-102023	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW7-ROX-102023	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW7-ROX-102023-DUP	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	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 11/6/2023 12:59:16 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245427-1

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

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Job ID: 400-245427-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-245427-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/21/2023 8:00 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 1.2°C

GC/MS VOA
Method 8260D: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW7-ROX-102023 (400-245427-5) and MW7-ROX-102023-DUP (400-245427-6). Elevated reporting limits (RLs) are provided.

Method 8260D: 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-102023-8260 (400-245427-1), MW4-ROX-102023 (400-245427-3), MW25-ROX-102023 (400-245427-4), MW7-ROX-102023 (400-245427-5) and MW7-ROX-102023-DUP (400-245427-6). 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 8260D: The continuing calibration verification (CCV) associated with batch 400-648340 recovered above the upper control limit for Hexachlorobutadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The laboratory control sample (LCS) for analytical batch 400-648340 recovered outside control limits for the following analytes: Hexachlorobutadiene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-633903 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 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analyte(s): Benzoic acid. Benzoic acid 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: 2,4-Dinitrophenol, 4,6-Dinitro-ortho-cresol and Pentachlorophenol.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch

Job ID: 400-245427-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

400-646681 and analytical batch 400-647055 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-647055 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, 1,2-Diphenylhydrazine (as Azobenzene) 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 8270E: 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: MW7-ROX-102023-DUP (400-245427-6) and (MB 400-646681/1-A). These results have been reported and qualified.

Method 8270E_SIM: The method blank for preparation batch 400-646681 and analytical batch 400-647384 contained Indeno[1,2,3-cd]pyrene, Benzo[a]anthracene and Fluoranthene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; 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

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: 400-245427-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245427-1	TB-ROX-102023-8260	Water	10/20/23 12:00	10/21/23 08:00
400-245427-2	TB-ROX-102023-8011	Water	10/20/23 12:00	10/21/23 08:00
400-245427-3	MW4-ROX-102023	Water	10/20/23 09:45	10/21/23 08:00
400-245427-4	MW25-ROX-102023	Water	10/20/23 10:35	10/21/23 08:00
400-245427-5	MW7-ROX-102023	Water	10/20/23 11:30	10/21/23 08:00
400-245427-6	MW7-ROX-102023-DUP	Water	10/20/23 11:30	10/21/23 08:00

Detection Summary

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

Job ID: 400-245427-1

Client Sample ID: TB-ROX-102023-8260 — Lab Sample ID: 400-245427-1

No Detections.

Client Sample ID: TB-ROX-102023-8011 — Lab Sample ID: 400-245427-2

No Detections.

Client Sample ID: MW4-ROX-102023 — Lab Sample ID: 400-245427-3

No Detections.

Client Sample ID: MW25-ROX-102023 — Lab Sample ID: 400-245427-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	43		1.0	0.50	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	0.35	J	1.0	0.22	ug/L	1		8260D	Total/NA
tert-Butylbenzene	0.91	J	1.0	0.63	ug/L	1		8260D	Total/NA

Client Sample ID: MW7-ROX-102023 — Lab Sample ID: 400-245427-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1400000		5000	2500	ug/L	5000		8260D	Total/NA
Acenaphthylene	0.15	J	0.22	0.048	ug/L	1		8270E SIM	Total/NA
Anthracene	0.087	J	0.22	0.051	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.053	J B	0.22	0.037	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.13	J	0.22	0.098	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	1.1		0.22	0.087	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.5		0.22	0.072	ug/L	1		8270E SIM	Total/NA
3 & 4 Methylphenol	0.55	J	22	0.42	ug/L	1		8270E	Total/NA
Phenol	110		11	2.8	ug/L	1		8270E	Total/NA

Client Sample ID: MW7-ROX-102023-DUP — Lab Sample ID: 400-245427-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1200000		5000	2500	ug/L	5000		8260D	Total/NA
Acenaphthylene	0.16	J	0.22	0.049	ug/L	1		8270E SIM	Total/NA
Anthracene	0.058	J	0.22	0.052	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.14	J	0.22	0.10	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	1.1		0.22	0.089	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.5		0.22	0.074	ug/L	1		8270E SIM	Total/NA
3 & 4 Methylphenol	0.45	J	22	0.44	ug/L	1		8270E	Total/NA
Phenol	82		11	2.9	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245427-1

Client Sample ID: TB-ROX-102023-8260
Date Collected: 10/20/23 12:00
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/02/23 17:39	1
Acrolein	ND		20	3.3	ug/L			11/02/23 17:39	1
Acrylonitrile	ND		10	2.8	ug/L			11/02/23 17:39	1
Benzene	ND		1.0	0.50	ug/L			11/02/23 17:39	1
Bromobenzene	ND		1.0	0.54	ug/L			11/02/23 17:39	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/02/23 17:39	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/02/23 17:39	1
Bromoform	ND		5.0	0.25	ug/L			11/02/23 17:39	1
Bromomethane	ND		1.0	0.98	ug/L			11/02/23 17:39	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/02/23 17:39	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/02/23 17:39	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/02/23 17:39	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/02/23 17:39	1
Chloroethane	ND		1.0	0.76	ug/L			11/02/23 17:39	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/02/23 17:39	1
Chloroform	ND		1.0	0.90	ug/L			11/02/23 17:39	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/02/23 17:39	1
Chloromethane	ND		1.0	0.90	ug/L			11/02/23 17:39	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/02/23 17:39	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/02/23 17:39	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/02/23 17:39	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/02/23 17:39	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/02/23 17:39	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/02/23 17:39	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/02/23 17:39	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/02/23 17:39	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/02/23 17:39	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/02/23 17:39	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 17:39	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 17:39	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 17:39	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/02/23 17:39	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/02/23 17:39	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/02/23 17:39	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/02/23 17:39	1
2-Hexanone	ND		25	1.4	ug/L			11/02/23 17:39	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/02/23 17:39	1
Methylene bromide	ND		5.0	0.22	ug/L			11/02/23 17:39	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/02/23 17:39	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/02/23 17:39	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/02/23 17:39	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/02/23 17:39	1
Naphthalene	ND		5.0	3.0	ug/L			11/02/23 17:39	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/02/23 17:39	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/02/23 17:39	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/02/23 17:39	1
o-Xylene	ND		5.0	0.60	ug/L			11/02/23 17:39	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/02/23 17:39	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/02/23 17:39	1

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

Job ID: 400-245427-1

Client Sample ID: TB-ROX-102023-8260
Date Collected: 10/20/23 12:00
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/02/23 17:39	1
Styrene	ND		1.0	1.0	ug/L			11/02/23 17:39	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/02/23 17:39	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/02/23 17:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/02/23 17:39	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/02/23 17:39	1
Toluene	ND		1.0	0.90	ug/L			11/02/23 17:39	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/02/23 17:39	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/02/23 17:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/02/23 17:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/02/23 17:39	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/02/23 17:39	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/02/23 17:39	1
Trichloroethene	ND		1.0	0.15	ug/L			11/02/23 17:39	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/02/23 17:39	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/02/23 17:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/02/23 17:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/02/23 17:39	1
Vinyl acetate	ND		25	0.93	ug/L			11/02/23 17:39	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/02/23 17:39	1
Xylenes, Total	ND		10	1.6	ug/L			11/02/23 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*72 - 130*		*11/02/23 17:39*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*11/02/23 17:39*	*1*
Toluene-d8 (Surr)	*110*		*64 - 132*		*11/02/23 17:39*	*1*

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

Job ID: 400-245427-1

Client Sample ID: TB-ROX-102023-8011
Date Collected: 10/20/23 12:00
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 15:12	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*10/24/23 07:31*	*10/24/23 15:12*	*1*

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

Job ID: 400-245427-1

Client Sample ID: MW4-ROX-102023
Date Collected: 10/20/23 09:45
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/02/23 18:03	1
Acrolein	ND		20	3.3	ug/L			11/02/23 18:03	1
Acrylonitrile	ND		10	2.8	ug/L			11/02/23 18:03	1
Benzene	ND		1.0	0.50	ug/L			11/02/23 18:03	1
Bromobenzene	ND		1.0	0.54	ug/L			11/02/23 18:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/02/23 18:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/02/23 18:03	1
Bromoform	ND		5.0	0.25	ug/L			11/02/23 18:03	1
Bromomethane	ND		1.0	0.98	ug/L			11/02/23 18:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/02/23 18:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/02/23 18:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/02/23 18:03	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/02/23 18:03	1
Chloroethane	ND		1.0	0.76	ug/L			11/02/23 18:03	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/02/23 18:03	1
Chloroform	ND		1.0	0.90	ug/L			11/02/23 18:03	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/02/23 18:03	1
Chloromethane	ND		1.0	0.90	ug/L			11/02/23 18:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/02/23 18:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/02/23 18:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/02/23 18:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/02/23 18:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/02/23 18:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/02/23 18:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/02/23 18:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/02/23 18:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/02/23 18:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/02/23 18:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 18:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 18:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 18:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/02/23 18:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/02/23 18:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/02/23 18:03	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/02/23 18:03	1
2-Hexanone	ND		25	1.4	ug/L			11/02/23 18:03	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/02/23 18:03	1
Methylene bromide	ND		5.0	0.22	ug/L			11/02/23 18:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/02/23 18:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/02/23 18:03	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/02/23 18:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/02/23 18:03	1
Naphthalene	ND		5.0	3.0	ug/L			11/02/23 18:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/02/23 18:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/02/23 18:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/02/23 18:03	1
o-Xylene	ND		5.0	0.60	ug/L			11/02/23 18:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/02/23 18:03	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/02/23 18:03	1

Client Sample ID: MW4-ROX-102023
Date Collected: 10/20/23 09:45
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/02/23 18:03	1
Styrene	ND		1.0	1.0	ug/L			11/02/23 18:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/02/23 18:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/02/23 18:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/02/23 18:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/02/23 18:03	1
Toluene	ND		1.0	0.90	ug/L			11/02/23 18:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/02/23 18:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/02/23 18:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/02/23 18:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/02/23 18:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/02/23 18:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/02/23 18:03	1
Trichloroethene	ND		1.0	0.15	ug/L			11/02/23 18:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/02/23 18:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/02/23 18:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/02/23 18:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/02/23 18:03	1
Vinyl acetate	ND		25	0.93	ug/L			11/02/23 18:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/02/23 18:03	1
Xylenes, Total	ND		10	1.6	ug/L			11/02/23 18:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*72 - 130*		*11/02/23 18:03*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/02/23 18:03*	*1*
Toluene-d8 (Surr)	*110*		*64 - 132*		*11/02/23 18:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.22	0.11	ug/L		10/24/23 10:51	10/26/23 21:43	1
Acenaphthylene	ND		0.22	0.049	ug/L		10/24/23 10:51	10/26/23 21:43	1
Anthracene	ND		0.22	0.053	ug/L		10/24/23 10:51	10/26/23 21:43	1
Benzo[a]anthracene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 21:43	1
Benzo[a]pyrene	ND		0.22	0.072	ug/L		10/24/23 10:51	10/26/23 21:43	1
Benzo[b]fluoranthene	ND		0.22	0.041	ug/L		10/24/23 10:51	10/26/23 21:43	1
Benzo[g,h,i]perylene	ND		0.22	0.030	ug/L		10/24/23 10:51	10/26/23 21:43	1
Benzo[k]fluoranthene	ND		0.22	0.069	ug/L		10/24/23 10:51	10/26/23 21:43	1
Chrysene	ND		0.22	0.037	ug/L		10/24/23 10:51	10/26/23 21:43	1
Dibenz(a,h)anthracene	ND		0.22	0.054	ug/L		10/24/23 10:51	10/26/23 21:43	1
Fluoranthene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 21:43	1
Fluorene	ND		0.22	0.10	ug/L		10/24/23 10:51	10/26/23 21:43	1
Indeno[1,2,3-cd]pyrene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 21:43	1
Phenanthrene	ND		0.22	0.10	ug/L		10/24/23 10:51	10/26/23 21:43	1
Pyrene	ND		0.22	0.044	ug/L		10/24/23 10:51	10/26/23 21:43	1
1-Methylnaphthalene	ND		0.22	0.089	ug/L		10/24/23 10:51	10/26/23 21:43	1
2-Methylnaphthalene	ND		0.22	0.074	ug/L		10/24/23 10:51	10/26/23 21:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*72*		*18 - 147*	*10/24/23 10:51*	*10/26/23 21:43*	*1*
2-Fluorobiphenyl	*71*		*15 - 128*	*10/24/23 10:51*	*10/26/23 21:43*	*1*

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

Job ID: 400-245427-1

Client Sample ID: MW4-ROX-102023

Date Collected: 10/20/23 09:45
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-3

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*57*		*10 - 144*	*10/24/23 10:51*	*10/26/23 21:43*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		11	4.2	ug/L		10/24/23 10:51	10/25/23 21:02	1
Benzenethiol	ND	*- *1	11	1.9	ug/L		10/24/23 10:51	10/25/23 21:02	1
Benzoic acid	ND	*-	34	8.2	ug/L		10/24/23 10:51	10/25/23 21:02	1
Benzyl alcohol	ND		11	2.2	ug/L		10/24/23 10:51	10/25/23 21:02	1
Bis(2-chloroethoxy)methane	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 21:02	1
Bis(2-chloroethyl)ether	ND		11	3.0	ug/L		10/24/23 10:51	10/25/23 21:02	1
bis (2-chloroisopropyl) ether	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 21:02	1
Bis(2-ethylhexyl) phthalate	ND		11	5.6	ug/L		10/24/23 10:51	10/25/23 21:02	1
4-Bromophenyl phenyl ether	ND		11	0.22	ug/L		10/24/23 10:51	10/25/23 21:02	1
Butyl benzyl phthalate	ND		11	0.21	ug/L		10/24/23 10:51	10/25/23 21:02	1
4-Chloroaniline	ND		11	3.8	ug/L		10/24/23 10:51	10/25/23 21:02	1
4-Chloro-3-methylphenol	ND		11	4.2	ug/L		10/24/23 10:51	10/25/23 21:02	1
2-Chloronaphthalene	ND		11	0.16	ug/L		10/24/23 10:51	10/25/23 21:02	1
2-Chlorophenol	ND		11	2.5	ug/L		10/24/23 10:51	10/25/23 21:02	1
4-Chlorophenyl phenyl ether	ND		11	2.2	ug/L		10/24/23 10:51	10/25/23 21:02	1
Dibenz[a,h]acridine	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:02	1
Dibenzofuran	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 21:02	1
3,3'-Dichlorobenzidine	ND		11	2.9	ug/L		10/24/23 10:51	10/25/23 21:02	1
2,4-Dichlorophenol	ND		11	3.4	ug/L		10/24/23 10:51	10/25/23 21:02	1
Diethyl phthalate	ND		11	0.27	ug/L		10/24/23 10:51	10/25/23 21:02	1
2,4-Dimethylphenol	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 21:02	1
Dimethyl phthalate	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 21:02	1
Di-n-butyl phthalate	ND		11	3.0	ug/L		10/24/23 10:51	10/25/23 21:02	1
4,6-Dinitro-ortho-cresol	ND	*1	11	1.8	ug/L		10/24/23 10:51	10/25/23 21:02	1
2,4-Dinitrophenol	ND	*1	34	3.8	ug/L		10/24/23 10:51	10/25/23 21:02	1
2,4-Dinitrotoluene	ND		11	2.1	ug/L		10/24/23 10:51	10/25/23 21:02	1
2,6-Dinitrotoluene	ND		11	2.1	ug/L		10/24/23 10:51	10/25/23 21:02	1
Di-n-octyl phthalate	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 21:02	1
1,4-Dioxane	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:02	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:02	1
Hexachlorobenzene	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 21:02	1
Hexachlorocyclopentadiene	ND		22	2.9	ug/L		10/24/23 10:51	10/25/23 21:02	1
Hexachloroethane	ND		11	4.7	ug/L		10/24/23 10:51	10/25/23 21:02	1
Indene	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:02	1
Isophorone	ND		11	0.16	ug/L		10/24/23 10:51	10/25/23 21:02	1
2-Methylphenol	ND		11	2.0	ug/L		10/24/23 10:51	10/25/23 21:02	1
3 & 4 Methylphenol	ND		22	0.44	ug/L		10/24/23 10:51	10/25/23 21:02	1
2-Nitroaniline	ND		11	2.5	ug/L		10/24/23 10:51	10/25/23 21:02	1
3-Nitroaniline	ND		11	2.0	ug/L		10/24/23 10:51	10/25/23 21:02	1
4-Nitroaniline	ND		11	1.7	ug/L		10/24/23 10:51	10/25/23 21:02	1
Nitrobenzene	ND		11	0.15	ug/L		10/24/23 10:51	10/25/23 21:02	1
2-Nitrophenol	ND		11	5.8	ug/L		10/24/23 10:51	10/25/23 21:02	1
4-Nitrophenol	ND		11	2.3	ug/L		10/24/23 10:51	10/25/23 21:02	1
N-Nitrosodimethylamine	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 21:02	1

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

Job ID: 400-245427-1

Client Sample ID: MW4-ROX-102023

Date Collected: 10/20/23 09:45
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		11	3.7	ug/L		10/24/23 10:51	10/25/23 21:02	1
N-Nitrosodiphenylamine	ND		11	0.20	ug/L		10/24/23 10:51	10/25/23 21:02	1
Pentachlorophenol	ND	*1	22	1.6	ug/L		10/24/23 10:51	10/25/23 21:02	1
Phenol	ND		11	2.9	ug/L		10/24/23 10:51	10/25/23 21:02	1
Pyridine	ND		11	3.6	ug/L		10/24/23 10:51	10/25/23 21:02	1
Quinoline	ND		11	5.0	ug/L		10/24/23 10:51	10/25/23 21:02	1
2,4,5-Trichlorophenol	ND		11	4.1	ug/L		10/24/23 10:51	10/25/23 21:02	1
2,4,6-Trichlorophenol	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 21:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*10/24/23 10:51*	*10/25/23 21:02*	*1*
2-Fluorophenol	*14*		*13 - 113*	*10/24/23 10:51*	*10/25/23 21:02*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*10/24/23 10:51*	*10/25/23 21:02*	*1*
Phenol-d5	*44*		*17 - 127*	*10/24/23 10:51*	*10/25/23 21:02*	*1*
Terphenyl-d14	*81*		*44 - 149*	*10/24/23 10:51*	*10/25/23 21:02*	*1*
2,4,6-Tribromophenol	*81*		*26 - 150*	*10/24/23 10:51*	*10/25/23 21:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 15:33	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*10/24/23 07:31*	*10/24/23 15:33*	*1*

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

Job ID: 400-245427-1

Client Sample ID: MW25-ROX-102023
Date Collected: 10/20/23 10:35
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/02/23 18:27	1
Acrolein	ND		20	3.3	ug/L			11/02/23 18:27	1
Acrylonitrile	ND		10	2.8	ug/L			11/02/23 18:27	1
Benzene	**43**		1.0	0.50	ug/L			11/02/23 18:27	1
Bromobenzene	ND		1.0	0.54	ug/L			11/02/23 18:27	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/02/23 18:27	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/02/23 18:27	1
Bromoform	ND		5.0	0.25	ug/L			11/02/23 18:27	1
Bromomethane	ND		1.0	0.98	ug/L			11/02/23 18:27	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/02/23 18:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/02/23 18:27	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/02/23 18:27	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/02/23 18:27	1
Chloroethane	ND		1.0	0.76	ug/L			11/02/23 18:27	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/02/23 18:27	1
Chloroform	ND		1.0	0.90	ug/L			11/02/23 18:27	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/02/23 18:27	1
Chloromethane	ND		1.0	0.90	ug/L			11/02/23 18:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/02/23 18:27	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/02/23 18:27	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/02/23 18:27	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/02/23 18:27	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/02/23 18:27	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/02/23 18:27	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/02/23 18:27	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/02/23 18:27	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/02/23 18:27	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/02/23 18:27	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 18:27	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 18:27	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 18:27	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/02/23 18:27	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/02/23 18:27	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/02/23 18:27	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/02/23 18:27	1
2-Hexanone	ND		25	1.4	ug/L			11/02/23 18:27	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/02/23 18:27	1
Methylene bromide	ND		5.0	0.22	ug/L			11/02/23 18:27	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/02/23 18:27	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/02/23 18:27	1
Methyl tert-butyl ether	**0.35**	**J**	1.0	0.22	ug/L			11/02/23 18:27	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/02/23 18:27	1
Naphthalene	ND		5.0	3.0	ug/L			11/02/23 18:27	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/02/23 18:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/02/23 18:27	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/02/23 18:27	1
o-Xylene	ND		5.0	0.60	ug/L			11/02/23 18:27	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/02/23 18:27	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/02/23 18:27	1

Client Sample ID: MW25-ROX-102023
Date Collected: 10/20/23 10:35
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/02/23 18:27	1
Styrene	ND		1.0	1.0	ug/L			11/02/23 18:27	1
tert-Butylbenzene	**0.91**	**J**	1.0	0.63	ug/L			11/02/23 18:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/02/23 18:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/02/23 18:27	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/02/23 18:27	1
Toluene	ND		1.0	0.90	ug/L			11/02/23 18:27	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/02/23 18:27	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/02/23 18:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/02/23 18:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/02/23 18:27	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/02/23 18:27	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/02/23 18:27	1
Trichloroethene	ND		1.0	0.15	ug/L			11/02/23 18:27	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/02/23 18:27	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/02/23 18:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/02/23 18:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/02/23 18:27	1
Vinyl acetate	ND		25	0.93	ug/L			11/02/23 18:27	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/02/23 18:27	1
Xylenes, Total	ND		10	1.6	ug/L			11/02/23 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*72 - 130*		*11/02/23 18:27*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/02/23 18:27*	*1*
Toluene-d8 (Surr)	*112*		*64 - 132*		*11/02/23 18:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.22	0.11	ug/L		10/24/23 10:51	10/26/23 22:04	1
Acenaphthylene	ND		0.22	0.049	ug/L		10/24/23 10:51	10/26/23 22:04	1
Anthracene	ND		0.22	0.052	ug/L		10/24/23 10:51	10/26/23 22:04	1
Benzo[a]anthracene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 22:04	1
Benzo[a]pyrene	ND		0.22	0.071	ug/L		10/24/23 10:51	10/26/23 22:04	1
Benzo[b]fluoranthene	ND		0.22	0.041	ug/L		10/24/23 10:51	10/26/23 22:04	1
Benzo[g,h,i]perylene	ND		0.22	0.030	ug/L		10/24/23 10:51	10/26/23 22:04	1
Benzo[k]fluoranthene	ND		0.22	0.069	ug/L		10/24/23 10:51	10/26/23 22:04	1
Chrysene	ND		0.22	0.037	ug/L		10/24/23 10:51	10/26/23 22:04	1
Dibenz(a,h)anthracene	ND		0.22	0.053	ug/L		10/24/23 10:51	10/26/23 22:04	1
Fluoranthene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 22:04	1
Fluorene	ND		0.22	0.099	ug/L		10/24/23 10:51	10/26/23 22:04	1
Indeno[1,2,3-cd]pyrene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 22:04	1
Phenanthrene	ND		0.22	0.10	ug/L		10/24/23 10:51	10/26/23 22:04	1
Pyrene	ND		0.22	0.043	ug/L		10/24/23 10:51	10/26/23 22:04	1
1-Methylnaphthalene	ND		0.22	0.089	ug/L		10/24/23 10:51	10/26/23 22:04	1
2-Methylnaphthalene	ND		0.22	0.073	ug/L		10/24/23 10:51	10/26/23 22:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*62*		*18 - 147*	*10/24/23 10:51*	*10/26/23 22:04*	*1*
2-Fluorobiphenyl	*71*		*15 - 128*	*10/24/23 10:51*	*10/26/23 22:04*	*1*

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

Job ID: 400-245427-1

Client Sample ID: MW25-ROX-102023
Date Collected: 10/20/23 10:35
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*57*		*10 - 144*	*10/24/23 10:51*	*10/26/23 22:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		11	4.2	ug/L		10/24/23 10:51	10/25/23 21:24	1
Benzenethiol	ND	*- *1	11	1.9	ug/L		10/24/23 10:51	10/25/23 21:24	1
Benzoic acid	ND	*-	33	8.1	ug/L		10/24/23 10:51	10/25/23 21:24	1
Benzyl alcohol	ND		11	2.2	ug/L		10/24/23 10:51	10/25/23 21:24	1
Bis(2-chloroethoxy)methane	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 21:24	1
Bis(2-chloroethyl)ether	ND		11	3.0	ug/L		10/24/23 10:51	10/25/23 21:24	1
bis (2-chloroisopropyl) ether	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 21:24	1
Bis(2-ethylhexyl) phthalate	ND		11	5.5	ug/L		10/24/23 10:51	10/25/23 21:24	1
4-Bromophenyl phenyl ether	ND		11	0.22	ug/L		10/24/23 10:51	10/25/23 21:24	1
Butyl benzyl phthalate	ND		11	0.21	ug/L		10/24/23 10:51	10/25/23 21:24	1
4-Chloroaniline	ND		11	3.8	ug/L		10/24/23 10:51	10/25/23 21:24	1
4-Chloro-3-methylphenol	ND		11	4.2	ug/L		10/24/23 10:51	10/25/23 21:24	1
2-Chloronaphthalene	ND		11	0.16	ug/L		10/24/23 10:51	10/25/23 21:24	1
2-Chlorophenol	ND		11	2.4	ug/L		10/24/23 10:51	10/25/23 21:24	1
4-Chlorophenyl phenyl ether	ND		11	2.2	ug/L		10/24/23 10:51	10/25/23 21:24	1
Dibenz[a,h]acridine	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:24	1
Dibenzofuran	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 21:24	1
3,3'-Dichlorobenzidine	ND		11	2.9	ug/L		10/24/23 10:51	10/25/23 21:24	1
2,4-Dichlorophenol	ND		11	3.3	ug/L		10/24/23 10:51	10/25/23 21:24	1
Diethyl phthalate	ND		11	0.27	ug/L		10/24/23 10:51	10/25/23 21:24	1
2,4-Dimethylphenol	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 21:24	1
Dimethyl phthalate	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 21:24	1
Di-n-butyl phthalate	ND		11	3.0	ug/L		10/24/23 10:51	10/25/23 21:24	1
4,6-Dinitro-ortho-cresol	ND	*1	11	1.8	ug/L		10/24/23 10:51	10/25/23 21:24	1
2,4-Dinitrophenol	ND	*1	33	3.8	ug/L		10/24/23 10:51	10/25/23 21:24	1
2,4-Dinitrotoluene	ND		11	2.1	ug/L		10/24/23 10:51	10/25/23 21:24	1
2,6-Dinitrotoluene	ND		11	2.1	ug/L		10/24/23 10:51	10/25/23 21:24	1
Di-n-octyl phthalate	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 21:24	1
1,4-Dioxane	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:24	1
Hexachlorobenzene	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 21:24	1
Hexachlorocyclopentadiene	ND		22	2.9	ug/L		10/24/23 10:51	10/25/23 21:24	1
Hexachloroethane	ND		11	4.7	ug/L		10/24/23 10:51	10/25/23 21:24	1
Indene	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:24	1
Isophorone	ND		11	0.16	ug/L		10/24/23 10:51	10/25/23 21:24	1
2-Methylphenol	ND		11	2.0	ug/L		10/24/23 10:51	10/25/23 21:24	1
3 & 4 Methylphenol	ND		22	0.43	ug/L		10/24/23 10:51	10/25/23 21:24	1
2-Nitroaniline	ND		11	2.4	ug/L		10/24/23 10:51	10/25/23 21:24	1
3-Nitroaniline	ND		11	2.0	ug/L		10/24/23 10:51	10/25/23 21:24	1
4-Nitroaniline	ND		11	1.7	ug/L		10/24/23 10:51	10/25/23 21:24	1
Nitrobenzene	ND		11	0.14	ug/L		10/24/23 10:51	10/25/23 21:24	1
2-Nitrophenol	ND		11	5.8	ug/L		10/24/23 10:51	10/25/23 21:24	1
4-Nitrophenol	ND		11	2.3	ug/L		10/24/23 10:51	10/25/23 21:24	1
N-Nitrosodimethylamine	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 21:24	1

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

Job ID: 400-245427-1

Client Sample ID: MW25-ROX-102023
Date Collected: 10/20/23 10:35
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		11	3.7	ug/L		10/24/23 10:51	10/25/23 21:24	1
N-Nitrosodiphenylamine	ND		11	0.20	ug/L		10/24/23 10:51	10/25/23 21:24	1
Pentachlorophenol	ND	*1	22	1.6	ug/L		10/24/23 10:51	10/25/23 21:24	1
Phenol	ND		11	2.9	ug/L		10/24/23 10:51	10/25/23 21:24	1
Pyridine	ND		11	3.5	ug/L		10/24/23 10:51	10/25/23 21:24	1
Quinoline	ND		11	5.0	ug/L		10/24/23 10:51	10/25/23 21:24	1
2,4,5-Trichlorophenol	ND		11	4.1	ug/L		10/24/23 10:51	10/25/23 21:24	1
2,4,6-Trichlorophenol	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*10/24/23 10:51*	*10/25/23 21:24*	*1*
2-Fluorophenol	*15*		*13 - 113*	*10/24/23 10:51*	*10/25/23 21:24*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*10/24/23 10:51*	*10/25/23 21:24*	*1*
Phenol-d5	*41*		*17 - 127*	*10/24/23 10:51*	*10/25/23 21:24*	*1*
Terphenyl-d14	*67*		*44 - 149*	*10/24/23 10:51*	*10/25/23 21:24*	*1*
2,4,6-Tribromophenol	*82*		*26 - 150*	*10/24/23 10:51*	*10/25/23 21:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 16:16	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*51 - 149*	*10/24/23 07:31*	*10/24/23 16:16*	*1*

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

Job ID: 400-245427-1

Client Sample ID: MW7-ROX-102023
Date Collected: 10/20/23 11:30
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130000	50000	ug/L			11/02/23 18:52	5000
Acrolein	ND		100000	17000	ug/L			11/02/23 18:52	5000
Acrylonitrile	ND		50000	14000	ug/L			11/02/23 18:52	5000
Benzene	**1400000**		5000	2500	ug/L			11/02/23 18:52	5000
Bromobenzene	ND		5000	2700	ug/L			11/02/23 18:52	5000
Bromochloromethane	ND		5000	1100	ug/L			11/02/23 18:52	5000
Bromodichloromethane	ND		5000	2500	ug/L			11/02/23 18:52	5000
Bromoform	ND		25000	1300	ug/L			11/02/23 18:52	5000
Bromomethane	ND		5000	4900	ug/L			11/02/23 18:52	5000
2-Butanone (MEK)	ND		130000	13000	ug/L			11/02/23 18:52	5000
Carbon disulfide	ND		5000	2500	ug/L			11/02/23 18:52	5000
Carbon tetrachloride	ND		5000	950	ug/L			11/02/23 18:52	5000
Chlorobenzene	ND		5000	4500	ug/L			11/02/23 18:52	5000
Chloroethane	ND		5000	3800	ug/L			11/02/23 18:52	5000
2-Chloroethyl vinyl ether	ND		25000	10000	ug/L			11/02/23 18:52	5000
Chloroform	ND		5000	4500	ug/L			11/02/23 18:52	5000
1-Chlorohexane	ND		5000	1600	ug/L			11/02/23 18:52	5000
Chloromethane	ND		5000	4500	ug/L			11/02/23 18:52	5000
cis-1,2-Dichloroethene	ND		5000	1000	ug/L			11/02/23 18:52	5000
cis-1,3-Dichloropropene	ND		25000	2500	ug/L			11/02/23 18:52	5000
Dibromochloromethane	ND		5000	1200	ug/L			11/02/23 18:52	5000
1,2-Dichlorobenzene	ND		5000	2500	ug/L			11/02/23 18:52	5000
1,3-Dichlorobenzene	ND		5000	2700	ug/L			11/02/23 18:52	5000
1,4-Dichlorobenzene	ND		5000	3200	ug/L			11/02/23 18:52	5000
Dichlorodifluoromethane	ND		5000	4300	ug/L			11/02/23 18:52	5000
1,1-Dichloroethane	ND		5000	2500	ug/L			11/02/23 18:52	5000
1,2-Dichloroethane	ND		5000	950	ug/L			11/02/23 18:52	5000
1,1-Dichloroethene	ND		5000	2500	ug/L			11/02/23 18:52	5000
1,2-Dichloropropane	ND		5000	2500	ug/L			11/02/23 18:52	5000
1,3-Dichloropropane	ND		5000	2500	ug/L			11/02/23 18:52	5000
2,2-Dichloropropane	ND		5000	2500	ug/L			11/02/23 18:52	5000
1,1-Dichloropropene	ND		5000	2500	ug/L			11/02/23 18:52	5000
Ethylbenzene	ND		5000	2500	ug/L			11/02/23 18:52	5000
Ethyl methacrylate	ND		5000	3000	ug/L			11/02/23 18:52	5000
Hexachlorobutadiene	ND	*+	25000	4500	ug/L			11/02/23 18:52	5000
2-Hexanone	ND		130000	7000	ug/L			11/02/23 18:52	5000
Isopropylbenzene	ND		5000	2700	ug/L			11/02/23 18:52	5000
Methylene bromide	ND		25000	1100	ug/L			11/02/23 18:52	5000
Methylene Chloride	ND		25000	15000	ug/L			11/02/23 18:52	5000
4-Methyl-2-pentanone (MIBK)	ND		130000	9000	ug/L			11/02/23 18:52	5000
Methyl tert-butyl ether	ND		5000	1100	ug/L			11/02/23 18:52	5000
m-Xylene & p-Xylene	ND		25000	3200	ug/L			11/02/23 18:52	5000
Naphthalene	ND		25000	15000	ug/L			11/02/23 18:52	5000
n-Butylbenzene	ND		5000	3800	ug/L			11/02/23 18:52	5000
N-Propylbenzene	ND		5000	3500	ug/L			11/02/23 18:52	5000
o-Chlorotoluene	ND		5000	2900	ug/L			11/02/23 18:52	5000
o-Xylene	ND		25000	3000	ug/L			11/02/23 18:52	5000
p-Chlorotoluene	ND		5000	2800	ug/L			11/02/23 18:52	5000
p-Isopropyltoluene	ND		5000	3600	ug/L			11/02/23 18:52	5000

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

Job ID: 400-245427-1

Client Sample ID: MW7-ROX-102023
Date Collected: 10/20/23 11:30
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5000	3500	ug/L			11/02/23 18:52	5000
Styrene	ND		5000	5000	ug/L			11/02/23 18:52	5000
tert-Butylbenzene	ND		5000	3200	ug/L			11/02/23 18:52	5000
1,1,1,2-Tetrachloroethane	ND		5000	800	ug/L			11/02/23 18:52	5000
1,1,2,2-Tetrachloroethane	ND		5000	2500	ug/L			11/02/23 18:52	5000
Tetrachloroethene	ND		5000	4500	ug/L			11/02/23 18:52	5000
Toluene	ND		5000	4500	ug/L			11/02/23 18:52	5000
trans-1,2-Dichloroethene	ND		5000	2500	ug/L			11/02/23 18:52	5000
trans-1,3-Dichloropropene	ND		25000	1000	ug/L			11/02/23 18:52	5000
1,2,3-Trichlorobenzene	ND		5000	4500	ug/L			11/02/23 18:52	5000
1,2,4-Trichlorobenzene	ND		5000	4100	ug/L			11/02/23 18:52	5000
1,1,1-Trichloroethane	ND		5000	900	ug/L			11/02/23 18:52	5000
1,1,2-Trichloroethane	ND		25000	1100	ug/L			11/02/23 18:52	5000
Trichloroethene	ND		5000	750	ug/L			11/02/23 18:52	5000
Trichlorofluoromethane	ND		5000	2600	ug/L			11/02/23 18:52	5000
1,2,3-Trichloropropane	ND		25000	4200	ug/L			11/02/23 18:52	5000
1,2,4-Trimethylbenzene	ND		5000	4100	ug/L			11/02/23 18:52	5000
1,3,5-Trimethylbenzene	ND		5000	2800	ug/L			11/02/23 18:52	5000
Vinyl acetate	ND		130000	4700	ug/L			11/02/23 18:52	5000
Vinyl chloride	ND		5000	2500	ug/L			11/02/23 18:52	5000
Xylenes, Total	ND		50000	8000	ug/L			11/02/23 18:52	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*115*		*72 - 130*		*11/02/23 18:52*	*5000*
Dibromofluoromethane	*97*		*75 - 126*		*11/02/23 18:52*	*5000*
Toluene-d8 (Surr)	*111*		*64 - 132*		*11/02/23 18:52*	*5000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.22	0.11	ug/L		10/24/23 10:51	10/26/23 22:24	1
Acenaphthylene	**0.15**	**J**	0.22	0.048	ug/L		10/24/23 10:51	10/26/23 22:24	1
Anthracene	**0.087**	**J**	0.22	0.051	ug/L		10/24/23 10:51	10/26/23 22:24	1
Benzo[a]anthracene	ND		0.22	0.037	ug/L		10/24/23 10:51	10/26/23 22:24	1
Benzo[a]pyrene	ND		0.22	0.070	ug/L		10/24/23 10:51	10/26/23 22:24	1
Benzo[b]fluoranthene	ND		0.22	0.040	ug/L		10/24/23 10:51	10/26/23 22:24	1
Benzo[g,h,i]perylene	ND		0.22	0.029	ug/L		10/24/23 10:51	10/26/23 22:24	1
Benzo[k]fluoranthene	ND		0.22	0.067	ug/L		10/24/23 10:51	10/26/23 22:24	1
Chrysene	ND		0.22	0.036	ug/L		10/24/23 10:51	10/26/23 22:24	1
Dibenz(a,h)anthracene	ND		0.22	0.052	ug/L		10/24/23 10:51	10/26/23 22:24	1
Fluoranthene	**0.053**	**J B**	0.22	0.037	ug/L		10/24/23 10:51	10/26/23 22:24	1
Fluorene	ND		0.22	0.097	ug/L		10/24/23 10:51	10/26/23 22:24	1
Indeno[1,2,3-cd]pyrene	ND		0.22	0.037	ug/L		10/24/23 10:51	10/26/23 22:24	1
Phenanthrene	**0.13**	**J**	0.22	0.098	ug/L		10/24/23 10:51	10/26/23 22:24	1
Pyrene	ND		0.22	0.042	ug/L		10/24/23 10:51	10/26/23 22:24	1
1-Methylnaphthalene	**1.1**		0.22	0.087	ug/L		10/24/23 10:51	10/26/23 22:24	1
2-Methylnaphthalene	**1.5**		0.22	0.072	ug/L		10/24/23 10:51	10/26/23 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*62*		*18 - 147*	*10/24/23 10:51*	*10/26/23 22:24*	*1*
2-Fluorobiphenyl	*67*		*15 - 128*	*10/24/23 10:51*	*10/26/23 22:24*	*1*

Client Sample ID: MW7-ROX-102023
Date Collected: 10/20/23 11:30
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*39*		*10 - 144*	*10/24/23 10:51*	*10/26/23 22:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		11	4.1	ug/L		10/24/23 10:51	10/25/23 21:45	1
Benzenethiol	ND	*- *1	11	1.8	ug/L		10/24/23 10:51	10/25/23 21:45	1
Benzoic acid	ND	*-	33	7.9	ug/L		10/24/23 10:51	10/25/23 21:45	1
Benzyl alcohol	ND		11	2.2	ug/L		10/24/23 10:51	10/25/23 21:45	1
Bis(2-chloroethoxy)methane	ND		11	0.17	ug/L		10/24/23 10:51	10/25/23 21:45	1
Bis(2-chloroethyl)ether	ND		11	2.9	ug/L		10/24/23 10:51	10/25/23 21:45	1
bis (2-chloroisopropyl) ether	ND		11	0.17	ug/L		10/24/23 10:51	10/25/23 21:45	1
Bis(2-ethylhexyl) phthalate	ND		11	5.4	ug/L		10/24/23 10:51	10/25/23 21:45	1
4-Bromophenyl phenyl ether	ND		11	0.22	ug/L		10/24/23 10:51	10/25/23 21:45	1
Butyl benzyl phthalate	ND		11	0.21	ug/L		10/24/23 10:51	10/25/23 21:45	1
4-Chloroaniline	ND		11	3.7	ug/L		10/24/23 10:51	10/25/23 21:45	1
4-Chloro-3-methylphenol	ND		11	4.1	ug/L		10/24/23 10:51	10/25/23 21:45	1
2-Chloronaphthalene	ND		11	0.15	ug/L		10/24/23 10:51	10/25/23 21:45	1
2-Chlorophenol	ND		11	2.4	ug/L		10/24/23 10:51	10/25/23 21:45	1
4-Chlorophenyl phenyl ether	ND		11	2.2	ug/L		10/24/23 10:51	10/25/23 21:45	1
Dibenz[a,h]acridine	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:45	1
Dibenzofuran	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 21:45	1
3,3'-Dichlorobenzidine	ND		11	2.8	ug/L		10/24/23 10:51	10/25/23 21:45	1
2,4-Dichlorophenol	ND		11	3.3	ug/L		10/24/23 10:51	10/25/23 21:45	1
Diethyl phthalate	ND		11	0.26	ug/L		10/24/23 10:51	10/25/23 21:45	1
2,4-Dimethylphenol	ND		11	3.8	ug/L		10/24/23 10:51	10/25/23 21:45	1
Dimethyl phthalate	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 21:45	1
Di-n-butyl phthalate	ND		11	2.9	ug/L		10/24/23 10:51	10/25/23 21:45	1
4,6-Dinitro-ortho-cresol	ND	*1	11	1.7	ug/L		10/24/23 10:51	10/25/23 21:45	1
2,4-Dinitrophenol	ND	*1	33	3.7	ug/L		10/24/23 10:51	10/25/23 21:45	1
2,4-Dinitrotoluene	ND		11	2.1	ug/L		10/24/23 10:51	10/25/23 21:45	1
2,6-Dinitrotoluene	ND		11	2.1	ug/L		10/24/23 10:51	10/25/23 21:45	1
Di-n-octyl phthalate	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 21:45	1
1,4-Dioxane	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:45	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:45	1
Hexachlorobenzene	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 21:45	1
Hexachlorocyclopentadiene	ND		22	2.8	ug/L		10/24/23 10:51	10/25/23 21:45	1
Hexachloroethane	ND		11	4.6	ug/L		10/24/23 10:51	10/25/23 21:45	1
Indene	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 21:45	1
Isophorone	ND		11	0.15	ug/L		10/24/23 10:51	10/25/23 21:45	1
2-Methylphenol	ND		11	2.0	ug/L		10/24/23 10:51	10/25/23 21:45	1
3 & 4 Methylphenol	**0.55**	**J**	22	0.42	ug/L		10/24/23 10:51	10/25/23 21:45	1
2-Nitroaniline	ND		11	2.4	ug/L		10/24/23 10:51	10/25/23 21:45	1
3-Nitroaniline	ND		11	2.0	ug/L		10/24/23 10:51	10/25/23 21:45	1
4-Nitroaniline	ND		11	1.6	ug/L		10/24/23 10:51	10/25/23 21:45	1
Nitrobenzene	ND		11	0.14	ug/L		10/24/23 10:51	10/25/23 21:45	1
2-Nitrophenol	ND		11	5.7	ug/L		10/24/23 10:51	10/25/23 21:45	1
4-Nitrophenol	ND		11	2.3	ug/L		10/24/23 10:51	10/25/23 21:45	1
N-Nitrosodimethylamine	ND		11	3.8	ug/L		10/24/23 10:51	10/25/23 21:45	1

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

Job ID: 400-245427-1

Client Sample ID: MW7-ROX-102023

Date Collected: 10/20/23 11:30
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		11	3.6	ug/L		10/24/23 10:51	10/25/23 21:45	1
N-Nitrosodiphenylamine	ND		11	0.20	ug/L		10/24/23 10:51	10/25/23 21:45	1
Pentachlorophenol	ND	*1	22	1.5	ug/L		10/24/23 10:51	10/25/23 21:45	1
Phenol	**110**		11	2.8	ug/L		10/24/23 10:51	10/25/23 21:45	1
Pyridine	ND		11	3.5	ug/L		10/24/23 10:51	10/25/23 21:45	1
Quinoline	ND		11	4.9	ug/L		10/24/23 10:51	10/25/23 21:45	1
2,4,5-Trichlorophenol	ND		11	4.0	ug/L		10/24/23 10:51	10/25/23 21:45	1
2,4,6-Trichlorophenol	ND		11	3.8	ug/L		10/24/23 10:51	10/25/23 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*10/24/23 10:51*	*10/25/23 21:45*	*1*
2-Fluorophenol	*23*		*13 - 113*	*10/24/23 10:51*	*10/25/23 21:45*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*10/24/23 10:51*	*10/25/23 21:45*	*1*
Phenol-d5	*53*		*17 - 127*	*10/24/23 10:51*	*10/25/23 21:45*	*1*
Terphenyl-d14	*79*		*44 - 149*	*10/24/23 10:51*	*10/25/23 21:45*	*1*
2,4,6-Tribromophenol	*93*		*26 - 150*	*10/24/23 10:51*	*10/25/23 21:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 16:37	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*10/24/23 07:31*	*10/24/23 16:37*	*1*

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

Job ID: 400-245427-1

Client Sample ID: MW7-ROX-102023-DUP
Date Collected: 10/20/23 11:30
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130000	50000	ug/L			11/02/23 19:16	5000
Acrolein	ND		100000	17000	ug/L			11/02/23 19:16	5000
Acrylonitrile	ND		50000	14000	ug/L			11/02/23 19:16	5000
Benzene	**1200000**		5000	2500	ug/L			11/02/23 19:16	5000
Bromobenzene	ND		5000	2700	ug/L			11/02/23 19:16	5000
Bromochloromethane	ND		5000	1100	ug/L			11/02/23 19:16	5000
Bromodichloromethane	ND		5000	2500	ug/L			11/02/23 19:16	5000
Bromoform	ND		25000	1300	ug/L			11/02/23 19:16	5000
Bromomethane	ND		5000	4900	ug/L			11/02/23 19:16	5000
2-Butanone (MEK)	ND		130000	13000	ug/L			11/02/23 19:16	5000
Carbon disulfide	ND		5000	2500	ug/L			11/02/23 19:16	5000
Carbon tetrachloride	ND		5000	950	ug/L			11/02/23 19:16	5000
Chlorobenzene	ND		5000	4500	ug/L			11/02/23 19:16	5000
Chloroethane	ND		5000	3800	ug/L			11/02/23 19:16	5000
2-Chloroethyl vinyl ether	ND		25000	10000	ug/L			11/02/23 19:16	5000
Chloroform	ND		5000	4500	ug/L			11/02/23 19:16	5000
1-Chlorohexane	ND		5000	1600	ug/L			11/02/23 19:16	5000
Chloromethane	ND		5000	4500	ug/L			11/02/23 19:16	5000
cis-1,2-Dichloroethene	ND		5000	1000	ug/L			11/02/23 19:16	5000
cis-1,3-Dichloropropene	ND		25000	2500	ug/L			11/02/23 19:16	5000
Dibromochloromethane	ND		5000	1200	ug/L			11/02/23 19:16	5000
1,2-Dichlorobenzene	ND		5000	2500	ug/L			11/02/23 19:16	5000
1,3-Dichlorobenzene	ND		5000	2700	ug/L			11/02/23 19:16	5000
1,4-Dichlorobenzene	ND		5000	3200	ug/L			11/02/23 19:16	5000
Dichlorodifluoromethane	ND		5000	4300	ug/L			11/02/23 19:16	5000
1,1-Dichloroethane	ND		5000	2500	ug/L			11/02/23 19:16	5000
1,2-Dichloroethane	ND		5000	950	ug/L			11/02/23 19:16	5000
1,1-Dichloroethene	ND		5000	2500	ug/L			11/02/23 19:16	5000
1,2-Dichloropropane	ND		5000	2500	ug/L			11/02/23 19:16	5000
1,3-Dichloropropane	ND		5000	2500	ug/L			11/02/23 19:16	5000
2,2-Dichloropropane	ND		5000	2500	ug/L			11/02/23 19:16	5000
1,1-Dichloropropene	ND		5000	2500	ug/L			11/02/23 19:16	5000
Ethylbenzene	ND		5000	2500	ug/L			11/02/23 19:16	5000
Ethyl methacrylate	ND		5000	3000	ug/L			11/02/23 19:16	5000
Hexachlorobutadiene	ND	*+	25000	4500	ug/L			11/02/23 19:16	5000
2-Hexanone	ND		130000	7000	ug/L			11/02/23 19:16	5000
Isopropylbenzene	ND		5000	2700	ug/L			11/02/23 19:16	5000
Methylene bromide	ND		25000	1100	ug/L			11/02/23 19:16	5000
Methylene Chloride	ND		25000	15000	ug/L			11/02/23 19:16	5000
4-Methyl-2-pentanone (MIBK)	ND		130000	9000	ug/L			11/02/23 19:16	5000
Methyl tert-butyl ether	ND		5000	1100	ug/L			11/02/23 19:16	5000
m-Xylene & p-Xylene	ND		25000	3200	ug/L			11/02/23 19:16	5000
Naphthalene	ND		25000	15000	ug/L			11/02/23 19:16	5000
n-Butylbenzene	ND		5000	3800	ug/L			11/02/23 19:16	5000
N-Propylbenzene	ND		5000	3500	ug/L			11/02/23 19:16	5000
o-Chlorotoluene	ND		5000	2900	ug/L			11/02/23 19:16	5000
o-Xylene	ND		25000	3000	ug/L			11/02/23 19:16	5000
p-Chlorotoluene	ND		5000	2800	ug/L			11/02/23 19:16	5000
p-Isopropyltoluene	ND		5000	3600	ug/L			11/02/23 19:16	5000

Client Sample ID: MW7-ROX-102023-DUP

Lab Sample ID: 400-245427-6

Date Collected: 10/20/23 11:30

Matrix: Water

Date Received: 10/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5000	3500	ug/L			11/02/23 19:16	5000
Styrene	ND		5000	5000	ug/L			11/02/23 19:16	5000
tert-Butylbenzene	ND		5000	3200	ug/L			11/02/23 19:16	5000
1,1,1,2-Tetrachloroethane	ND		5000	800	ug/L			11/02/23 19:16	5000
1,1,2,2-Tetrachloroethane	ND		5000	2500	ug/L			11/02/23 19:16	5000
Tetrachloroethene	ND		5000	4500	ug/L			11/02/23 19:16	5000
Toluene	ND		5000	4500	ug/L			11/02/23 19:16	5000
trans-1,2-Dichloroethene	ND		5000	2500	ug/L			11/02/23 19:16	5000
trans-1,3-Dichloropropene	ND		25000	1000	ug/L			11/02/23 19:16	5000
1,2,3-Trichlorobenzene	ND		5000	4500	ug/L			11/02/23 19:16	5000
1,2,4-Trichlorobenzene	ND		5000	4100	ug/L			11/02/23 19:16	5000
1,1,1-Trichloroethane	ND		5000	900	ug/L			11/02/23 19:16	5000
1,1,2-Trichloroethane	ND		25000	1100	ug/L			11/02/23 19:16	5000
Trichloroethene	ND		5000	750	ug/L			11/02/23 19:16	5000
Trichlorofluoromethane	ND		5000	2600	ug/L			11/02/23 19:16	5000
1,2,3-Trichloropropane	ND		25000	4200	ug/L			11/02/23 19:16	5000
1,2,4-Trimethylbenzene	ND		5000	4100	ug/L			11/02/23 19:16	5000
1,3,5-Trimethylbenzene	ND		5000	2800	ug/L			11/02/23 19:16	5000
Vinyl acetate	ND		130000	4700	ug/L			11/02/23 19:16	5000
Vinyl chloride	ND		5000	2500	ug/L			11/02/23 19:16	5000
Xylenes, Total	ND		50000	8000	ug/L			11/02/23 19:16	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*72 - 130*		*11/02/23 19:16*	*5000*
Dibromofluoromethane	*96*		*75 - 126*		*11/02/23 19:16*	*5000*
Toluene-d8 (Surr)	*108*		*64 - 132*		*11/02/23 19:16*	*5000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.22	0.11	ug/L		10/24/23 10:51	10/26/23 22:45	1
Acenaphthylene	**0.16**	**J**	0.22	0.049	ug/L		10/24/23 10:51	10/26/23 22:45	1
Anthracene	**0.058**	**J**	0.22	0.052	ug/L		10/24/23 10:51	10/26/23 22:45	1
Benzo[a]anthracene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 22:45	1
Benzo[a]pyrene	ND		0.22	0.071	ug/L		10/24/23 10:51	10/26/23 22:45	1
Benzo[b]fluoranthene	ND		0.22	0.041	ug/L		10/24/23 10:51	10/26/23 22:45	1
Benzo[g,h,i]perylene	ND		0.22	0.030	ug/L		10/24/23 10:51	10/26/23 22:45	1
Benzo[k]fluoranthene	ND		0.22	0.069	ug/L		10/24/23 10:51	10/26/23 22:45	1
Chrysene	ND		0.22	0.037	ug/L		10/24/23 10:51	10/26/23 22:45	1
Dibenz(a,h)anthracene	ND		0.22	0.054	ug/L		10/24/23 10:51	10/26/23 22:45	1
Fluoranthene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 22:45	1
Fluorene	ND		0.22	0.099	ug/L		10/24/23 10:51	10/26/23 22:45	1
Indeno[1,2,3-cd]pyrene	ND		0.22	0.038	ug/L		10/24/23 10:51	10/26/23 22:45	1
Phenanthrene	**0.14**	**J**	0.22	0.10	ug/L		10/24/23 10:51	10/26/23 22:45	1
Pyrene	ND		0.22	0.044	ug/L		10/24/23 10:51	10/26/23 22:45	1
1-Methylnaphthalene	**1.1**		0.22	0.089	ug/L		10/24/23 10:51	10/26/23 22:45	1
2-Methylnaphthalene	**1.5**		0.22	0.074	ug/L		10/24/23 10:51	10/26/23 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*67*		*18 - 147*	*10/24/23 10:51*	*10/26/23 22:45*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*10/24/23 10:51*	*10/26/23 22:45*	*1*

Client Sample ID: MW7-ROX-102023-DUP
Date Collected: 10/20/23 11:30
Date Received: 10/21/23 08:00

Lab Sample ID: 400-245427-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*39*		*10 - 144*	*10/24/23 10:51*	*10/26/23 22:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		11	4.2	ug/L		10/24/23 10:51	10/25/23 22:06	1
Benzenethiol	ND	*- *1	11	1.9	ug/L		10/24/23 10:51	10/25/23 22:06	1
Benzoic acid	ND	*-	33	8.1	ug/L		10/24/23 10:51	10/25/23 22:06	1
Benzyl alcohol	ND		11	2.2	ug/L		10/24/23 10:51	10/25/23 22:06	1
Bis(2-chloroethoxy)methane	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 22:06	1
Bis(2-chloroethyl)ether	ND		11	3.0	ug/L		10/24/23 10:51	10/25/23 22:06	1
bis (2-chloroisopropyl) ether	ND		11	0.18	ug/L		10/24/23 10:51	10/25/23 22:06	1
Bis(2-ethylhexyl) phthalate	ND		11	5.6	ug/L		10/24/23 10:51	10/25/23 22:06	1
4-Bromophenyl phenyl ether	ND		11	0.22	ug/L		10/24/23 10:51	10/25/23 22:06	1
Butyl benzyl phthalate	ND		11	0.21	ug/L		10/24/23 10:51	10/25/23 22:06	1
4-Chloroaniline	ND		11	3.8	ug/L		10/24/23 10:51	10/25/23 22:06	1
4-Chloro-3-methylphenol	ND		11	4.2	ug/L		10/24/23 10:51	10/25/23 22:06	1
2-Chloronaphthalene	ND		11	0.16	ug/L		10/24/23 10:51	10/25/23 22:06	1
2-Chlorophenol	ND		11	2.5	ug/L		10/24/23 10:51	10/25/23 22:06	1
4-Chlorophenyl phenyl ether	ND		11	2.2	ug/L		10/24/23 10:51	10/25/23 22:06	1
Dibenz[a,h]acridine	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 22:06	1
Dibenzofuran	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 22:06	1
3,3'-Dichlorobenzidine	ND		11	2.9	ug/L		10/24/23 10:51	10/25/23 22:06	1
2,4-Dichlorophenol	ND		11	3.3	ug/L		10/24/23 10:51	10/25/23 22:06	1
Diethyl phthalate	ND		11	0.27	ug/L		10/24/23 10:51	10/25/23 22:06	1
2,4-Dimethylphenol	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 22:06	1
Dimethyl phthalate	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 22:06	1
Di-n-butyl phthalate	ND		11	3.0	ug/L		10/24/23 10:51	10/25/23 22:06	1
4,6-Dinitro-ortho-cresol	ND	*1	11	1.8	ug/L		10/24/23 10:51	10/25/23 22:06	1
2,4-Dinitrophenol	ND	*1	33	3.8	ug/L		10/24/23 10:51	10/25/23 22:06	1
2,4-Dinitrotoluene	ND		11	2.1	ug/L		10/24/23 10:51	10/25/23 22:06	1
2,6-Dinitrotoluene	ND		11	2.1	ug/L		10/24/23 10:51	10/25/23 22:06	1
Di-n-octyl phthalate	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 22:06	1
1,4-Dioxane	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 22:06	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 22:06	1
Hexachlorobenzene	ND		11	0.19	ug/L		10/24/23 10:51	10/25/23 22:06	1
Hexachlorocyclopentadiene	ND		22	2.9	ug/L		10/24/23 10:51	10/25/23 22:06	1
Hexachloroethane	ND		11	4.7	ug/L		10/24/23 10:51	10/25/23 22:06	1
Indene	ND		11	1.1	ug/L		10/24/23 10:51	10/25/23 22:06	1
Isophorone	ND		11	0.16	ug/L		10/24/23 10:51	10/25/23 22:06	1
2-Methylphenol	ND		11	2.0	ug/L		10/24/23 10:51	10/25/23 22:06	1
3 & 4 Methylphenol	**0.45**	**J**	22	0.44	ug/L		10/24/23 10:51	10/25/23 22:06	1
2-Nitroaniline	ND		11	2.5	ug/L		10/24/23 10:51	10/25/23 22:06	1
3-Nitroaniline	ND		11	2.0	ug/L		10/24/23 10:51	10/25/23 22:06	1
4-Nitroaniline	ND		11	1.7	ug/L		10/24/23 10:51	10/25/23 22:06	1
Nitrobenzene	ND		11	0.15	ug/L		10/24/23 10:51	10/25/23 22:06	1
2-Nitrophenol	ND		11	5.8	ug/L		10/24/23 10:51	10/25/23 22:06	1
4-Nitrophenol	ND		11	2.3	ug/L		10/24/23 10:51	10/25/23 22:06	1
N-Nitrosodimethylamine	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 22:06	1

Client Sample ID: MW7-ROX-102023-DUP

Lab Sample ID: 400-245427-6

Date Collected: 10/20/23 11:30

Matrix: Water

Date Received: 10/21/23 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		11	3.7	ug/L		10/24/23 10:51	10/25/23 22:06	1
N-Nitrosodiphenylamine	ND		11	0.20	ug/L		10/24/23 10:51	10/25/23 22:06	1
Pentachlorophenol	ND	*1	22	1.6	ug/L		10/24/23 10:51	10/25/23 22:06	1
Phenol	**82**		11	2.9	ug/L		10/24/23 10:51	10/25/23 22:06	1
Pyridine	ND		11	3.6	ug/L		10/24/23 10:51	10/25/23 22:06	1
Quinoline	ND		11	5.0	ug/L		10/24/23 10:51	10/25/23 22:06	1
2,4,5-Trichlorophenol	ND		11	4.1	ug/L		10/24/23 10:51	10/25/23 22:06	1
2,4,6-Trichlorophenol	ND		11	3.9	ug/L		10/24/23 10:51	10/25/23 22:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*10/24/23 10:51*	*10/25/23 22:06*	*1*
2-Fluorophenol	*11*	*S1-*	*13 - 113*	*10/24/23 10:51*	*10/25/23 22:06*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*10/24/23 10:51*	*10/25/23 22:06*	*1*
Phenol-d5	*41*		*17 - 127*	*10/24/23 10:51*	*10/25/23 22:06*	*1*
Terphenyl-d14	*79*		*44 - 149*	*10/24/23 10:51*	*10/25/23 22:06*	*1*
2,4,6-Tribromophenol	*89*		*26 - 150*	*10/24/23 10:51*	*10/25/23 22:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 16:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*51 - 149*	*10/24/23 07:31*	*10/24/23 16:58*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-245427-1
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.
*1	LCS/LCSD RPD exceeds control limits.
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.

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: 400-245427-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245427-1	TB-ROX-102023-8260	114	97	110
400-245427-3	MW4-ROX-102023	114	98	110
400-245427-4	MW25-ROX-102023	119	98	112
400-245427-5	MW7-ROX-102023	115	97	111
400-245427-6	MW7-ROX-102023-DUP	113	96	108
LCS 400-648340/1002	Lab Control Sample	102	92	102
MB 400-648340/4	Method Blank	107	89	106

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245427-3	MW4-ROX-102023	72	14	64	44	81	81
400-245427-4	MW25-ROX-102023	73	15	65	41	67	82
400-245427-5	MW7-ROX-102023	75	23	66	53	79	93
400-245427-6	MW7-ROX-102023-DUP	74	11 S1-	65	41	79	89
LCS 400-646681/2-A	Lab Control Sample	79	36	79	65	95	101
LCS 400-646681/4-A	Lab Control Sample	79	32	68	50	98	70
LCSD 400-646681/3-A	Lab Control Sample Dup	79	19	78	56	96	100
LCSD 400-646681/5-A	Lab Control Sample Dup	75	33	65	55	94	51
MB 400-646681/1-A	Method Blank	77	8 S1-	67	37	94	55

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245427-3	MW4-ROX-102023	72	71	57
400-245427-4	MW25-ROX-102023	62	71	57
400-245427-5	MW7-ROX-102023	62	67	39
400-245427-6	MW7-ROX-102023-DUP	67	72	39
LCS 400-646681/6-A	Lab Control Sample	76	70	57
LCSD 400-646681/7-A	Lab Control Sample Dup	79	75	61
MB 400-646681/1-A	Method Blank	69	56	50

Surrogate Legend

Surrogate Summary

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

Job ID: 400-245427-1

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-245427-2	TB-ROX-102023-8011	94
400-245427-3	MW4-ROX-102023	104
400-245427-4	MW25-ROX-102023	93
400-245427-5	MW7-ROX-102023	98
400-245427-6	MW7-ROX-102023-DUP	108
LCS 400-646856/2-A	Lab Control Sample	99
LCSD 400-646856/3-A	Lab Control Sample Dup	107
MB 400-646856/1-A	Method Blank	104

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-245427-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-245427-1

Client Sample ID: TB-ROX-102023-8260
Lab Sample ID: 400-245427-1
Date Collected: 10/20/23 12:00
Matrix: Water
Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	648340	11/02/23 17:39	WPD	EET PEN

Client Sample ID: TB-ROX-102023-8011
Lab Sample ID: 400-245427-2
Date Collected: 10/20/23 12:00
Matrix: Water
Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.7 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 15:12	PG	EET PEN

Client Sample ID: MW4-ROX-102023
Lab Sample ID: 400-245427-3
Date Collected: 10/20/23 09:45
Matrix: Water
Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	648340	11/02/23 18:03	WPD	EET PEN
Total/NA	Prep	3520C			223.6 mL	1 mL	646681	10/24/23 10:51	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 21:02	S1B	EET PEN
Total/NA	Prep	3520C			223.6 mL	1 mL	646681	10/24/23 10:51	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 21:43	S1B	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 15:33	PG	EET PEN

Client Sample ID: MW25-ROX-102023
Lab Sample ID: 400-245427-4
Date Collected: 10/20/23 10:35
Matrix: Water
Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	648340	11/02/23 18:27	WPD	EET PEN
Total/NA	Prep	3520C			225.8 mL	1 mL	646681	10/24/23 10:51	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 21:24	S1B	EET PEN
Total/NA	Prep	3520C			225.8 mL	1 mL	646681	10/24/23 10:51	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 22:04	S1B	EET PEN
Total/NA	Prep	8011			34.8 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 16:16	PG	EET PEN

Client Sample ID: MW7-ROX-102023
Lab Sample ID: 400-245427-5
Date Collected: 10/20/23 11:30
Matrix: Water
Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5000	5 mL	5 mL	648340	11/02/23 18:52	WPD	EET PEN
Total/NA	Prep	3520C			229.8 mL	1 mL	646681	10/24/23 10:51	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 21:45	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-245427-1

Client Sample ID: MW7-ROX-102023

Lab Sample ID: 400-245427-5

Date Collected: 10/20/23 11:30

Matrix: Water

Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			229.8 mL	1 mL	646681	10/24/23 10:51	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 22:24	S1B	EET PEN
Total/NA	Prep	8011			35.3 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 16:37	PG	EET PEN

Client Sample ID: MW7-ROX-102023-DUP

Lab Sample ID: 400-245427-6

Date Collected: 10/20/23 11:30

Matrix: Water

Date Received: 10/21/23 08:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5000	5 mL	5 mL	648340	11/02/23 19:16	WPD	EET PEN
Total/NA	Prep	3520C			224 mL	1 mL	646681	10/24/23 10:51	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 22:06	S1B	EET PEN
Total/NA	Prep	3520C			224 mL	1 mL	646681	10/24/23 10:51	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 22:45	S1B	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 16:58	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646681/1-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 15:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 14:45	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-646856/1-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 12:23	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-648340/4

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	8260D		1	5 mL	5 mL	648340	11/02/23 08:03	WPD	EET PEN

Lab Chronicle

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

Job ID: 400-245427-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/2-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:05	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/4-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:47	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/6-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:06	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646856/2-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 12:44	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-648340/1002
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	8260D		1	5 mL	5 mL	648340	11/02/23 07:19	WPD	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/3-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:26	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-245427-1

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/5-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 17:09	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/7-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:27	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646856/3-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	646856	10/24/23 07:31	PG	EET PEN
Total/NA	Analysis	8011		1			646913	10/24/23 13:05	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 648340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245427-1	TB-ROX-102023-8260	Total/NA	Water	8260D	
400-245427-3	MW4-ROX-102023	Total/NA	Water	8260D	
400-245427-4	MW25-ROX-102023	Total/NA	Water	8260D	
400-245427-5	MW7-ROX-102023	Total/NA	Water	8260D	
400-245427-6	MW7-ROX-102023-DUP	Total/NA	Water	8260D	
MB 400-648340/4	Method Blank	Total/NA	Water	8260D	
LCS 400-648340/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245427-3	MW4-ROX-102023	Total/NA	Water	3520C	
400-245427-4	MW25-ROX-102023	Total/NA	Water	3520C	
400-245427-5	MW7-ROX-102023	Total/NA	Water	3520C	
400-245427-6	MW7-ROX-102023-DUP	Total/NA	Water	3520C	
MB 400-646681/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 647055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245427-3	MW4-ROX-102023	Total/NA	Water	8270E	646681
400-245427-4	MW25-ROX-102023	Total/NA	Water	8270E	646681
400-245427-5	MW7-ROX-102023	Total/NA	Water	8270E	646681
400-245427-6	MW7-ROX-102023-DUP	Total/NA	Water	8270E	646681
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E	646681
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681

Analysis Batch: 647384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245427-3	MW4-ROX-102023	Total/NA	Water	8270E SIM	646681
400-245427-4	MW25-ROX-102023	Total/NA	Water	8270E SIM	646681
400-245427-5	MW7-ROX-102023	Total/NA	Water	8270E SIM	646681
400-245427-6	MW7-ROX-102023-DUP	Total/NA	Water	8270E SIM	646681
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E SIM	646681
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646681
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646681

GC Semi VOA

Prep Batch: 646856

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245427-2	TB-ROX-102023-8011	Total/NA	Water	8011	
400-245427-3	MW4-ROX-102023	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 646856 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245427-4	MW25-ROX-102023	Total/NA	Water	8011	
400-245427-5	MW7-ROX-102023	Total/NA	Water	8011	
400-245427-6	MW7-ROX-102023-DUP	Total/NA	Water	8011	
MB 400-646856/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-646856/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-646856/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 646913

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245427-2	TB-ROX-102023-8011	Total/NA	Water	8011	646856
400-245427-3	MW4-ROX-102023	Total/NA	Water	8011	646856
400-245427-4	MW25-ROX-102023	Total/NA	Water	8011	646856
400-245427-5	MW7-ROX-102023	Total/NA	Water	8011	646856
400-245427-6	MW7-ROX-102023-DUP	Total/NA	Water	8011	646856
MB 400-646856/1-A	Method Blank	Total/NA	Water	8011	646856
LCS 400-646856/2-A	Lab Control Sample	Total/NA	Water	8011	646856
LCSD 400-646856/3-A	Lab Control Sample Dup	Total/NA	Water	8011	646856

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-648340/4
Matrix: Water
Analysis Batch: 648340

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			11/02/23 08:03	1
Acrolein	ND		20	3.3	ug/L			11/02/23 08:03	1
Acrylonitrile	ND		10	2.8	ug/L			11/02/23 08:03	1
Benzene	ND		1.0	0.50	ug/L			11/02/23 08:03	1
Bromobenzene	ND		1.0	0.54	ug/L			11/02/23 08:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/02/23 08:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/02/23 08:03	1
Bromoform	ND		5.0	0.25	ug/L			11/02/23 08:03	1
Bromomethane	ND		1.0	0.98	ug/L			11/02/23 08:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/02/23 08:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/02/23 08:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/02/23 08:03	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/02/23 08:03	1
Chloroethane	ND		1.0	0.76	ug/L			11/02/23 08:03	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/02/23 08:03	1
Chloroform	ND		1.0	0.90	ug/L			11/02/23 08:03	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/02/23 08:03	1
Chloromethane	ND		1.0	0.90	ug/L			11/02/23 08:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/02/23 08:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/02/23 08:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/02/23 08:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/02/23 08:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/02/23 08:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/02/23 08:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/02/23 08:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/02/23 08:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/02/23 08:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/02/23 08:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 08:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 08:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/23 08:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/02/23 08:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/02/23 08:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/02/23 08:03	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/02/23 08:03	1
2-Hexanone	ND		25	1.4	ug/L			11/02/23 08:03	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/02/23 08:03	1
Methylene bromide	ND		5.0	0.22	ug/L			11/02/23 08:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/02/23 08:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/02/23 08:03	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/02/23 08:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/02/23 08:03	1
Naphthalene	ND		5.0	3.0	ug/L			11/02/23 08:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/02/23 08:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/02/23 08:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/02/23 08:03	1
o-Xylene	ND		5.0	0.60	ug/L			11/02/23 08:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/02/23 08:03	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-648340/4
Matrix: Water
Analysis Batch: 648340

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			11/02/23 08:03	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/02/23 08:03	1
Styrene	ND		1.0	1.0	ug/L			11/02/23 08:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/02/23 08:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/02/23 08:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/02/23 08:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/02/23 08:03	1
Toluene	ND		1.0	0.90	ug/L			11/02/23 08:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/02/23 08:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/02/23 08:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/02/23 08:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/02/23 08:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/02/23 08:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/02/23 08:03	1
Trichloroethene	ND		1.0	0.15	ug/L			11/02/23 08:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/02/23 08:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/02/23 08:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/02/23 08:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/02/23 08:03	1
Vinyl acetate	ND		25	0.93	ug/L			11/02/23 08:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/02/23 08:03	1
Xylenes, Total	ND		10	1.6	ug/L			11/02/23 08:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*11/02/23 08:03*	*1*
Dibromofluoromethane	*89*		*75 - 126*		*11/02/23 08:03*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*11/02/23 08:03*	*1*

Lab Sample ID: LCS 400-648340/1002
Matrix: Water
Analysis Batch: 648340

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		84	43 - 160
Acrolein	250	228		ug/L		91	38 - 160
Acrylonitrile	500	435		ug/L		87	64 - 142
Benzene	50.0	53.2		ug/L		106	70 - 130
Bromobenzene	50.0	53.4		ug/L		107	70 - 132
Bromochloromethane	50.0	46.4		ug/L		93	70 - 130
Bromodichloromethane	50.0	51.4		ug/L		103	67 - 133
Bromoform	50.0	52.8		ug/L		106	57 - 140
Bromomethane	25.0	22.1		ug/L		88	10 - 160
2-Butanone (MEK)	200	186		ug/L		93	61 - 145
Carbon disulfide	50.0	44.8		ug/L		90	61 - 137
Carbon tetrachloride	50.0	50.8		ug/L		102	61 - 137
Chlorobenzene	50.0	53.9		ug/L		108	70 - 130
Chloroethane	25.0	22.4		ug/L		90	55 - 141
2-Chloroethyl vinyl ether	25.0	15.9		ug/L		64	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-648340/1002
Matrix: Water
Analysis Batch: 648340

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	49.4		ug/L		99	69 - 130
1-Chlorohexane	50.0	59.1		ug/L		118	69 - 130
Chloromethane	25.0	24.6		ug/L		98	58 - 137
cis-1,2-Dichloroethene	50.0	51.5		ug/L		103	68 - 130
cis-1,3-Dichloropropene	50.0	52.1		ug/L		104	69 - 132
Dibromochloromethane	50.0	51.6		ug/L		103	67 - 135
1,2-Dichlorobenzene	50.0	51.4		ug/L		103	67 - 130
1,3-Dichlorobenzene	50.0	54.4		ug/L		109	70 - 130
1,4-Dichlorobenzene	50.0	53.7		ug/L		107	70 - 130
Dichlorodifluoromethane	25.0	14.5		ug/L		58	41 - 146
1,1-Dichloroethane	50.0	52.2		ug/L		104	70 - 130
1,2-Dichloroethane	50.0	42.6		ug/L		85	69 - 130
1,1-Dichloroethene	50.0	47.6		ug/L		95	63 - 134
1,2-Dichloropropane	50.0	55.8		ug/L		112	70 - 130
1,3-Dichloropropane	50.0	51.6		ug/L		103	70 - 130
2,2-Dichloropropane	50.0	49.9		ug/L		100	52 - 135
1,1-Dichloropropene	50.0	52.6		ug/L		105	70 - 130
Ethylbenzene	50.0	57.1		ug/L		114	70 - 130
Ethyl methacrylate	50.0	47.9		ug/L		96	68 - 130
Hexachlorobutadiene	50.0	70.7	*+	ug/L		141	53 - 140
2-Hexanone	200	201		ug/L		101	65 - 137
Isopropylbenzene	50.0	54.2		ug/L		108	70 - 130
Methylene bromide	50.0	43.5		ug/L		87	70 - 130
Methylene Chloride	50.0	46.6		ug/L		93	66 - 135
4-Methyl-2-pentanone (MIBK)	200	166		ug/L		83	69 - 138
Methyl tert-butyl ether	50.0	44.9		ug/L		90	66 - 130
m-Xylene & p-Xylene	50.0	55.8		ug/L		112	70 - 130
Naphthalene	50.0	40.4		ug/L		81	47 - 149
n-Butylbenzene	50.0	54.3		ug/L		109	67 - 130
N-Propylbenzene	50.0	55.8		ug/L		112	70 - 130
o-Chlorotoluene	50.0	55.0		ug/L		110	70 - 130
o-Xylene	50.0	54.8		ug/L		110	70 - 130
p-Chlorotoluene	50.0	54.4		ug/L		109	70 - 130
p-Isopropyltoluene	50.0	55.4		ug/L		111	65 - 130
sec-Butylbenzene	50.0	55.4		ug/L		111	66 - 130
Styrene	50.0	51.3		ug/L		103	70 - 130
tert-Butylbenzene	50.0	59.9		ug/L		120	64 - 139
1,1,1,2-Tetrachloroethane	50.0	54.5		ug/L		109	67 - 131
1,1,2,2-Tetrachloroethane	50.0	44.3		ug/L		89	70 - 131
Tetrachloroethene	50.0	55.0		ug/L		110	65 - 130
Toluene	50.0	56.3		ug/L		113	70 - 130
trans-1,2-Dichloroethene	50.0	50.8		ug/L		102	70 - 130
trans-1,3-Dichloropropene	50.0	51.2		ug/L		102	63 - 130
1,2,3-Trichlorobenzene	50.0	54.8		ug/L		110	60 - 138
1,2,4-Trichlorobenzene	50.0	56.6		ug/L		113	60 - 140
1,1,1-Trichloroethane	50.0	50.0		ug/L		100	68 - 130
1,1,2-Trichloroethane	50.0	50.2		ug/L		100	70 - 130
Trichloroethene	50.0	53.1		ug/L		106	70 - 130
Trichlorofluoromethane	25.0	20.1		ug/L		80	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-648340/1002
Matrix: Water
Analysis Batch: 648340

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	41.1		ug/L		82	70 - 130
1,2,4-Trimethylbenzene	50.0	53.7		ug/L		107	70 - 130
1,3,5-Trimethylbenzene	50.0	53.8		ug/L		108	69 - 130
Vinyl acetate	50.0	48.1		ug/L		96	26 - 160
Vinyl chloride	25.0	23.6		ug/L		95	59 - 136
Xylenes, Total	100	111		ug/L		111	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*72 - 130*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzenethiol	ND		10	1.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzoic acid	ND		30	7.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzyl alcohol	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/23/23 11:01	10/25/23 15:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloroaniline	ND		10	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chlorophenol	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenzofuran	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Diethyl phthalate	ND		10	0.24	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
1,4-Dioxane	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachloroethane	ND		10	4.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Indene	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Isophorone	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Methylphenol	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitroaniline	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
3-Nitroaniline	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitroaniline	ND		10	1.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Nitrobenzene	ND		10	0.13	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitrophenol	ND		10	5.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitrophenol	ND		10	2.1	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pentachlorophenol	ND		20	1.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
Phenol	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pyridine	ND		10	3.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Quinoline	ND		10	4.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
2-Fluorophenol	*8*	*S1-*	*13 - 113*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Phenol-d5	*37*		*17 - 127*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Terphenyl-d14	*94*		*44 - 149*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
2,4,6-Tribromophenol	*55*		*26 - 150*	*10/23/23 11:01*	*10/25/23 15:43*	*1*

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	80.0		ug/L		67	21 - 120
Benzoic acid	522	29.7	J *-	ug/L		6	10 - 144
Benzyl alcohol	120	89.4		ug/L		75	28 - 120
Bis(2-chloroethoxy)methane	120	81.3		ug/L		68	47 - 120
Bis(2-chloroethyl)ether	120	82.0		ug/L		68	44 - 120
bis (2-chloroisopropyl) ether	120	78.6		ug/L		66	33 - 121
Bis(2-ethylhexyl) phthalate	120	94.6		ug/L		79	52 - 147
4-Bromophenyl phenyl ether	120	99.6		ug/L		83	54 - 122
Butyl benzyl phthalate	120	101		ug/L		84	54 - 133
4-Chloroaniline	120	64.4		ug/L		54	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131

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

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	92.6		ug/L		77	52 - 121
2-Chlorophenol	120	75.0		ug/L		63	40 - 120
4-Chlorophenyl phenyl ether	120	104		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	103		ug/L		86	31 - 150
Dibenzofuran	120	101		ug/L		84	56 - 122
3,3'-Dichlorobenzidine	160	142		ug/L		89	36 - 132
2,4-Dichlorophenol	120	96.5		ug/L		80	49 - 120
Diethyl phthalate	120	105		ug/L		88	50 - 137
2,4-Dimethylphenol	120	97.5		ug/L		81	48 - 120
Dimethyl phthalate	120	97.6		ug/L		81	57 - 124
Di-n-butyl phthalate	120	114		ug/L		95	58 - 126
4,6-Dinitro-ortho-cresol	240	155		ug/L		65	23 - 148
2,4-Dinitrophenol	240	111		ug/L		46	10 - 150
2,4-Dinitrotoluene	120	106		ug/L		88	54 - 142
2,6-Dinitrotoluene	120	103		ug/L		86	55 - 130
Di-n-octyl phthalate	120	91.9		ug/L		77	57 - 138
1,4-Dioxane	120	54.7		ug/L		46	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	81.5		ug/L		68	45 - 124
Hexachlorobenzene	120	108		ug/L		90	52 - 129
Hexachlorocyclopentadiene	120	63.8		ug/L		53	10 - 134
Hexachloroethane	120	81.9		ug/L		68	20 - 120
Indene	120	95.3		ug/L		79	49 - 120
Isophorone	120	82.9		ug/L		69	48 - 120
2-Methylphenol	120	89.7		ug/L		75	46 - 124
3 & 4 Methylphenol	120	88.5		ug/L		74	45 - 120
2-Nitroaniline	120	91.0		ug/L		76	51 - 145
3-Nitroaniline	120	82.4		ug/L		69	37 - 127
4-Nitroaniline	120	80.4		ug/L		67	36 - 137
Nitrobenzene	120	82.9		ug/L		69	45 - 120
2-Nitrophenol	120	98.4		ug/L		82	40 - 124
4-Nitrophenol	240	189		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	81.7		ug/L		68	29 - 137
N-Nitrosodi-n-propylamine	120	86.4		ug/L		72	45 - 120
N-Nitrosodiphenylamine	119	89.7		ug/L		75	54 - 120
Pentachlorophenol	240	174		ug/L		73	31 - 130
Phenol	120	76.3		ug/L		64	11 - 120
Pyridine	240	128		ug/L		53	16 - 120
Quinoline	120	98.7		ug/L		82	49 - 130
2,4,5-Trichlorophenol	120	106		ug/L		88	51 - 136
2,4,6-Trichlorophenol	120	99.0		ug/L		82	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*

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

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*101*		*26 - 150*

Lab Sample ID: LCS 400-646681/4-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.42	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*50*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	84.3		ug/L		70	21 - 120	5	30
Benzoic acid			522	26.3	J *-	ug/L		5	10 - 144	12	30
Benzyl alcohol			120	88.5		ug/L		74	28 - 120	1	30
Bis(2-chloroethoxy)methane			120	81.3		ug/L		68	47 - 120	0	30
Bis(2-chloroethyl)ether			120	78.5		ug/L		65	44 - 120	4	30
bis (2-chloroisopropyl) ether			120	77.0		ug/L		64	33 - 121	2	30
Bis(2-ethylhexyl) phthalate			120	95.4		ug/L		80	52 - 147	1	30
4-Bromophenyl phenyl ether			120	99.5		ug/L		83	54 - 122	0	30
Butyl benzyl phthalate			120	102		ug/L		85	54 - 133	1	30
4-Chloroaniline			120	86.8		ug/L		72	26 - 120	30	30
4-Chloro-3-methylphenol			120	99.5		ug/L		83	48 - 131	1	30
2-Chloronaphthalene			120	93.0		ug/L		77	52 - 121	0	30
2-Chlorophenol			120	57.9		ug/L		48	40 - 120	26	30
4-Chlorophenyl phenyl ether			120	104		ug/L		87	56 - 125	1	30
Dibenz[a,h]acridine			120	103		ug/L		86	31 - 150	0	30
Dibenzofuran			120	101		ug/L		84	56 - 122	0	30
3,3'-Dichlorobenzidine			160	143		ug/L		89	36 - 132	1	30
2,4-Dichlorophenol			120	89.5		ug/L		75	49 - 120	8	30
Diethyl phthalate			120	106		ug/L		88	50 - 137	1	30
2,4-Dimethylphenol			120	97.1		ug/L		81	48 - 120	0	30
Dimethyl phthalate			120	98.5		ug/L		82	57 - 124	1	30
Di-n-butyl phthalate			120	115		ug/L		96	58 - 126	1	30
4,6-Dinitro-ortho-cresol			240	100	*1	ug/L		42	23 - 148	43	30
2,4-Dinitrophenol			240	44.4	*1	ug/L		19	10 - 150	85	30
2,4-Dinitrotoluene			120	108		ug/L		90	54 - 142	2	30
2,6-Dinitrotoluene			120	104		ug/L		87	55 - 130	1	30

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

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	92.6		ug/L		77	57 - 138	1	30
1,4-Dioxane			120	50.3		ug/L		42	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)			120	81.2		ug/L		68	45 - 124	0	30
Hexachlorobenzene			120	107		ug/L		89	52 - 129	1	30
Hexachlorocyclopentadiene			120	61.1		ug/L		51	10 - 134	4	30
Hexachloroethane			120	77.4		ug/L		65	20 - 120	6	30
Indene			120	93.0		ug/L		77	49 - 120	3	30
Isophorone			120	83.6		ug/L		70	48 - 120	1	30
2-Methylphenol			120	85.2		ug/L		71	46 - 124	5	30
3 & 4 Methylphenol			120	85.2		ug/L		71	45 - 120	4	30
2-Nitroaniline			120	92.8		ug/L		77	51 - 145	2	30
3-Nitroaniline			120	86.1		ug/L		72	37 - 127	4	30
4-Nitroaniline			120	98.7		ug/L		82	36 - 137	20	30
Nitrobenzene			120	82.7		ug/L		69	45 - 120	0	30
2-Nitrophenol			120	94.9		ug/L		79	40 - 124	4	30
4-Nitrophenol			240	193		ug/L		80	23 - 146	2	30
N-Nitrosodimethylamine			120	79.7		ug/L		66	29 - 137	2	30
N-Nitrosodi-n-propylamine			120	84.3		ug/L		70	45 - 120	3	30
N-Nitrosodiphenylamine			119	89.7		ug/L		75	54 - 120	0	30
Pentachlorophenol			240	119	*1	ug/L		49	31 - 130	38	30
Phenol			120	65.0		ug/L		54	11 - 120	16	30
Pyridine			240	128		ug/L		54	16 - 120	1	30
Quinoline			120	99.0		ug/L		83	49 - 130	0	30
2,4,5-Trichlorophenol			120	105		ug/L		88	51 - 136	1	30
2,4,6-Trichlorophenol			120	96.7		ug/L		81	50 - 127	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*19*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*100*		*26 - 150*

Lab Sample ID: LCSD 400-646681/5-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.32	J *- *1	ug/L		2	10 - 120	38	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*

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

Lab Sample ID: LCSD 400-646681/5-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*51*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/23/23 11:01	10/26/23 14:45	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/23/23 11:01	10/26/23 14:45	1
Anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]anthracene	0.0553	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/23/23 11:01	10/26/23 14:45	1
Chrysene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 14:45	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluoranthene	0.0635	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluorene	ND		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 14:45	1
Indeno[1,2,3-cd]pyrene	0.0365	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Phenanthrene	ND		0.20	0.090	ug/L		10/23/23 11:01	10/26/23 14:45	1
Pyrene	ND		0.20	0.039	ug/L		10/23/23 11:01	10/26/23 14:45	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/23/23 11:01	10/26/23 14:45	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/23/23 11:01	10/26/23 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*18 - 147*	*10/23/23 11:01*	*10/26/23 14:45*	*1*
2-Fluorobiphenyl	*56*		*15 - 128*	*10/23/23 11:01*	*10/26/23 14:45*	*1*
Nitrobenzene-d5	*50*		*10 - 144*	*10/23/23 11:01*	*10/26/23 14:45*	*1*

Lab Sample ID: LCS 400-646681/6-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.79		ug/L		90	40 - 140
Acenaphthylene	2.00	1.81		ug/L		90	40 - 140
Anthracene	2.00	1.80		ug/L		90	40 - 140
Benzo[a]anthracene	2.00	1.81		ug/L		91	40 - 140
Benzo[a]pyrene	2.00	1.47		ug/L		74	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		77	40 - 140
Benzo[g,h,i]perylene	2.00	1.70		ug/L		85	40 - 140
Benzo[k]fluoranthene	2.00	1.52		ug/L		76	40 - 140
Chrysene	2.00	1.85		ug/L		93	40 - 140
Dibenz(a,h)anthracene	2.00	1.55		ug/L		78	40 - 140
Fluoranthene	2.00	1.84		ug/L		92	40 - 140

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-646681/6-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	2.00	1.84		ug/L		92	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.60		ug/L		80	40 - 140
Phenanthrene	2.00	1.75		ug/L		88	40 - 140
Pyrene	2.00	1.85		ug/L		93	40 - 140
1-Methylnaphthalene	2.00	1.83		ug/L		92	40 - 140
2-Methylnaphthalene	2.00	1.80		ug/L		90	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*76*		*18 - 147*
2-Fluorobiphenyl	*70*		*15 - 128*
Nitrobenzene-d5	*57*		*10 - 144*

Lab Sample ID: LCSD 400-646681/7-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.93		ug/L		97	40 - 140	7	40
Acenaphthylene	2.00	1.95		ug/L		97	40 - 140	8	40
Anthracene	2.00	1.94		ug/L		97	40 - 140	8	40
Benzo[a]anthracene	2.00	1.97		ug/L		98	40 - 140	8	40
Benzo[a]pyrene	2.00	1.61		ug/L		80	40 - 140	9	40
Benzo[b]fluoranthene	2.00	1.65		ug/L		82	40 - 140	6	40
Benzo[g,h,i]perylene	2.00	1.77		ug/L		88	40 - 140	4	40
Benzo[k]fluoranthene	2.00	1.62		ug/L		81	40 - 140	6	40
Chrysene	2.00	1.94		ug/L		97	40 - 140	5	40
Dibenz(a,h)anthracene	2.00	1.59		ug/L		80	40 - 140	3	40
Fluoranthene	2.00	2.02		ug/L		101	40 - 140	9	40
Fluorene	2.00	2.01		ug/L		100	40 - 140	9	40
Indeno[1,2,3-cd]pyrene	2.00	1.67		ug/L		84	40 - 140	4	40
Phenanthrene	2.00	1.88		ug/L		94	40 - 140	7	40
Pyrene	2.00	1.93		ug/L		96	40 - 140	4	40
1-Methylnaphthalene	2.00	1.98		ug/L		99	40 - 140	7	40
2-Methylnaphthalene	2.00	1.93		ug/L		96	40 - 140	7	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*79*		*18 - 147*
2-Fluorobiphenyl	*75*		*15 - 128*
Nitrobenzene-d5	*61*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-646856/1-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646856

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/24/23 07:31	10/24/23 12:23	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-646856/1-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646856

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/24/23 07:31	10/24/23 12:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*10/24/23 07:31*	*10/24/23 12:23*	*1*

Lab Sample ID: LCS 400-646856/2-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646856

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.0990		ug/L		98	60 - 140		
1,2-Dibromoethane			0.101	0.103		ug/L		102	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*51 - 149*

Lab Sample ID: LCSD 400-646856/3-A
Matrix: Water
Analysis Batch: 646913

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646856

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.104		ug/L		103	60 - 140	5	30
1,2-Dibromoethane			0.101	0.105		ug/L		104	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

400-245427 COC

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola, 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: 10/20/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	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 – 3.4.2

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): C. McDavid, T. Jenkins, J. Mayer

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 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 1.2°C IR18

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 8270 SIMS
	TB-ROX-102023-8260	10/20/2023	0000	Water	2					2	X			
	TB-ROX-102023-8011	10/20/2023	0000	Water	2					2		X		
	MW4-ROX-102023	10/20/2023	0945	Water	6			2		8	X	X	X	X
	MW25-ROX-102023	10/20/2023	1035	Water	6			2		8	X	X	X	X
	MW7-ROX-102023	10/20/2023	1130	Water	6			2		8	X	X	X	X
	MW7-ROX-102023-DUP	10/20/2023	1130	Water	6			2		8	X	X	X	X

COMMINGLED 10-20-23

Relinquished by (Signature)	Received by (Signature)	Date	Time
COURTNEY MCDAVID	FEDEX: 6339 6595 3237	10/20/2023	1600
	T. EARNEST	10.21.23	0800

CUSTODY SEALS: 2364871, 2364870

Version: 27Sept23

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11/6/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-245427-1

Login Number: 245427
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	1.2°C IR10
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").	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: 400-245427-1
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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Quarterly – 4th Quarter 2023 Data Review

Laboratory SDG: 400-245432-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/15/2023

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

Sample Identification	Sample Identification
TB-ROX-101923-SS	T12-ROX-101923
TB-ROX-101923-SS	P93B-ROX-101923

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 PAHs were re-extracted outside extraction time criteria in samples T12-ROX-101923 and P93B-ROX-101923. Several PAHs and VOCs by 8011 were detected in the method blanks. VOCs by 8011 were detected in trip blank TB-ROX-101923-SS. Several VOC and SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. The continuing calibration verifications (CCV) for several analytes 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?

No, PAHs in samples T12-ROX-101923 and P93B-ROX-101923 were re-extracted 15 days outside of extraction time criteria (7 days) and then re-analyzed due to method blank contamination. Holding time exceedances were greater than two times (2X) criteria; the results for the re-extracted and re-analyzed samples were comparable to the initial results; both sets of data are reported. Based on professional judgement, the results from the initial analysis were used for the purposes of this report.

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 400-646681/1-A	PAHs	Benzo[a]anthracene	0.0553 µg/L
MB 400-646681/1-A	PAHs	Fluoranthene	0.0635 µg/L
MB 400-646681/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0365 µg/L
MB 400-647386/1-A	VOCs by 8011	1,2-Dibromoethane	0.0174 µg/L
TB-ROX-101923-SS	VOCs by 8011	1,2-Dibromoethane	0.019 µg/L
TB-ROX-101923-SS	VOCs by 8011	1,2-Dibromo-3-Chloropropane	0.017 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, or previously qualified did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
T12-ROX-101923	PAHs	Benzo[a]anthracene	-	**U**
T12-ROX-101923	PAHs	Fluoranthene	-	**U**
P93B-ROX-101923	PAHs	Fluoranthene	-	**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 400-648180/1001	VOCs	Dichlorodifluoromethane	**178**	NA	41-146
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Benzoic acid	**6/5**	12	10-144/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	4,6-Dinitro-ortho-cresol	65/42	**43**	23-148/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	2,4-Dinitrophenol	46/19	**85**	10-150/30
LCS/LCSD 400-646681/2-A/3-A	SVOCs	Pentachlorophenol	73/49	**38**	31-130/30
LCS/LCSD 400-646681/4-A/5-A	SVOCs	Benzenethiol	**3/2**	**38**	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/LCSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol and benzoic acid below evaluation criteria; benzenethiol and benzoic acid have been identified as poor performing analytes under Method 8270.

Sample ID	Parameter	Analyte	Qualification
T12-ROX-101923	SVOCs	Benzenethiol	**UJ**
P93B-ROX-101923	SVOCs	Benzenethiol	**UJ**
T12-ROX-101923	SVOCs	Benzoic acid	**UJ**
P93B-ROX-101923	SVOCs	Benzoic acid	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-646681/1-A	SVOCs	2-Fluorophenol	**8**	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. 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 verifications (CCV) for multiple analytes were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
T12-ROX-101923	VOCs	1,1-Dichloroethene	**UJ**
T12-ROX-101923	VOCs	Acrylonitrile	**UJ**

Sample ID	Parameter	Analyte	Qualification
T12-ROX-101923	VOCs	2,2-Dichloropropane	**UJ**
T12-ROX-101923	VOCs	Tetrachloroethene	**UJ**
P93B-ROX-101923	VOCs	1,1-Dichloroethene	**UJ**
P93B-ROX-101923	VOCs	Acrylonitrile	**UJ**
P93B-ROX-101923	VOCs	2,2-Dichloropropane	**UJ**
P93B-ROX-101923	VOCs	Tetrachloroethene	**UJ**
T12-ROX-101923	SVOCs	1,4-Dioxane	**UJ**
T12-ROX-101923	SVOCs	Hexachlorocyclopentadiene	**UJ**
T12-ROX-101923	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
P93B-ROX-101923	SVOCs	1,4-Dioxane	**UJ**
P93B-ROX-101923	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93B-ROX-101923	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**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 11/13/2023 5:08:06 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-245432-1

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
11/13/2023 5:08:06 AM

Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

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Job ID: 400-245432-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-245432-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 10/20/2023 9:31 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 0.0°C

GC/MS VOA
Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-625791 was outside method criteria for the following analyte(s): Hexachlorobutadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D: The laboratory control sample (LCS) for analytical batch 400-648180 recovered outside control limits for the following analyte: Dichlorodifluoromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260D: The following samples were diluted to bring the concentration of target analytes within the calibration range: T12-ROX-101923 (400-245432-3) and P93B-ROX-101923 (400-245432-4). Elevated reporting limits (RLs) are provided.

Method 8260D: The continuing calibration verification (CCVC) associated with batch 400-648180 recovered above the upper control limit for Vinyl acetate, Vinyl chloride, Chloromethane and Dichlorodifluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-648180 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene, Tetrachloroethene, Acrylonitrile and 2,2-Dichloropropane. 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 8260D: 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-101923-SS (400-245432-1), T12-ROX-101923 (400-245432-3) and P93B-ROX-101923 (400-245432-4). The requested target analyte list includes 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-642996 was outside method criteria for the following analyte(s): 2,4-Dimethylphenol and Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analyte(s): Benzoic acid. Benzoic acid has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

Job ID: 400-245432-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: 2,4-Dinitrophenol, 4,6-Dinitro-ortho-cresol and Pentachlorophenol.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-646681 and analytical batch 400-647055 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-646681 and analytical batch 400-647055 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-647055 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, 1,2-Diphenylhydrazine (as Azobenzene) 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 8270E: 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 400-646681/1-A). These results have been reported and qualified.

Method 8270E_SIM: The method blank for preparation batch 400-646681 and analytical batch 400-647384 contained Indeno[1,2,3-cd]pyrene, Benzo[a]anthracene and Fluoranthene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E_SIM: Sample was not sent for re-extract for verification of detects as historical data confirms results.

T12-ROX-101923 (400-245432-3)

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 method blank for preparation batch 400-647386 and analytical batch 400-647406 contained 1,2-Dibromoethane above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; 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.

Sample Summary

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

Job ID: 400-245432-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-245432-1	TB-ROX-101923-SS	Water	10/19/23 00:00	10/20/23 09:31
400-245432-2	TB-ROX-101923-SS	Water	10/19/23 00:00	10/20/23 09:31
400-245432-3	T12-ROX-101923	Water	10/19/23 11:20	10/20/23 09:31
400-245432-4	P93B-ROX-101923	Water	10/19/23 12:15	10/20/23 09:31

Detection Summary

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

Job ID: 400-245432-1

Client Sample ID: TB-ROX-101923-SS — Lab Sample ID: 400-245432-1

No Detections.

Client Sample ID: TB-ROX-101923-SS — Lab Sample ID: 400-245432-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dibromo-3-Chloropropane	0.017	J	0.030	0.017	ug/L	1		8011	Total/NA
1,2-Dibromoethane	0.019	J B	0.020	0.015	ug/L	1		8011	Total/NA

Client Sample ID: T12-ROX-101923 — Lab Sample ID: 400-245432-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1500		10	5.0	ug/L	10		8260D	Total/NA
Ethylbenzene	13		10	5.0	ug/L	10		8260D	Total/NA
Isopropylbenzene	19		10	5.3	ug/L	10		8260D	Total/NA
m-Xylene & p-Xylene	42	J	50	6.3	ug/L	10		8260D	Total/NA
N-Propylbenzene	31		10	6.9	ug/L	10		8260D	Total/NA
Toluene	37		10	9.0	ug/L	10		8260D	Total/NA
Xylenes, Total	45	J	100	16	ug/L	10		8260D	Total/NA
Acenaphthene	0.29		0.20	0.097	ug/L	1		8270E SIM	Total/NA
Acenaphthene	0.29	H	0.20	0.098	ug/L	1		8270E SIM	Total/NA
Acenaphthylene	0.062	J H	0.20	0.043	ug/L	1		8270E SIM	Total/NA
Anthracene	0.14	J	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Anthracene	0.12	J H	0.20	0.046	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.036	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.041	J H	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.056	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Fluorene	0.29		0.20	0.087	ug/L	1		8270E SIM	Total/NA
Fluorene	0.27	H	0.20	0.088	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.074	J H	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.50		0.20	0.088	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.42	H	0.20	0.089	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	16		0.20	0.078	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	13	H	0.20	0.079	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	22		0.20	0.064	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	18	H	0.20	0.065	ug/L	1		8270E SIM	Total/NA
3 & 4 Methylphenol	0.65	J	20	0.38	ug/L	1		8270E	Total/NA
Phenol	49		9.8	2.5	ug/L	1		8270E	Total/NA

Client Sample ID: P93B-ROX-101923 — Lab Sample ID: 400-245432-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	610000		5000	2500	ug/L	5000		8260D	Total/NA
Benzo[a]anthracene	0.046	J H	0.21	0.035	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.055	J B	0.21	0.036	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.15	J	0.21	0.084	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.20	J H	0.21	0.083	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.14	J	0.21	0.070	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.21	H	0.21	0.068	ug/L	1		8270E SIM	Total/NA
Phenol	200		11	2.7	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-245432-1

Client Sample ID: TB-ROX-101923-SS
Date Collected: 10/19/23 00:00
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/23 15:22	1
Acrolein	ND		20	3.3	ug/L			11/01/23 15:22	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/23 15:22	1
Benzene	ND		1.0	0.50	ug/L			11/01/23 15:22	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/23 15:22	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/23 15:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/23 15:22	1
Bromoform	ND		5.0	0.25	ug/L			11/01/23 15:22	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/23 15:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/23 15:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/23 15:22	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/23 15:22	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/01/23 15:22	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/23 15:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/23 15:22	1
Chloroform	ND		1.0	0.90	ug/L			11/01/23 15:22	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/23 15:22	1
Chloromethane	ND		1.0	0.90	ug/L			11/01/23 15:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/23 15:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/23 15:22	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/23 15:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/23 15:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/23 15:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/23 15:22	1
Dichlorodifluoromethane	ND	*+	1.0	0.85	ug/L			11/01/23 15:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/23 15:22	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/23 15:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 15:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 15:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 15:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 15:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/23 15:22	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/23 15:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/23 15:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/23 15:22	1
2-Hexanone	ND		25	1.4	ug/L			11/01/23 15:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/23 15:22	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/23 15:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/23 15:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/23 15:22	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/23 15:22	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/23 15:22	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/23 15:22	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/23 15:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/23 15:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/23 15:22	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/23 15:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/23 15:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/23 15:22	1

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

Job ID: 400-245432-1

Client Sample ID: TB-ROX-101923-SS
Date Collected: 10/19/23 00:00
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/01/23 15:22	1
Styrene	ND		1.0	1.0	ug/L			11/01/23 15:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/23 15:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/23 15:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/23 15:22	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/23 15:22	1
Toluene	ND		1.0	0.90	ug/L			11/01/23 15:22	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 15:22	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/23 15:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/23 15:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/23 15:22	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/23 15:22	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/23 15:22	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/23 15:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/23 15:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/23 15:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/23 15:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/23 15:22	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/23 15:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/23 15:22	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/23 15:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 130*		*11/01/23 15:22*	*1*
Dibromofluoromethane	*115*		*75 - 126*		*11/01/23 15:22*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*11/01/23 15:22*	*1*

Client: AECOM Technical Services Inc.
Job ID: 400-245432-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: TB-ROX-101923-SS
Lab Sample ID: 400-245432-2
Date Collected: 10/19/23 00:00
Matrix: Water
Date Received: 10/20/23 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	0.017	J	0.030	0.017	ug/L		10/26/23 13:46	10/26/23 18:47	1
1,2-Dibromoethane	0.019	J B	0.020	0.015	ug/L		10/26/23 13:46	10/26/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*51 - 149*	*10/26/23 13:46*	*10/26/23 18:47*	*1*

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

Job ID: 400-245432-1

Client Sample ID: T12-ROX-101923
Date Collected: 10/19/23 11:20
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		250	100	ug/L			11/01/23 22:11	10
Acrolein	ND		200	33	ug/L			11/01/23 22:11	10
Acrylonitrile	ND		100	28	ug/L			11/01/23 22:11	10
Benzene	**1500**		10	5.0	ug/L			11/01/23 22:11	10
Bromobenzene	ND		10	5.4	ug/L			11/01/23 22:11	10
Bromochloromethane	ND		10	2.1	ug/L			11/01/23 22:11	10
Bromodichloromethane	ND		10	5.0	ug/L			11/01/23 22:11	10
Bromoform	ND		50	2.5	ug/L			11/01/23 22:11	10
Bromomethane	ND		10	9.8	ug/L			11/01/23 22:11	10
2-Butanone (MEK)	ND		250	26	ug/L			11/01/23 22:11	10
Carbon disulfide	ND		10	5.0	ug/L			11/01/23 22:11	10
Carbon tetrachloride	ND		10	1.9	ug/L			11/01/23 22:11	10
Chlorobenzene	ND		10	9.0	ug/L			11/01/23 22:11	10
Chloroethane	ND		10	7.6	ug/L			11/01/23 22:11	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			11/01/23 22:11	10
Chloroform	ND		10	9.0	ug/L			11/01/23 22:11	10
1-Chlorohexane	ND		10	3.2	ug/L			11/01/23 22:11	10
Chloromethane	ND		10	9.0	ug/L			11/01/23 22:11	10
cis-1,2-Dichloroethene	ND		10	2.0	ug/L			11/01/23 22:11	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			11/01/23 22:11	10
Dibromochloromethane	ND		10	2.4	ug/L			11/01/23 22:11	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			11/01/23 22:11	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			11/01/23 22:11	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			11/01/23 22:11	10
Dichlorodifluoromethane	ND	*+	10	8.5	ug/L			11/01/23 22:11	10
1,1-Dichloroethane	ND		10	5.0	ug/L			11/01/23 22:11	10
1,2-Dichloroethane	ND		10	1.9	ug/L			11/01/23 22:11	10
1,1-Dichloroethene	ND		10	5.0	ug/L			11/01/23 22:11	10
1,2-Dichloropropane	ND		10	5.0	ug/L			11/01/23 22:11	10
1,3-Dichloropropane	ND		10	5.0	ug/L			11/01/23 22:11	10
2,2-Dichloropropane	ND		10	5.0	ug/L			11/01/23 22:11	10
1,1-Dichloropropene	ND		10	5.0	ug/L			11/01/23 22:11	10
Ethylbenzene	**13**		10	5.0	ug/L			11/01/23 22:11	10
Ethyl methacrylate	ND		10	6.0	ug/L			11/01/23 22:11	10
Hexachlorobutadiene	ND		50	9.0	ug/L			11/01/23 22:11	10
2-Hexanone	ND		250	14	ug/L			11/01/23 22:11	10
Isopropylbenzene	**19**		10	5.3	ug/L			11/01/23 22:11	10
Methylene bromide	ND		50	2.2	ug/L			11/01/23 22:11	10
Methylene Chloride	ND		50	30	ug/L			11/01/23 22:11	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			11/01/23 22:11	10
Methyl tert-butyl ether	ND		10	2.2	ug/L			11/01/23 22:11	10
m-Xylene & p-Xylene	**42**	**J**	50	6.3	ug/L			11/01/23 22:11	10
Naphthalene	ND		50	30	ug/L			11/01/23 22:11	10
n-Butylbenzene	ND		10	7.6	ug/L			11/01/23 22:11	10
N-Propylbenzene	**31**		10	6.9	ug/L			11/01/23 22:11	10
o-Chlorotoluene	ND		10	5.7	ug/L			11/01/23 22:11	10
o-Xylene	ND		50	6.0	ug/L			11/01/23 22:11	10
p-Chlorotoluene	ND		10	5.6	ug/L			11/01/23 22:11	10
p-Isopropyltoluene	ND		10	7.1	ug/L			11/01/23 22:11	10

Client Sample ID: T12-ROX-101923
Date Collected: 10/19/23 11:20
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		10	7.0	ug/L			11/01/23 22:11	10
Styrene	ND		10	10	ug/L			11/01/23 22:11	10
tert-Butylbenzene	ND		10	6.3	ug/L			11/01/23 22:11	10
1,1,1,2-Tetrachloroethane	ND		10	1.6	ug/L			11/01/23 22:11	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			11/01/23 22:11	10
Tetrachloroethene	ND		10	9.0	ug/L			11/01/23 22:11	10
Toluene	**37**		10	9.0	ug/L			11/01/23 22:11	10
trans-1,2-Dichloroethene	ND		10	5.0	ug/L			11/01/23 22:11	10
trans-1,3-Dichloropropene	ND		50	2.0	ug/L			11/01/23 22:11	10
1,2,3-Trichlorobenzene	ND		10	9.0	ug/L			11/01/23 22:11	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			11/01/23 22:11	10
1,1,1-Trichloroethane	ND		10	1.8	ug/L			11/01/23 22:11	10
1,1,2-Trichloroethane	ND		50	2.1	ug/L			11/01/23 22:11	10
Trichloroethene	ND		10	1.5	ug/L			11/01/23 22:11	10
Trichlorofluoromethane	ND		10	5.2	ug/L			11/01/23 22:11	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			11/01/23 22:11	10
1,2,4-Trimethylbenzene	ND		10	8.2	ug/L			11/01/23 22:11	10
1,3,5-Trimethylbenzene	ND		10	5.6	ug/L			11/01/23 22:11	10
Vinyl acetate	ND		250	9.3	ug/L			11/01/23 22:11	10
Vinyl chloride	ND		10	5.0	ug/L			11/01/23 22:11	10
Xylenes, Total	**45**	**J**	100	16	ug/L			11/01/23 22:11	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 130*		*11/01/23 22:11*	*10*
Dibromofluoromethane	*111*		*75 - 126*		*11/01/23 22:11*	*10*
Toluene-d8 (Surr)	*97*		*64 - 132*		*11/01/23 22:11*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.29**		0.20	0.097	ug/L		10/24/23 10:15	10/26/23 21:02	1
Acenaphthene	**0.29**	**H**	0.20	0.098	ug/L		11/09/23 11:58	11/10/23 19:59	1
Acenaphthylene	ND		0.20	0.043	ug/L		10/24/23 10:15	10/26/23 21:02	1
Acenaphthylene	**0.062**	**J H**	0.20	0.043	ug/L		11/09/23 11:58	11/10/23 19:59	1
Anthracene	**0.14**	**J**	0.20	0.046	ug/L		10/24/23 10:15	10/26/23 21:02	1
Anthracene	**0.12**	**J H**	0.20	0.046	ug/L		11/09/23 11:58	11/10/23 19:59	1
Benzo[a]anthracene	**0.036**	**J B**	0.20	0.033	ug/L		10/24/23 10:15	10/26/23 21:02	1
Benzo[a]anthracene	**0.041**	**J H**	0.20	0.033	ug/L		11/09/23 11:58	11/10/23 19:59	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		10/24/23 10:15	10/26/23 21:02	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		11/09/23 11:58	11/10/23 19:59	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		10/24/23 10:15	10/26/23 21:02	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		11/09/23 11:58	11/10/23 19:59	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		10/24/23 10:15	10/26/23 21:02	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		11/09/23 11:58	11/10/23 19:59	1
Benzo[k]fluoranthene	ND		0.20	0.060	ug/L		10/24/23 10:15	10/26/23 21:02	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		11/09/23 11:58	11/10/23 19:59	1
Chrysene	ND		0.20	0.032	ug/L		10/24/23 10:15	10/26/23 21:02	1
Chrysene	ND	H	0.20	0.033	ug/L		11/09/23 11:58	11/10/23 19:59	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		10/24/23 10:15	10/26/23 21:02	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		11/09/23 11:58	11/10/23 19:59	1
Fluoranthene	**0.056**	**J B**	0.20	0.033	ug/L		10/24/23 10:15	10/26/23 21:02	1

Client Sample ID: T12-ROX-101923
Date Collected: 10/19/23 11:20
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND	H	0.20	0.033	ug/L		11/09/23 11:58	11/10/23 19:59	1
Fluorene	**0.29**		0.20	0.087	ug/L		10/24/23 10:15	10/26/23 21:02	1
Fluorene	**0.27**	**H**	0.20	0.088	ug/L		11/09/23 11:58	11/10/23 19:59	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		10/24/23 10:15	10/26/23 21:02	1
Indeno[1,2,3-cd]pyrene	**0.074**	**J H**	0.20	0.033	ug/L		11/09/23 11:58	11/10/23 19:59	1
Phenanthrene	**0.50**		0.20	0.088	ug/L		10/24/23 10:15	10/26/23 21:02	1
Phenanthrene	**0.42**	**H**	0.20	0.089	ug/L		11/09/23 11:58	11/10/23 19:59	1
Pyrene	ND		0.20	0.038	ug/L		10/24/23 10:15	10/26/23 21:02	1
Pyrene	ND	H	0.20	0.038	ug/L		11/09/23 11:58	11/10/23 19:59	1
1-Methylnaphthalene	**16**		0.20	0.078	ug/L		10/24/23 10:15	10/26/23 21:02	1
1-Methylnaphthalene	**13**	**H**	0.20	0.079	ug/L		11/09/23 11:58	11/10/23 19:59	1
2-Methylnaphthalene	**22**		0.20	0.064	ug/L		10/24/23 10:15	10/26/23 21:02	1
2-Methylnaphthalene	**18**	**H**	0.20	0.065	ug/L		11/09/23 11:58	11/10/23 19:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*72*		*18 - 147*	*10/24/23 10:15*	*10/26/23 21:02*	*1*
Terphenyl-d14	*63*		*18 - 147*	*11/09/23 11:58*	*11/10/23 19:59*	*1*
2-Fluorobiphenyl	*60*		*15 - 128*	*10/24/23 10:15*	*10/26/23 21:02*	*1*
2-Fluorobiphenyl	*71*		*15 - 128*	*11/09/23 11:58*	*11/10/23 19:59*	*1*
Nitrobenzene-d5	*56*		*10 - 144*	*10/24/23 10:15*	*10/26/23 21:02*	*1*
Nitrobenzene-d5	*66*		*10 - 144*	*11/09/23 11:58*	*11/10/23 19:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		10/24/23 10:15	10/25/23 22:27	1
Benzenethiol	ND	*- *1	9.8	1.7	ug/L		10/24/23 10:15	10/25/23 22:27	1
Benzoic acid	ND	*-	29	7.1	ug/L		10/24/23 10:15	10/25/23 22:27	1
Benzyl alcohol	ND		9.8	2.0	ug/L		10/24/23 10:15	10/25/23 22:27	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		10/24/23 10:15	10/25/23 22:27	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		10/24/23 10:15	10/25/23 22:27	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		10/24/23 10:15	10/25/23 22:27	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		10/24/23 10:15	10/25/23 22:27	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		10/24/23 10:15	10/25/23 22:27	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		10/24/23 10:15	10/25/23 22:27	1
4-Chloroaniline	ND		9.8	3.3	ug/L		10/24/23 10:15	10/25/23 22:27	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		10/24/23 10:15	10/25/23 22:27	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		10/24/23 10:15	10/25/23 22:27	1
2-Chlorophenol	ND		9.8	2.1	ug/L		10/24/23 10:15	10/25/23 22:27	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		10/24/23 10:15	10/25/23 22:27	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		10/24/23 10:15	10/25/23 22:27	1
Dibenzofuran	ND		9.8	0.17	ug/L		10/24/23 10:15	10/25/23 22:27	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		10/24/23 10:15	10/25/23 22:27	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		10/24/23 10:15	10/25/23 22:27	1
Diethyl phthalate	ND		9.8	0.23	ug/L		10/24/23 10:15	10/25/23 22:27	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		10/24/23 10:15	10/25/23 22:27	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		10/24/23 10:15	10/25/23 22:27	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		10/24/23 10:15	10/25/23 22:27	1
4,6-Dinitro-ortho-cresol	ND	*1	9.8	1.6	ug/L		10/24/23 10:15	10/25/23 22:27	1
2,4-Dinitrophenol	ND	*1	29	3.3	ug/L		10/24/23 10:15	10/25/23 22:27	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		10/24/23 10:15	10/25/23 22:27	1

Client Sample ID: T12-ROX-101923
Date Collected: 10/19/23 11:20
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		10/24/23 10:15	10/25/23 22:27	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		10/24/23 10:15	10/25/23 22:27	1
1,4-Dioxane	ND		9.8	0.98	ug/L		10/24/23 10:15	10/25/23 22:27	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		10/24/23 10:15	10/25/23 22:27	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		10/24/23 10:15	10/25/23 22:27	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		10/24/23 10:15	10/25/23 22:27	1
Hexachloroethane	ND		9.8	4.1	ug/L		10/24/23 10:15	10/25/23 22:27	1
Indene	ND		9.8	0.98	ug/L		10/24/23 10:15	10/25/23 22:27	1
Isophorone	ND		9.8	0.14	ug/L		10/24/23 10:15	10/25/23 22:27	1
2-Methylphenol	ND		9.8	1.8	ug/L		10/24/23 10:15	10/25/23 22:27	1
3 & 4 Methylphenol	**0.65**	**J**	20	0.38	ug/L		10/24/23 10:15	10/25/23 22:27	1
2-Nitroaniline	ND		9.8	2.1	ug/L		10/24/23 10:15	10/25/23 22:27	1
3-Nitroaniline	ND		9.8	1.8	ug/L		10/24/23 10:15	10/25/23 22:27	1
4-Nitroaniline	ND		9.8	1.5	ug/L		10/24/23 10:15	10/25/23 22:27	1
Nitrobenzene	ND		9.8	0.13	ug/L		10/24/23 10:15	10/25/23 22:27	1
2-Nitrophenol	ND		9.8	5.1	ug/L		10/24/23 10:15	10/25/23 22:27	1
4-Nitrophenol	ND		9.8	2.0	ug/L		10/24/23 10:15	10/25/23 22:27	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		10/24/23 10:15	10/25/23 22:27	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		10/24/23 10:15	10/25/23 22:27	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		10/24/23 10:15	10/25/23 22:27	1
Pentachlorophenol	ND	*1	20	1.4	ug/L		10/24/23 10:15	10/25/23 22:27	1
Phenol	**49**		9.8	2.5	ug/L		10/24/23 10:15	10/25/23 22:27	1
Pyridine	ND		9.8	3.1	ug/L		10/24/23 10:15	10/25/23 22:27	1
Quinoline	ND		9.8	4.4	ug/L		10/24/23 10:15	10/25/23 22:27	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		10/24/23 10:15	10/25/23 22:27	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		10/24/23 10:15	10/25/23 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*10/24/23 10:15*	*10/25/23 22:27*	*1*
2-Fluorophenol	*29*		*13 - 113*	*10/24/23 10:15*	*10/25/23 22:27*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*10/24/23 10:15*	*10/25/23 22:27*	*1*
Phenol-d5	*60*		*17 - 127*	*10/24/23 10:15*	*10/25/23 22:27*	*1*
Terphenyl-d14	*76*		*44 - 149*	*10/24/23 10:15*	*10/25/23 22:27*	*1*
2,4,6-Tribromophenol	*104*		*26 - 150*	*10/24/23 10:15*	*10/25/23 22:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.032	0.018	ug/L		10/26/23 13:46	10/26/23 19:08	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		10/26/23 13:46	10/26/23 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*51 - 149*	*10/26/23 13:46*	*10/26/23 19:08*	*1*

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

Job ID: 400-245432-1

Client Sample ID: P93B-ROX-101923
Date Collected: 10/19/23 12:15
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130000	50000	ug/L			11/01/23 22:33	5000
Acrolein	ND		100000	17000	ug/L			11/01/23 22:33	5000
Acrylonitrile	ND		50000	14000	ug/L			11/01/23 22:33	5000
Benzene	**610000**		5000	2500	ug/L			11/01/23 22:33	5000
Bromobenzene	ND		5000	2700	ug/L			11/01/23 22:33	5000
Bromochloromethane	ND		5000	1100	ug/L			11/01/23 22:33	5000
Bromodichloromethane	ND		5000	2500	ug/L			11/01/23 22:33	5000
Bromoform	ND		25000	1300	ug/L			11/01/23 22:33	5000
Bromomethane	ND		5000	4900	ug/L			11/01/23 22:33	5000
2-Butanone (MEK)	ND		130000	13000	ug/L			11/01/23 22:33	5000
Carbon disulfide	ND		5000	2500	ug/L			11/01/23 22:33	5000
Carbon tetrachloride	ND		5000	950	ug/L			11/01/23 22:33	5000
Chlorobenzene	ND		5000	4500	ug/L			11/01/23 22:33	5000
Chloroethane	ND		5000	3800	ug/L			11/01/23 22:33	5000
2-Chloroethyl vinyl ether	ND		25000	10000	ug/L			11/01/23 22:33	5000
Chloroform	ND		5000	4500	ug/L			11/01/23 22:33	5000
1-Chlorohexane	ND		5000	1600	ug/L			11/01/23 22:33	5000
Chloromethane	ND		5000	4500	ug/L			11/01/23 22:33	5000
cis-1,2-Dichloroethene	ND		5000	1000	ug/L			11/01/23 22:33	5000
cis-1,3-Dichloropropene	ND		25000	2500	ug/L			11/01/23 22:33	5000
Dibromochloromethane	ND		5000	1200	ug/L			11/01/23 22:33	5000
1,2-Dichlorobenzene	ND		5000	2500	ug/L			11/01/23 22:33	5000
1,3-Dichlorobenzene	ND		5000	2700	ug/L			11/01/23 22:33	5000
1,4-Dichlorobenzene	ND		5000	3200	ug/L			11/01/23 22:33	5000
Dichlorodifluoromethane	ND	*+	5000	4300	ug/L			11/01/23 22:33	5000
1,1-Dichloroethane	ND		5000	2500	ug/L			11/01/23 22:33	5000
1,2-Dichloroethane	ND		5000	950	ug/L			11/01/23 22:33	5000
1,1-Dichloroethene	ND		5000	2500	ug/L			11/01/23 22:33	5000
1,2-Dichloropropane	ND		5000	2500	ug/L			11/01/23 22:33	5000
1,3-Dichloropropane	ND		5000	2500	ug/L			11/01/23 22:33	5000
2,2-Dichloropropane	ND		5000	2500	ug/L			11/01/23 22:33	5000
1,1-Dichloropropene	ND		5000	2500	ug/L			11/01/23 22:33	5000
Ethylbenzene	ND		5000	2500	ug/L			11/01/23 22:33	5000
Ethyl methacrylate	ND		5000	3000	ug/L			11/01/23 22:33	5000
Hexachlorobutadiene	ND		25000	4500	ug/L			11/01/23 22:33	5000
2-Hexanone	ND		130000	7000	ug/L			11/01/23 22:33	5000
Isopropylbenzene	ND		5000	2700	ug/L			11/01/23 22:33	5000
Methylene bromide	ND		25000	1100	ug/L			11/01/23 22:33	5000
Methylene Chloride	ND		25000	15000	ug/L			11/01/23 22:33	5000
4-Methyl-2-pentanone (MIBK)	ND		130000	9000	ug/L			11/01/23 22:33	5000
Methyl tert-butyl ether	ND		5000	1100	ug/L			11/01/23 22:33	5000
m-Xylene & p-Xylene	ND		25000	3200	ug/L			11/01/23 22:33	5000
Naphthalene	ND		25000	15000	ug/L			11/01/23 22:33	5000
n-Butylbenzene	ND		5000	3800	ug/L			11/01/23 22:33	5000
N-Propylbenzene	ND		5000	3500	ug/L			11/01/23 22:33	5000
o-Chlorotoluene	ND		5000	2900	ug/L			11/01/23 22:33	5000
o-Xylene	ND		25000	3000	ug/L			11/01/23 22:33	5000
p-Chlorotoluene	ND		5000	2800	ug/L			11/01/23 22:33	5000
p-Isopropyltoluene	ND		5000	3600	ug/L			11/01/23 22:33	5000

Client Sample ID: P93B-ROX-101923
Date Collected: 10/19/23 12:15
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5000	3500	ug/L			11/01/23 22:33	5000
Styrene	ND		5000	5000	ug/L			11/01/23 22:33	5000
tert-Butylbenzene	ND		5000	3200	ug/L			11/01/23 22:33	5000
1,1,1,2-Tetrachloroethane	ND		5000	800	ug/L			11/01/23 22:33	5000
1,1,2,2-Tetrachloroethane	ND		5000	2500	ug/L			11/01/23 22:33	5000
Tetrachloroethene	ND		5000	4500	ug/L			11/01/23 22:33	5000
Toluene	ND		5000	4500	ug/L			11/01/23 22:33	5000
trans-1,2-Dichloroethene	ND		5000	2500	ug/L			11/01/23 22:33	5000
trans-1,3-Dichloropropene	ND		25000	1000	ug/L			11/01/23 22:33	5000
1,2,3-Trichlorobenzene	ND		5000	4500	ug/L			11/01/23 22:33	5000
1,2,4-Trichlorobenzene	ND		5000	4100	ug/L			11/01/23 22:33	5000
1,1,1-Trichloroethane	ND		5000	900	ug/L			11/01/23 22:33	5000
1,1,2-Trichloroethane	ND		25000	1100	ug/L			11/01/23 22:33	5000
Trichloroethene	ND		5000	750	ug/L			11/01/23 22:33	5000
Trichlorofluoromethane	ND		5000	2600	ug/L			11/01/23 22:33	5000
1,2,3-Trichloropropane	ND		25000	4200	ug/L			11/01/23 22:33	5000
1,2,4-Trimethylbenzene	ND		5000	4100	ug/L			11/01/23 22:33	5000
1,3,5-Trimethylbenzene	ND		5000	2800	ug/L			11/01/23 22:33	5000
Vinyl acetate	ND		130000	4700	ug/L			11/01/23 22:33	5000
Vinyl chloride	ND		5000	2500	ug/L			11/01/23 22:33	5000
Xylenes, Total	ND		50000	8000	ug/L			11/01/23 22:33	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 130*		*11/01/23 22:33*	*5000*
Dibromofluoromethane	*113*		*75 - 126*		*11/01/23 22:33*	*5000*
Toluene-d8 (Surr)	*97*		*64 - 132*		*11/01/23 22:33*	*5000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.21	0.10	ug/L		10/24/23 10:15	10/28/23 13:28	1
Acenaphthene	ND	H	0.21	0.10	ug/L		11/09/23 11:58	11/10/23 20:19	1
Acenaphthylene	ND		0.21	0.046	ug/L		10/24/23 10:15	10/28/23 13:28	1
Acenaphthylene	ND	H	0.21	0.046	ug/L		11/09/23 11:58	11/10/23 20:19	1
Anthracene	ND		0.21	0.049	ug/L		10/24/23 10:15	10/28/23 13:28	1
Anthracene	ND	H	0.21	0.049	ug/L		11/09/23 11:58	11/10/23 20:19	1
Benzo[a]anthracene	ND		0.21	0.036	ug/L		10/24/23 10:15	10/28/23 13:28	1
Benzo[a]anthracene	**0.046**	**J H**	0.21	0.035	ug/L		11/09/23 11:58	11/10/23 20:19	1
Benzo[a]pyrene	ND		0.21	0.067	ug/L		10/24/23 10:15	10/28/23 13:28	1
Benzo[a]pyrene	ND	H	0.21	0.066	ug/L		11/09/23 11:58	11/10/23 20:19	1
Benzo[b]fluoranthene	ND		0.21	0.039	ug/L		10/24/23 10:15	10/28/23 13:28	1
Benzo[b]fluoranthene	ND	H	0.21	0.038	ug/L		11/09/23 11:58	11/10/23 20:19	1
Benzo[g,h,i]perylene	ND		0.21	0.028	ug/L		10/24/23 10:15	10/28/23 13:28	1
Benzo[g,h,i]perylene	ND	H	0.21	0.028	ug/L		11/09/23 11:58	11/10/23 20:19	1
Benzo[k]fluoranthene	ND		0.21	0.065	ug/L		10/24/23 10:15	10/28/23 13:28	1
Benzo[k]fluoranthene	ND	H	0.21	0.064	ug/L		11/09/23 11:58	11/10/23 20:19	1
Chrysene	ND		0.21	0.035	ug/L		10/24/23 10:15	10/28/23 13:28	1
Chrysene	ND	H	0.21	0.034	ug/L		11/09/23 11:58	11/10/23 20:19	1
Dibenz(a,h)anthracene	ND		0.21	0.051	ug/L		10/24/23 10:15	10/28/23 13:28	1
Dibenz(a,h)anthracene	ND	H	0.21	0.050	ug/L		11/09/23 11:58	11/10/23 20:19	1
Fluoranthene	**0.055**	**J B**	0.21	0.036	ug/L		10/24/23 10:15	10/28/23 13:28	1

Client Sample ID: P93B-ROX-101923
Date Collected: 10/19/23 12:15
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND	H	0.21	0.035	ug/L		11/09/23 11:58	11/10/23 20:19	1
Fluorene	ND		0.21	0.094	ug/L		10/24/23 10:15	10/28/23 13:28	1
Fluorene	ND	H	0.21	0.092	ug/L		11/09/23 11:58	11/10/23 20:19	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.036	ug/L		10/24/23 10:15	10/28/23 13:28	1
Indeno[1,2,3-cd]pyrene	ND	H	0.21	0.035	ug/L		11/09/23 11:58	11/10/23 20:19	1
Phenanthrene	ND		0.21	0.095	ug/L		10/24/23 10:15	10/28/23 13:28	1
Phenanthrene	ND	H	0.21	0.093	ug/L		11/09/23 11:58	11/10/23 20:19	1
Pyrene	ND		0.21	0.041	ug/L		10/24/23 10:15	10/28/23 13:28	1
Pyrene	ND	H	0.21	0.040	ug/L		11/09/23 11:58	11/10/23 20:19	1
1-Methylnaphthalene	**0.15**	**J**	0.21	0.084	ug/L		10/24/23 10:15	10/28/23 13:28	1
1-Methylnaphthalene	**0.20**	**J H**	0.21	0.083	ug/L		11/09/23 11:58	11/10/23 20:19	1
2-Methylnaphthalene	**0.14**	**J**	0.21	0.070	ug/L		10/24/23 10:15	10/28/23 13:28	1
2-Methylnaphthalene	**0.21**	**H**	0.21	0.068	ug/L		11/09/23 11:58	11/10/23 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*60*		*18 - 147*	*10/24/23 10:15*	*10/28/23 13:28*	*1*
Terphenyl-d14	*51*		*18 - 147*	*11/09/23 11:58*	*11/10/23 20:19*	*1*
2-Fluorobiphenyl	*63*		*15 - 128*	*10/24/23 10:15*	*10/28/23 13:28*	*1*
2-Fluorobiphenyl	*69*		*15 - 128*	*11/09/23 11:58*	*11/10/23 20:19*	*1*
Nitrobenzene-d5	*43*		*10 - 144*	*10/24/23 10:15*	*10/28/23 13:28*	*1*
Nitrobenzene-d5	*87*		*10 - 144*	*11/09/23 11:58*	*11/10/23 20:19*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		11	4.0	ug/L		10/24/23 10:15	10/25/23 22:48	1
Benzenethiol	ND	*- *1	11	1.8	ug/L		10/24/23 10:15	10/25/23 22:48	1
Benzoic acid	ND	*-	32	7.7	ug/L		10/24/23 10:15	10/25/23 22:48	1
Benzyl alcohol	ND		11	2.1	ug/L		10/24/23 10:15	10/25/23 22:48	1
Bis(2-chloroethoxy)methane	ND		11	0.17	ug/L		10/24/23 10:15	10/25/23 22:48	1
Bis(2-chloroethyl)ether	ND		11	2.8	ug/L		10/24/23 10:15	10/25/23 22:48	1
bis (2-chloroisopropyl) ether	ND		11	0.17	ug/L		10/24/23 10:15	10/25/23 22:48	1
Bis(2-ethylhexyl) phthalate	ND		11	5.3	ug/L		10/24/23 10:15	10/25/23 22:48	1
4-Bromophenyl phenyl ether	ND		11	0.21	ug/L		10/24/23 10:15	10/25/23 22:48	1
Butyl benzyl phthalate	ND		11	0.20	ug/L		10/24/23 10:15	10/25/23 22:48	1
4-Chloroaniline	ND		11	3.6	ug/L		10/24/23 10:15	10/25/23 22:48	1
4-Chloro-3-methylphenol	ND		11	4.0	ug/L		10/24/23 10:15	10/25/23 22:48	1
2-Chloronaphthalene	ND		11	0.15	ug/L		10/24/23 10:15	10/25/23 22:48	1
2-Chlorophenol	ND		11	2.3	ug/L		10/24/23 10:15	10/25/23 22:48	1
4-Chlorophenyl phenyl ether	ND		11	2.1	ug/L		10/24/23 10:15	10/25/23 22:48	1
Dibenz[a,h]acridine	ND		11	1.1	ug/L		10/24/23 10:15	10/25/23 22:48	1
Dibenzofuran	ND		11	0.18	ug/L		10/24/23 10:15	10/25/23 22:48	1
3,3'-Dichlorobenzidine	ND		11	2.7	ug/L		10/24/23 10:15	10/25/23 22:48	1
2,4-Dichlorophenol	ND		11	3.2	ug/L		10/24/23 10:15	10/25/23 22:48	1
Diethyl phthalate	ND		11	0.25	ug/L		10/24/23 10:15	10/25/23 22:48	1
2,4-Dimethylphenol	ND		11	3.7	ug/L		10/24/23 10:15	10/25/23 22:48	1
Dimethyl phthalate	ND		11	0.18	ug/L		10/24/23 10:15	10/25/23 22:48	1
Di-n-butyl phthalate	ND		11	2.8	ug/L		10/24/23 10:15	10/25/23 22:48	1
4,6-Dinitro-ortho-cresol	ND	*1	11	1.7	ug/L		10/24/23 10:15	10/25/23 22:48	1
2,4-Dinitrophenol	ND	*1	32	3.6	ug/L		10/24/23 10:15	10/25/23 22:48	1
2,4-Dinitrotoluene	ND		11	2.0	ug/L		10/24/23 10:15	10/25/23 22:48	1

Client Sample ID: P93B-ROX-101923
Date Collected: 10/19/23 12:15
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		11	2.0	ug/L		10/24/23 10:15	10/25/23 22:48	1
Di-n-octyl phthalate	ND		11	0.18	ug/L		10/24/23 10:15	10/25/23 22:48	1
1,4-Dioxane	ND		11	1.1	ug/L		10/24/23 10:15	10/25/23 22:48	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		11	1.1	ug/L		10/24/23 10:15	10/25/23 22:48	1
Hexachlorobenzene	ND		11	0.18	ug/L		10/24/23 10:15	10/25/23 22:48	1
Hexachlorocyclopentadiene	ND		21	2.7	ug/L		10/24/23 10:15	10/25/23 22:48	1
Hexachloroethane	ND		11	4.4	ug/L		10/24/23 10:15	10/25/23 22:48	1
Indene	ND		11	1.1	ug/L		10/24/23 10:15	10/25/23 22:48	1
Isophorone	ND		11	0.15	ug/L		10/24/23 10:15	10/25/23 22:48	1
2-Methylphenol	ND		11	1.9	ug/L		10/24/23 10:15	10/25/23 22:48	1
3 & 4 Methylphenol	ND		21	0.41	ug/L		10/24/23 10:15	10/25/23 22:48	1
2-Nitroaniline	ND		11	2.3	ug/L		10/24/23 10:15	10/25/23 22:48	1
3-Nitroaniline	ND		11	1.9	ug/L		10/24/23 10:15	10/25/23 22:48	1
4-Nitroaniline	ND		11	1.6	ug/L		10/24/23 10:15	10/25/23 22:48	1
Nitrobenzene	ND		11	0.14	ug/L		10/24/23 10:15	10/25/23 22:48	1
2-Nitrophenol	ND		11	5.5	ug/L		10/24/23 10:15	10/25/23 22:48	1
4-Nitrophenol	ND		11	2.2	ug/L		10/24/23 10:15	10/25/23 22:48	1
N-Nitrosodimethylamine	ND		11	3.7	ug/L		10/24/23 10:15	10/25/23 22:48	1
N-Nitrosodi-n-propylamine	ND		11	3.5	ug/L		10/24/23 10:15	10/25/23 22:48	1
N-Nitrosodiphenylamine	ND		11	0.19	ug/L		10/24/23 10:15	10/25/23 22:48	1
Pentachlorophenol	ND	*1	21	1.5	ug/L		10/24/23 10:15	10/25/23 22:48	1
Phenol	**200**		11	2.7	ug/L		10/24/23 10:15	10/25/23 22:48	1
Pyridine	ND		11	3.4	ug/L		10/24/23 10:15	10/25/23 22:48	1
Quinoline	ND		11	4.7	ug/L		10/24/23 10:15	10/25/23 22:48	1
2,4,5-Trichlorophenol	ND		11	3.9	ug/L		10/24/23 10:15	10/25/23 22:48	1
2,4,6-Trichlorophenol	ND		11	3.7	ug/L		10/24/23 10:15	10/25/23 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*10/24/23 10:15*	*10/25/23 22:48*	*1*
2-Fluorophenol	*20*		*13 - 113*	*10/24/23 10:15*	*10/25/23 22:48*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*10/24/23 10:15*	*10/25/23 22:48*	*1*
Phenol-d5	*44*		*17 - 127*	*10/24/23 10:15*	*10/25/23 22:48*	*1*
Terphenyl-d14	*67*		*44 - 149*	*10/24/23 10:15*	*10/25/23 22:48*	*1*
2,4,6-Tribromophenol	*93*		*26 - 150*	*10/24/23 10:15*	*10/25/23 22:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/26/23 13:46	10/26/23 19:29	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/26/23 13:46	10/26/23 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*51 - 149*	*10/26/23 13:46*	*10/26/23 19:29*	*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.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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
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: 400-245432-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-245432-1	TB-ROX-101923-SS	95	115	97
400-245432-3	T12-ROX-101923	90	111	97
400-245432-4	P93B-ROX-101923	90	113	97
LCS 400-648180/1001	Lab Control Sample	96	103	97
MB 400-648180/32	Method Blank	97	119	94

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-245432-3	T12-ROX-101923	77	29	70	60	76	104
400-245432-4	P93B-ROX-101923	73	20	67	44	67	93
LCS 400-646681/2-A	Lab Control Sample	79	36	79	65	95	101
LCS 400-646681/4-A	Lab Control Sample	79	32	68	50	98	70
LCSD 400-646681/3-A	Lab Control Sample Dup	79	19	78	56	96	100
LCSD 400-646681/5-A	Lab Control Sample Dup	75	33	65	55	94	51
MB 400-646681/1-A	Method Blank	77	8 S1-	67	37	94	55

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-245432-3	T12-ROX-101923	72	60	56
400-245432-3	T12-ROX-101923	63	71	66
400-245432-4	P93B-ROX-101923	60	63	43
400-245432-4	P93B-ROX-101923	51	69	87
LCS 400-646681/6-A	Lab Control Sample	76	70	57
LCS 400-649254/2-A	Lab Control Sample	58	59	53
LCSD 400-646681/7-A	Lab Control Sample Dup	79	75	61
LCSD 400-649254/3-A	Lab Control Sample Dup	58	60	56
MB 400-646681/1-A	Method Blank	69	56	50
MB 400-649254/1-A	Method Blank	74	69	65

Surrogate Legend

TPHL = Terphenyl-d14

Surrogate Summary

Client: AECOM Technical Services Inc.
Job ID: 400-245432-1
Project/Site: ROXANA QUARTERLY GW

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)								
400-245432-2	TB-ROX-101923-SS	107								
400-245432-3	T12-ROX-101923	93								
400-245432-4	P93B-ROX-101923	95								
LCS 400-647386/2-A	Lab Control Sample	90								
LCSD 400-647386/3-A	Lab Control Sample Dup	94								
MB 400-647386/1-A	Method Blank	98								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Job ID: 400-245432-1
Project/Site: ROXANA QUARTERLY GW

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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: 400-245432-1

Client Sample ID: TB-ROX-101923-SS
Date Collected: 10/19/23 00:00
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-1
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	8260D		1	5 mL	5 mL	648180	11/01/23 15:22	CH	EET PEN

Client Sample ID: TB-ROX-101923-SS
Date Collected: 10/19/23 00:00
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-2
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			34.8 mL	35 mL	647386	10/26/23 13:46	PG	EET PEN
Total/NA	Analysis	8011		1			647406	10/26/23 18:47	PG	EET PEN

Client Sample ID: T12-ROX-101923
Date Collected: 10/19/23 11:20
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-3
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	8260D		10	5 mL	5 mL	648180	11/01/23 22:11	CH	EET PEN
Total/NA	Prep	3520C			256.4 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 22:27	S1B	EET PEN
Total/NA	Prep	3520C			256.4 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 21:02	S1B	EET PEN
Total/NA	Prep	3520C			253.8 mL	1 mL	649254	11/09/23 11:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 19:59	TH	EET PEN
Total/NA	Prep	8011			33.3 mL	35 mL	647386	10/26/23 13:46	PG	EET PEN
Total/NA	Analysis	8011		1			647406	10/26/23 19:08	PG	EET PEN

Client Sample ID: P93B-ROX-101923
Date Collected: 10/19/23 12:15
Date Received: 10/20/23 09:31

Lab Sample ID: 400-245432-4
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	8260D		5000	5 mL	5 mL	648180	11/01/23 22:33	CH	EET PEN
Total/NA	Prep	3520C			237.4 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 22:48	S1B	EET PEN
Total/NA	Prep	3520C			237.4 mL	1 mL	646681	10/24/23 10:15	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647669	10/28/23 13:28	S1B	EET PEN
Total/NA	Prep	3520C			241.2 mL	1 mL	649254	11/09/23 11:58	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 20:19	TH	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	647386	10/26/23 13:46	PG	EET PEN
Total/NA	Analysis	8011		1			647406	10/26/23 19:29	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-646681/1-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 15:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 14:45	S1B	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-647386/1-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	647386	10/26/23 13:46	PG	EET PEN
Total/NA	Analysis	8011		1			647406	10/26/23 17:04	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-648180/32

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	8260D		1	5 mL	5 mL	648180	11/01/23 13:06	CH	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-649254/1-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 16:54	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/2-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:05	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-646681/4-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:47	S1B	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-646681/6-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:06	S1B	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-647386/2-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	647386	10/26/23 13:46	PG	EET PEN
Total/NA	Analysis	8011		1			647406	10/26/23 17:25	PG	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-648180/1001**
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	8260D		1	5 mL	5 mL	648180	11/01/23 12:11	CH	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-649254/2-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 17:15	TH	EET PEN

Client Sample ID: Lab Control Sample Dup — **Lab Sample ID: LCSD 400-646681/3-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 16:26	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup — **Lab Sample ID: LCSD 400-646681/5-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	647055	10/25/23 17:09	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-646681/7-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	646681	10/23/23 11:01	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	647384	10/26/23 15:27	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-647386/3-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	647386	10/26/23 13:46	PG	EET PEN
Total/NA	Analysis	8011		1			647406	10/26/23 17:46	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-649254/3-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	649254	11/08/23 13:07	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	649654	11/10/23 17:35	TH	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 648180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-1	TB-ROX-101923-SS	Total/NA	Water	8260D	
400-245432-3	T12-ROX-101923	Total/NA	Water	8260D	
400-245432-4	P93B-ROX-101923	Total/NA	Water	8260D	
MB 400-648180/32	Method Blank	Total/NA	Water	8260D	
LCS 400-648180/1001	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 646681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-3	T12-ROX-101923	Total/NA	Water	3520C	
400-245432-4	P93B-ROX-101923	Total/NA	Water	3520C	
MB 400-646681/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 647055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-3	T12-ROX-101923	Total/NA	Water	8270E	646681
400-245432-4	P93B-ROX-101923	Total/NA	Water	8270E	646681
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E	646681
LCS 400-646681/2-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCS 400-646681/4-A	Lab Control Sample	Total/NA	Water	8270E	646681
LCSD 400-646681/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681
LCSD 400-646681/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	646681

Analysis Batch: 647384

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-3	T12-ROX-101923	Total/NA	Water	8270E SIM	646681
MB 400-646681/1-A	Method Blank	Total/NA	Water	8270E SIM	646681
LCS 400-646681/6-A	Lab Control Sample	Total/NA	Water	8270E SIM	646681
LCSD 400-646681/7-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	646681

Analysis Batch: 647669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-4	P93B-ROX-101923	Total/NA	Water	8270E SIM	646681

Prep Batch: 649254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-3	T12-ROX-101923	Total/NA	Water	3520C	
400-245432-4	P93B-ROX-101923	Total/NA	Water	3520C	
MB 400-649254/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-649254/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-649254/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

QC Association Summary

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

Job ID: 400-245432-1

GC/MS Semi VOA

Analysis Batch: 649654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-3	T12-ROX-101923	Total/NA	Water	8270E SIM	649254
400-245432-4	P93B-ROX-101923	Total/NA	Water	8270E SIM	649254
MB 400-649254/1-A	Method Blank	Total/NA	Water	8270E SIM	649254
LCS 400-649254/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	649254
LCSD 400-649254/3-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	649254

GC Semi VOA

Prep Batch: 647386

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-2	TB-ROX-101923-SS	Total/NA	Water	8011	
400-245432-3	T12-ROX-101923	Total/NA	Water	8011	
400-245432-4	P93B-ROX-101923	Total/NA	Water	8011	
MB 400-647386/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-647386/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-647386/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 647406

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-245432-2	TB-ROX-101923-SS	Total/NA	Water	8011	647386
400-245432-3	T12-ROX-101923	Total/NA	Water	8011	647386
400-245432-4	P93B-ROX-101923	Total/NA	Water	8011	647386
MB 400-647386/1-A	Method Blank	Total/NA	Water	8011	647386
LCS 400-647386/2-A	Lab Control Sample	Total/NA	Water	8011	647386
LCSD 400-647386/3-A	Lab Control Sample Dup	Total/NA	Water	8011	647386

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-648180/32
Matrix: Water
Analysis Batch: 648180

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			11/01/23 13:06	1
Acrolein	ND		20	3.3	ug/L			11/01/23 13:06	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/23 13:06	1
Benzene	ND		1.0	0.50	ug/L			11/01/23 13:06	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/23 13:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/23 13:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/23 13:06	1
Bromoform	ND		5.0	0.25	ug/L			11/01/23 13:06	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/23 13:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/23 13:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/23 13:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/23 13:06	1
Chlorobenzene	ND		1.0	0.90	ug/L			11/01/23 13:06	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/23 13:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/23 13:06	1
Chloroform	ND		1.0	0.90	ug/L			11/01/23 13:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/23 13:06	1
Chloromethane	ND		1.0	0.90	ug/L			11/01/23 13:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/23 13:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/23 13:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/23 13:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/23 13:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/23 13:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/23 13:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/23 13:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/23 13:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/23 13:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 13:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 13:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 13:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/23 13:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/23 13:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/23 13:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/23 13:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/23 13:06	1
2-Hexanone	ND		25	1.4	ug/L			11/01/23 13:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/23 13:06	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/23 13:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/23 13:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/23 13:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/23 13:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/23 13:06	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/23 13:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/23 13:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/23 13:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/23 13:06	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/23 13:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/23 13:06	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-648180/32
Matrix: Water
Analysis Batch: 648180

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			11/01/23 13:06	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/01/23 13:06	1
Styrene	ND		1.0	1.0	ug/L			11/01/23 13:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/23 13:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/23 13:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/23 13:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/23 13:06	1
Toluene	ND		1.0	0.90	ug/L			11/01/23 13:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/23 13:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/23 13:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/23 13:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/23 13:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/23 13:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/23 13:06	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/23 13:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/23 13:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/23 13:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/23 13:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/23 13:06	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/23 13:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/23 13:06	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/23 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 130*		*11/01/23 13:06*	*1*
Dibromofluoromethane	*119*		*75 - 126*		*11/01/23 13:06*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*11/01/23 13:06*	*1*

Lab Sample ID: LCS 400-648180/1001
Matrix: Water
Analysis Batch: 648180

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	165		ug/L		83	43 - 160
Acrolein	500	416		ug/L		83	38 - 160
Acrylonitrile	500	353		ug/L		71	64 - 142
Benzene	50.0	43.7		ug/L		87	70 - 130
Bromobenzene	50.0	47.6		ug/L		95	70 - 132
Bromochloromethane	50.0	47.2		ug/L		94	70 - 130
Bromodichloromethane	50.0	45.4		ug/L		91	67 - 133
Bromoform	50.0	44.3		ug/L		89	57 - 140
Bromomethane	50.0	51.4		ug/L		103	10 - 160
2-Butanone (MEK)	200	166		ug/L		83	61 - 145
Carbon disulfide	50.0	34.0		ug/L		68	61 - 137
Carbon tetrachloride	50.0	43.2		ug/L		86	61 - 137
Chlorobenzene	50.0	46.4		ug/L		93	70 - 130
Chloroethane	50.0	42.3		ug/L		85	55 - 141
2-Chloroethyl vinyl ether	50.0	55.2		ug/L		110	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-648180/1001
Matrix: Water
Analysis Batch: 648180

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	43.8		ug/L		88	69 - 130
1-Chlorohexane	50.0	40.9		ug/L		82	69 - 130
Chloromethane	50.0	61.6		ug/L		123	58 - 137
cis-1,2-Dichloroethene	50.0	41.3		ug/L		83	68 - 130
cis-1,3-Dichloropropene	50.0	47.3		ug/L		95	69 - 132
Dibromochloromethane	50.0	48.4		ug/L		97	67 - 135
1,2-Dichlorobenzene	50.0	50.1		ug/L		100	67 - 130
1,3-Dichlorobenzene	50.0	49.7		ug/L		99	70 - 130
1,4-Dichlorobenzene	50.0	50.1		ug/L		100	70 - 130
Dichlorodifluoromethane	50.0	89.0	*+	ug/L		178	41 - 146
1,1-Dichloroethane	50.0	42.4		ug/L		85	70 - 130
1,2-Dichloroethane	50.0	44.8		ug/L		90	69 - 130
1,1-Dichloroethene	50.0	39.5		ug/L		79	63 - 134
1,2-Dichloropropane	50.0	45.0		ug/L		90	70 - 130
1,3-Dichloropropane	50.0	49.0		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	38.4		ug/L		77	52 - 135
1,1-Dichloropropene	50.0	42.1		ug/L		84	70 - 130
Ethylbenzene	50.0	46.3		ug/L		93	70 - 130
Ethyl methacrylate	50.0	46.4		ug/L		93	68 - 130
Hexachlorobutadiene	50.0	52.7		ug/L		105	53 - 140
2-Hexanone	200	163		ug/L		82	65 - 137
Isopropylbenzene	50.0	48.6		ug/L		97	70 - 130
Methylene bromide	50.0	46.7		ug/L		93	70 - 130
Methylene Chloride	50.0	43.1		ug/L		86	66 - 135
4-Methyl-2-pentanone (MIBK)	200	159		ug/L		79	69 - 138
Methyl tert-butyl ether	50.0	44.8		ug/L		90	66 - 130
m-Xylene & p-Xylene	50.0	47.1		ug/L		94	70 - 130
Naphthalene	50.0	45.9		ug/L		92	47 - 149
n-Butylbenzene	50.0	51.3		ug/L		103	67 - 130
N-Propylbenzene	50.0	47.5		ug/L		95	70 - 130
o-Chlorotoluene	50.0	48.1		ug/L		96	70 - 130
o-Xylene	50.0	48.2		ug/L		96	70 - 130
p-Chlorotoluene	50.0	47.5		ug/L		95	70 - 130
p-Isopropyltoluene	50.0	50.0		ug/L		100	65 - 130
sec-Butylbenzene	50.0	48.8		ug/L		98	66 - 130
Styrene	50.0	47.7		ug/L		95	70 - 130
tert-Butylbenzene	50.0	46.2		ug/L		92	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.9		ug/L		96	67 - 131
1,1,2,2-Tetrachloroethane	50.0	46.3		ug/L		93	70 - 131
Tetrachloroethene	50.0	37.1		ug/L		74	65 - 130
Toluene	50.0	43.0		ug/L		86	70 - 130
trans-1,2-Dichloroethene	50.0	41.6		ug/L		83	70 - 130
trans-1,3-Dichloropropene	50.0	47.5		ug/L		95	63 - 130
1,2,3-Trichlorobenzene	50.0	47.0		ug/L		94	60 - 138
1,2,4-Trichlorobenzene	50.0	46.4		ug/L		93	60 - 140
1,1,1-Trichloroethane	50.0	40.8		ug/L		82	68 - 130
1,1,2-Trichloroethane	50.0	48.6		ug/L		97	70 - 130
Trichloroethene	50.0	43.5		ug/L		87	70 - 130
Trichlorofluoromethane	50.0	45.2		ug/L		90	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-648180/1001
Matrix: Water
Analysis Batch: 648180

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	43.2		ug/L		86	70 - 130
1,2,4-Trimethylbenzene	50.0	47.6		ug/L		95	70 - 130
1,3,5-Trimethylbenzene	50.0	46.8		ug/L		94	69 - 130
Vinyl acetate	100	135		ug/L		135	26 - 160
Vinyl chloride	50.0	60.6		ug/L		121	59 - 136
Xylenes, Total	100	95.2		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 130*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzenethiol	ND		10	1.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzoic acid	ND		30	7.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
Benzyl alcohol	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/23/23 11:01	10/25/23 15:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/23/23 11:01	10/25/23 15:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloroaniline	ND		10	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Chlorophenol	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dibenzofuran	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Diethyl phthalate	ND		10	0.24	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/23/23 11:01	10/25/23 15:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
1,4-Dioxane	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1

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

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Hexachloroethane	ND		10	4.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Indene	ND		10	1.0	ug/L		10/23/23 11:01	10/25/23 15:43	1
Isophorone	ND		10	0.14	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Methylphenol	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitroaniline	ND		10	2.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
3-Nitroaniline	ND		10	1.8	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitroaniline	ND		10	1.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
Nitrobenzene	ND		10	0.13	ug/L		10/23/23 11:01	10/25/23 15:43	1
2-Nitrophenol	ND		10	5.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
4-Nitrophenol	ND		10	2.1	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/23/23 11:01	10/25/23 15:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pentachlorophenol	ND		20	1.4	ug/L		10/23/23 11:01	10/25/23 15:43	1
Phenol	ND		10	2.6	ug/L		10/23/23 11:01	10/25/23 15:43	1
Pyridine	ND		10	3.2	ug/L		10/23/23 11:01	10/25/23 15:43	1
Quinoline	ND		10	4.5	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/23/23 11:01	10/25/23 15:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/23/23 11:01	10/25/23 15:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
2-Fluorophenol	*8*	*S1-*	*13 - 113*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Phenol-d5	*37*		*17 - 127*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
Terphenyl-d14	*94*		*44 - 149*	*10/23/23 11:01*	*10/25/23 15:43*	*1*
2,4,6-Tribromophenol	*55*		*26 - 150*	*10/23/23 11:01*	*10/25/23 15:43*	*1*

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	80.0		ug/L		67	21 - 120
Benzoic acid	522	29.7	J *-	ug/L		6	10 - 144
Benzyl alcohol	120	89.4		ug/L		75	28 - 120
Bis(2-chloroethoxy)methane	120	81.3		ug/L		68	47 - 120
Bis(2-chloroethyl)ether	120	82.0		ug/L		68	44 - 120
bis (2-chloroisopropyl) ether	120	78.6		ug/L		66	33 - 121
Bis(2-ethylhexyl) phthalate	120	94.6		ug/L		79	52 - 147
4-Bromophenyl phenyl ether	120	99.6		ug/L		83	54 - 122
Butyl benzyl phthalate	120	101		ug/L		84	54 - 133
4-Chloroaniline	120	64.4		ug/L		54	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131

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

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	92.6		ug/L		77	52 - 121
2-Chlorophenol	120	75.0		ug/L		63	40 - 120
4-Chlorophenyl phenyl ether	120	104		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	103		ug/L		86	31 - 150
Dibenzofuran	120	101		ug/L		84	56 - 122
3,3'-Dichlorobenzidine	160	142		ug/L		89	36 - 132
2,4-Dichlorophenol	120	96.5		ug/L		80	49 - 120
Diethyl phthalate	120	105		ug/L		88	50 - 137
2,4-Dimethylphenol	120	97.5		ug/L		81	48 - 120
Dimethyl phthalate	120	97.6		ug/L		81	57 - 124
Di-n-butyl phthalate	120	114		ug/L		95	58 - 126
4,6-Dinitro-ortho-cresol	240	155		ug/L		65	23 - 148
2,4-Dinitrophenol	240	111		ug/L		46	10 - 150
2,4-Dinitrotoluene	120	106		ug/L		88	54 - 142
2,6-Dinitrotoluene	120	103		ug/L		86	55 - 130
Di-n-octyl phthalate	120	91.9		ug/L		77	57 - 138
1,4-Dioxane	120	54.7		ug/L		46	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	81.5		ug/L		68	45 - 124
Hexachlorobenzene	120	108		ug/L		90	52 - 129
Hexachlorocyclopentadiene	120	63.8		ug/L		53	10 - 134
Hexachloroethane	120	81.9		ug/L		68	20 - 120
Indene	120	95.3		ug/L		79	49 - 120
Isophorone	120	82.9		ug/L		69	48 - 120
2-Methylphenol	120	89.7		ug/L		75	46 - 124
3 & 4 Methylphenol	120	88.5		ug/L		74	45 - 120
2-Nitroaniline	120	91.0		ug/L		76	51 - 145
3-Nitroaniline	120	82.4		ug/L		69	37 - 127
4-Nitroaniline	120	80.4		ug/L		67	36 - 137
Nitrobenzene	120	82.9		ug/L		69	45 - 120
2-Nitrophenol	120	98.4		ug/L		82	40 - 124
4-Nitrophenol	240	189		ug/L		79	23 - 146
N-Nitrosodimethylamine	120	81.7		ug/L		68	29 - 137
N-Nitrosodi-n-propylamine	120	86.4		ug/L		72	45 - 120
N-Nitrosodiphenylamine	119	89.7		ug/L		75	54 - 120
Pentachlorophenol	240	174		ug/L		73	31 - 130
Phenol	120	76.3		ug/L		64	11 - 120
Pyridine	240	128		ug/L		53	16 - 120
Quinoline	120	98.7		ug/L		82	49 - 130
2,4,5-Trichlorophenol	120	106		ug/L		88	51 - 136
2,4,6-Trichlorophenol	120	99.0		ug/L		82	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*

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

Lab Sample ID: LCS 400-646681/2-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*101*		*26 - 150*

Lab Sample ID: LCS 400-646681/4-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	3.42	J *-	ug/L		3	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*50*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	84.3		ug/L		70	21 - 120	5	30
Benzoic acid			522	26.3	J *-	ug/L		5	10 - 144	12	30
Benzyl alcohol			120	88.5		ug/L		74	28 - 120	1	30
Bis(2-chloroethoxy)methane			120	81.3		ug/L		68	47 - 120	0	30
Bis(2-chloroethyl)ether			120	78.5		ug/L		65	44 - 120	4	30
bis (2-chloroisopropyl) ether			120	77.0		ug/L		64	33 - 121	2	30
Bis(2-ethylhexyl) phthalate			120	95.4		ug/L		80	52 - 147	1	30
4-Bromophenyl phenyl ether			120	99.5		ug/L		83	54 - 122	0	30
Butyl benzyl phthalate			120	102		ug/L		85	54 - 133	1	30
4-Chloroaniline			120	86.8		ug/L		72	26 - 120	30	30
4-Chloro-3-methylphenol			120	99.5		ug/L		83	48 - 131	1	30
2-Chloronaphthalene			120	93.0		ug/L		77	52 - 121	0	30
2-Chlorophenol			120	57.9		ug/L		48	40 - 120	26	30
4-Chlorophenyl phenyl ether			120	104		ug/L		87	56 - 125	1	30
Dibenz[a,h]acridine			120	103		ug/L		86	31 - 150	0	30
Dibenzofuran			120	101		ug/L		84	56 - 122	0	30
3,3'-Dichlorobenzidine			160	143		ug/L		89	36 - 132	1	30
2,4-Dichlorophenol			120	89.5		ug/L		75	49 - 120	8	30
Diethyl phthalate			120	106		ug/L		88	50 - 137	1	30
2,4-Dimethylphenol			120	97.1		ug/L		81	48 - 120	0	30
Dimethyl phthalate			120	98.5		ug/L		82	57 - 124	1	30
Di-n-butyl phthalate			120	115		ug/L		96	58 - 126	1	30
4,6-Dinitro-ortho-cresol			240	100	*1	ug/L		42	23 - 148	43	30
2,4-Dinitrophenol			240	44.4	*1	ug/L		19	10 - 150	85	30
2,4-Dinitrotoluene			120	108		ug/L		90	54 - 142	2	30
2,6-Dinitrotoluene			120	104		ug/L		87	55 - 130	1	30

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

Lab Sample ID: LCSD 400-646681/3-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	92.6		ug/L		77	57 - 138	1	30
1,4-Dioxane			120	50.3		ug/L		42	31 - 120	8	30
1,2-Diphenylhydrazine (as Azobenzene)			120	81.2		ug/L		68	45 - 124	0	30
Hexachlorobenzene			120	107		ug/L		89	52 - 129	1	30
Hexachlorocyclopentadiene			120	61.1		ug/L		51	10 - 134	4	30
Hexachloroethane			120	77.4		ug/L		65	20 - 120	6	30
Indene			120	93.0		ug/L		77	49 - 120	3	30
Isophorone			120	83.6		ug/L		70	48 - 120	1	30
2-Methylphenol			120	85.2		ug/L		71	46 - 124	5	30
3 & 4 Methylphenol			120	85.2		ug/L		71	45 - 120	4	30
2-Nitroaniline			120	92.8		ug/L		77	51 - 145	2	30
3-Nitroaniline			120	86.1		ug/L		72	37 - 127	4	30
4-Nitroaniline			120	98.7		ug/L		82	36 - 137	20	30
Nitrobenzene			120	82.7		ug/L		69	45 - 120	0	30
2-Nitrophenol			120	94.9		ug/L		79	40 - 124	4	30
4-Nitrophenol			240	193		ug/L		80	23 - 146	2	30
N-Nitrosodimethylamine			120	79.7		ug/L		66	29 - 137	2	30
N-Nitrosodi-n-propylamine			120	84.3		ug/L		70	45 - 120	3	30
N-Nitrosodiphenylamine			119	89.7		ug/L		75	54 - 120	0	30
Pentachlorophenol			240	119	*1	ug/L		49	31 - 130	38	30
Phenol			120	65.0		ug/L		54	11 - 120	16	30
Pyridine			240	128		ug/L		54	16 - 120	1	30
Quinoline			120	99.0		ug/L		83	49 - 130	0	30
2,4,5-Trichlorophenol			120	105		ug/L		88	51 - 136	1	30
2,4,6-Trichlorophenol			120	96.7		ug/L		81	50 - 127	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*19*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*100*		*26 - 150*

Lab Sample ID: LCSD 400-646681/5-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.32	J *- *1	ug/L		2	10 - 120	38	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*55*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*

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

Lab Sample ID: LCSD 400-646681/5-A
Matrix: Water
Analysis Batch: 647055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*51*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-646681/1-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 646681

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		10/23/23 11:01	10/26/23 14:45	1
Acenaphthylene	ND		0.20	0.044	ug/L		10/23/23 11:01	10/26/23 14:45	1
Anthracene	ND		0.20	0.047	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]anthracene	0.0553	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		10/23/23 11:01	10/26/23 14:45	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		10/23/23 11:01	10/26/23 14:45	1
Chrysene	ND		0.20	0.033	ug/L		10/23/23 11:01	10/26/23 14:45	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluoranthene	0.0635	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Fluorene	ND		0.20	0.089	ug/L		10/23/23 11:01	10/26/23 14:45	1
Indeno[1,2,3-cd]pyrene	0.0365	J	0.20	0.034	ug/L		10/23/23 11:01	10/26/23 14:45	1
Phenanthrene	ND		0.20	0.090	ug/L		10/23/23 11:01	10/26/23 14:45	1
Pyrene	ND		0.20	0.039	ug/L		10/23/23 11:01	10/26/23 14:45	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		10/23/23 11:01	10/26/23 14:45	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		10/23/23 11:01	10/26/23 14:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*18 - 147*	*10/23/23 11:01*	*10/26/23 14:45*	*1*
2-Fluorobiphenyl	*56*		*15 - 128*	*10/23/23 11:01*	*10/26/23 14:45*	*1*
Nitrobenzene-d5	*50*		*10 - 144*	*10/23/23 11:01*	*10/26/23 14:45*	*1*

Lab Sample ID: LCS 400-646681/6-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.79		ug/L		90	40 - 140
Acenaphthylene	2.00	1.81		ug/L		90	40 - 140
Anthracene	2.00	1.80		ug/L		90	40 - 140
Benzo[a]anthracene	2.00	1.81		ug/L		91	40 - 140
Benzo[a]pyrene	2.00	1.47		ug/L		74	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		77	40 - 140
Benzo[g,h,i]perylene	2.00	1.70		ug/L		85	40 - 140
Benzo[k]fluoranthene	2.00	1.52		ug/L		76	40 - 140
Chrysene	2.00	1.85		ug/L		93	40 - 140
Dibenz(a,h)anthracene	2.00	1.55		ug/L		78	40 - 140
Fluoranthene	2.00	1.84		ug/L		92	40 - 140

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-646681/6-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluorene			2.00	1.84		ug/L		92	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	1.60		ug/L		80	40 - 140		
Phenanthrene			2.00	1.75		ug/L		88	40 - 140		
Pyrene			2.00	1.85		ug/L		93	40 - 140		
1-Methylnaphthalene			2.00	1.83		ug/L		92	40 - 140		
2-Methylnaphthalene			2.00	1.80		ug/L		90	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*76*		*18 - 147*
2-Fluorobiphenyl	*70*		*15 - 128*
Nitrobenzene-d5	*57*		*10 - 144*

Lab Sample ID: LCSD 400-646681/7-A
Matrix: Water
Analysis Batch: 647384

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 646681

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.93		ug/L		97	40 - 140	7	40
Acenaphthylene			2.00	1.95		ug/L		97	40 - 140	8	40
Anthracene			2.00	1.94		ug/L		97	40 - 140	8	40
Benzo[a]anthracene			2.00	1.97		ug/L		98	40 - 140	8	40
Benzo[a]pyrene			2.00	1.61		ug/L		80	40 - 140	9	40
Benzo[b]fluoranthene			2.00	1.65		ug/L		82	40 - 140	6	40
Benzo[g,h,i]perylene			2.00	1.77		ug/L		88	40 - 140	4	40
Benzo[k]fluoranthene			2.00	1.62		ug/L		81	40 - 140	6	40
Chrysene			2.00	1.94		ug/L		97	40 - 140	5	40
Dibenz(a,h)anthracene			2.00	1.59		ug/L		80	40 - 140	3	40
Fluoranthene			2.00	2.02		ug/L		101	40 - 140	9	40
Fluorene			2.00	2.01		ug/L		100	40 - 140	9	40
Indeno[1,2,3-cd]pyrene			2.00	1.67		ug/L		84	40 - 140	4	40
Phenanthrene			2.00	1.88		ug/L		94	40 - 140	7	40
Pyrene			2.00	1.93		ug/L		96	40 - 140	4	40
1-Methylnaphthalene			2.00	1.98		ug/L		99	40 - 140	7	40
2-Methylnaphthalene			2.00	1.93		ug/L		96	40 - 140	7	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*79*		*18 - 147*
2-Fluorobiphenyl	*75*		*15 - 128*
Nitrobenzene-d5	*61*		*10 - 144*

Lab Sample ID: MB 400-649254/1-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		11/08/23 13:07	11/10/23 16:54	1
Acenaphthylene	ND		0.20	0.044	ug/L		11/08/23 13:07	11/10/23 16:54	1
Anthracene	ND		0.20	0.047	ug/L		11/08/23 13:07	11/10/23 16:54	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-649254/1-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 649254

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		11/08/23 13:07	11/10/23 16:54	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		11/08/23 13:07	11/10/23 16:54	1
Chrysene	ND		0.20	0.033	ug/L		11/08/23 13:07	11/10/23 16:54	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		11/08/23 13:07	11/10/23 16:54	1
Fluoranthene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Fluorene	ND		0.20	0.089	ug/L		11/08/23 13:07	11/10/23 16:54	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		11/08/23 13:07	11/10/23 16:54	1
Phenanthrene	ND		0.20	0.090	ug/L		11/08/23 13:07	11/10/23 16:54	1
Pyrene	ND		0.20	0.039	ug/L		11/08/23 13:07	11/10/23 16:54	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		11/08/23 13:07	11/10/23 16:54	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		11/08/23 13:07	11/10/23 16:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*74*		*18 - 147*	*11/08/23 13:07*	*11/10/23 16:54*	*1*
2-Fluorobiphenyl	*69*		*15 - 128*	*11/08/23 13:07*	*11/10/23 16:54*	*1*
Nitrobenzene-d5	*65*		*10 - 144*	*11/08/23 13:07*	*11/10/23 16:54*	*1*

Lab Sample ID: LCS 400-649254/2-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 649254

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	4.00	2.78		ug/L		70	40 - 140
Acenaphthylene	4.00	2.82		ug/L		71	40 - 140
Anthracene	4.00	2.75		ug/L		69	40 - 140
Benzo[a]anthracene	4.00	2.88		ug/L		72	40 - 140
Benzo[a]pyrene	4.00	2.68		ug/L		67	40 - 140
Benzo[b]fluoranthene	4.00	2.81		ug/L		70	40 - 140
Benzo[g,h,i]perylene	4.00	2.69		ug/L		67	40 - 140
Benzo[k]fluoranthene	4.00	2.94		ug/L		73	40 - 140
Chrysene	4.00	2.89		ug/L		72	40 - 140
Dibenz(a,h)anthracene	4.00	2.19		ug/L		55	40 - 140
Fluoranthene	4.00	2.80		ug/L		70	40 - 140
Fluorene	4.00	2.84		ug/L		71	40 - 140
Indeno[1,2,3-cd]pyrene	4.00	2.45		ug/L		61	40 - 140
Phenanthrene	4.00	2.81		ug/L		70	40 - 140
Pyrene	4.00	3.08		ug/L		77	40 - 140
1-Methylnaphthalene	4.00	2.64		ug/L		66	40 - 140
2-Methylnaphthalene	4.00	2.62		ug/L		65	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*58*		*18 - 147*
2-Fluorobiphenyl	*59*		*15 - 128*
Nitrobenzene-d5	*53*		*10 - 144*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-649254/3-A
Matrix: Water
Analysis Batch: 649654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 649254

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			4.00	2.84		ug/L		71	40 - 140	2	40
Acenaphthylene			4.00	2.89		ug/L		72	40 - 140	2	40
Anthracene			4.00	2.69		ug/L		67	40 - 140	2	40
Benzo[a]anthracene			4.00	3.00		ug/L		75	40 - 140	4	40
Benzo[a]pyrene			4.00	2.68		ug/L		67	40 - 140	0	40
Benzo[b]fluoranthene			4.00	2.82		ug/L		70	40 - 140	0	40
Benzo[g,h,i]perylene			4.00	2.77		ug/L		69	40 - 140	3	40
Benzo[k]fluoranthene			4.00	2.90		ug/L		72	40 - 140	1	40
Chrysene			4.00	2.89		ug/L		72	40 - 140	0	40
Dibenz(a,h)anthracene			4.00	2.55		ug/L		64	40 - 140	15	40
Fluoranthene			4.00	2.93		ug/L		73	40 - 140	5	40
Fluorene			4.00	2.86		ug/L		71	40 - 140	1	40
Indeno[1,2,3-cd]pyrene			4.00	2.71		ug/L		68	40 - 140	10	40
Phenanthrene			4.00	2.80		ug/L		70	40 - 140	0	40
Pyrene			4.00	3.03		ug/L		76	40 - 140	2	40
1-Methylnaphthalene			4.00	2.73		ug/L		68	40 - 140	3	40
2-Methylnaphthalene			4.00	2.69		ug/L		67	40 - 140	3	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*58*		*18 - 147*
2-Fluorobiphenyl	*60*		*15 - 128*
Nitrobenzene-d5	*56*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-647386/1-A
Matrix: Water
Analysis Batch: 647406

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 647386

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		10/26/23 13:46	10/26/23 17:04	1
1,2-Dibromoethane	0.0174	J	0.020	0.015	ug/L		10/26/23 13:46	10/26/23 17:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*10/26/23 13:46*	*10/26/23 17:04*	*1*

Lab Sample ID: LCS 400-647386/2-A
Matrix: Water
Analysis Batch: 647406

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 647386

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane			0.101	0.0980		ug/L		97	60 - 140
1,2-Dibromoethane			0.100	0.0964		ug/L		96	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-647386/3-A
Matrix: Water
Analysis Batch: 647406

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 647386

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.105		ug/L		104	60 - 140	7	30
1,2-Dibromoethane			0.100	0.103		ug/L		102	60 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

400-245432 COC

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 P	DATE: 10/19/2023
Melissa Remiger	25278	
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.4.2	USPC/00114/R/02	

CK IF NO INCIDENT # APPLIES

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 – 3.4.2

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, C. McDavid, 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 – 3.4.2

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 8270 SIMS	
	TB-ROX-101923-SS	10/19/2023	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-101923-SS	10/19/2023	0000	Water	2					2		X			
	T12-ROX-101923	10/19/2023	1120	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93B-ROX-101923	10/19/2023	1215	Water	6			2		8	X	X	X	X	SPLIT REPORT

10-19-23

Relinquished by (Signature)	Received by (Signature)	Date:	Time:
JOE MAYER	FEDEX: 6339 6595 3226	10/19/2023	1600
Relinquished by (Signature)	Received by (Signature)	Date: 10/20/23	Time: 931
Relinquished by (Signature)	Received by (Signature)	Date:	Time:

Version 27Sep23

CUSTODY SEALS: 1599788, 1599789

0.0°C IR8

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11/13/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-245432-1

Login Number: 245432

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	0.0°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.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-245432-1

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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-24
Kansas	NELAP	E-10253	10-31-24
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	08-31-24
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-24
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24
West Virginia DEP	State	136	03-31-24

Appendix D

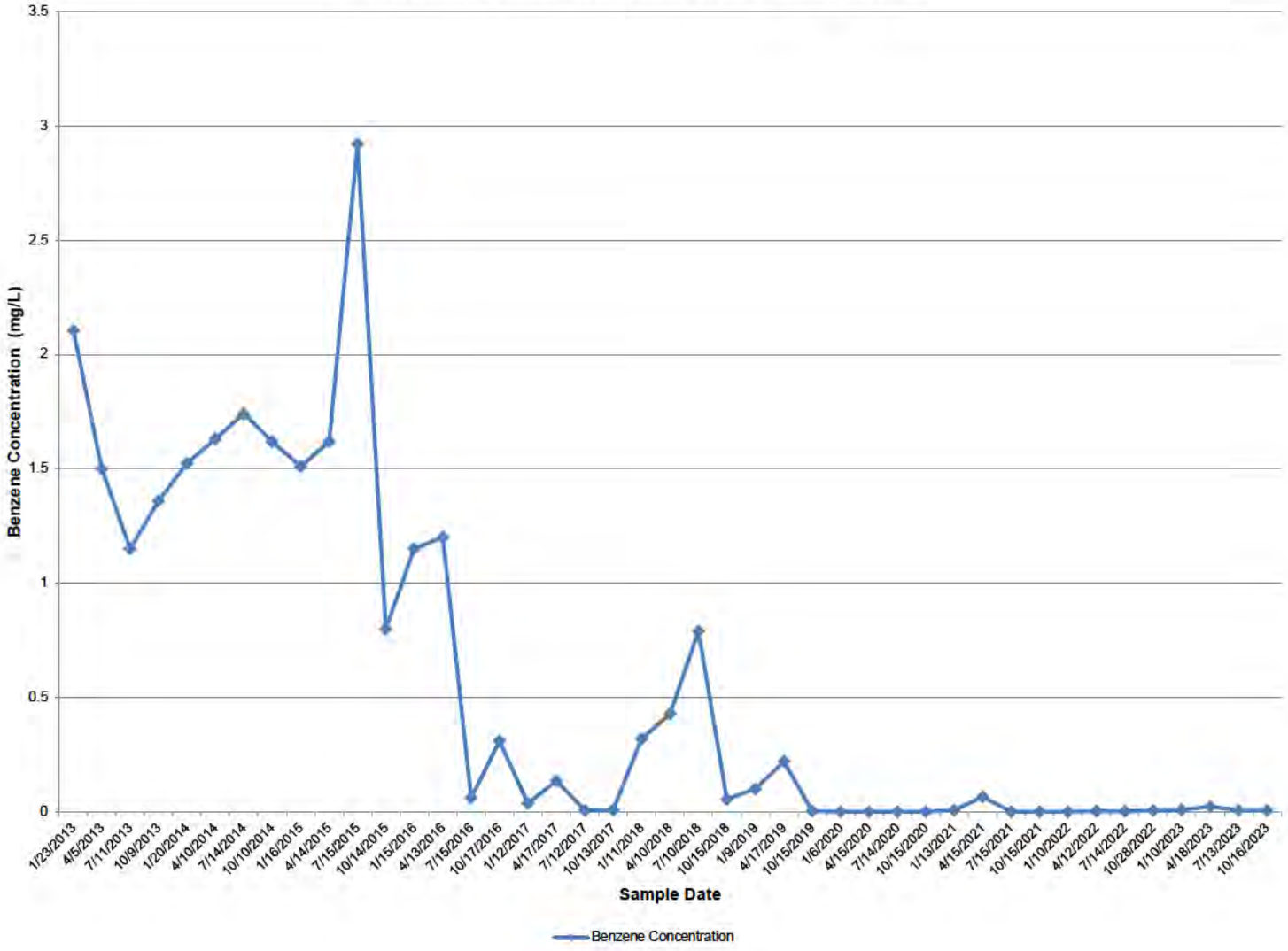
Appendix D – 1 Charts – Benzene Concentrations Over Time

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

Benzene Concentrations Over Time - MW-22



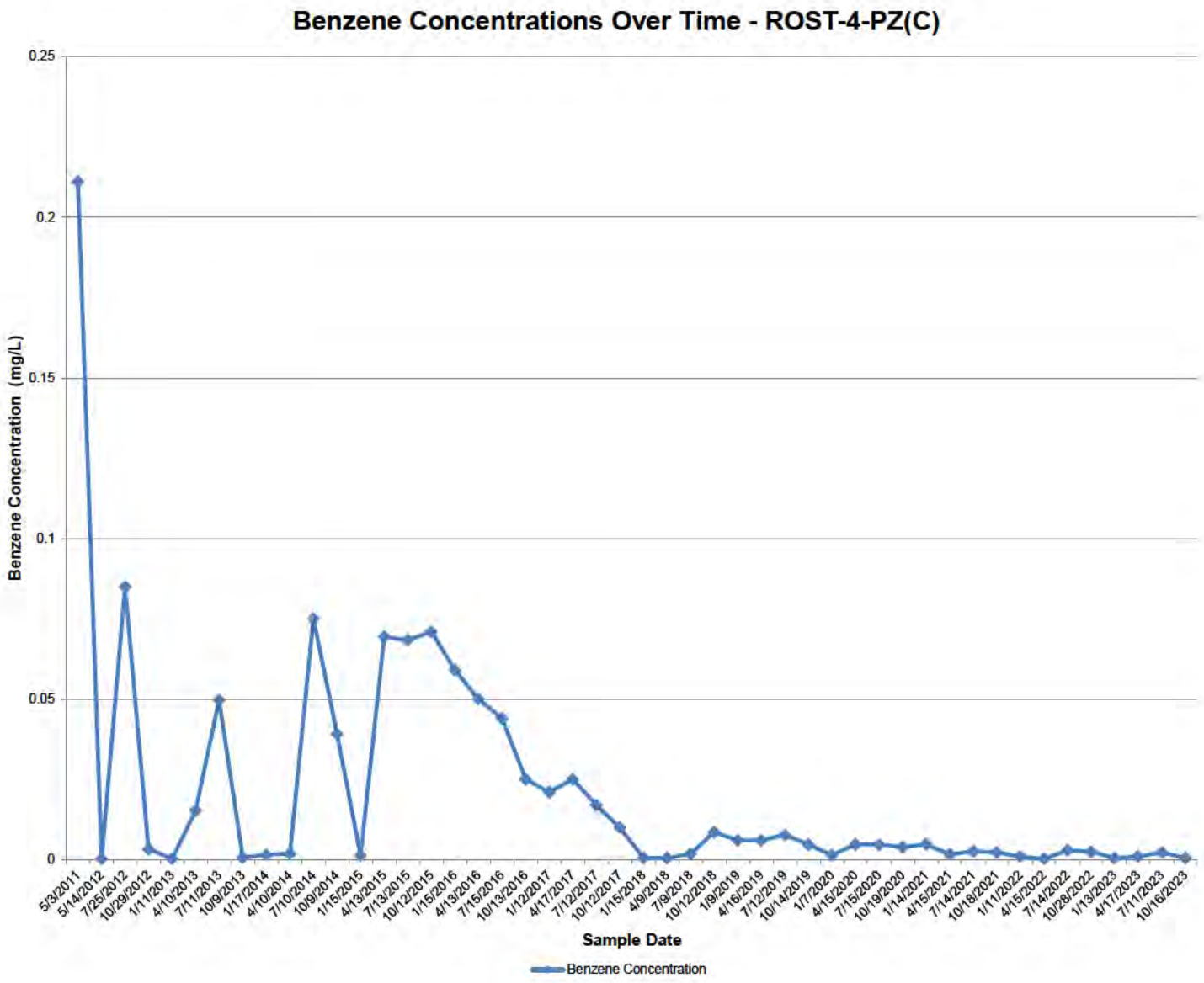
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Non-detect values are shown at half the reporting limit.

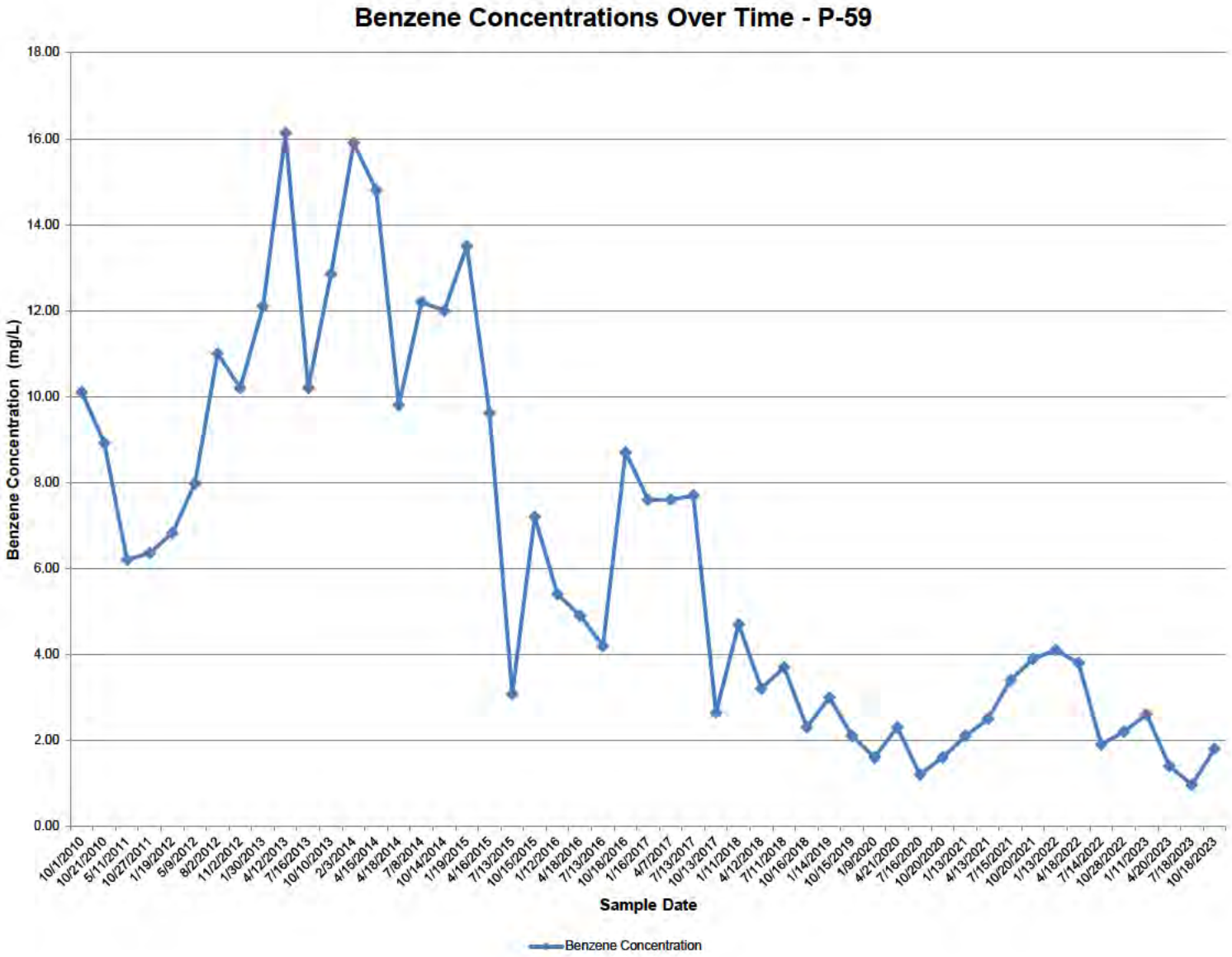


Notes:

mg/L = milligrams per liter

Timeframe specific to available data.

Non-detect values are shown at half the reporting limit.

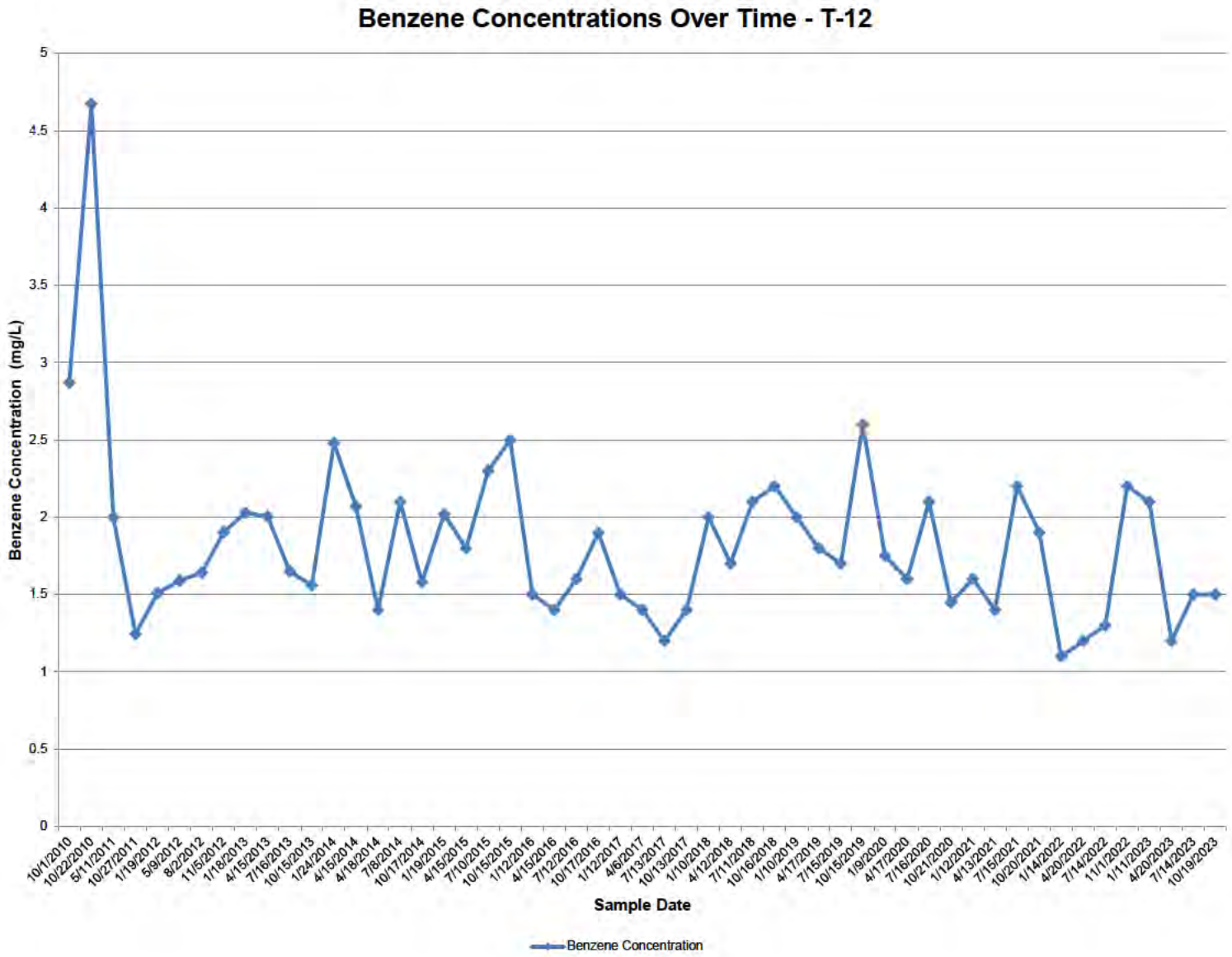


Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.



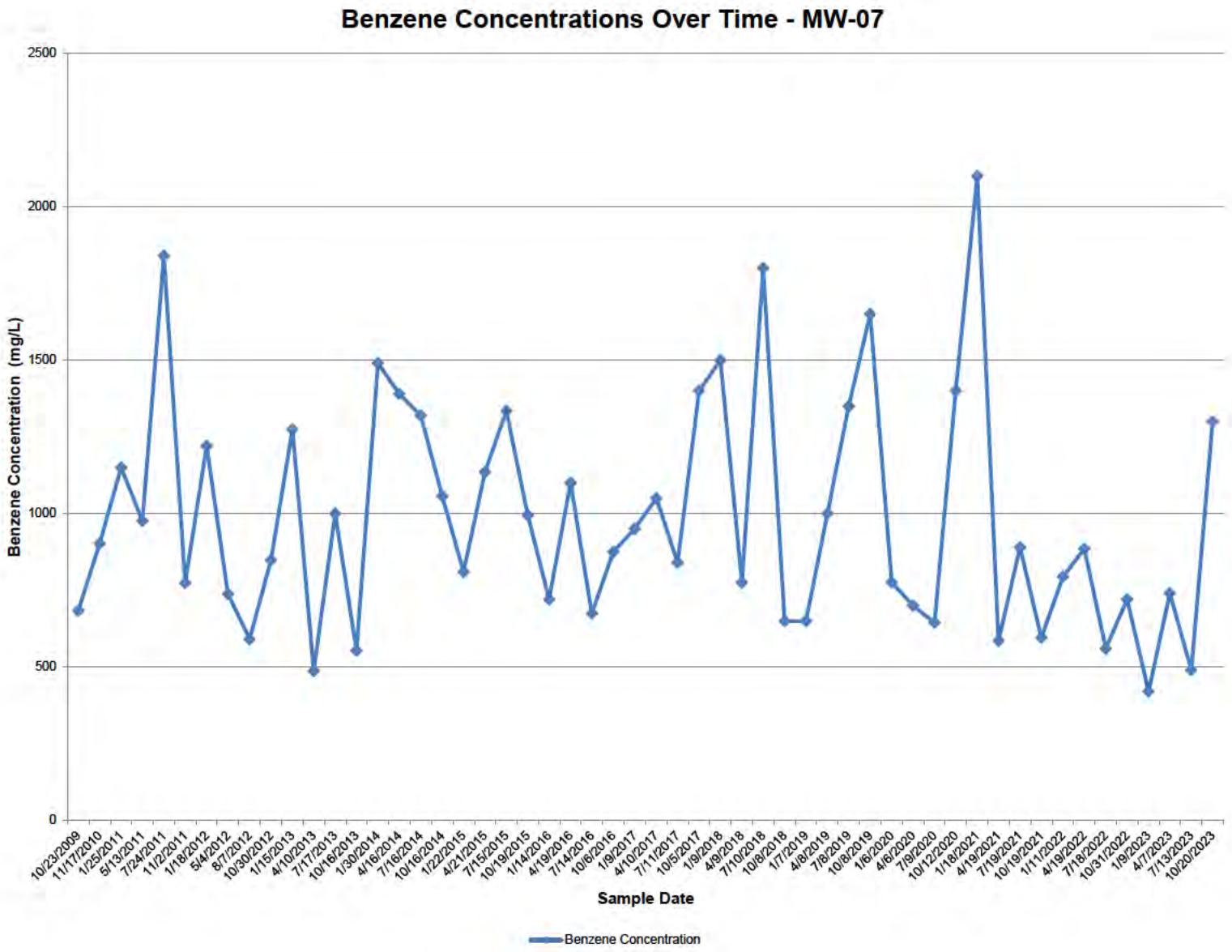
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Public Works Yard Area

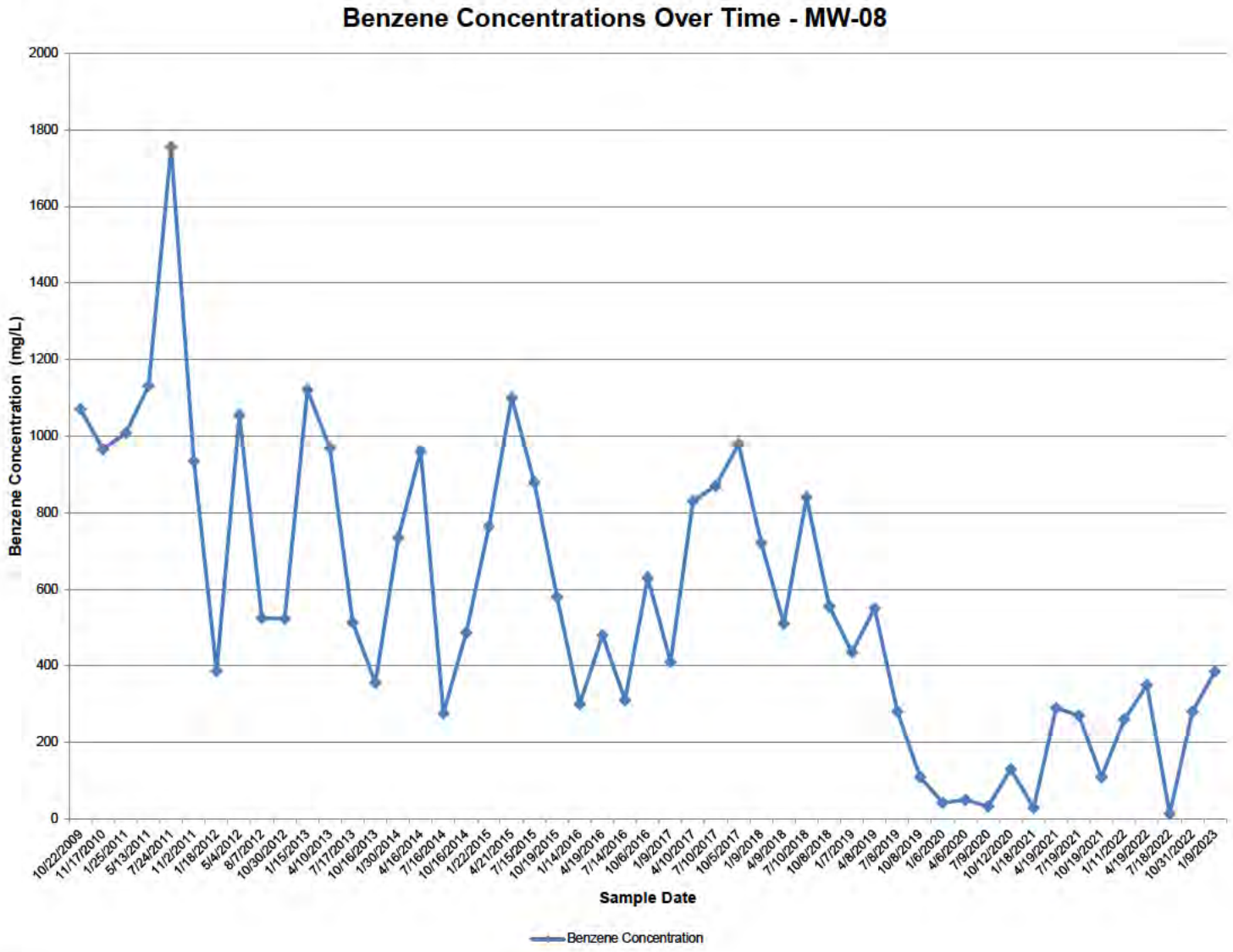


Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.



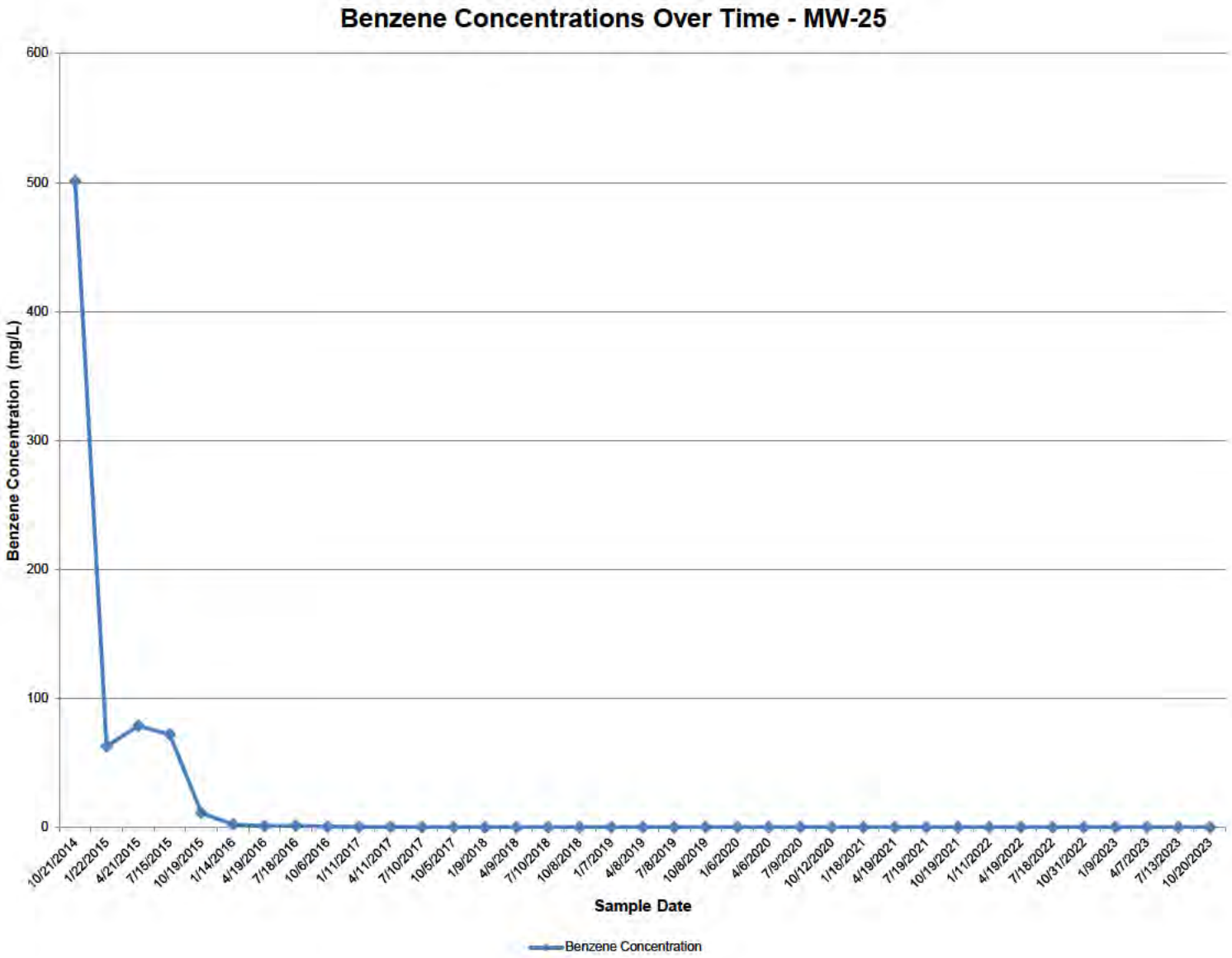
Notes:

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 IEPA 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.



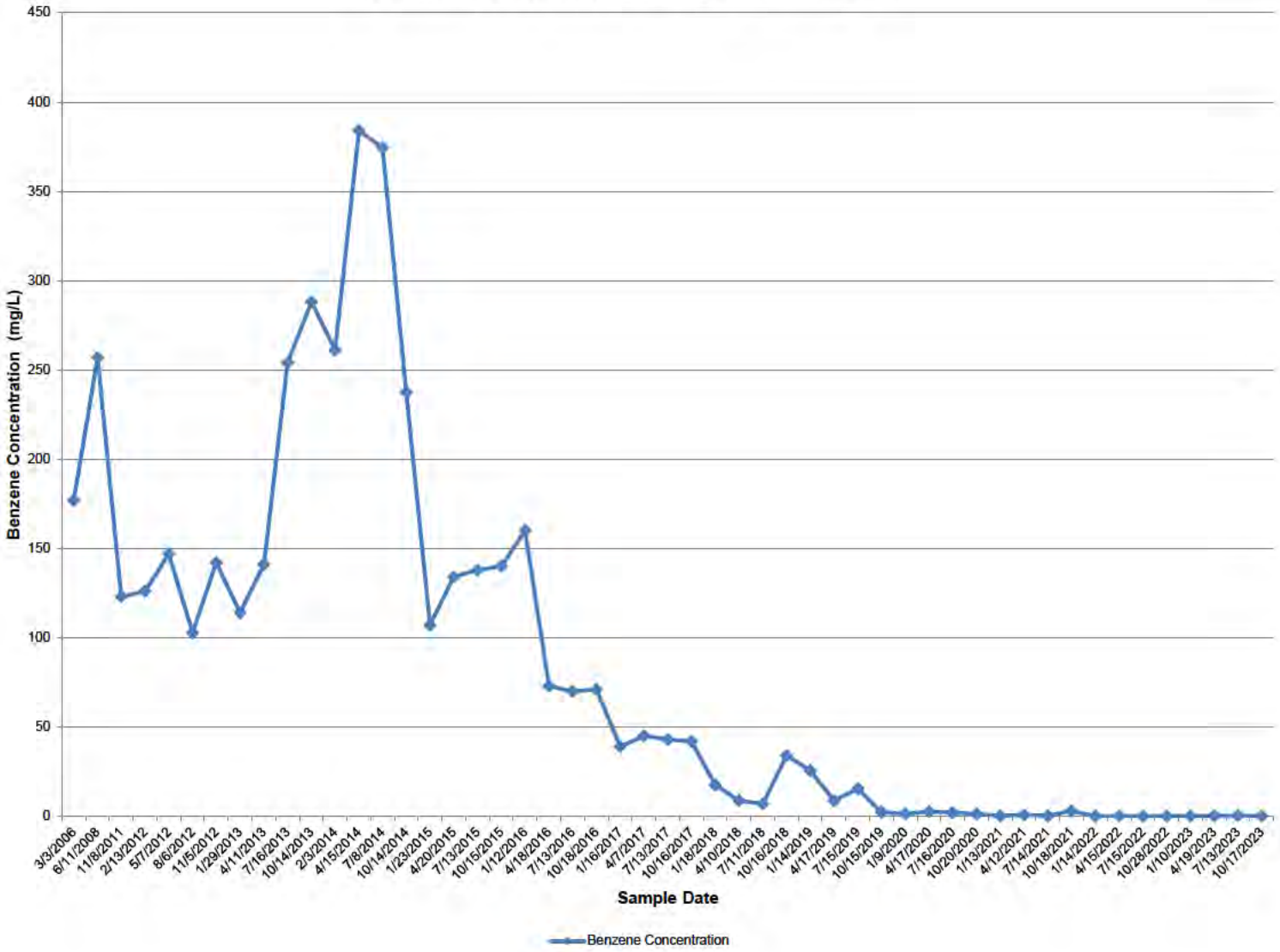
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Benzene Concentrations Over Time - P-57



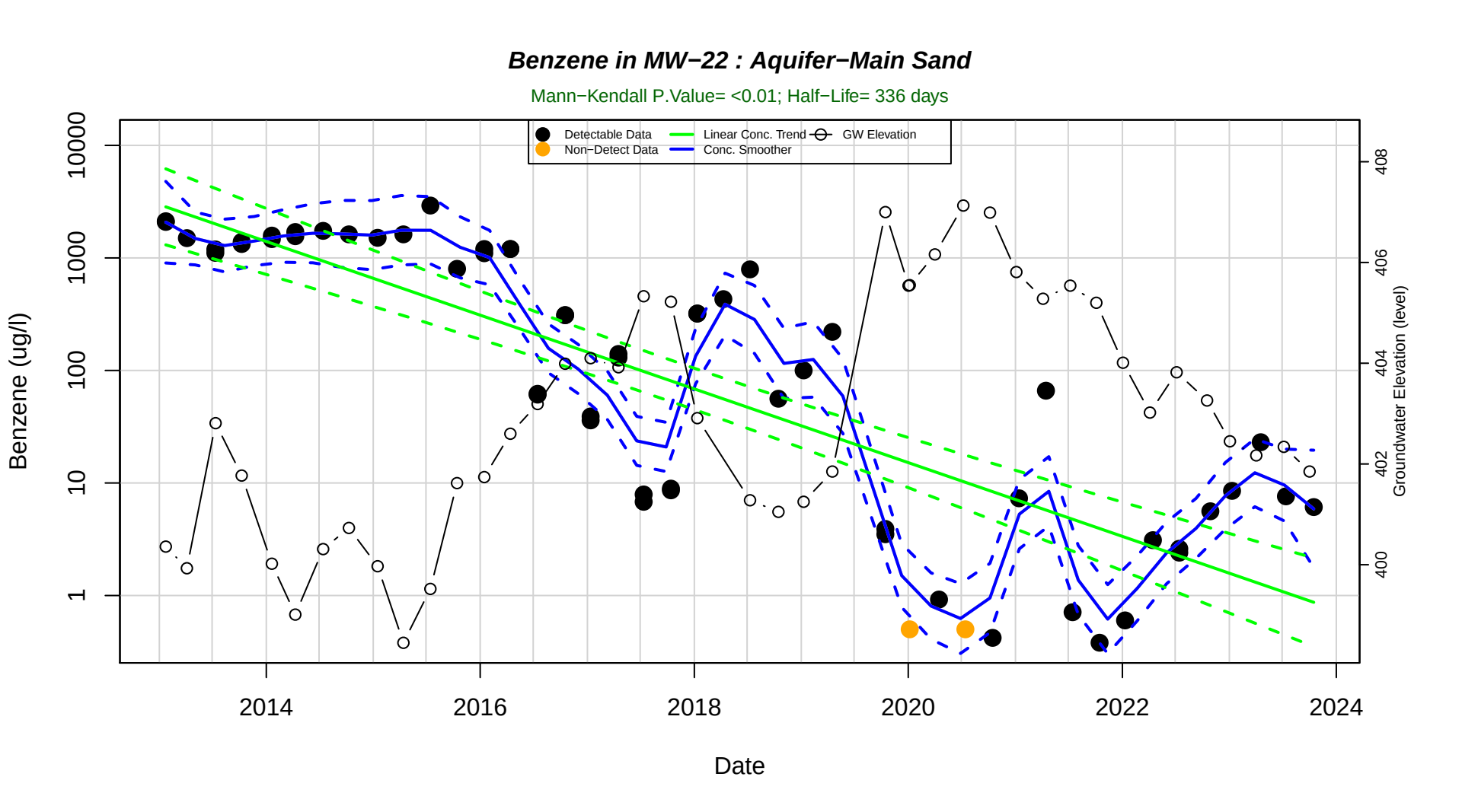
Notes:

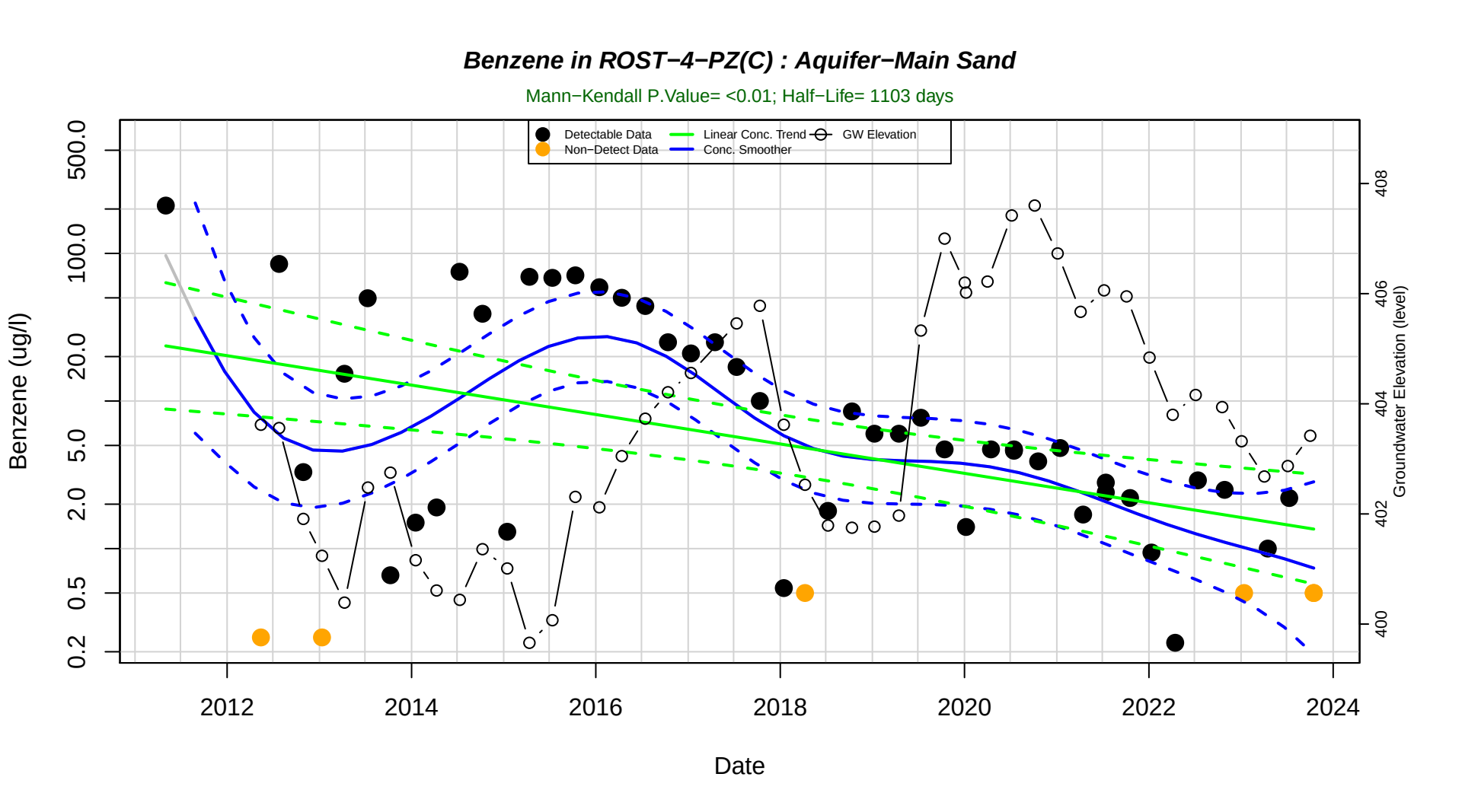
mg/L = milligrams per liter

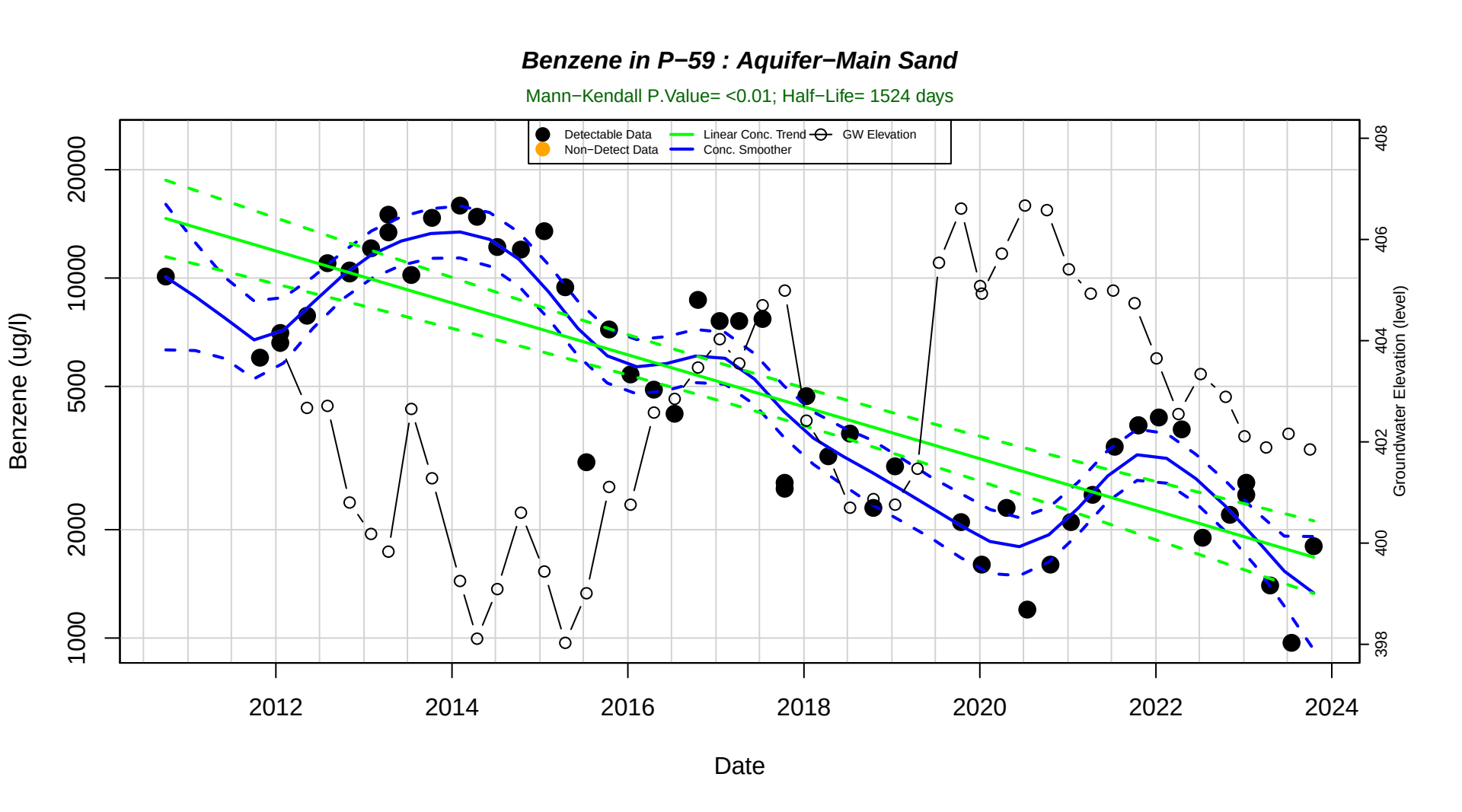
Duplicate values were averaged.

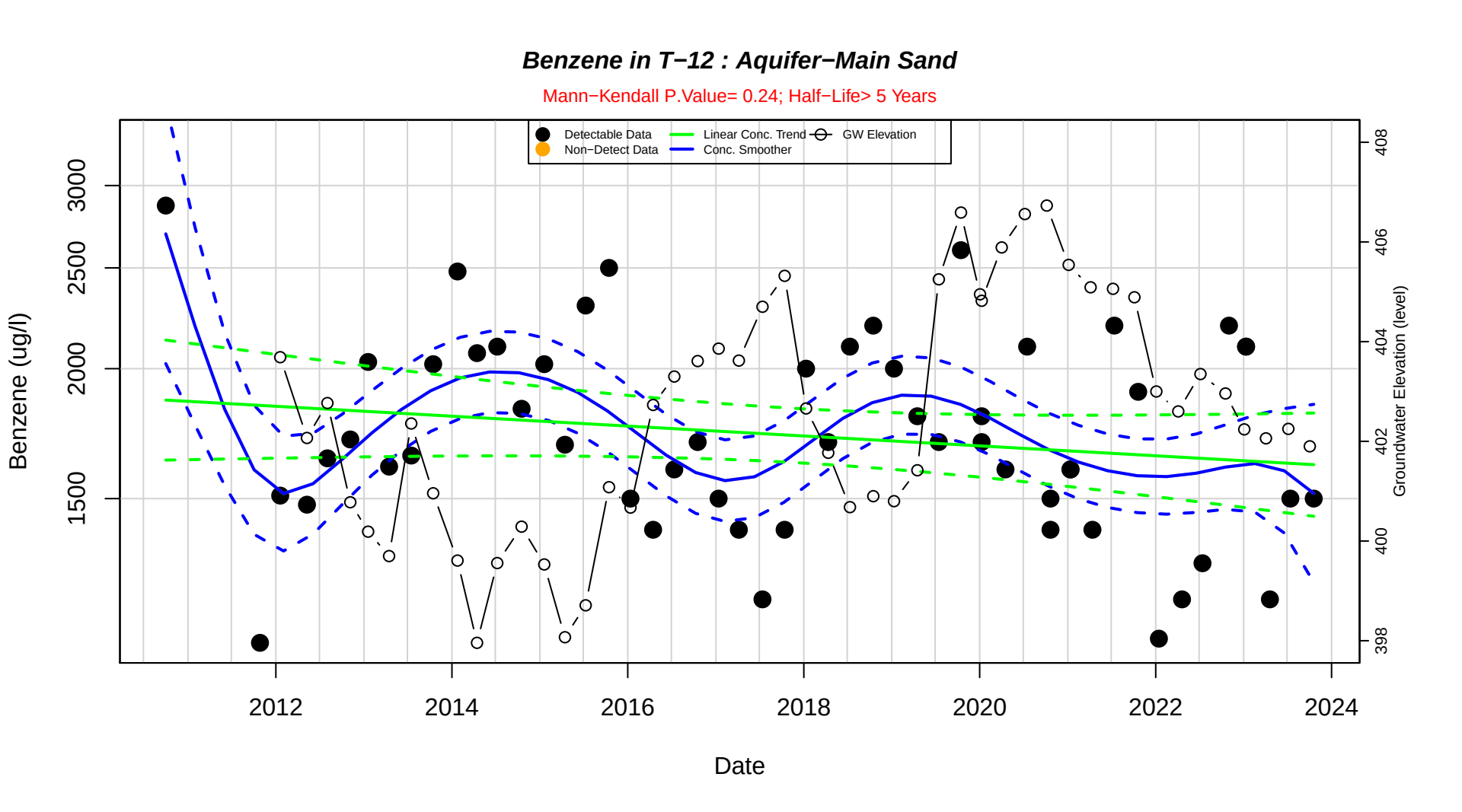
Timeframe specific to available data.

4th Street Area

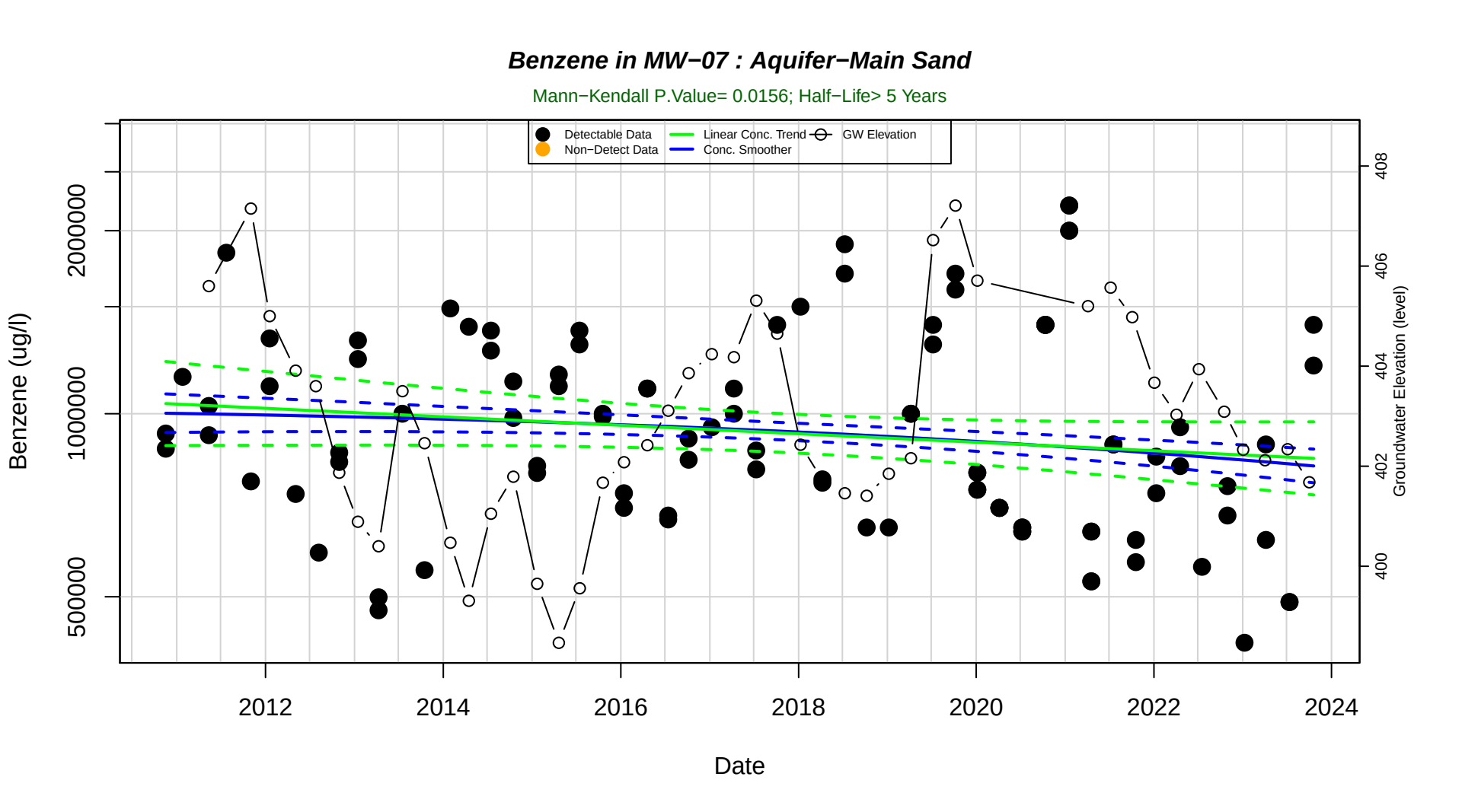

Benzene in MW−22 : Aquifer−Main Sand
Mann−Kendall P.Value= <0.01; Half−Life= 336 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
10000
1000
100
10
1
Groundwater Elevation (level)
408
406
404
402
400
2014
2016
2018
2020
2022
2024
Date

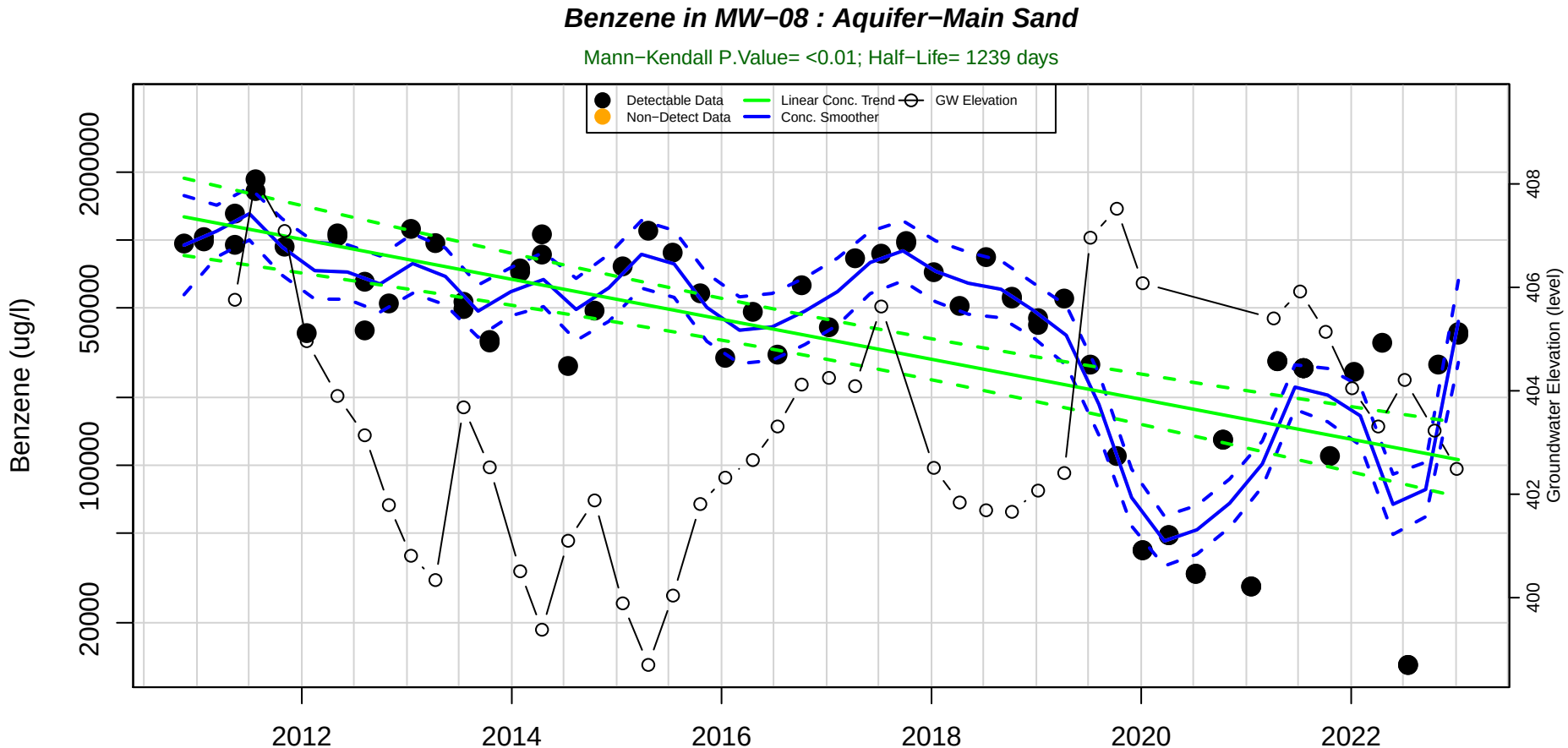

Benzene in ROST−4−PZ(C) : Aquifer−Main Sand
Mann−Kendall P.Value= <0.01; Half−Life= 1103 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
0.2
0.5
2.0
5.0
20.0
100.0
500.0
Groundwater Elevation (level)
400
402
404
406
408
2012
2014
2016
2018
2020
2022
2024
Date


Benzene in P−59 : Aquifer−Main Sand
Mann−Kendall P.Value= <0.01; Half−Life= 1524 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
1000
2000
5000
10000
20000
Groundwater Elevation (level)
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022
2024
Date

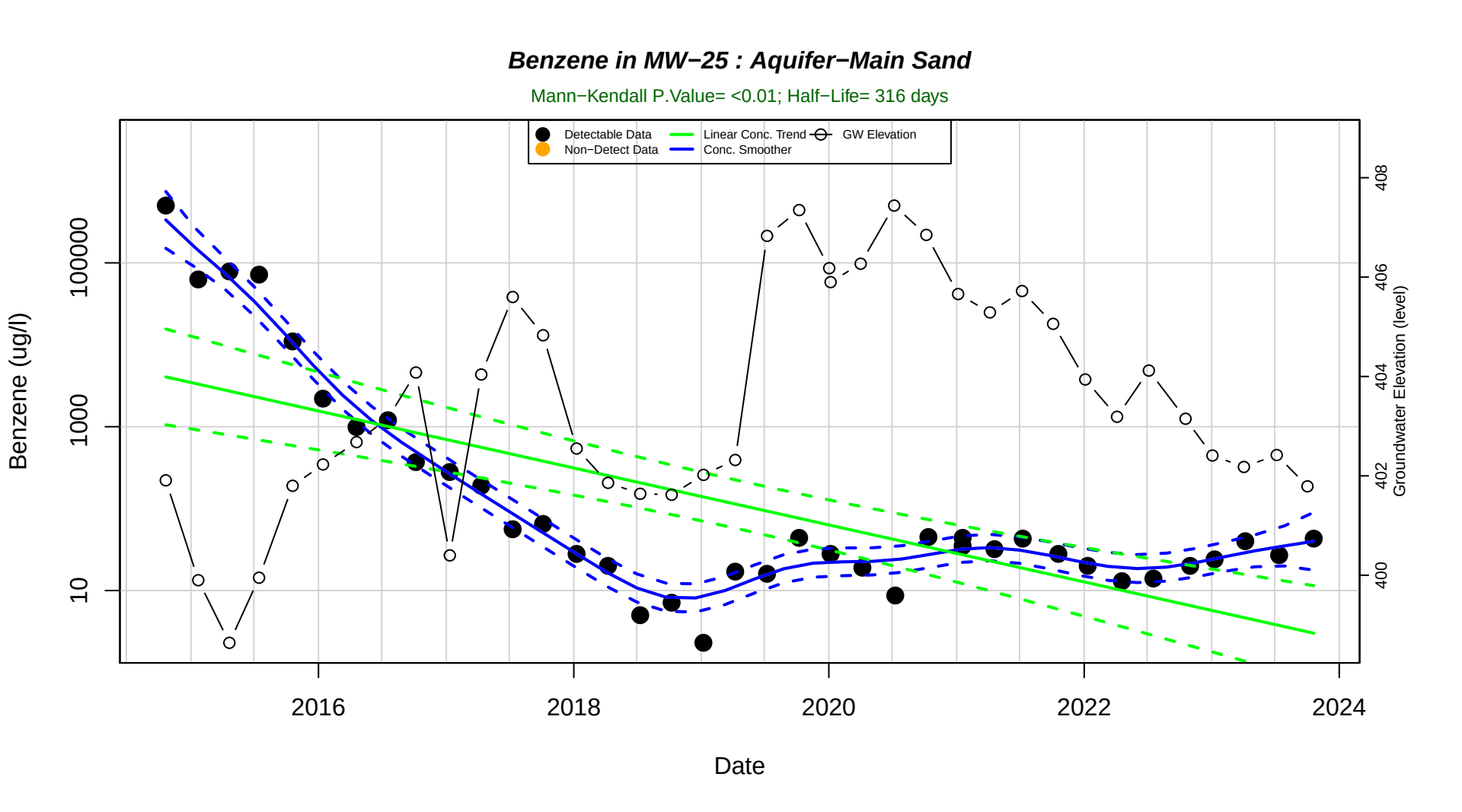

Benzene in T−12 : Aquifer−Main Sand
Mann−Kendall P.Value= 0.24; Half−Life> 5 Years
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
1500
2000
2500
3000
Groundwater Elevation (level)
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022
2024
Date

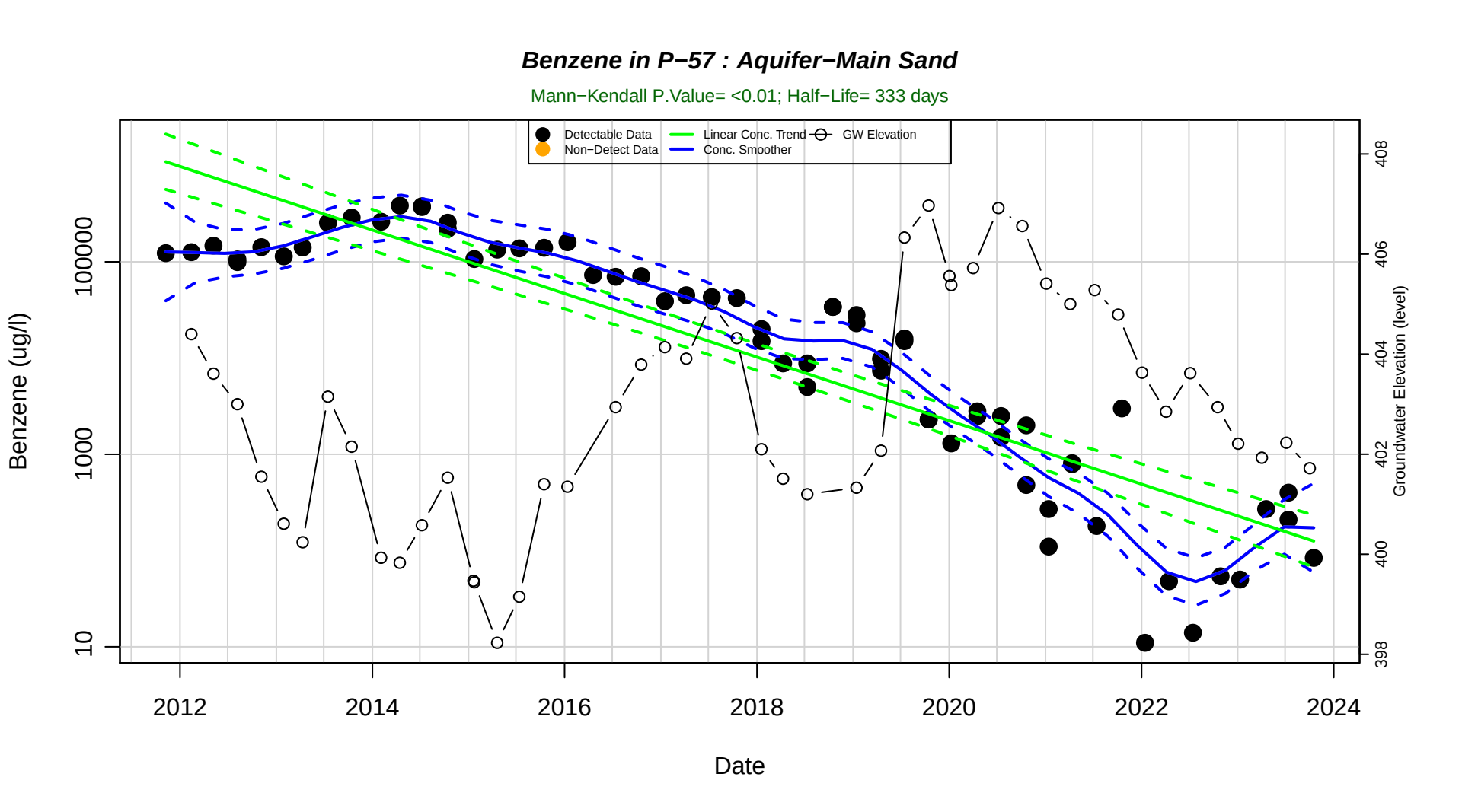
Public Works Yard Area


Benzene in MW−07 : Aquifer−Main Sand
Mann−Kendall P.Value= 0.0156; 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
2024
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−Main Sand
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)
100000
1000
10
2016
2018
2020
2022
2024
Date
408
406
404
402
400
Groundwater Elevation (level)


Benzene in P−57 : Aquifer−Main Sand
Mann−Kendall P.Value= <0.01; Half−Life= 333 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (ug/l)
100000
1000
10
2012
2014
2016
2018
2020
2022
2024
Date
408
406
404
402
400
398
Groundwater Elevation (level)

Appendix E

Monthly Groundwater Report Attachments

- **Summary of Groundwater Monitoring Well Analytical Detections and Exceedances**
  - **Aug/Sept 23**
- **Data Review Forms and Laboratory Analytical Reports**
  - **Aug/Sept 23**
- **Figure 1 – Groundwater Contours – West Fenceline**
  - **August 2023**
  - **September 2023**
  - **November 2023**
  - **December 2023**
- **Figure 6 – Dissolved Phase Benzene Concentrations in GW**
  - **Aug/Sept 23**
- **Figure 7 – Cross-Section of Benzene GW Results – Chaffer**
  - **Aug/Sept 23**

SEE LAST PAGE OF TABLE FOR NOTES

APPENDIX E
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES
AUGUST/SEPTEMBER 2023

			VOCs											
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Cymene (p-Isopropyltoluene)	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene
Screening Values (mg/L)			**6.3** [1]	**0.005** [1]	**4.2** [1]	**0.35** [3]	**0.7** [3]	**0.7** [3]		**0.7**	**0.7** [1]	**0.7** [1]	**0.07** [1]	**0.14** [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**											
MW-01	MW1-ROX-082923	8/29/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-02	MW2-ROX-090523	9/5/2023	< 0.13	< 0.0050	**0.018 J**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.32**	**0.012**	< 0.0050	**0.025**	**0.012**
MW-03	MW3-ROX-082823	8/28/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0015**	< 0.0050	< 0.0010
MW-04	MW4-ROX-090623	9/6/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00033 J**	< 0.0050	< 0.0010
MW-05	MW5-ROX-083123	8/31/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	**0.0021**	< 0.0010	< 0.0010	< 0.0010	**0.0036**	< 0.0050	< 0.0010
MW-06A	MW6A-ROX-082923	8/29/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00028 J**	< 0.0050	< 0.0010
MW-06B	MW6B-ROX-083023	8/30/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00042 J**	< 0.0050	< 0.0010
	MW6B-ROX-083023-DUP	8/30/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00047 J**	< 0.0050	< 0.0010
MW-06C	MW6C-ROX-082923	8/29/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-06D	MW6D-ROX-082923	8/29/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-07	MW7-ROX-090623	9/6/2023	< 50	**560**	< 50	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2
	MW7-ROX-090623-DUP	9/6/2023	< 130	**460**	< 130	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
MW-09	MW9-ROX-090523	9/5/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-10	MW10-ROX-090523	9/5/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-11	MW11-ROX-083023	8/30/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-12	MW12-ROX-083023	8/30/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-13	MW13-ROX-083123	8/31/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0014**	< 0.0050	< 0.0010
MW-14	MW14-ROX-090123	9/1/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-16	MW16-ROX-082823	8/28/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-22	MW22-ROX-083023	8/30/2023	< 0.025	**0.015**	< 0.025	**0.011**	**0.0064**	**0.014**	**0.0073**	**0.058**	**0.05**	< 0.0010	**0.089**	**0.11**
MW-23	MW23-ROX-083123	8/31/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00089 J**	< 0.0050	< 0.0010
MW-24	MW24-ROX-082823	8/28/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-25	MW25-ROX-090623	9/6/2023	< 0.025	**0.016**	< 0.025	< 0.0010	< 0.0010	**0.00071 J**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-26	MW26-ROX-082923	8/29/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-27	MW27-ROX-090523	9/5/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
MW-28	MW28-ROX-083023	8/30/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0017**	< 0.0050	< 0.0010
P-54	P54-ROX-083023	8/30/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
P-56	P56-ROX-082923	8/29/2023	**0.022 J**	< 0.0010	< 0.025	< 0.0010	**0.00082 J**	< 0.0010	< 0.0010	< 0.0010	**0.0074**	< 0.0010	< 0.0050	**0.0073**

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APPENDIX E
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES
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			VOCs											
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Cymene (p-Isopropyltoluene)	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene
Screening Values (mg/L)			6.3 [1]	0.005 [1]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]		0.7	0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**											
P-57	P57-ROX-083123	8/31/2023	0.013 J	0.01	0.0044 J	0.0028	0.0054	0.0069	< 0.0010	0.00079 J	0.025	< 0.0010	< 0.0050	0.028
P-58	P58-ROX-090623	9/6/2023	< 50	320	< 50	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2
	P58-ROX-090623-DUP	9/6/2023	< 50	330	< 50	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 10	< 2
P-59	P59-ROX-090623	9/6/2023	0.099	0.89	< 0.025	0.0039	0.0021	< 0.0010	< 0.0010	0.035	0.033	< 0.0010	0.029	0.058
P-93A	P93A-ROX-082923	8/29/2023	< 0.025	0.084	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
P-93B	P93B-ROX-090623	9/6/2023	< 130	480	< 130	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 25	< 5
P-93C	P93C-ROX-083123	8/31/2023	< 0.025	0.047	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0030	< 0.0050	< 0.0010
	P93C-ROX-083123-DUP	8/31/2023	< 0.025	0.042	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0027	< 0.0050	< 0.0010
P-93D	P93D-ROX-083023	8/30/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.00081 J	< 0.0050	< 0.0010
P-114R	P114R-ROX-083123	8/31/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0022	< 0.0050	< 0.0010
ROST-3-MW	ROST3MW-ROX-090123	9/1/2023	0.01 J	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
	ROST3MW-ROX-090123-DUP	9/1/2023	< 0.025	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
ROST-4-PZ(C)	ROST4PZ(C)-ROX-083023	8/30/2023	< 0.025	0.0026	0.011 J	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0019	0.0042	< 0.0010	0.047	0.0067
ROST-4-PZ(E)	ROST4PZ(E)-ROX-083023	8/30/2023	< 0.025	0.0020	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	0.0077	0.0018	< 0.0010	0.0059	0.0018
ROST-4-PZ(G)	ROST4PZ(G)-ROX-082923	8/29/2023	0.011 J	< 0.0010	< 0.025	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
T-12	T12-ROX-083123	8/31/2023	< 0.13	1.9	< 0.13	< 0.0050	< 0.0050	< 0.0050	< 0.0050	0.011	0.022	0.0015 J	0.017 J	0.03

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APPENDIX E
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES
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			VOCs						SVOCs					
			Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzoic Acid	bis(2-Ethylhexyl)phthalate
Screening Values (mg/L)			0.7 [3]	0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	28 [1]	0.006 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**											
MW-01	MW1-ROX-082923	8/29/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028	< 0.0095
MW-02	MW2-ROX-090523	9/5/2023	< 0.0050	**0.043**	**0.013**	**0.17**	**0.012 J**	**0.19**	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029 UJ	< 0.0096
MW-03	MW3-ROX-082823	8/28/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0099
MW-04	MW4-ROX-090623	9/6/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029 UJ	< 0.0098
MW-05	MW5-ROX-083123	8/31/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0097
MW-06A	MW6A-ROX-082923	8/29/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01
MW-06B	MW6B-ROX-083023	8/30/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01
	MW6B-ROX-083023-DUP	8/30/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098
MW-06C	MW6C-ROX-082923	8/29/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01
MW-06D	MW6D-ROX-082923	8/29/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01
MW-07	MW7-ROX-090623	9/6/2023	< 2	< 2	< 2	< 10	< 10	< 20	**0.00013 J**	< 0.00020	< 0.00020	< 0.00020	< 0.029 UJ	< 0.0098
	MW7-ROX-090623-DUP	9/6/2023	< 5	< 5	< 5	< 25	< 25	< 50	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029 UJ	< 0.0096
MW-09	MW9-ROX-090523	9/5/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029 UJ	< 0.0097
MW-10	MW10-ROX-090523	9/5/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028 UJ	< 0.0095
MW-11	MW11-ROX-083023	8/30/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01
MW-12	MW12-ROX-083023	8/30/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019 H UJ	< 0.00019	< 0.00019 H UJ	< 0.028	< 0.0095
MW-13	MW13-ROX-083123	8/31/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	**0.018 J**	< 0.0098
MW-14	MW14-ROX-090123	9/1/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0098 H UJ
MW-16	MW16-ROX-082823	8/28/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.01
MW-22	MW22-ROX-083023	8/30/2023	**0.023**	**0.24**	**0.14**	**0.4**	< 0.01	**0.4**	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028	< 0.0095
MW-23	MW23-ROX-083123	8/31/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0097
MW-24	MW24-ROX-082823	8/28/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	< 0.0098
MW-25	MW25-ROX-090623	9/6/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028 UJ	< 0.0094
MW-26	MW26-ROX-082923	8/29/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098
MW-27	MW27-ROX-090523	9/5/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029 UJ	< 0.0096
MW-28	MW28-ROX-083023	8/30/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0097
P-54	P54-ROX-083023	8/30/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020 H UJ	< 0.00020	< 0.00020 H UJ	< 0.03	< 0.0099
P-56	P56-ROX-082923	8/29/2023	< 0.0010	**0.0016**	**0.0010**	**0.0066**	< 0.0050	**0.0066 J**	**0.00040**	< 0.00019	**0.000072 J**	< 0.00019	< 0.029	< 0.0095

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APPENDIX E
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES
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			VOCs						SVOCs					
			Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzoic Acid	bis(2-Ethylhexyl)phthalate
Screening Values (mg/L)			0.7 [3]	0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	28 [1]	0.006 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**											
P-57	P57-ROX-083123	8/31/2023	**0.0035**	< 0.0010	< 0.0010	**0.00079 J**	< 0.0050	< 0.01	**0.00016 J**	< 0.00019	**0.000061 J**	< 0.00019	< 0.029	< 0.0096
P-58	P58-ROX-090623	9/6/2023	< 2	< 2	< 2	< 10	< 10	< 20	**0.00046**	< 0.00019	< 0.00019	**0.000059 J**	< 0.028 UJ	< 0.0094
	P58-ROX-090623-DUP	9/6/2023	< 2	< 2	< 2	< 10	< 10	< 20	**0.00030**	< 0.00019	< 0.00019	**0.000038 J**	< 0.029 UJ	< 0.0096
P-59	P59-ROX-090623	9/6/2023	**0.048**	**0.017**	**0.023**	**0.075**	**0.0026 J**	**0.077**	**0.00033**	< 0.00019	< 0.00019	**0.000063 J**	< 0.029 UJ	< 0.0096
P-93A	P93A-ROX-082923	8/29/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0095
P-93B	P93B-ROX-090623	9/6/2023	< 5	< 5	< 5	< 25	< 25	< 50	< 0.00019	< 0.00019	< 0.00019	< 0.00019	**0.018 J*-*1 J**	**0.0051 J**
P-93C	P93C-ROX-083123	8/31/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.029	< 0.0096
	P93C-ROX-083123-DUP	8/31/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028	< 0.0095
P-93D	P93D-ROX-083023	8/30/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019 H UJ	< 0.00019	< 0.00019	< 0.028	< 0.0095
P-114R	P114R-ROX-083123	8/31/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	**0.00085**	**0.00018 J**	< 0.00020	< 0.00020	< 0.029	< 0.0098
ROST-3-MW	ROST3MW-ROX-090123	9/1/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.03	**0.0056 J**
	ROST3MW-ROX-090123-DUP	9/1/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.029	< 0.0098
ROST-4-PZ(C)	ROST4PZ(C)-ROX-083023	8/30/2023	**0.0059**	**0.0050**	**0.0011**	**0.028**	**0.0020 J**	**0.03**	**0.00066**	< 0.00019	**0.00027**	< 0.00019	< 0.028	< 0.0095
ROST-4-PZ(E)	ROST4PZ(E)-ROX-083023	8/30/2023	< 0.0010	**0.029**	< 0.0010	**0.011**	**0.0021 J**	**0.013**	**0.00099**	< 0.00019	**0.00076**	< 0.00019	< 0.029	< 0.0095
ROST-4-PZ(G)	ROST4PZ(G)-ROX-082923	8/29/2023	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.01	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.028	< 0.0094
T-12	T12-ROX-083123	8/31/2023	**0.041**	< 0.0050	**0.0088**	**0.047**	**0.0032 J**	**0.05**	**0.00039**	< 0.00019	**0.00015 J**	< 0.00019	< 0.029	< 0.0096

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APPENDIX E
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			SVOCs											
			Butyl benzyl phthalate	Dibenzo(a,h)acridine	Dibenzofuran	Diethyl phthalate	Di-n-butyl phthalate	Fluoranthene	Fluorene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)			1.4 [2]		0.007 [3]	5.6 [1]	0.7 [1]	0.28 [1]	0.28 [1]	0.49 [3]	0.028 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**											
MW-01	MW1-ROX-082923	8/29/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0095	< 0.00019
MW-02	MW2-ROX-090523	9/5/2023	< 0.0096	< 0.0096	< 0.0096	**0.00052 J**	< 0.0096	< 0.00019	< 0.00019	**0.0099**	**0.021**	< 0.00019	< 0.0096 UJ	< 0.00019
MW-03	MW3-ROX-082823	8/28/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.00020
MW-04	MW4-ROX-090623	9/6/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.00020
MW-05	MW5-ROX-083123	8/31/2023	< 0.0097	< 0.0097	< 0.0097	< 0.0097	**0.0042 J**	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0097	< 0.00019
MW-06A	MW6A-ROX-082923	8/29/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.00020
MW-06B	MW6B-ROX-083023	8/30/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.00020
	MW6B-ROX-083023-DUP	8/30/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020 H UJ	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.00020
MW-06C	MW6C-ROX-082923	8/29/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.00020
MW-06D	MW6D-ROX-082923	8/29/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.00020
MW-07	MW7-ROX-090623	9/6/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	**0.00011 J**	**0.0010**	**0.0015**	**0.00013 J**	**0.077**	< 0.00020
	MW7-ROX-090623-DUP	9/6/2023	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00019	**0.00012 J**	**0.00080**	**0.0012**	**0.00014 J**	**0.083**	< 0.00019
MW-09	MW9-ROX-090523	9/5/2023	< 0.0097	**0.0020 J**	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0097	< 0.00019
MW-10	MW10-ROX-090523	9/5/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0095	< 0.00019
MW-11	MW11-ROX-083023	8/30/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.00020
MW-12	MW12-ROX-083023	8/30/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0095	< 0.00019
MW-13	MW13-ROX-083123	8/31/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	**0.0075 J**	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.00020
MW-14	MW14-ROX-090123	9/1/2023	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0097	< 0.00019
MW-16	MW16-ROX-082823	8/28/2023	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.01	< 0.00020
MW-22	MW22-ROX-083023	8/30/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	**0.0059**	**0.0066**	< 0.00019	< 0.0095	< 0.00019
MW-23	MW23-ROX-083123	8/31/2023	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0097	< 0.00019
MW-24	MW24-ROX-082823	8/28/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020 U	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.00020
MW-25	MW25-ROX-090623	9/6/2023	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0094	< 0.00019
MW-26	MW26-ROX-082923	8/29/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0098	< 0.00020
MW-27	MW27-ROX-090523	9/5/2023	< 0.0096	**0.0022 J**	< 0.0096	< 0.0096	< 0.0096	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0096	< 0.00019
MW-28	MW28-ROX-083023	8/30/2023	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.0097	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0097	< 0.00019
P-54	P54-ROX-083023	8/30/2023	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.0099	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.0099	< 0.00020
P-56	P56-ROX-082923	8/29/2023	< 0.0095	< 0.0095	**0.00033 J**	< 0.0095	< 0.0095	< 0.00019	**0.00027**	**0.0073**	**0.0068**	**0.00052**	< 0.0095	< 0.00019

SEE LAST PAGE OF TABLE FOR NOTES

APPENDIX E
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES
AUGUST/SEPTEMBER 2023

			SVOCs											
			Butyl benzyl phthalate	Dibenzo(a,h)acridine	Dibenzofuran	Diethyl phthalate	Di-n-butyl phthalate	Fluoranthene	Fluorene	1-Methylnaphthalene	2-Methylnaphthalene	Phenanthrene	Phenol	Pyrene
Screening Values (mg/L)			1.4 [2]		0.007 [3]	5.6 [1]	0.7 [1]	0.28 [1]	0.28 [1]	0.49 [3]	0.028 [1]	0.21 [3]	0.1 [1]	0.21 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**											
P-57	P57-ROX-083123	8/31/2023	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00019	0.00030	0.013	0.013	0.00022	< 0.0096	< 0.00019
P-58	P58-ROX-090623	9/6/2023	< 0.0094	< 0.0094	0.0015 J	< 0.0094	< 0.0094	< 0.00019	0.0010	0.067 J	0.05 J	0.00091	0.27 J	0.00019
	P58-ROX-090623-DUP	9/6/2023	< 0.0096	< 0.0096	0.0014 J	< 0.0096	< 0.0096	0.000046 J	0.00067	0.049 J	0.035 J	0.00065	0.42 J	0.00011 J
P-59	P59-ROX-090623	9/6/2023	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	0.00013 J	0.00027	0.0083	0.011	0.00049	0.0028 J	0.00041
P-93A	P93A-ROX-082923	8/29/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0095	< 0.00019
P-93B	P93B-ROX-090623	9/6/2023	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.00019	0.000075 J	< 0.00019	0.18	< 0.00019
P-93C	P93C-ROX-083123	8/31/2023	< 0.0096	< 0.0096	< 0.0096	0.00041 J	0.0075 J	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0096	< 0.00019
	P93C-ROX-083123-DUP	8/31/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.0039 J	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0095	< 0.00019
P-93D	P93D-ROX-083023	8/30/2023	0.00040 J	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019 H UJ	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0095	< 0.00019
P-114R	P114R-ROX-083123	8/31/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00098	< 0.00098	< 0.00020	< 0.0098	< 0.00020
ROST-3-MW	ROST3MW-ROX-090123	9/1/2023	< 0.0099	< 0.0099	< 0.0099	0.00027 J	< 0.0099	< 0.00020	< 0.00020	0.00015 J	0.00020	0.00013 J	< 0.0099	< 0.00020
	ROST3MW-ROX-090123-DUP	9/1/2023	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.0098	< 0.00020	< 0.00020	< 0.00020	0.00011 J	0.000090 J	< 0.0098	< 0.00020
ROST-4-PZ(C)	ROST4PZ(C)-ROX-083023	8/30/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.00019	0.00055	0.015	0.0023	0.0014	< 0.0095	< 0.00019
ROST-4-PZ(E)	ROST4PZ(E)-ROX-083023	8/30/2023	< 0.0095	< 0.0095	< 0.0095	< 0.0095	< 0.0095	0.00013 J J	0.0010	0.012	0.0016	0.0036	< 0.0095	0.000052 J
ROST-4-PZ(G)	ROST4PZ(G)-ROX-082923	8/29/2023	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.0094	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.00019	< 0.0094	< 0.00019
T-12	T12-ROX-083123	8/31/2023	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.0096	< 0.00019	0.00042	0.018	0.026	0.00050	0.1	< 0.00019

Notes:

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

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

3 Denotes screening criteria source from IL EPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 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. P-74 was inaccessible during the August/September 2023 sampling event due to refinery construction.

LABORATORY QUALIFIERS

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

H = Analyzed or extracted out of holding time criteria

*- = Indicates LCS and/or LCSD is outside acceptance limit, low biased

*1 = LCS/LCSD RPD is outside contol limit

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

Indicates a current exceedance of screening criteria.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Analytes that were non-detect across all sampling locations during the August/September sampling event are not presented on the Analytical table.

Roxana Monthly Groundwater – August/September 2023 Data Review

Laboratory SDG: 400-242644-1

Data Reviewer: Adelina Gita

Peer Reviewer: Cheyana Cokley

Date Reviewed: 10/03/2023

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

Sample Identification	Sample Identification
TB-ROX-082823-8260-A	TB-ROX-082823-8011-A
MW24-ROX-082823-EB	MW24-ROX-082823
MW3-ROX-082823	MW16-ROX-082823

1.0 Data Package Completeness

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

Yes; however, on the chain of custody (COC) sample MW3-ROX-082823 was listed three (3) times. Professional judgement was used to assume that two of the three field sample identifications were meant for MS/MSD request. No qualification of data was required.

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 PAHs were detected in equipment blank MW24-ROX-082823-EB and method blank MB 400-639567/1-A. VOCs by 8011, and the SVOC LCS/LCSD RPD for benzenethiol, were outside evaluation criteria. The VOCs by 8011 surrogate recovery for 4-bromofluorobenzene was outside criteria in samples MW24-ROX-082823 and MW3-ROX-082823, and several quality control samples. 2-Chloroethyl vinyl ether, 1,2-dibromomethane and 1,2-dibromo-3-chloropropane MS/MSD recoveries were outside evaluation criteria in sample MW3-ROX-082823. The continuing calibration verification (CCV) for several VOCs and 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
MW24-ROX-082823-EB	PAHs	Dibenz(a,h)anthracene	0.083 µg/L
MW24-ROX-082823-EB	PAHs	Fluoranthene	0.044 µg/L
MW24-ROX-082823-EB	PAHs	Indeno[1,2,3-cd]pyrene	0.077 µg/L
MB 400-639567/1-A	PAHs	Benzo[b]fluoranthene	0.138 µg/L
MB 400-639567/1-A	PAHs	Benzo[g,h,i]perylene	0.0856 µg/L
MB 400-639567/1-A	PAHs	Benzo[k]fluoranthene	0.187 µg/L
MB 400-639567/1-A	PAHs	Dibenz(a,h)anthracene	0.158 µg/L
MB 400-639567/1-A	PAHs	Fluoranthene	0.0528 µg/L
MB 400-639567/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.190 µg/L
MB 400-639567/1-A	PAHs	Benzo[a]pyrene	0.222 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
MW16-ROX-082823	PAHs	Benzo[g,h,i]perylene	-	**U**
MW24-ROX-082823	PAHs	Dibenz(a,h)anthracene	-	**U**
MW3-ROX-082823	PAHs	Dibenz(a,h)anthracene	-	**U**
MW16-ROX-082823	PAHs	Dibenz(a,h)anthracene	-	**U**
MW24-ROX-082823	PAHs	Fluoranthene	-	**U**
MW3-ROX-082823	PAHs	Fluoranthene	-	**U**
MW16-ROX-082823	PAHs	Fluoranthene	-	**U**
MW24-ROX-082823	PAHs	Indeno[1,2,3-cd]pyrene	-	**U**
MW3-ROX-082823	PAHs	Indeno[1,2,3-cd]pyrene	-	**U**
MW16-ROX-082823	PAHs	Indeno[1,2,3-cd]pyrene	-	**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 400-639567/13-A/14-A	SVOCs	Benzenethiol	35/17	**70**	10-120/30
LCS/LCSD 400-639353/2-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**222/229**	3	60-140/30
LCS/LCSD 400-639353/2-A	VOCs by 8011	1,2-Dibromoethane	**198/215**	8	60-140/30

Analytical data reported as non-detect and associated with LCS/LCSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification. No qualification of data was required.

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW24-ROX-082823-EB	VOCs by 8011	4-Bromofluorobenzene	**169**	51-149
MW24-ROX-082823	VOCs by 8011	4-Bromofluorobenzene	**162**	51-149
MW3-ROX-082823	VOCs by 8011	4-Bromofluorobenzene	**155**	51-149
MW3-ROX-082823 MSD	VOCs by 8011	4-Bromofluorobenzene	**156**	51-149
LCSD 400-639353/3-A	VOCs by 8011	4-Bromofluorobenzene	**164**	51-149
MB 400-639353/1-A	VOCs by 8011	4-Bromofluorobenzene	**150**	51-149

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, lab control sample duplicate, matrix spike duplicate 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?

Yes, sample MW3-ROX-082823 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
MW3-ROX-082823 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW3-ROX-082823 MS/MSD	VOCs by 8011	1,2-Dibromoethane	**199/222**	7	39-150/20
MW3-ROX-082823 MS/MSD	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**324/246**	11	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.

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-082823	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 several VOCs and hexachlorocyclopentadiene was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW24-ROX-082823	VOCs	Bromomethane	**UJ**
MW3-ROX-082823	VOCs	Bromomethane	**UJ**
MW16-ROX-082823	VOCs	Bromomethane	**UJ**
MW24-ROX-082823	VOCs	Chloroethane	**UJ**
MW3-ROX-082823	VOCs	Chloroethane	**UJ**
MW16-ROX-082823	VOCs	Chloroethane	**UJ**
MW24-ROX-082823	VOCs	Chloromethane	**UJ**
MW3-ROX-082823	VOCs	Chloromethane	**UJ**
MW16-ROX-082823	VOCs	Chloromethane	**UJ**
MW24-ROX-082823	VOCs	1,1-Dichloroethene	**UJ**
MW3-ROX-082823	VOCs	1,1-Dichloroethene	**UJ**
MW16-ROX-082823	VOCs	1,1-Dichloroethene	**UJ**
MW24-ROX-082823	VOCs	Methylene Chloride	**UJ**
MW3-ROX-082823	VOCs	Methylene Chloride	**UJ**
MW16-ROX-082823	VOCs	Methylene Chloride	**UJ**
MW24-ROX-082823	VOCs	Trichlorofluoromethane	**UJ**
MW3-ROX-082823	VOCs	Trichlorofluoromethane	**UJ**
MW16-ROX-082823	VOCs	Trichlorofluoromethane	**UJ**
MW24-ROX-082823	VOCs	Vinyl chloride	**UJ**
MW3-ROX-082823	VOCs	Vinyl chloride	**UJ**
MW16-ROX-082823	VOCs	Vinyl chloride	**UJ**
MW24-ROX-082823	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW3-ROX-082823	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW16-ROX-082823	SVOCs	Hexachlorocyclopentadiene	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

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JOB DESCRIPTION

ROXANA MONTHLY GW

JOB NUMBER

400-242644-1

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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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

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Job ID: 400-242644-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-242644-1

Receipt
The samples were received on 8/29/2023 9:40 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 1.2°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-639862 recovered outside acceptance criteria, low biased, for Bromomethane, Chloroethane, Chloromethane, 1,1-Dichloroethene, Methylene Chloride, Trichlorofluoromethane and 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 8260D: 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-082823-8260-A (400-242644-1), MW24-ROX-082823-EB (400-242644-3), MW24-ROX-082823 (400-242644-4), MW3-ROX-082823 (400-242644-5) and MW16-ROX-082823 (400-242644-6). 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-639862 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the matrix spike / matrix spike duplicate (MS/MSD) for 2-Chloroethyl vinyl ether was not calculable for analytical batch 400-639862 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

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

GC/MS Semi VOA
Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-639567 and analytical batch 400-639936 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640035 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 8270E_SIM: The method blank for preparation batch 400-639567 and analytical batch 400-639844 contained Benzo[b]fluoranthene, Benzo[g,h,i]perylene, Benzo[k]fluoranthene, Dibenz(a,h)anthracene, Fluoranthene and Indeno[1,2,3-cd]pyrene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E_SIM: The method blank for preparation batch 400-639567 contained Benzo[a]pyrene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were 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: Surrogate recovery for the following samples were outside the upper control limit: MW24-ROX-082823-EB (400-242644-3), MW24-ROX-082823 (400-242644-4) and MW3-ROX-082823 (400-242644-5). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-639362 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

Job ID: 400-242644-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-639353 and analytical batch 400-639362 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639353 and analytical batch 400-639362 were outside control limits for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane due to high bias for this analyte on this day of analysis.

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 MONTHLY GW

Job ID: 400-242644-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242644-1	TB-ROX-082823-8260-A	Water	08/28/23 00:00	08/29/23 09:40
400-242644-2	TB-ROX-082823-8011-A	Water	08/28/23 00:00	08/29/23 09:40
400-242644-3	MW24-ROX-082823-EB	Water	08/28/23 08:50	08/29/23 09:40
400-242644-4	MW24-ROX-082823	Water	08/28/23 10:25	08/29/23 09:40
400-242644-5	MW3-ROX-082823	Water	08/28/23 11:40	08/29/23 09:40
400-242644-6	MW16-ROX-082823	Water	08/28/23 11:40	08/29/23 09:40

Detection Summary

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

Job ID: 400-242644-1

Client Sample ID: TB-ROX-082823-8260-A — Lab Sample ID: 400-242644-1

No Detections.

Client Sample ID: TB-ROX-082823-8011-A — Lab Sample ID: 400-242644-2

No Detections.

Client Sample ID: MW24-ROX-082823-EB — Lab Sample ID: 400-242644-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz(a,h)anthracene	0.083	J B	0.20	0.047	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.044	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.077	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW24-ROX-082823 — Lab Sample ID: 400-242644-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz(a,h)anthracene	0.091	J B	0.20	0.047	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.048	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.092	J B	0.20	0.033	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW3-ROX-082823 — Lab Sample ID: 400-242644-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.5		1.0	0.22	ug/L	1		8260D	Total/NA
Dibenz(a,h)anthracene	0.089	J B	0.20	0.047	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.046	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.10	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW16-ROX-082823 — Lab Sample ID: 400-242644-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.043	J B	0.20	0.027	ug/L	1		8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.12	J B	0.20	0.049	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.049	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.11	J B	0.20	0.034	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-242644-1

Client Sample ID: TB-ROX-082823-8260-A
Date Collected: 08/28/23 00:00
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/06/23 12:44	1
Acrolein	ND		20	3.3	ug/L			09/06/23 12:44	1
Acrylonitrile	ND		10	2.8	ug/L			09/06/23 12:44	1
Benzene	ND		1.0	0.50	ug/L			09/06/23 12:44	1
Bromobenzene	ND		1.0	0.54	ug/L			09/06/23 12:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/06/23 12:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/06/23 12:44	1
Bromoform	ND		5.0	0.25	ug/L			09/06/23 12:44	1
Bromomethane	ND		1.0	0.98	ug/L			09/06/23 12:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/06/23 12:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/06/23 12:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/06/23 12:44	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/06/23 12:44	1
Chloroethane	ND		1.0	0.76	ug/L			09/06/23 12:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/06/23 12:44	1
Chloroform	ND		1.0	0.90	ug/L			09/06/23 12:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/06/23 12:44	1
Chloromethane	ND		1.0	0.90	ug/L			09/06/23 12:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/06/23 12:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/06/23 12:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/06/23 12:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/06/23 12:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/06/23 12:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/06/23 12:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/06/23 12:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/06/23 12:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/06/23 12:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 12:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 12:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 12:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 12:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/06/23 12:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/06/23 12:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/06/23 12:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/06/23 12:44	1
2-Hexanone	ND		25	1.4	ug/L			09/06/23 12:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/06/23 12:44	1
Methylene bromide	ND		5.0	0.22	ug/L			09/06/23 12:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/06/23 12:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/06/23 12:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/06/23 12:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/06/23 12:44	1
Naphthalene	ND		5.0	3.0	ug/L			09/06/23 12:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/06/23 12:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/06/23 12:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/06/23 12:44	1
o-Xylene	ND		5.0	0.60	ug/L			09/06/23 12:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/06/23 12:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/06/23 12:44	1

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

Job ID: 400-242644-1

Client Sample ID: TB-ROX-082823-8260-A
Date Collected: 08/28/23 00:00
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/06/23 12:44	1
Styrene	ND		1.0	1.0	ug/L			09/06/23 12:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/06/23 12:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/06/23 12:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/06/23 12:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/06/23 12:44	1
Toluene	ND		1.0	0.90	ug/L			09/06/23 12:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 12:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/06/23 12:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/06/23 12:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/06/23 12:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/06/23 12:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/06/23 12:44	1
Trichloroethene	ND		1.0	0.15	ug/L			09/06/23 12:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/06/23 12:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/06/23 12:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/06/23 12:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/06/23 12:44	1
Vinyl acetate	ND		25	0.93	ug/L			09/06/23 12:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/06/23 12:44	1
Xylenes, Total	ND		10	1.6	ug/L			09/06/23 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*09/06/23 12:44*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*09/06/23 12:44*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/06/23 12:44*	*1*

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

Job ID: 400-242644-1

Client Sample ID: TB-ROX-082823-8011-A
Date Collected: 08/28/23 00:00
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-2
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-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		08/31/23 15:18	08/31/23 19:19	1
1,2-Dibromoethane	ND	*+	0.020	0.015	ug/L		08/31/23 15:18	08/31/23 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*148*		*51 - 149*	*08/31/23 15:18*	*08/31/23 19:19*	*1*

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

Job ID: 400-242644-1

Client Sample ID: MW24-ROX-082823-EB
Date Collected: 08/28/23 08:50
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/06/23 18:37	1
Acrolein	ND		20	3.3	ug/L			09/06/23 18:37	1
Acrylonitrile	ND		10	2.8	ug/L			09/06/23 18:37	1
Benzene	ND		1.0	0.50	ug/L			09/06/23 18:37	1
Bromobenzene	ND		1.0	0.54	ug/L			09/06/23 18:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/06/23 18:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/06/23 18:37	1
Bromoform	ND		5.0	0.25	ug/L			09/06/23 18:37	1
Bromomethane	ND		1.0	0.98	ug/L			09/06/23 18:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/06/23 18:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/06/23 18:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/06/23 18:37	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/06/23 18:37	1
Chloroethane	ND		1.0	0.76	ug/L			09/06/23 18:37	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/06/23 18:37	1
Chloroform	ND		1.0	0.90	ug/L			09/06/23 18:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/06/23 18:37	1
Chloromethane	ND		1.0	0.90	ug/L			09/06/23 18:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/06/23 18:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/06/23 18:37	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/06/23 18:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/06/23 18:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/06/23 18:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/06/23 18:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/06/23 18:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/06/23 18:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/06/23 18:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 18:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 18:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 18:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 18:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/06/23 18:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/06/23 18:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/06/23 18:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/06/23 18:37	1
2-Hexanone	ND		25	1.4	ug/L			09/06/23 18:37	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/06/23 18:37	1
Methylene bromide	ND		5.0	0.22	ug/L			09/06/23 18:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/06/23 18:37	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/06/23 18:37	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/06/23 18:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/06/23 18:37	1
Naphthalene	ND		5.0	3.0	ug/L			09/06/23 18:37	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/06/23 18:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/06/23 18:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/06/23 18:37	1
o-Xylene	ND		5.0	0.60	ug/L			09/06/23 18:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/06/23 18:37	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/06/23 18:37	1

Client Sample ID: MW24-ROX-082823-EB
Date Collected: 08/28/23 08:50
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/06/23 18:37	1
Styrene	ND		1.0	1.0	ug/L			09/06/23 18:37	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/06/23 18:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/06/23 18:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/06/23 18:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/06/23 18:37	1
Toluene	ND		1.0	0.90	ug/L			09/06/23 18:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 18:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/06/23 18:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/06/23 18:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/06/23 18:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/06/23 18:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/06/23 18:37	1
Trichloroethene	ND		1.0	0.15	ug/L			09/06/23 18:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/06/23 18:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/06/23 18:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/06/23 18:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/06/23 18:37	1
Vinyl acetate	ND		25	0.93	ug/L			09/06/23 18:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/06/23 18:37	1
Xylenes, Total	ND		10	1.6	ug/L			09/06/23 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 130*		*09/06/23 18:37*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*09/06/23 18:37*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/06/23 18:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		09/02/23 09:18	09/06/23 18:08	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/02/23 09:18	09/06/23 18:08	1
Anthracene	ND		0.20	0.046	ug/L		09/02/23 09:18	09/06/23 18:08	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/02/23 09:18	09/06/23 18:08	1
Benzo[a]pyrene	ND		0.20	0.062	ug/L		09/02/23 09:18	09/06/23 18:08	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/02/23 09:18	09/06/23 18:08	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		09/02/23 09:18	09/06/23 18:08	1
Benzo[k]fluoranthene	ND		0.20	0.060	ug/L		09/02/23 09:18	09/06/23 18:08	1
Chrysene	ND		0.20	0.032	ug/L		09/02/23 09:18	09/06/23 18:08	1
Dibenz(a,h)anthracene	**0.083**	**J B**	0.20	0.047	ug/L		09/02/23 09:18	09/06/23 18:08	1
Fluoranthene	**0.044**	**J B**	0.20	0.033	ug/L		09/02/23 09:18	09/06/23 18:08	1
Fluorene	ND		0.20	0.087	ug/L		09/02/23 09:18	09/06/23 18:08	1
Indeno[1,2,3-cd]pyrene	**0.077**	**J B**	0.20	0.033	ug/L		09/02/23 09:18	09/06/23 18:08	1
Phenanthrene	ND		0.20	0.088	ug/L		09/02/23 09:18	09/06/23 18:08	1
Pyrene	ND		0.20	0.038	ug/L		09/02/23 09:18	09/06/23 18:08	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		09/02/23 09:18	09/06/23 18:08	1
2-Methylnaphthalene	ND		0.20	0.064	ug/L		09/02/23 09:18	09/06/23 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*80*		*18 - 147*	*09/02/23 09:18*	*09/06/23 18:08*	*1*
2-Fluorobiphenyl	*75*		*15 - 128*	*09/02/23 09:18*	*09/06/23 18:08*	*1*

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

Job ID: 400-242644-1

Client Sample ID: MW24-ROX-082823-EB

Date Collected: 08/28/23 08:50
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-3

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*73*		*10 - 144*	*09/02/23 09:18*	*09/06/23 18:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		09/02/23 09:18	09/06/23 18:00	1
Benzenethiol	ND	*1	9.8	1.7	ug/L		09/02/23 09:18	09/06/23 18:00	1
Benzoic acid	ND		29	7.1	ug/L		09/02/23 09:18	09/06/23 18:00	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/02/23 09:18	09/06/23 18:00	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/02/23 09:18	09/06/23 18:00	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		09/02/23 09:18	09/06/23 18:00	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/02/23 09:18	09/06/23 18:00	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/02/23 09:18	09/06/23 18:00	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/02/23 09:18	09/06/23 18:00	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/02/23 09:18	09/06/23 18:00	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/02/23 09:18	09/06/23 18:00	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/02/23 09:18	09/06/23 18:00	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/02/23 09:18	09/06/23 18:00	1
2-Chlorophenol	ND		9.8	2.1	ug/L		09/02/23 09:18	09/06/23 18:00	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/02/23 09:18	09/06/23 18:00	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/02/23 09:18	09/06/23 18:00	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/02/23 09:18	09/06/23 18:00	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		09/02/23 09:18	09/06/23 18:00	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		09/02/23 09:18	09/06/23 18:00	1
Diethyl phthalate	ND		9.8	0.23	ug/L		09/02/23 09:18	09/06/23 18:00	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/02/23 09:18	09/06/23 18:00	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		09/02/23 09:18	09/06/23 18:00	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		09/02/23 09:18	09/06/23 18:00	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		09/02/23 09:18	09/06/23 18:00	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/02/23 09:18	09/06/23 18:00	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/02/23 09:18	09/06/23 18:00	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/02/23 09:18	09/06/23 18:00	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/02/23 09:18	09/06/23 18:00	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/02/23 09:18	09/06/23 18:00	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/02/23 09:18	09/06/23 18:00	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/02/23 09:18	09/06/23 18:00	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		09/02/23 09:18	09/07/23 09:45	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/02/23 09:18	09/06/23 18:00	1
Indene	ND		9.8	0.98	ug/L		09/02/23 09:18	09/06/23 18:00	1
Isophorone	ND		9.8	0.14	ug/L		09/02/23 09:18	09/06/23 18:00	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/02/23 09:18	09/06/23 18:00	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/02/23 09:18	09/06/23 18:00	1
2-Nitroaniline	ND		9.8	2.1	ug/L		09/02/23 09:18	09/06/23 18:00	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/02/23 09:18	09/06/23 18:00	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/02/23 09:18	09/06/23 18:00	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/02/23 09:18	09/06/23 18:00	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/02/23 09:18	09/06/23 18:00	1
4-Nitrophenol	ND		9.8	2.0	ug/L		09/02/23 09:18	09/06/23 18:00	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/02/23 09:18	09/06/23 18:00	1

Client Sample ID: MW24-ROX-082823-EB
Date Collected: 08/28/23 08:50
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-3
Matrix: Water

Method: SW846 8270E - 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		09/02/23 09:18	09/06/23 18:00	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/02/23 09:18	09/06/23 18:00	1
Pentachlorophenol	ND		20	1.4	ug/L		09/02/23 09:18	09/06/23 18:00	1
Phenol	ND		9.8	2.5	ug/L		09/02/23 09:18	09/06/23 18:00	1
Pyridine	ND		9.8	3.1	ug/L		09/02/23 09:18	09/06/23 18:00	1
Quinoline	ND		9.8	4.4	ug/L		09/02/23 09:18	09/06/23 18:00	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/02/23 09:18	09/06/23 18:00	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/02/23 09:18	09/06/23 18:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*09/02/23 09:18*	*09/06/23 18:00*	*1*
2-Fluorophenol	*54*		*13 - 113*	*09/02/23 09:18*	*09/06/23 18:00*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*09/02/23 09:18*	*09/06/23 18:00*	*1*
Phenol-d5	*69*		*17 - 127*	*09/02/23 09:18*	*09/06/23 18:00*	*1*
Terphenyl-d14	*85*		*44 - 149*	*09/02/23 09:18*	*09/06/23 18:00*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*09/02/23 09:18*	*09/06/23 18:00*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		08/31/23 15:18	08/31/23 19:40	1
1,2-Dibromoethane	ND	*+	0.020	0.015	ug/L		08/31/23 15:18	08/31/23 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*169*	*S1+*	*51 - 149*	*08/31/23 15:18*	*08/31/23 19:40*	*1*

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

Job ID: 400-242644-1

Client Sample ID: MW24-ROX-082823
Date Collected: 08/28/23 10:25
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/06/23 13:38	1
Acrolein	ND		20	3.3	ug/L			09/06/23 13:38	1
Acrylonitrile	ND		10	2.8	ug/L			09/06/23 13:38	1
Benzene	ND		1.0	0.50	ug/L			09/06/23 13:38	1
Bromobenzene	ND		1.0	0.54	ug/L			09/06/23 13:38	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/06/23 13:38	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/06/23 13:38	1
Bromoform	ND		5.0	0.25	ug/L			09/06/23 13:38	1
Bromomethane	ND		1.0	0.98	ug/L			09/06/23 13:38	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/06/23 13:38	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/06/23 13:38	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/06/23 13:38	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/06/23 13:38	1
Chloroethane	ND		1.0	0.76	ug/L			09/06/23 13:38	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/06/23 13:38	1
Chloroform	ND		1.0	0.90	ug/L			09/06/23 13:38	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/06/23 13:38	1
Chloromethane	ND		1.0	0.90	ug/L			09/06/23 13:38	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/06/23 13:38	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/06/23 13:38	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/06/23 13:38	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/06/23 13:38	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/06/23 13:38	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/06/23 13:38	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/06/23 13:38	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/06/23 13:38	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/06/23 13:38	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 13:38	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 13:38	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 13:38	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 13:38	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/06/23 13:38	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/06/23 13:38	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/06/23 13:38	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/06/23 13:38	1
2-Hexanone	ND		25	1.4	ug/L			09/06/23 13:38	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/06/23 13:38	1
Methylene bromide	ND		5.0	0.22	ug/L			09/06/23 13:38	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/06/23 13:38	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/06/23 13:38	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/06/23 13:38	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/06/23 13:38	1
Naphthalene	ND		5.0	3.0	ug/L			09/06/23 13:38	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/06/23 13:38	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/06/23 13:38	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/06/23 13:38	1
o-Xylene	ND		5.0	0.60	ug/L			09/06/23 13:38	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/06/23 13:38	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/06/23 13:38	1

Client Sample ID: MW24-ROX-082823
Date Collected: 08/28/23 10:25
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/06/23 13:38	1
Styrene	ND		1.0	1.0	ug/L			09/06/23 13:38	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/06/23 13:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/06/23 13:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/06/23 13:38	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/06/23 13:38	1
Toluene	ND		1.0	0.90	ug/L			09/06/23 13:38	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 13:38	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/06/23 13:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/06/23 13:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/06/23 13:38	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/06/23 13:38	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/06/23 13:38	1
Trichloroethene	ND		1.0	0.15	ug/L			09/06/23 13:38	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/06/23 13:38	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/06/23 13:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/06/23 13:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/06/23 13:38	1
Vinyl acetate	ND		25	0.93	ug/L			09/06/23 13:38	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/06/23 13:38	1
Xylenes, Total	ND		10	1.6	ug/L			09/06/23 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 130*		*09/06/23 13:38*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*09/06/23 13:38*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/06/23 13:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		09/02/23 09:18	09/06/23 18:29	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/02/23 09:18	09/06/23 18:29	1
Anthracene	ND		0.20	0.046	ug/L		09/02/23 09:18	09/06/23 18:29	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/02/23 09:18	09/06/23 18:29	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/02/23 09:18	09/06/23 18:29	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/02/23 09:18	09/06/23 18:29	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/02/23 09:18	09/06/23 18:29	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/02/23 09:18	09/06/23 18:29	1
Chrysene	ND		0.20	0.032	ug/L		09/02/23 09:18	09/06/23 18:29	1
Dibenz(a,h)anthracene	**0.091**	**J B**	0.20	0.047	ug/L		09/02/23 09:18	09/06/23 18:29	1
Fluoranthene	**0.048**	**J B**	0.20	0.033	ug/L		09/02/23 09:18	09/06/23 18:29	1
Fluorene	ND		0.20	0.088	ug/L		09/02/23 09:18	09/06/23 18:29	1
Indeno[1,2,3-cd]pyrene	**0.092**	**J B**	0.20	0.033	ug/L		09/02/23 09:18	09/06/23 18:29	1
Phenanthrene	ND		0.20	0.089	ug/L		09/02/23 09:18	09/06/23 18:29	1
Pyrene	ND		0.20	0.038	ug/L		09/02/23 09:18	09/06/23 18:29	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		09/02/23 09:18	09/06/23 18:29	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		09/02/23 09:18	09/06/23 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*18 - 147*	*09/02/23 09:18*	*09/06/23 18:29*	*1*
2-Fluorobiphenyl	*75*		*15 - 128*	*09/02/23 09:18*	*09/06/23 18:29*	*1*

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

Job ID: 400-242644-1

Client Sample ID: MW24-ROX-082823

Lab Sample ID: 400-242644-4

Date Collected: 08/28/23 10:25

Matrix: Water

Date Received: 08/29/23 09:40

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*68*		*10 - 144*	*09/02/23 09:18*	*09/06/23 18:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		09/02/23 09:18	09/06/23 18:26	1
Benzenethiol	ND	*1	9.8	1.7	ug/L		09/02/23 09:18	09/06/23 18:26	1
Benzoic acid	ND		30	7.2	ug/L		09/02/23 09:18	09/06/23 18:26	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/02/23 09:18	09/06/23 18:26	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/02/23 09:18	09/06/23 18:26	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		09/02/23 09:18	09/06/23 18:26	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/02/23 09:18	09/06/23 18:26	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/02/23 09:18	09/06/23 18:26	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/02/23 09:18	09/06/23 18:26	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/02/23 09:18	09/06/23 18:26	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/02/23 09:18	09/06/23 18:26	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/02/23 09:18	09/06/23 18:26	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/02/23 09:18	09/06/23 18:26	1
2-Chlorophenol	ND		9.8	2.2	ug/L		09/02/23 09:18	09/06/23 18:26	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/02/23 09:18	09/06/23 18:26	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/02/23 09:18	09/06/23 18:26	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/02/23 09:18	09/06/23 18:26	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		09/02/23 09:18	09/06/23 18:26	1
2,4-Dichlorophenol	ND		9.8	3.0	ug/L		09/02/23 09:18	09/06/23 18:26	1
Diethyl phthalate	ND		9.8	0.24	ug/L		09/02/23 09:18	09/06/23 18:26	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/02/23 09:18	09/06/23 18:26	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		09/02/23 09:18	09/06/23 18:26	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		09/02/23 09:18	09/06/23 18:26	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		09/02/23 09:18	09/06/23 18:26	1
2,4-Dinitrophenol	ND		30	3.3	ug/L		09/02/23 09:18	09/06/23 18:26	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/02/23 09:18	09/06/23 18:26	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/02/23 09:18	09/06/23 18:26	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/02/23 09:18	09/06/23 18:26	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/02/23 09:18	09/06/23 18:26	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/02/23 09:18	09/06/23 18:26	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/02/23 09:18	09/06/23 18:26	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/02/23 09:18	09/07/23 10:09	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/02/23 09:18	09/06/23 18:26	1
Indene	ND		9.8	0.98	ug/L		09/02/23 09:18	09/06/23 18:26	1
Isophorone	ND		9.8	0.14	ug/L		09/02/23 09:18	09/06/23 18:26	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/02/23 09:18	09/06/23 18:26	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/02/23 09:18	09/06/23 18:26	1
2-Nitroaniline	ND		9.8	2.2	ug/L		09/02/23 09:18	09/06/23 18:26	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/02/23 09:18	09/06/23 18:26	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/02/23 09:18	09/06/23 18:26	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/02/23 09:18	09/06/23 18:26	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/02/23 09:18	09/06/23 18:26	1
4-Nitrophenol	ND		9.8	2.1	ug/L		09/02/23 09:18	09/06/23 18:26	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/02/23 09:18	09/06/23 18:26	1

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

Job ID: 400-242644-1

Client Sample ID: MW24-ROX-082823
Date Collected: 08/28/23 10:25
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-4
Matrix: Water

Method: SW846 8270E - 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		09/02/23 09:18	09/06/23 18:26	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/02/23 09:18	09/06/23 18:26	1
Pentachlorophenol	ND		20	1.4	ug/L		09/02/23 09:18	09/06/23 18:26	1
Phenol	ND		9.8	2.6	ug/L		09/02/23 09:18	09/06/23 18:26	1
Pyridine	ND		9.8	3.1	ug/L		09/02/23 09:18	09/06/23 18:26	1
Quinoline	ND		9.8	4.4	ug/L		09/02/23 09:18	09/06/23 18:26	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/02/23 09:18	09/06/23 18:26	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/02/23 09:18	09/06/23 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*09/02/23 09:18*	*09/06/23 18:26*	*1*
2-Fluorophenol	*24*		*13 - 113*	*09/02/23 09:18*	*09/06/23 18:26*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*09/02/23 09:18*	*09/06/23 18:26*	*1*
Phenol-d5	*35*		*17 - 127*	*09/02/23 09:18*	*09/06/23 18:26*	*1*
Terphenyl-d14	*76*		*44 - 149*	*09/02/23 09:18*	*09/06/23 18:26*	*1*
2,4,6-Tribromophenol	*29*		*26 - 150*	*09/02/23 09:18*	*09/06/23 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-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		08/31/23 15:18	08/31/23 20:01	1
1,2-Dibromoethane	ND	*+	0.020	0.015	ug/L		08/31/23 15:18	08/31/23 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*162*	*S1+*	*51 - 149*	*08/31/23 15:18*	*08/31/23 20:01*	*1*

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

Job ID: 400-242644-1

Client Sample ID: MW3-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/06/23 14:05	1
Acrolein	ND		20	3.3	ug/L			09/06/23 14:05	1
Acrylonitrile	ND		10	2.8	ug/L			09/06/23 14:05	1
Benzene	ND		1.0	0.50	ug/L			09/06/23 14:05	1
Bromobenzene	ND		1.0	0.54	ug/L			09/06/23 14:05	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/06/23 14:05	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/06/23 14:05	1
Bromoform	ND		5.0	0.25	ug/L			09/06/23 14:05	1
Bromomethane	ND		1.0	0.98	ug/L			09/06/23 14:05	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/06/23 14:05	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/06/23 14:05	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/06/23 14:05	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/06/23 14:05	1
Chloroethane	ND		1.0	0.76	ug/L			09/06/23 14:05	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			09/06/23 14:05	1
Chloroform	ND		1.0	0.90	ug/L			09/06/23 14:05	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/06/23 14:05	1
Chloromethane	ND		1.0	0.90	ug/L			09/06/23 14:05	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/06/23 14:05	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/06/23 14:05	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/06/23 14:05	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/06/23 14:05	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/06/23 14:05	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/06/23 14:05	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/06/23 14:05	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/06/23 14:05	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/06/23 14:05	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 14:05	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 14:05	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 14:05	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 14:05	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/06/23 14:05	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/06/23 14:05	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/06/23 14:05	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/06/23 14:05	1
2-Hexanone	ND		25	1.4	ug/L			09/06/23 14:05	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/06/23 14:05	1
Methylene bromide	ND		5.0	0.22	ug/L			09/06/23 14:05	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/06/23 14:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/06/23 14:05	1
Methyl tert-butyl ether	**1.5**		1.0	0.22	ug/L			09/06/23 14:05	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/06/23 14:05	1
Naphthalene	ND		5.0	3.0	ug/L			09/06/23 14:05	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/06/23 14:05	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/06/23 14:05	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/06/23 14:05	1
o-Xylene	ND		5.0	0.60	ug/L			09/06/23 14:05	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/06/23 14:05	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/06/23 14:05	1

Client Sample ID: MW3-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/06/23 14:05	1
Styrene	ND		1.0	1.0	ug/L			09/06/23 14:05	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/06/23 14:05	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/06/23 14:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/06/23 14:05	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/06/23 14:05	1
Toluene	ND		1.0	0.90	ug/L			09/06/23 14:05	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 14:05	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/06/23 14:05	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/06/23 14:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/06/23 14:05	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/06/23 14:05	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/06/23 14:05	1
Trichloroethene	ND		1.0	0.15	ug/L			09/06/23 14:05	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/06/23 14:05	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/06/23 14:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/06/23 14:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/06/23 14:05	1
Vinyl acetate	ND		25	0.93	ug/L			09/06/23 14:05	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/06/23 14:05	1
Xylenes, Total	ND		10	1.6	ug/L			09/06/23 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 130*		*09/06/23 14:05*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*09/06/23 14:05*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/06/23 14:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.098	ug/L		09/02/23 09:18	09/06/23 17:48	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/02/23 09:18	09/06/23 17:48	1
Anthracene	ND		0.20	0.046	ug/L		09/02/23 09:18	09/06/23 17:48	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/02/23 09:18	09/06/23 17:48	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/02/23 09:18	09/06/23 17:48	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/02/23 09:18	09/06/23 17:48	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/02/23 09:18	09/06/23 17:48	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/02/23 09:18	09/06/23 17:48	1
Chrysene	ND		0.20	0.033	ug/L		09/02/23 09:18	09/06/23 17:48	1
Dibenz(a,h)anthracene	**0.089**	**J B**	0.20	0.047	ug/L		09/02/23 09:18	09/06/23 17:48	1
Fluoranthene	**0.046**	**J B**	0.20	0.034	ug/L		09/02/23 09:18	09/06/23 17:48	1
Fluorene	ND		0.20	0.088	ug/L		09/02/23 09:18	09/06/23 17:48	1
Indeno[1,2,3-cd]pyrene	**0.10**	**J B**	0.20	0.034	ug/L		09/02/23 09:18	09/06/23 17:48	1
Phenanthrene	ND		0.20	0.089	ug/L		09/02/23 09:18	09/06/23 17:48	1
Pyrene	ND		0.20	0.039	ug/L		09/02/23 09:18	09/06/23 17:48	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		09/02/23 09:18	09/06/23 17:48	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		09/02/23 09:18	09/06/23 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*57*		*18 - 147*	*09/02/23 09:18*	*09/06/23 17:48*	*1*
2-Fluorobiphenyl	*67*		*15 - 128*	*09/02/23 09:18*	*09/06/23 17:48*	*1*

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

Job ID: 400-242644-1

Client Sample ID: MW3-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*68*		*10 - 144*	*09/02/23 09:18*	*09/06/23 17:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		09/02/23 09:18	09/06/23 19:18	1
Benzenethiol	ND	*1	9.9	1.7	ug/L		09/02/23 09:18	09/06/23 19:18	1
Benzoic acid	ND		30	7.2	ug/L		09/02/23 09:18	09/06/23 19:18	1
Benzyl alcohol	ND		9.9	2.0	ug/L		09/02/23 09:18	09/06/23 19:18	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		09/02/23 09:18	09/06/23 19:18	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		09/02/23 09:18	09/06/23 19:18	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		09/02/23 09:18	09/06/23 19:18	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		09/02/23 09:18	09/06/23 19:18	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		09/02/23 09:18	09/06/23 19:18	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		09/02/23 09:18	09/06/23 19:18	1
4-Chloroaniline	ND		9.9	3.4	ug/L		09/02/23 09:18	09/06/23 19:18	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		09/02/23 09:18	09/06/23 19:18	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		09/02/23 09:18	09/06/23 19:18	1
2-Chlorophenol	ND		9.9	2.2	ug/L		09/02/23 09:18	09/06/23 19:18	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		09/02/23 09:18	09/06/23 19:18	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		09/02/23 09:18	09/06/23 19:18	1
Dibenzofuran	ND		9.9	0.17	ug/L		09/02/23 09:18	09/06/23 19:18	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		09/02/23 09:18	09/06/23 19:18	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		09/02/23 09:18	09/06/23 19:18	1
Diethyl phthalate	ND		9.9	0.24	ug/L		09/02/23 09:18	09/06/23 19:18	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		09/02/23 09:18	09/06/23 19:18	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		09/02/23 09:18	09/06/23 19:18	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		09/02/23 09:18	09/06/23 19:18	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		09/02/23 09:18	09/06/23 19:18	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/02/23 09:18	09/06/23 19:18	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		09/02/23 09:18	09/06/23 19:18	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		09/02/23 09:18	09/06/23 19:18	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		09/02/23 09:18	09/06/23 19:18	1
1,4-Dioxane	ND		9.9	0.99	ug/L		09/02/23 09:18	09/06/23 19:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		09/02/23 09:18	09/06/23 19:18	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		09/02/23 09:18	09/06/23 19:18	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/02/23 09:18	09/07/23 10:33	1
Hexachloroethane	ND		9.9	4.1	ug/L		09/02/23 09:18	09/06/23 19:18	1
Indene	ND		9.9	0.99	ug/L		09/02/23 09:18	09/06/23 19:18	1
Isophorone	ND		9.9	0.14	ug/L		09/02/23 09:18	09/06/23 19:18	1
2-Methylphenol	ND		9.9	1.8	ug/L		09/02/23 09:18	09/06/23 19:18	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/02/23 09:18	09/06/23 19:18	1
2-Nitroaniline	ND		9.9	2.2	ug/L		09/02/23 09:18	09/06/23 19:18	1
3-Nitroaniline	ND		9.9	1.8	ug/L		09/02/23 09:18	09/06/23 19:18	1
4-Nitroaniline	ND		9.9	1.5	ug/L		09/02/23 09:18	09/06/23 19:18	1
Nitrobenzene	ND		9.9	0.13	ug/L		09/02/23 09:18	09/06/23 19:18	1
2-Nitrophenol	ND		9.9	5.1	ug/L		09/02/23 09:18	09/06/23 19:18	1
4-Nitrophenol	ND		9.9	2.1	ug/L		09/02/23 09:18	09/06/23 19:18	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		09/02/23 09:18	09/06/23 19:18	1

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

Job ID: 400-242644-1

Client Sample ID: MW3-ROX-082823

Lab Sample ID: 400-242644-5

Date Collected: 08/28/23 11:40

Matrix: Water

Date Received: 08/29/23 09:40

Method: SW846 8270E - 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		09/02/23 09:18	09/06/23 19:18	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		09/02/23 09:18	09/06/23 19:18	1
Pentachlorophenol	ND		20	1.4	ug/L		09/02/23 09:18	09/06/23 19:18	1
Phenol	ND		9.9	2.6	ug/L		09/02/23 09:18	09/06/23 19:18	1
Pyridine	ND		9.9	3.2	ug/L		09/02/23 09:18	09/06/23 19:18	1
Quinoline	ND		9.9	4.4	ug/L		09/02/23 09:18	09/06/23 19:18	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		09/02/23 09:18	09/06/23 19:18	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		09/02/23 09:18	09/06/23 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*09/02/23 09:18*	*09/06/23 19:18*	*1*
2-Fluorophenol	*47*		*13 - 113*	*09/02/23 09:18*	*09/06/23 19:18*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*09/02/23 09:18*	*09/06/23 19:18*	*1*
Phenol-d5	*64*		*17 - 127*	*09/02/23 09:18*	*09/06/23 19:18*	*1*
Terphenyl-d14	*74*		*44 - 149*	*09/02/23 09:18*	*09/06/23 19:18*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*09/02/23 09:18*	*09/06/23 19:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	F1 *+	0.031	0.017	ug/L		08/31/23 15:18	08/31/23 20:23	1
1,2-Dibromoethane	ND	F1 *+	0.021	0.015	ug/L		08/31/23 15:18	08/31/23 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*155*	*S1+*	*51 - 149*	*08/31/23 15:18*	*08/31/23 20:23*	*1*

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

Job ID: 400-242644-1

Client Sample ID: MW16-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/06/23 19:04	1
Acrolein	ND		20	3.3	ug/L			09/06/23 19:04	1
Acrylonitrile	ND		10	2.8	ug/L			09/06/23 19:04	1
Benzene	ND		1.0	0.50	ug/L			09/06/23 19:04	1
Bromobenzene	ND		1.0	0.54	ug/L			09/06/23 19:04	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/06/23 19:04	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/06/23 19:04	1
Bromoform	ND		5.0	0.25	ug/L			09/06/23 19:04	1
Bromomethane	ND		1.0	0.98	ug/L			09/06/23 19:04	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/06/23 19:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/06/23 19:04	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/06/23 19:04	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/06/23 19:04	1
Chloroethane	ND		1.0	0.76	ug/L			09/06/23 19:04	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/06/23 19:04	1
Chloroform	ND		1.0	0.90	ug/L			09/06/23 19:04	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/06/23 19:04	1
Chloromethane	ND		1.0	0.90	ug/L			09/06/23 19:04	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/06/23 19:04	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/06/23 19:04	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/06/23 19:04	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/06/23 19:04	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/06/23 19:04	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/06/23 19:04	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/06/23 19:04	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/06/23 19:04	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/06/23 19:04	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 19:04	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 19:04	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 19:04	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 19:04	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/06/23 19:04	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/06/23 19:04	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/06/23 19:04	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/06/23 19:04	1
2-Hexanone	ND		25	1.4	ug/L			09/06/23 19:04	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/06/23 19:04	1
Methylene bromide	ND		5.0	0.22	ug/L			09/06/23 19:04	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/06/23 19:04	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/06/23 19:04	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/06/23 19:04	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/06/23 19:04	1
Naphthalene	ND		5.0	3.0	ug/L			09/06/23 19:04	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/06/23 19:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/06/23 19:04	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/06/23 19:04	1
o-Xylene	ND		5.0	0.60	ug/L			09/06/23 19:04	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/06/23 19:04	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/06/23 19:04	1

Client Sample ID: MW16-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/06/23 19:04	1
Styrene	ND		1.0	1.0	ug/L			09/06/23 19:04	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/06/23 19:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/06/23 19:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/06/23 19:04	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/06/23 19:04	1
Toluene	ND		1.0	0.90	ug/L			09/06/23 19:04	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 19:04	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/06/23 19:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/06/23 19:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/06/23 19:04	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/06/23 19:04	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/06/23 19:04	1
Trichloroethene	ND		1.0	0.15	ug/L			09/06/23 19:04	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/06/23 19:04	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/06/23 19:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/06/23 19:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/06/23 19:04	1
Vinyl acetate	ND		25	0.93	ug/L			09/06/23 19:04	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/06/23 19:04	1
Xylenes, Total	ND		10	1.6	ug/L			09/06/23 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 130*		*09/06/23 19:04*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*09/06/23 19:04*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/06/23 19:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.10	ug/L		09/02/23 09:18	09/06/23 18:50	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/02/23 09:18	09/06/23 18:50	1
Anthracene	ND		0.20	0.047	ug/L		09/02/23 09:18	09/06/23 18:50	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/02/23 09:18	09/06/23 18:50	1
Benzo[a]pyrene	ND		0.20	0.065	ug/L		09/02/23 09:18	09/06/23 18:50	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/02/23 09:18	09/06/23 18:50	1
Benzo[g,h,i]perylene	**0.043**	**J B**	0.20	0.027	ug/L		09/02/23 09:18	09/06/23 18:50	1
Benzo[k]fluoranthene	ND		0.20	0.063	ug/L		09/02/23 09:18	09/06/23 18:50	1
Chrysene	ND		0.20	0.033	ug/L		09/02/23 09:18	09/06/23 18:50	1
Dibenz(a,h)anthracene	**0.12**	**J B**	0.20	0.049	ug/L		09/02/23 09:18	09/06/23 18:50	1
Fluoranthene	**0.049**	**J B**	0.20	0.034	ug/L		09/02/23 09:18	09/06/23 18:50	1
Fluorene	ND		0.20	0.090	ug/L		09/02/23 09:18	09/06/23 18:50	1
Indeno[1,2,3-cd]pyrene	**0.11**	**J B**	0.20	0.034	ug/L		09/02/23 09:18	09/06/23 18:50	1
Phenanthrene	ND		0.20	0.091	ug/L		09/02/23 09:18	09/06/23 18:50	1
Pyrene	ND		0.20	0.039	ug/L		09/02/23 09:18	09/06/23 18:50	1
1-Methylnaphthalene	ND		0.20	0.081	ug/L		09/02/23 09:18	09/06/23 18:50	1
2-Methylnaphthalene	ND		0.20	0.067	ug/L		09/02/23 09:18	09/06/23 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*76*		*18 - 147*	*09/02/23 09:18*	*09/06/23 18:50*	*1*
2-Fluorobiphenyl	*74*		*15 - 128*	*09/02/23 09:18*	*09/06/23 18:50*	*1*

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

Job ID: 400-242644-1

Client Sample ID: MW16-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*70*		*10 - 144*	*09/02/23 09:18*	*09/06/23 18:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/02/23 09:18	09/06/23 18:52	1
Benzenethiol	ND	*1	10	1.7	ug/L		09/02/23 09:18	09/06/23 18:52	1
Benzoic acid	ND		30	7.4	ug/L		09/02/23 09:18	09/06/23 18:52	1
Benzyl alcohol	ND		10	2.0	ug/L		09/02/23 09:18	09/06/23 18:52	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/02/23 09:18	09/06/23 18:52	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/02/23 09:18	09/06/23 18:52	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/02/23 09:18	09/06/23 18:52	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		09/02/23 09:18	09/06/23 18:52	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/02/23 09:18	09/06/23 18:52	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/02/23 09:18	09/06/23 18:52	1
4-Chloroaniline	ND		10	3.4	ug/L		09/02/23 09:18	09/06/23 18:52	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/02/23 09:18	09/06/23 18:52	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/02/23 09:18	09/06/23 18:52	1
2-Chlorophenol	ND		10	2.2	ug/L		09/02/23 09:18	09/06/23 18:52	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/02/23 09:18	09/06/23 18:52	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/02/23 09:18	09/06/23 18:52	1
Dibenzofuran	ND		10	0.17	ug/L		09/02/23 09:18	09/06/23 18:52	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/02/23 09:18	09/06/23 18:52	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/02/23 09:18	09/06/23 18:52	1
Diethyl phthalate	ND		10	0.24	ug/L		09/02/23 09:18	09/06/23 18:52	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/02/23 09:18	09/06/23 18:52	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/02/23 09:18	09/06/23 18:52	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/02/23 09:18	09/06/23 18:52	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/02/23 09:18	09/06/23 18:52	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/02/23 09:18	09/06/23 18:52	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/02/23 09:18	09/06/23 18:52	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/02/23 09:18	09/06/23 18:52	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/02/23 09:18	09/06/23 18:52	1
1,4-Dioxane	ND		10	1.0	ug/L		09/02/23 09:18	09/06/23 18:52	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/02/23 09:18	09/06/23 18:52	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/02/23 09:18	09/06/23 18:52	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/02/23 09:18	09/07/23 10:58	1
Hexachloroethane	ND		10	4.2	ug/L		09/02/23 09:18	09/06/23 18:52	1
Indene	ND		10	1.0	ug/L		09/02/23 09:18	09/06/23 18:52	1
Isophorone	ND		10	0.14	ug/L		09/02/23 09:18	09/06/23 18:52	1
2-Methylphenol	ND		10	1.8	ug/L		09/02/23 09:18	09/06/23 18:52	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/02/23 09:18	09/06/23 18:52	1
2-Nitroaniline	ND		10	2.2	ug/L		09/02/23 09:18	09/06/23 18:52	1
3-Nitroaniline	ND		10	1.8	ug/L		09/02/23 09:18	09/06/23 18:52	1
4-Nitroaniline	ND		10	1.5	ug/L		09/02/23 09:18	09/06/23 18:52	1
Nitrobenzene	ND		10	0.13	ug/L		09/02/23 09:18	09/06/23 18:52	1
2-Nitrophenol	ND		10	5.3	ug/L		09/02/23 09:18	09/06/23 18:52	1
4-Nitrophenol	ND		10	2.1	ug/L		09/02/23 09:18	09/06/23 18:52	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/02/23 09:18	09/06/23 18:52	1

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

Job ID: 400-242644-1

Client Sample ID: MW16-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-6
Matrix: Water

Method: SW846 8270E - 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		09/02/23 09:18	09/06/23 18:52	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/02/23 09:18	09/06/23 18:52	1
Pentachlorophenol	ND		20	1.4	ug/L		09/02/23 09:18	09/06/23 18:52	1
Phenol	ND		10	2.6	ug/L		09/02/23 09:18	09/06/23 18:52	1
Pyridine	ND		10	3.2	ug/L		09/02/23 09:18	09/06/23 18:52	1
Quinoline	ND		10	4.5	ug/L		09/02/23 09:18	09/06/23 18:52	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/02/23 09:18	09/06/23 18:52	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/02/23 09:18	09/06/23 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*09/02/23 09:18*	*09/06/23 18:52*	*1*
2-Fluorophenol	*51*		*13 - 113*	*09/02/23 09:18*	*09/06/23 18:52*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*09/02/23 09:18*	*09/06/23 18:52*	*1*
Phenol-d5	*69*		*17 - 127*	*09/02/23 09:18*	*09/06/23 18:52*	*1*
Terphenyl-d14	*82*		*44 - 149*	*09/02/23 09:18*	*09/06/23 18:52*	*1*
2,4,6-Tribromophenol	*65*		*26 - 150*	*09/02/23 09:18*	*09/06/23 18:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		08/31/23 15:18	08/31/23 21:27	1
1,2-Dibromoethane	ND	*+	0.020	0.015	ug/L		08/31/23 15:18	08/31/23 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*149*		*51 - 149*	*08/31/23 15:18*	*08/31/23 21:27*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
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 MONTHLY GW

Job ID: 400-242644-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-242644-1	TB-ROX-082823-8260-A	103	108	101
400-242644-3	MW24-ROX-082823-EB	101	108	99
400-242644-4	MW24-ROX-082823	102	106	99
400-242644-5	MW3-ROX-082823	104	107	100
400-242644-5 MS	MW3-ROX-082823	104	106	101
400-242644-5 MSD	MW3-ROX-082823	103	105	101
400-242644-6	MW16-ROX-082823	102	109	100
LCS 400-639862/1002	Lab Control Sample	105	104	102
MB 400-639862/50	Method Blank	102	107	99

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-242644-3	MW24-ROX-082823-EB	81	54	72	69	85	67
400-242644-4	MW24-ROX-082823	79	24	71	35	76	29
400-242644-5	MW3-ROX-082823	83	47	73	64	74	77
400-242644-5 MS	MW3-ROX-082823	86	55	86	73	80	87
400-242644-5 MSD	MW3-ROX-082823	81	59	81	73	81	86
400-242644-6	MW16-ROX-082823	81	51	72	69	82	65
LCS 400-639567/2-A	Lab Control Sample	77	53	79	65	78	80
LCSD 400-639567/14-A	Lab Control Sample Dup	84	65	76	74	93	68
MB 400-639567/1-A	Method Blank	92	38	81	63	94	76

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-242644-3	MW24-ROX-082823-EB	80	75	73
400-242644-4	MW24-ROX-082823	70	75	68
400-242644-5	MW3-ROX-082823	57	67	68
400-242644-5 MS	MW3-ROX-082823	73	85	86
400-242644-5 MSD	MW3-ROX-082823	73	80	82
400-242644-6	MW16-ROX-082823	76	74	70

Surrogate Summary

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

Job ID: 400-242644-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
LCS 400-639567/11-A	Lab Control Sample	83	80	77
LCSD 400-639567/12-A	Lab Control Sample Dup	82	75	72
MB 400-639567/1-A	Method Blank	81	73	70

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-242644-2	TB-ROX-082823-8011-A	148
400-242644-3	MW24-ROX-082823-EB	169 S1+
400-242644-4	MW24-ROX-082823	162 S1+
400-242644-5	MW3-ROX-082823	155 S1+
400-242644-5 MS	MW3-ROX-082823	146
400-242644-5 MSD	MW3-ROX-082823	156 S1+
400-242644-6	MW16-ROX-082823	149
LCS 400-639353/2-A	Lab Control Sample	149
LCSD 400-639353/3-A	Lab Control Sample Dup	164 S1+
MB 400-639353/1-A	Method Blank	150 S1+

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-242644-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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 MONTHLY GW

Job ID: 400-242644-1

Client Sample ID: TB-ROX-082823-8260-A
Lab Sample ID: 400-242644-1
Date Collected: 08/28/23 00:00
Matrix: Water
Date Received: 08/29/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	639862	09/06/23 12:44	CH	EET PEN

Client Sample ID: TB-ROX-082823-8011-A
Lab Sample ID: 400-242644-2
Date Collected: 08/28/23 00:00
Matrix: Water
Date Received: 08/29/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.6 mL	35 mL	639353	08/31/23 15:18	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 19:19	PG	EET PEN

Client Sample ID: MW24-ROX-082823-EB
Lab Sample ID: 400-242644-3
Date Collected: 08/28/23 08:50
Matrix: Water
Date Received: 08/29/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	639862	09/06/23 18:37	CH	EET PEN
Total/NA	Prep	3520C			256.4 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640035	09/07/23 09:45	VC1	EET PEN
Total/NA	Prep	3520C			256.4 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 18:00	VC1	EET PEN
Total/NA	Prep	3520C			256.4 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	639844	09/06/23 18:08	TH	EET PEN
Total/NA	Prep	8011			34.3 mL	35 mL	639353	08/31/23 15:18	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 19:40	PG	EET PEN

Client Sample ID: MW24-ROX-082823
Lab Sample ID: 400-242644-4
Date Collected: 08/28/23 10:25
Matrix: Water
Date Received: 08/29/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	639862	09/06/23 13:38	CH	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640035	09/07/23 10:09	VC1	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 18:26	VC1	EET PEN
Total/NA	Prep	3520C			254 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	639844	09/06/23 18:29	TH	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	639353	08/31/23 15:18	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 20:01	PG	EET PEN

Client Sample ID: MW3-ROX-082823

Lab Sample ID: 400-242644-5

Date Collected: 08/28/23 11:40

Matrix: Water

Date Received: 08/29/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	639862	09/06/23 14:05	CH	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640035	09/07/23 10:33	VC1	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 19:18	VC1	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	639844	09/06/23 17:48	TH	EET PEN
Total/NA	Prep	8011			34.1 mL	35 mL	639353	08/31/23 15:18	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 20:23	PG	EET PEN

Client Sample ID: MW16-ROX-082823

Lab Sample ID: 400-242644-6

Date Collected: 08/28/23 11:40

Matrix: Water

Date Received: 08/29/23 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	639862	09/06/23 19:04	CH	EET PEN
Total/NA	Prep	3520C			247.4 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640035	09/07/23 10:58	VC1	EET PEN
Total/NA	Prep	3520C			247.4 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 18:52	VC1	EET PEN
Total/NA	Prep	3520C			247.4 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	639844	09/06/23 18:50	TH	EET PEN
Total/NA	Prep	8011			34.3 mL	35 mL	639353	08/31/23 15:18	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 21:27	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-639353/1-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	639353	08/31/23 14:48	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 17:10	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-639567/1-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	639567	09/02/23 09:17	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640035	09/07/23 11:22	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	639567	09/02/23 09:17	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 19:44	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	639567	09/02/23 09:17	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	639844	09/06/23 16:04	TH	EET PEN

Lab Chronicle

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

Job ID: 400-242644-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-639862/50

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	8260D		1	5 mL	5 mL	639862	09/06/23 11:50	CH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639353/2-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	639353	08/31/23 14:48	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 17:32	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639567/11-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	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	639844	09/06/23 16:25	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639567/2-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	639567	09/02/23 09:17	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 20:10	VC1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639862/1002

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	8260D		1	5 mL	5 mL	639862	09/06/23 10:46	CH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-639353/3-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	639353	08/31/23 14:48	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 17:53	PG	EET PEN

Lab Chronicle

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

Job ID: 400-242644-1

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-639567/12-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	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	639844	09/06/23 16:45	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-639567/14-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	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 21:54	VC1	EET PEN

Client Sample ID: MW3-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-5 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	8260D		1	5 mL	5 mL	639862	09/06/23 15:54	CH	EET PEN
Total/NA	Prep	3520C			251.4 mL	1 mL	639567	09/02/23 09:17	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 20:36	VC1	EET PEN
Total/NA	Prep	3520C			251.4 mL	1 mL	639567	09/02/23 09:17	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	639844	09/06/23 17:06	TH	EET PEN
Total/NA	Prep	8011			33.7 mL	35 mL	639353	08/31/23 15:18	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 20:44	PG	EET PEN

Client Sample ID: MW3-ROX-082823
Date Collected: 08/28/23 11:40
Date Received: 08/29/23 09:40

Lab Sample ID: 400-242644-5 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	8260D		1	5 mL	5 mL	639862	09/06/23 16:21	CH	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	639936	09/06/23 21:02	VC1	EET PEN
Total/NA	Prep	3520C			253.2 mL	1 mL	639567	09/02/23 09:18	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	639844	09/06/23 17:27	TH	EET PEN
Total/NA	Prep	8011			33.5 mL	35 mL	639353	08/31/23 15:18	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 21:06	PG	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 639862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242644-1	TB-ROX-082823-8260-A	Total/NA	Water	8260D	
400-242644-3	MW24-ROX-082823-EB	Total/NA	Water	8260D	
400-242644-4	MW24-ROX-082823	Total/NA	Water	8260D	
400-242644-5	MW3-ROX-082823	Total/NA	Water	8260D	
400-242644-6	MW16-ROX-082823	Total/NA	Water	8260D	
MB 400-639862/50	Method Blank	Total/NA	Water	8260D	
LCS 400-639862/1002	Lab Control Sample	Total/NA	Water	8260D	
400-242644-5 MS	MW3-ROX-082823	Total/NA	Water	8260D	
400-242644-5 MSD	MW3-ROX-082823	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 639567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242644-3	MW24-ROX-082823-EB	Total/NA	Water	3520C	
400-242644-4	MW24-ROX-082823	Total/NA	Water	3520C	
400-242644-5	MW3-ROX-082823	Total/NA	Water	3520C	
400-242644-6	MW16-ROX-082823	Total/NA	Water	3520C	
MB 400-639567/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-639567/11-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-639567/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-639567/12-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-639567/14-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-242644-5 MS	MW3-ROX-082823	Total/NA	Water	3520C	
400-242644-5 MSD	MW3-ROX-082823	Total/NA	Water	3520C	

Analysis Batch: 639844

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242644-3	MW24-ROX-082823-EB	Total/NA	Water	8270E SIM	639567
400-242644-4	MW24-ROX-082823	Total/NA	Water	8270E SIM	639567
400-242644-5	MW3-ROX-082823	Total/NA	Water	8270E SIM	639567
400-242644-6	MW16-ROX-082823	Total/NA	Water	8270E SIM	639567
MB 400-639567/1-A	Method Blank	Total/NA	Water	8270E SIM	639567
LCS 400-639567/11-A	Lab Control Sample	Total/NA	Water	8270E SIM	639567
LCSD 400-639567/12-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	639567
400-242644-5 MS	MW3-ROX-082823	Total/NA	Water	8270E SIM	639567
400-242644-5 MSD	MW3-ROX-082823	Total/NA	Water	8270E SIM	639567

Analysis Batch: 639936

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242644-3	MW24-ROX-082823-EB	Total/NA	Water	8270E	639567
400-242644-4	MW24-ROX-082823	Total/NA	Water	8270E	639567
400-242644-5	MW3-ROX-082823	Total/NA	Water	8270E	639567
400-242644-6	MW16-ROX-082823	Total/NA	Water	8270E	639567
MB 400-639567/1-A	Method Blank	Total/NA	Water	8270E	639567
LCS 400-639567/2-A	Lab Control Sample	Total/NA	Water	8270E	639567
LCSD 400-639567/14-A	Lab Control Sample Dup	Total/NA	Water	8270E	639567
400-242644-5 MS	MW3-ROX-082823	Total/NA	Water	8270E	639567
400-242644-5 MSD	MW3-ROX-082823	Total/NA	Water	8270E	639567

GC/MS Semi VOA

Analysis Batch: 640035

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242644-3	MW24-ROX-082823-EB	Total/NA	Water	8270E	639567
400-242644-4	MW24-ROX-082823	Total/NA	Water	8270E	639567
400-242644-5	MW3-ROX-082823	Total/NA	Water	8270E	639567
400-242644-6	MW16-ROX-082823	Total/NA	Water	8270E	639567
MB 400-639567/1-A	Method Blank	Total/NA	Water	8270E	639567

GC Semi VOA

Prep Batch: 639353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242644-2	TB-ROX-082823-8011-A	Total/NA	Water	8011	
400-242644-3	MW24-ROX-082823-EB	Total/NA	Water	8011	
400-242644-4	MW24-ROX-082823	Total/NA	Water	8011	
400-242644-5	MW3-ROX-082823	Total/NA	Water	8011	
400-242644-6	MW16-ROX-082823	Total/NA	Water	8011	
MB 400-639353/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-639353/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-639353/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-242644-5 MS	MW3-ROX-082823	Total/NA	Water	8011	
400-242644-5 MSD	MW3-ROX-082823	Total/NA	Water	8011	

Analysis Batch: 639362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242644-2	TB-ROX-082823-8011-A	Total/NA	Water	8011	639353
400-242644-3	MW24-ROX-082823-EB	Total/NA	Water	8011	639353
400-242644-4	MW24-ROX-082823	Total/NA	Water	8011	639353
400-242644-5	MW3-ROX-082823	Total/NA	Water	8011	639353
400-242644-6	MW16-ROX-082823	Total/NA	Water	8011	639353
MB 400-639353/1-A	Method Blank	Total/NA	Water	8011	639353
LCS 400-639353/2-A	Lab Control Sample	Total/NA	Water	8011	639353
LCSD 400-639353/3-A	Lab Control Sample Dup	Total/NA	Water	8011	639353
400-242644-5 MS	MW3-ROX-082823	Total/NA	Water	8011	639353
400-242644-5 MSD	MW3-ROX-082823	Total/NA	Water	8011	639353

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-639862/50
Matrix: Water
Analysis Batch: 639862

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			09/06/23 11:50	1
Acrolein	ND		20	3.3	ug/L			09/06/23 11:50	1
Acrylonitrile	ND		10	2.8	ug/L			09/06/23 11:50	1
Benzene	ND		1.0	0.50	ug/L			09/06/23 11:50	1
Bromobenzene	ND		1.0	0.54	ug/L			09/06/23 11:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/06/23 11:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/06/23 11:50	1
Bromoform	ND		5.0	0.25	ug/L			09/06/23 11:50	1
Bromomethane	ND		1.0	0.98	ug/L			09/06/23 11:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/06/23 11:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/06/23 11:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/06/23 11:50	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/06/23 11:50	1
Chloroethane	ND		1.0	0.76	ug/L			09/06/23 11:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/06/23 11:50	1
Chloroform	ND		1.0	0.90	ug/L			09/06/23 11:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/06/23 11:50	1
Chloromethane	ND		1.0	0.90	ug/L			09/06/23 11:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/06/23 11:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/06/23 11:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/06/23 11:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/06/23 11:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/06/23 11:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/06/23 11:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/06/23 11:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/06/23 11:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/06/23 11:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 11:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 11:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 11:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/06/23 11:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/06/23 11:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/06/23 11:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/06/23 11:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/06/23 11:50	1
2-Hexanone	ND		25	1.4	ug/L			09/06/23 11:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/06/23 11:50	1
Methylene bromide	ND		5.0	0.22	ug/L			09/06/23 11:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/06/23 11:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/06/23 11:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/06/23 11:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/06/23 11:50	1
Naphthalene	ND		5.0	3.0	ug/L			09/06/23 11:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/06/23 11:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/06/23 11:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/06/23 11:50	1
o-Xylene	ND		5.0	0.60	ug/L			09/06/23 11:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/06/23 11:50	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-639862/50
Matrix: Water
Analysis Batch: 639862

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			09/06/23 11:50	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/06/23 11:50	1
Styrene	ND		1.0	1.0	ug/L			09/06/23 11:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/06/23 11:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/06/23 11:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/06/23 11:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/06/23 11:50	1
Toluene	ND		1.0	0.90	ug/L			09/06/23 11:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/06/23 11:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/06/23 11:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/06/23 11:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/06/23 11:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/06/23 11:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/06/23 11:50	1
Trichloroethene	ND		1.0	0.15	ug/L			09/06/23 11:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/06/23 11:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/06/23 11:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/06/23 11:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/06/23 11:50	1
Vinyl acetate	ND		25	0.93	ug/L			09/06/23 11:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/06/23 11:50	1
Xylenes, Total	ND		10	1.6	ug/L			09/06/23 11:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 130*		*09/06/23 11:50*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*09/06/23 11:50*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/06/23 11:50*	*1*

Lab Sample ID: LCS 400-639862/1002
Matrix: Water
Analysis Batch: 639862

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	479		ug/L		96	38 - 160
Acrylonitrile	500	431		ug/L		86	64 - 142
Benzene	50.0	42.5		ug/L		85	70 - 130
Bromobenzene	50.0	43.5		ug/L		87	70 - 132
Bromochloromethane	50.0	41.9		ug/L		84	70 - 130
Bromodichloromethane	50.0	44.5		ug/L		89	67 - 133
Bromoform	50.0	44.7		ug/L		89	57 - 140
Bromomethane	50.0	25.2		ug/L		50	10 - 160
2-Butanone (MEK)	200	203		ug/L		101	61 - 145
Carbon disulfide	50.0	30.8		ug/L		62	61 - 137
Carbon tetrachloride	50.0	44.5		ug/L		89	61 - 137
Chlorobenzene	50.0	42.8		ug/L		86	70 - 130
Chloroethane	50.0	35.7		ug/L		71	55 - 141
2-Chloroethyl vinyl ether	50.0	47.9		ug/L		96	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-639862/1002
Matrix: Water
Analysis Batch: 639862

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	44.2		ug/L		88	69 - 130
1-Chlorohexane	50.0	43.9		ug/L		88	69 - 130
Chloromethane	50.0	32.8		ug/L		66	58 - 137
cis-1,2-Dichloroethene	50.0	45.5		ug/L		91	68 - 130
cis-1,3-Dichloropropene	50.0	41.0		ug/L		82	69 - 132
Dibromochloromethane	50.0	44.2		ug/L		88	67 - 135
1,2-Dichlorobenzene	50.0	41.8		ug/L		84	67 - 130
1,3-Dichlorobenzene	50.0	42.3		ug/L		85	70 - 130
1,4-Dichlorobenzene	50.0	41.8		ug/L		84	70 - 130
Dichlorodifluoromethane	50.0	41.3		ug/L		83	41 - 146
1,1-Dichloroethane	50.0	44.0		ug/L		88	70 - 130
1,2-Dichloroethane	50.0	46.6		ug/L		93	69 - 130
1,1-Dichloroethene	50.0	32.7		ug/L		65	63 - 134
1,2-Dichloropropane	50.0	44.6		ug/L		89	70 - 130
1,3-Dichloropropane	50.0	44.3		ug/L		89	70 - 130
2,2-Dichloropropane	50.0	45.2		ug/L		90	52 - 135
1,1-Dichloropropene	50.0	43.3		ug/L		87	70 - 130
Ethylbenzene	50.0	42.9		ug/L		86	70 - 130
Ethyl methacrylate	50.0	45.1		ug/L		90	68 - 130
Hexachlorobutadiene	50.0	44.3		ug/L		89	53 - 140
2-Hexanone	200	199		ug/L		99	65 - 137
Isopropylbenzene	50.0	42.6		ug/L		85	70 - 130
Methylene bromide	50.0	45.1		ug/L		90	70 - 130
Methylene Chloride	50.0	39.6		ug/L		79	66 - 135
4-Methyl-2-pentanone (MIBK)	200	172		ug/L		86	69 - 138
Methyl tert-butyl ether	50.0	44.0		ug/L		88	66 - 130
m-Xylene & p-Xylene	50.0	42.4		ug/L		85	70 - 130
Naphthalene	50.0	43.2		ug/L		86	47 - 149
n-Butylbenzene	50.0	40.9		ug/L		82	67 - 130
N-Propylbenzene	50.0	42.8		ug/L		86	70 - 130
o-Chlorotoluene	50.0	42.0		ug/L		84	70 - 130
o-Xylene	50.0	41.2		ug/L		82	70 - 130
p-Chlorotoluene	50.0	43.2		ug/L		86	70 - 130
p-Isopropyltoluene	50.0	41.7		ug/L		83	65 - 130
sec-Butylbenzene	50.0	42.7		ug/L		85	66 - 130
Styrene	50.0	41.2		ug/L		82	70 - 130
tert-Butylbenzene	50.0	43.0		ug/L		86	64 - 139
1,1,1,2-Tetrachloroethane	50.0	44.5		ug/L		89	67 - 131
1,1,2,2-Tetrachloroethane	50.0	43.7		ug/L		87	70 - 131
Tetrachloroethene	50.0	43.7		ug/L		87	65 - 130
Toluene	50.0	42.2		ug/L		84	70 - 130
trans-1,2-Dichloroethene	50.0	42.7		ug/L		85	70 - 130
trans-1,3-Dichloropropene	50.0	45.7		ug/L		91	63 - 130
1,2,3-Trichlorobenzene	50.0	41.7		ug/L		83	60 - 138
1,2,4-Trichlorobenzene	50.0	42.4		ug/L		85	60 - 140
1,1,1-Trichloroethane	50.0	45.5		ug/L		91	68 - 130
1,1,2-Trichloroethane	50.0	45.0		ug/L		90	70 - 130
Trichloroethene	50.0	43.3		ug/L		87	70 - 130
Trichlorofluoromethane	50.0	39.4		ug/L		79	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-639862/1002
Matrix: Water
Analysis Batch: 639862

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-Trimethylbenzene	50.0	41.4		ug/L		83	70 - 130
1,3,5-Trimethylbenzene	50.0	41.8		ug/L		84	69 - 130
Vinyl acetate	100	99.0		ug/L		99	26 - 160
Vinyl chloride	50.0	37.4		ug/L		75	59 - 136
Xylenes, Total	100	83.6		ug/L		84	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 130*
Dibromofluoromethane	*104*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

Lab Sample ID: 400-242644-5 MS
Matrix: Water
Analysis Batch: 639862

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	123		ug/L		62	43 - 150
Acrolein	ND		500	474		ug/L		95	38 - 150
Acrylonitrile	ND		500	458		ug/L		92	62 - 149
Benzene	ND		50.0	44.9		ug/L		90	56 - 142
Bromobenzene	ND		50.0	42.1		ug/L		84	59 - 136
Bromochloromethane	ND		50.0	44.9		ug/L		90	64 - 140
Bromodichloromethane	ND		50.0	47.0		ug/L		94	59 - 143
Bromoform	ND		50.0	46.2		ug/L		92	50 - 140
Bromomethane	ND		50.0	27.1		ug/L		54	10 - 150
2-Butanone (MEK)	ND		200	181		ug/L		90	55 - 150
Carbon disulfide	ND		50.0	32.5		ug/L		65	48 - 150
Carbon tetrachloride	ND		50.0	46.4		ug/L		93	55 - 145
Chlorobenzene	ND		50.0	42.4		ug/L		85	64 - 130
Chloroethane	ND		50.0	39.1		ug/L		78	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	46.6		ug/L		93	60 - 141
1-Chlorohexane	ND		50.0	41.3		ug/L		83	56 - 136
Chloromethane	ND		50.0	30.5		ug/L		61	49 - 148
cis-1,2-Dichloroethene	ND		50.0	46.5		ug/L		93	59 - 143
cis-1,3-Dichloropropene	ND		50.0	41.8		ug/L		84	57 - 140
Dibromochloromethane	ND		50.0	45.7		ug/L		91	56 - 143
1,2-Dichlorobenzene	ND		50.0	39.7		ug/L		79	52 - 137
1,3-Dichlorobenzene	ND		50.0	38.6		ug/L		77	54 - 135
1,4-Dichlorobenzene	ND		50.0	38.3		ug/L		77	53 - 135
Dichlorodifluoromethane	ND		50.0	36.9		ug/L		74	16 - 150
1,1-Dichloroethane	ND		50.0	45.8		ug/L		92	61 - 144
1,2-Dichloroethane	ND		50.0	50.2		ug/L		100	60 - 141
1,1-Dichloroethene	ND		50.0	35.7		ug/L		71	54 - 147
1,2-Dichloropropane	ND		50.0	46.6		ug/L		93	66 - 137
1,3-Dichloropropane	ND		50.0	46.4		ug/L		93	66 - 133
2,2-Dichloropropane	ND		50.0	46.1		ug/L		92	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242644-5 MS
Matrix: Water
Analysis Batch: 639862

Client Sample ID: MW3-ROX-082823
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	44.3		ug/L		89	65 - 136
Ethylbenzene	ND		50.0	41.2		ug/L		82	58 - 131
Ethyl methacrylate	ND		50.0	47.8		ug/L		96	64 - 130
Hexachlorobutadiene	ND		50.0	34.4		ug/L		69	31 - 149
2-Hexanone	ND		200	177		ug/L		89	65 - 140
Isopropylbenzene	ND		50.0	40.2		ug/L		80	56 - 133
Methylene bromide	ND		50.0	48.3		ug/L		97	63 - 138
Methylene Chloride	ND		50.0	41.8		ug/L		84	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	179		ug/L		89	63 - 146
Methyl tert-butyl ether	1.5		50.0	47.5		ug/L		92	59 - 137
m-Xylene & p-Xylene	ND		50.0	40.4		ug/L		81	57 - 130
Naphthalene	ND		50.0	42.5		ug/L		85	25 - 150
n-Butylbenzene	ND		50.0	33.0		ug/L		66	41 - 142
N-Propylbenzene	ND		50.0	38.3		ug/L		77	51 - 138
o-Chlorotoluene	ND		50.0	37.7		ug/L		75	53 - 134
o-Xylene	ND		50.0	39.7		ug/L		79	61 - 130
p-Chlorotoluene	ND		50.0	38.8		ug/L		78	54 - 133
p-Isopropyltoluene	ND		50.0	35.5		ug/L		71	48 - 139
sec-Butylbenzene	ND		50.0	37.0		ug/L		74	50 - 138
Styrene	ND		50.0	39.9		ug/L		80	58 - 131
tert-Butylbenzene	ND		50.0	38.6		ug/L		77	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	45.9		ug/L		92	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	45.4		ug/L		91	66 - 135
Tetrachloroethene	ND		50.0	42.2		ug/L		84	52 - 133
Toluene	ND		50.0	42.7		ug/L		85	65 - 130
trans-1,2-Dichloroethene	ND		50.0	44.2		ug/L		88	61 - 143
trans-1,3-Dichloropropene	ND		50.0	46.7		ug/L		93	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	39.4		ug/L		79	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	38.2		ug/L		76	39 - 148
1,1,1-Trichloroethane	ND		50.0	46.8		ug/L		94	57 - 142
1,1,2-Trichloroethane	ND		50.0	46.8		ug/L		94	66 - 131
Trichloroethene	ND		50.0	44.7		ug/L		89	64 - 136
Trichlorofluoromethane	ND		50.0	42.4		ug/L		85	54 - 150
1,2,3-Trichloropropane	ND		50.0	47.9		ug/L		96	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	36.9		ug/L		74	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	37.6		ug/L		75	52 - 135
Vinyl acetate	ND		100	98.7		ug/L		99	26 - 150
Vinyl chloride	ND		50.0	36.5		ug/L		73	46 - 150
Xylenes, Total	ND		100	80.1		ug/L		80	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*72 - 130*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242644-5 MSD
Matrix: Water
Analysis Batch: 639862

Client Sample ID: MW3-ROX-082823
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	116		ug/L		58	43 - 150	6	30
Acrolein	ND		500	452		ug/L		90	38 - 150	5	31
Acrylonitrile	ND		500	463		ug/L		93	62 - 149	1	30
Benzene	ND		50.0	43.2		ug/L		86	56 - 142	4	30
Bromobenzene	ND		50.0	41.1		ug/L		82	59 - 136	2	30
Bromochloromethane	ND		50.0	43.0		ug/L		86	64 - 140	4	30
Bromodichloromethane	ND		50.0	45.1		ug/L		90	59 - 143	4	30
Bromoform	ND		50.0	44.4		ug/L		89	50 - 140	4	30
Bromomethane	ND		50.0	25.1		ug/L		50	10 - 150	8	50
2-Butanone (MEK)	ND		200	184		ug/L		92	55 - 150	1	30
Carbon disulfide	ND		50.0	31.7		ug/L		63	48 - 150	3	30
Carbon tetrachloride	ND		50.0	44.8		ug/L		90	55 - 145	4	30
Chlorobenzene	ND		50.0	41.2		ug/L		82	64 - 130	3	30
Chloroethane	ND		50.0	36.6		ug/L		73	50 - 150	7	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	45.0		ug/L		90	60 - 141	3	30
1-Chlorohexane	ND		50.0	40.7		ug/L		81	56 - 136	2	30
Chloromethane	ND		50.0	29.1		ug/L		58	49 - 148	5	31
cis-1,2-Dichloroethene	ND		50.0	45.1		ug/L		90	59 - 143	3	30
cis-1,3-Dichloropropene	ND		50.0	40.5		ug/L		81	57 - 140	3	30
Dibromochloromethane	ND		50.0	43.8		ug/L		88	56 - 143	4	30
1,2-Dichlorobenzene	ND		50.0	39.3		ug/L		79	52 - 137	1	30
1,3-Dichlorobenzene	ND		50.0	39.2		ug/L		78	54 - 135	2	30
1,4-Dichlorobenzene	ND		50.0	39.1		ug/L		78	53 - 135	2	30
Dichlorodifluoromethane	ND		50.0	37.7		ug/L		75	16 - 150	2	31
1,1-Dichloroethane	ND		50.0	44.6		ug/L		89	61 - 144	3	30
1,2-Dichloroethane	ND		50.0	48.1		ug/L		96	60 - 141	4	30
1,1-Dichloroethene	ND		50.0	34.1		ug/L		68	54 - 147	5	30
1,2-Dichloropropane	ND		50.0	45.1		ug/L		90	66 - 137	3	30
1,3-Dichloropropane	ND		50.0	44.1		ug/L		88	66 - 133	5	30
2,2-Dichloropropane	ND		50.0	44.7		ug/L		89	42 - 144	3	31
1,1-Dichloropropene	ND		50.0	42.6		ug/L		85	65 - 136	4	30
Ethylbenzene	ND		50.0	40.6		ug/L		81	58 - 131	1	30
Ethyl methacrylate	ND		50.0	47.0		ug/L		94	64 - 130	2	30
Hexachlorobutadiene	ND		50.0	40.7		ug/L		81	31 - 149	17	36
2-Hexanone	ND		200	180		ug/L		90	65 - 140	1	30
Isopropylbenzene	ND		50.0	40.1		ug/L		80	56 - 133	0	30
Methylene bromide	ND		50.0	47.0		ug/L		94	63 - 138	3	30
Methylene Chloride	ND		50.0	40.4		ug/L		81	60 - 146	3	32
4-Methyl-2-pentanone (MIBK)	ND		200	181		ug/L		91	63 - 146	1	30
Methyl tert-butyl ether	1.5		50.0	46.9		ug/L		91	59 - 137	1	30
m-Xylene & p-Xylene	ND		50.0	40.1		ug/L		80	57 - 130	1	30
Naphthalene	ND		50.0	43.9		ug/L		88	25 - 150	3	30
n-Butylbenzene	ND		50.0	35.9		ug/L		72	41 - 142	8	31
N-Propylbenzene	ND		50.0	38.7		ug/L		77	51 - 138	1	30
o-Chlorotoluene	ND		50.0	37.4		ug/L		75	53 - 134	1	30
o-Xylene	ND		50.0	39.1		ug/L		78	61 - 130	2	30
p-Chlorotoluene	ND		50.0	39.2		ug/L		78	54 - 133	1	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242644-5 MSD
Matrix: Water
Analysis Batch: 639862

Client Sample ID: MW3-ROX-082823
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	38.1		ug/L		76	48 - 139	7	30
sec-Butylbenzene	ND		50.0	38.9		ug/L		78	50 - 138	5	30
Styrene	ND		50.0	39.1		ug/L		78	58 - 131	2	30
tert-Butylbenzene	ND		50.0	39.3		ug/L		79	54 - 146	2	30
1,1,1,2-Tetrachloroethane	ND		50.0	43.0		ug/L		86	59 - 137	7	30
1,1,2,2-Tetrachloroethane	ND		50.0	44.2		ug/L		88	66 - 135	3	30
Tetrachloroethene	ND		50.0	40.7		ug/L		81	52 - 133	4	30
Toluene	ND		50.0	40.8		ug/L		82	65 - 130	5	30
trans-1,2-Dichloroethene	ND		50.0	43.1		ug/L		86	61 - 143	3	30
trans-1,3-Dichloropropene	ND		50.0	44.6		ug/L		89	53 - 133	5	30
1,2,3-Trichlorobenzene	ND		50.0	42.0		ug/L		84	43 - 145	6	30
1,2,4-Trichlorobenzene	ND		50.0	40.4		ug/L		81	39 - 148	5	30
1,1,1-Trichloroethane	ND		50.0	45.1		ug/L		90	57 - 142	4	30
1,1,2-Trichloroethane	ND		50.0	44.6		ug/L		89	66 - 131	5	30
Trichloroethene	ND		50.0	43.2		ug/L		86	64 - 136	3	30
Trichlorofluoromethane	ND		50.0	38.6		ug/L		77	54 - 150	9	30
1,2,3-Trichloropropane	ND		50.0	46.3		ug/L		93	65 - 133	3	30
1,2,4-Trimethylbenzene	ND		50.0	37.5		ug/L		75	50 - 139	1	30
1,3,5-Trimethylbenzene	ND		50.0	37.8		ug/L		76	52 - 135	1	30
Vinyl acetate	ND		100	95.2		ug/L		95	26 - 150	4	33
Vinyl chloride	ND		50.0	35.8		ug/L		72	46 - 150	2	30
Xylenes, Total	ND		100	79.2		ug/L		79	59 - 130	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*72 - 130*
Dibromofluoromethane	*105*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

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

Lab Sample ID: MB 400-639567/1-A
Matrix: Water
Analysis Batch: 639936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/02/23 09:17	09/06/23 19:44	1
Benzenethiol	ND		10	1.7	ug/L		09/02/23 09:17	09/06/23 19:44	1
Benzoic acid	ND		30	7.3	ug/L		09/02/23 09:17	09/06/23 19:44	1
Benzyl alcohol	ND		10	2.0	ug/L		09/02/23 09:17	09/06/23 19:44	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/02/23 09:17	09/06/23 19:44	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/02/23 09:17	09/06/23 19:44	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/02/23 09:17	09/06/23 19:44	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/02/23 09:17	09/06/23 19:44	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/02/23 09:17	09/06/23 19:44	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/02/23 09:17	09/06/23 19:44	1
4-Chloroaniline	ND		10	3.4	ug/L		09/02/23 09:17	09/06/23 19:44	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/02/23 09:17	09/06/23 19:44	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/02/23 09:17	09/06/23 19:44	1
2-Chlorophenol	ND		10	2.2	ug/L		09/02/23 09:17	09/06/23 19:44	1

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

Lab Sample ID: MB 400-639567/1-A
Matrix: Water
Analysis Batch: 639936

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/02/23 09:17	09/06/23 19:44	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/02/23 09:17	09/06/23 19:44	1
Dibenzofuran	ND		10	0.17	ug/L		09/02/23 09:17	09/06/23 19:44	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/02/23 09:17	09/06/23 19:44	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/02/23 09:17	09/06/23 19:44	1
Diethyl phthalate	ND		10	0.24	ug/L		09/02/23 09:17	09/06/23 19:44	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/02/23 09:17	09/06/23 19:44	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/02/23 09:17	09/06/23 19:44	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/02/23 09:17	09/06/23 19:44	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/02/23 09:17	09/06/23 19:44	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/02/23 09:17	09/06/23 19:44	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/02/23 09:17	09/06/23 19:44	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/02/23 09:17	09/06/23 19:44	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/02/23 09:17	09/06/23 19:44	1
1,4-Dioxane	ND		10	1.0	ug/L		09/02/23 09:17	09/06/23 19:44	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/02/23 09:17	09/06/23 19:44	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/02/23 09:17	09/06/23 19:44	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/02/23 09:17	09/06/23 19:44	1
Hexachloroethane	ND		10	4.2	ug/L		09/02/23 09:17	09/06/23 19:44	1
Indene	ND		10	1.0	ug/L		09/02/23 09:17	09/06/23 19:44	1
Isophorone	ND		10	0.14	ug/L		09/02/23 09:17	09/06/23 19:44	1
2-Methylphenol	ND		10	1.8	ug/L		09/02/23 09:17	09/06/23 19:44	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/02/23 09:17	09/06/23 19:44	1
2-Nitroaniline	ND		10	2.2	ug/L		09/02/23 09:17	09/06/23 19:44	1
3-Nitroaniline	ND		10	1.8	ug/L		09/02/23 09:17	09/06/23 19:44	1
4-Nitroaniline	ND		10	1.5	ug/L		09/02/23 09:17	09/06/23 19:44	1
Nitrobenzene	ND		10	0.13	ug/L		09/02/23 09:17	09/06/23 19:44	1
2-Nitrophenol	ND		10	5.2	ug/L		09/02/23 09:17	09/06/23 19:44	1
4-Nitrophenol	ND		10	2.1	ug/L		09/02/23 09:17	09/06/23 19:44	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/02/23 09:17	09/06/23 19:44	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/02/23 09:17	09/06/23 19:44	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/02/23 09:17	09/06/23 19:44	1
Pentachlorophenol	ND		20	1.4	ug/L		09/02/23 09:17	09/06/23 19:44	1
Phenol	ND		10	2.6	ug/L		09/02/23 09:17	09/06/23 19:44	1
Pyridine	ND		10	3.2	ug/L		09/02/23 09:17	09/06/23 19:44	1
Quinoline	ND		10	4.5	ug/L		09/02/23 09:17	09/06/23 19:44	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/02/23 09:17	09/06/23 19:44	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/02/23 09:17	09/06/23 19:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*46 - 124*	*09/02/23 09:17*	*09/06/23 19:44*	*1*
2-Fluorophenol	*38*		*13 - 113*	*09/02/23 09:17*	*09/06/23 19:44*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*09/02/23 09:17*	*09/06/23 19:44*	*1*
Phenol-d5	*63*		*17 - 127*	*09/02/23 09:17*	*09/06/23 19:44*	*1*
Terphenyl-d14	*94*		*44 - 149*	*09/02/23 09:17*	*09/06/23 19:44*	*1*
2,4,6-Tribromophenol	*76*		*26 - 150*	*09/02/23 09:17*	*09/06/23 19:44*	*1*

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

Lab Sample ID: MB 400-639567/1-A
Matrix: Water
Analysis Batch: 640035

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/02/23 09:17	09/07/23 11:22	1

Lab Sample ID: LCS 400-639567/2-A
Matrix: Water
Analysis Batch: 639936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	75.9		ug/L		63	21 - 120
Benzoic acid	522	272		ug/L		52	10 - 144
Benzyl alcohol	120	82.9		ug/L		69	28 - 120
Bis(2-chloroethoxy)methane	120	82.6		ug/L		69	47 - 120
Bis(2-chloroethyl)ether	120	82.6		ug/L		69	44 - 120
bis (2-chloroisopropyl) ether	120	71.9		ug/L		60	33 - 121
Bis(2-ethylhexyl) phthalate	120	93.4		ug/L		78	52 - 147
4-Bromophenyl phenyl ether	120	87.0		ug/L		72	54 - 122
Butyl benzyl phthalate	120	93.8		ug/L		78	54 - 133
4-Chloroaniline	120	75.4		ug/L		63	26 - 120
4-Chloro-3-methylphenol	120	91.3		ug/L		76	48 - 131
2-Chloronaphthalene	120	85.1		ug/L		71	52 - 121
2-Chlorophenol	120	70.9		ug/L		59	40 - 120
4-Chlorophenyl phenyl ether	120	87.8		ug/L		73	56 - 125
Dibenz[a,h]acridine	120	116		ug/L		97	31 - 150
Dibenzofuran	120	86.5		ug/L		72	56 - 122
3,3'-Dichlorobenzidine	160	104		ug/L		65	36 - 132
2,4-Dichlorophenol	120	80.8		ug/L		67	49 - 120
Diethyl phthalate	120	92.0		ug/L		77	50 - 137
2,4-Dimethylphenol	120	90.4		ug/L		75	48 - 120
Dimethyl phthalate	120	88.3		ug/L		74	57 - 124
Di-n-butyl phthalate	120	93.7		ug/L		78	58 - 126
4,6-Dinitro-ortho-cresol	240	179		ug/L		75	23 - 148
2,4-Dinitrophenol	240	149		ug/L		62	10 - 150
2,4-Dinitrotoluene	120	94.5		ug/L		79	54 - 142
2,6-Dinitrotoluene	120	89.4		ug/L		74	55 - 130
Di-n-octyl phthalate	120	96.7		ug/L		81	57 - 138
1,4-Dioxane	120	67.7		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	82.7		ug/L		69	45 - 124
Hexachlorobenzene	120	87.4		ug/L		73	52 - 129
Hexachlorocyclopentadiene	120	54.3		ug/L		45	10 - 134
Hexachloroethane	120	78.8		ug/L		66	20 - 120
Indene	120	91.8		ug/L		77	49 - 120
Isophorone	120	82.9		ug/L		69	48 - 120
2-Methylphenol	120	80.2		ug/L		67	46 - 124
3 & 4 Methylphenol	120	77.5		ug/L		65	45 - 120
2-Nitroaniline	120	81.1		ug/L		68	51 - 145
3-Nitroaniline	120	73.5		ug/L		61	37 - 127
4-Nitroaniline	120	83.8		ug/L		70	36 - 137
Nitrobenzene	120	82.1		ug/L		68	45 - 120
2-Nitrophenol	120	81.4		ug/L		68	40 - 124

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

Lab Sample ID: LCS 400-639567/2-A
Matrix: Water
Analysis Batch: 639936

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Nitrophenol	240	153		ug/L		64	23 - 146
N-Nitrosodimethylamine	120	76.9		ug/L		64	29 - 137
N-Nitrosodi-n-propylamine	120	84.1		ug/L		70	45 - 120
N-Nitrosodiphenylamine	119	86.5		ug/L		73	54 - 120
Pentachlorophenol	240	183		ug/L		76	31 - 130
Phenol	120	72.5		ug/L		60	11 - 120
Pyridine	240	125		ug/L		52	16 - 120
Quinoline	120	102		ug/L		85	49 - 130
2,4,5-Trichlorophenol	120	85.0		ug/L		71	51 - 136
2,4,6-Trichlorophenol	120	84.6		ug/L		71	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*53*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*78*		*44 - 149*
2,4,6-Tribromophenol	*80*		*26 - 150*

Lab Sample ID: LCSD 400-639567/14-A
Matrix: Water
Analysis Batch: 639936

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	20.1	*1	ug/L		17	10 - 120	70	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*65*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*68*		*26 - 150*

Lab Sample ID: 400-242644-5 MS
Matrix: Water
Analysis Batch: 639936

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		119	88.4		ug/L		74	10 - 120
Benzoic acid	ND		259	220		ug/L		85	10 - 149
Benzyl alcohol	ND		119	92.4		ug/L		77	33 - 120
Bis(2-chloroethoxy)methane	ND		119	90.7		ug/L		76	26 - 120
Bis(2-chloroethyl)ether	ND		119	92.7		ug/L		78	42 - 120
bis (2-chloroisopropyl) ether	ND		119	75.7		ug/L		63	28 - 120
Bis(2-ethylhexyl) phthalate	ND		119	97.5		ug/L		82	39 - 120
4-Bromophenyl phenyl ether	ND		119	92.3		ug/L		77	40 - 120
Butyl benzyl phthalate	ND		119	99.9		ug/L		84	45 - 120

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

Lab Sample ID: 400-242644-5 MS
Matrix: Water
Analysis Batch: 639936

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4-Chloroaniline	ND		119	80.3		ug/L		67	10 - 120
4-Chloro-3-methylphenol	ND		119	99.2		ug/L		83	34 - 120
2-Chloronaphthalene	ND		119	94.6		ug/L		79	39 - 120
2-Chlorophenol	ND		119	79.8		ug/L		67	25 - 120
4-Chlorophenyl phenyl ether	ND		119	94.5		ug/L		79	44 - 120
Dibenz[a,h]acridine	ND		119	114		ug/L		96	50 - 150
Dibenzofuran	ND		119	94.8		ug/L		79	25 - 130
3,3'-Dichlorobenzidine	ND		159	86.7		ug/L		54	10 - 120
2,4-Dichlorophenol	ND		119	92.3		ug/L		77	31 - 120
Diethyl phthalate	ND		119	98.6		ug/L		83	46 - 120
2,4-Dimethylphenol	ND		119	101		ug/L		85	21 - 120
Dimethyl phthalate	ND		119	95.6		ug/L		80	38 - 120
Di-n-butyl phthalate	ND		119	97.7		ug/L		82	49 - 120
4,6-Dinitro-ortho-cresol	ND		239	218		ug/L		91	25 - 120
2,4-Dinitrophenol	ND		239	206		ug/L		86	15 - 140
2,4-Dinitrotoluene	ND		119	102		ug/L		86	53 - 120
2,6-Dinitrotoluene	ND		119	98.1		ug/L		82	43 - 120
Di-n-octyl phthalate	ND		119	98.3		ug/L		82	35 - 121
1,4-Dioxane	ND		119	66.6		ug/L		56	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		119	90.7		ug/L		76	50 - 150
Hexachlorobenzene	ND		119	93.9		ug/L		79	38 - 122
Hexachlorocyclopentadiene	ND		119	62.2		ug/L		52	10 - 120
Hexachloroethane	ND		119	83.3		ug/L		70	10 - 150
Indene	ND		59.7	51.2		ug/L		86	50 - 150
Isophorone	ND		119	90.2		ug/L		76	42 - 120
2-Methylphenol	ND		119	90.0		ug/L		75	28 - 120
3 & 4 Methylphenol	ND		119	87.7		ug/L		74	31 - 120
2-Nitroaniline	ND		119	89.1		ug/L		75	45 - 120
3-Nitroaniline	ND		119	77.8		ug/L		65	10 - 130
4-Nitroaniline	ND		119	90.4		ug/L		76	10 - 132
Nitrobenzene	ND		119	90.2		ug/L		76	39 - 120
2-Nitrophenol	ND		119	92.9		ug/L		78	33 - 120
4-Nitrophenol	ND		239	193		ug/L		81	10 - 120
N-Nitrosodimethylamine	ND		119	82.8		ug/L		69	10 - 139
N-Nitrosodi-n-propylamine	ND		119	92.4		ug/L		77	37 - 124
N-Nitrosodiphenylamine	ND		118	94.3		ug/L		80	10 - 150
Pentachlorophenol	ND		239	221		ug/L		92	29 - 130
Phenol	ND		119	81.9		ug/L		69	10 - 150
Pyridine	ND		239	139		ug/L		58	10 - 120
Quinoline	ND		119	108		ug/L		91	51 - 120
2,4,5-Trichlorophenol	ND		119	96.5		ug/L		81	34 - 120
2,4,6-Trichlorophenol	ND		119	95.8		ug/L		80	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*46 - 124*
2-Fluorophenol	*55*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*

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

Lab Sample ID: 400-242644-5 MS
Matrix: Water
Analysis Batch: 639936

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639567

Surrogate	MS %Recovery	MS Qualifier	Limits
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*80*		*44 - 149*
2,4,6-Tribromophenol	*87*		*26 - 150*

Lab Sample ID: 400-242644-5 MSD
Matrix: Water
Analysis Batch: 639936

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		118	82.3		ug/L		69	10 - 120	7	63
Benzoic acid	ND		257	211		ug/L		82	10 - 149	4	49
Benzyl alcohol	ND		118	87.1		ug/L		74	33 - 120	6	37
Bis(2-chloroethoxy)methane	ND		118	85.1		ug/L		72	26 - 120	6	70
Bis(2-chloroethyl)ether	ND		118	87.4		ug/L		74	42 - 120	6	42
bis (2-chloroisopropyl) ether	ND		118	71.5		ug/L		60	28 - 120	6	41
Bis(2-ethylhexyl) phthalate	ND		118	95.8		ug/L		81	39 - 120	2	35
4-Bromophenyl phenyl ether	ND		118	89.2		ug/L		75	40 - 120	3	30
Butyl benzyl phthalate	ND		118	97.6		ug/L		82	45 - 120	2	32
4-Chloroaniline	ND		118	75.6		ug/L		64	10 - 120	6	94
4-Chloro-3-methylphenol	ND		118	95.0		ug/L		80	34 - 120	4	40
2-Chloronaphthalene	ND		118	88.0		ug/L		74	39 - 120	7	29
2-Chlorophenol	ND		118	79.3		ug/L		67	25 - 120	1	42
4-Chlorophenyl phenyl ether	ND		118	91.6		ug/L		77	44 - 120	3	27
Dibenz[a,h]acridine	ND		118	114		ug/L		96	50 - 150	0	40
Dibenzofuran	ND		118	90.3		ug/L		76	25 - 130	5	29
3,3'-Dichlorobenzidine	ND		158	79.9		ug/L		51	10 - 120	8	58
2,4-Dichlorophenol	ND		118	89.5		ug/L		76	31 - 120	3	43
Diethyl phthalate	ND		118	95.3		ug/L		80	46 - 120	3	40
2,4-Dimethylphenol	ND		118	95.4		ug/L		81	21 - 120	5	47
Dimethyl phthalate	ND		118	91.5		ug/L		77	38 - 120	4	36
Di-n-butyl phthalate	ND		118	94.6		ug/L		80	49 - 120	3	32
4,6-Dinitro-ortho-cresol	ND		237	210		ug/L		89	25 - 120	4	42
2,4-Dinitrophenol	ND		237	201		ug/L		85	15 - 140	2	36
2,4-Dinitrotoluene	ND		118	97.3		ug/L		82	53 - 120	5	28
2,6-Dinitrotoluene	ND		118	94.1		ug/L		79	43 - 120	4	28
Di-n-octyl phthalate	ND		118	96.0		ug/L		81	35 - 121	2	35
1,4-Dioxane	ND		118	62.5		ug/L		53	50 - 150	6	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		118	85.7		ug/L		72	50 - 150	6	40
Hexachlorobenzene	ND		118	91.0		ug/L		77	38 - 122	3	33
Hexachlorocyclopentadiene	ND		118	60.7		ug/L		51	10 - 120	2	50
Hexachloroethane	ND		118	78.2		ug/L		66	10 - 150	6	41
Indene	ND		59.2	46.7		ug/L		79	50 - 150	9	40
Isophorone	ND		118	85.3		ug/L		72	42 - 120	6	33
2-Methylphenol	ND		118	87.3		ug/L		74	28 - 120	3	47
3 & 4 Methylphenol	ND		118	85.6		ug/L		72	31 - 120	2	47
2-Nitroaniline	ND		118	84.4		ug/L		71	45 - 120	5	33
3-Nitroaniline	ND		118	74.9		ug/L		63	10 - 130	4	39
4-Nitroaniline	ND		118	89.4		ug/L		75	10 - 132	1	50

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

Lab Sample ID: 400-242644-5 MSD
Matrix: Water
Analysis Batch: 639936

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrobenzene	ND		118	85.4		ug/L		72	39 - 120	5	35
2-Nitrophenol	ND		118	91.2		ug/L		77	33 - 120	2	43
4-Nitrophenol	ND		237	191		ug/L		81	10 - 120	1	82
N-Nitrosodimethylamine	ND		118	77.7		ug/L		66	10 - 139	6	62
N-Nitrosodi-n-propylamine	ND		118	86.8		ug/L		73	37 - 124	6	36
N-Nitrosodiphenylamine	ND		118	89.6		ug/L		76	10 - 150	5	34
Pentachlorophenol	ND		237	215		ug/L		91	29 - 130	3	42
Phenol	ND		118	80.0		ug/L		67	10 - 150	2	52
Pyridine	ND		237	135		ug/L		57	10 - 120	3	55
Quinoline	ND		118	99.7		ug/L		84	51 - 120	8	40
2,4,5-Trichlorophenol	ND		118	93.1		ug/L		79	34 - 120	4	42
2,4,6-Trichlorophenol	ND		118	91.7		ug/L		77	33 - 120	4	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*59*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*81*		*44 - 149*
2,4,6-Tribromophenol	*86*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-639567/1-A
Matrix: Water
Analysis Batch: 639844

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/02/23 09:17	09/06/23 16:04	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/02/23 09:17	09/06/23 16:04	1
Anthracene	ND		0.20	0.047	ug/L		09/02/23 09:17	09/06/23 16:04	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/02/23 09:17	09/06/23 16:04	1
Benzo[a]pyrene	0.222		0.20	0.064	ug/L		09/02/23 09:17	09/06/23 16:04	1
Benzo[b]fluoranthene	0.138	J	0.20	0.037	ug/L		09/02/23 09:17	09/06/23 16:04	1
Benzo[g,h,i]perylene	0.0856	J	0.20	0.027	ug/L		09/02/23 09:17	09/06/23 16:04	1
Benzo[k]fluoranthene	0.187	J	0.20	0.062	ug/L		09/02/23 09:17	09/06/23 16:04	1
Chrysene	ND		0.20	0.033	ug/L		09/02/23 09:17	09/06/23 16:04	1
Dibenz(a,h)anthracene	0.158	J	0.20	0.048	ug/L		09/02/23 09:17	09/06/23 16:04	1
Fluoranthene	0.0528	J	0.20	0.034	ug/L		09/02/23 09:17	09/06/23 16:04	1
Fluorene	ND		0.20	0.089	ug/L		09/02/23 09:17	09/06/23 16:04	1
Indeno[1,2,3-cd]pyrene	0.190	J	0.20	0.034	ug/L		09/02/23 09:17	09/06/23 16:04	1
Phenanthrene	ND		0.20	0.090	ug/L		09/02/23 09:17	09/06/23 16:04	1
Pyrene	ND		0.20	0.039	ug/L		09/02/23 09:17	09/06/23 16:04	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/02/23 09:17	09/06/23 16:04	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/02/23 09:17	09/06/23 16:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*81*		*18 - 147*	*09/02/23 09:17*	*09/06/23 16:04*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-639567/1-A
Matrix: Water
Analysis Batch: 639844

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639567

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		15 - 128	09/02/23 09:17	09/06/23 16:04	1
Nitrobenzene-d5	70		10 - 144	09/02/23 09:17	09/06/23 16:04	1

Lab Sample ID: LCS 400-639567/11-A
Matrix: Water
Analysis Batch: 639844

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.75		ug/L		87	40 - 140
Acenaphthylene	2.00	1.76		ug/L		88	40 - 140
Anthracene	2.00	1.86		ug/L		93	40 - 140
Benzo[a]anthracene	2.00	1.67		ug/L		84	40 - 140
Benzo[a]pyrene	2.00	1.89		ug/L		94	40 - 140
Benzo[b]fluoranthene	2.00	1.74		ug/L		87	40 - 140
Benzo[g,h,i]perylene	2.00	1.96		ug/L		98	40 - 140
Benzo[k]fluoranthene	2.00	1.79		ug/L		89	40 - 140
Chrysene	2.00	1.75		ug/L		87	40 - 140
Dibenz(a,h)anthracene	2.00	2.11		ug/L		105	40 - 140
Fluoranthene	2.00	2.05		ug/L		102	40 - 140
Fluorene	2.00	1.92		ug/L		96	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	2.04		ug/L		102	40 - 140
Phenanthrene	2.00	1.79		ug/L		89	40 - 140
Pyrene	2.00	1.43		ug/L		72	40 - 140
1-Methylnaphthalene	2.00	1.75		ug/L		87	40 - 140
2-Methylnaphthalene	2.00	1.71		ug/L		85	40 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14	83		18 - 147
2-Fluorobiphenyl	80		15 - 128
Nitrobenzene-d5	77		10 - 144

Lab Sample ID: LCSD 400-639567/12-A
Matrix: Water
Analysis Batch: 639844

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.62		ug/L		81	40 - 140	7	40
Acenaphthylene	2.00	1.70		ug/L		85	40 - 140	4	40
Anthracene	2.00	1.71		ug/L		85	40 - 140	9	40
Benzo[a]anthracene	2.00	1.69		ug/L		84	40 - 140	1	40
Benzo[a]pyrene	2.00	1.70		ug/L		85	40 - 140	10	40
Benzo[b]fluoranthene	2.00	1.56		ug/L		78	40 - 140	11	40
Benzo[g,h,i]perylene	2.00	1.81		ug/L		90	40 - 140	8	40
Benzo[k]fluoranthene	2.00	1.79		ug/L		89	40 - 140	0	40
Chrysene	2.00	1.74		ug/L		87	40 - 140	0	40
Dibenz(a,h)anthracene	2.00	1.92		ug/L		96	40 - 140	9	40
Fluoranthene	2.00	2.01		ug/L		101	40 - 140	2	40
Fluorene	2.00	1.80		ug/L		90	40 - 140	6	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-639567/12-A
Matrix: Water
Analysis Batch: 639844

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639567

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene			2.00	1.89		ug/L		94	40 - 140	8	40
Phenanthrene			2.00	1.71		ug/L		86	40 - 140	4	40
Pyrene			2.00	1.46		ug/L		73	40 - 140	2	40
1-Methylnaphthalene			2.00	1.64		ug/L		82	40 - 140	6	40
2-Methylnaphthalene			2.00	1.61		ug/L		81	40 - 140	6	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*82*		*18 - 147*
2-Fluorobiphenyl	*75*		*15 - 128*
Nitrobenzene-d5	*72*		*10 - 144*

Lab Sample ID: 400-242644-5 MS
Matrix: Water
Analysis Batch: 639844

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene	ND		119	112		ug/L		94	50 - 150		
Acenaphthylene	ND		119	116		ug/L		97	50 - 150		
Anthracene	ND		119	112		ug/L		94	50 - 150		
Benzo[a]anthracene	ND		119	110		ug/L		92	50 - 150		
Benzo[a]pyrene	ND		119	113		ug/L		95	50 - 150		
Benzo[b]fluoranthene	ND		119	112		ug/L		94	50 - 150		
Benzo[g,h,i]perylene	ND		119	107		ug/L		89	50 - 150		
Benzo[k]fluoranthene	ND		119	106		ug/L		88	50 - 150		
Chrysene	ND		119	103		ug/L		86	50 - 150		
Dibenz(a,h)anthracene	0.089	J B	119	118		ug/L		99	50 - 150		
Fluoranthene	0.046	J B	119	125		ug/L		104	50 - 150		
Fluorene	ND		119	124		ug/L		104	50 - 150		
Indeno[1,2,3-cd]pyrene	0.10	J B	119	114		ug/L		95	50 - 150		
Phenanthrene	ND		119	109		ug/L		92	50 - 150		
Pyrene	ND		119	92.9		ug/L		78	50 - 150		
1-Methylnaphthalene	ND		119	99.6		ug/L		83	50 - 150		
2-Methylnaphthalene	ND		119	99.8		ug/L		84	50 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*73*		*18 - 147*
2-Fluorobiphenyl	*85*		*15 - 128*
Nitrobenzene-d5	*86*		*10 - 144*

Lab Sample ID: 400-242644-5 MSD
Matrix: Water
Analysis Batch: 639844

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		118	104		ug/L		87	50 - 150	8	40
Acenaphthylene	ND		118	107		ug/L		91	50 - 150	7	40
Anthracene	ND		118	105		ug/L		88	50 - 150	7	40
Benzo[a]anthracene	ND		118	106		ug/L		90	50 - 150	3	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 400-242644-5 MSD
Matrix: Water
Analysis Batch: 639844

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639567

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[a]pyrene	ND		118	102		ug/L		86	50 - 150	10	40
Benzo[b]fluoranthene	ND		118	104		ug/L		88	50 - 150	8	40
Benzo[g,h,i]perylene	ND		118	100		ug/L		85	50 - 150	6	40
Benzo[k]fluoranthene	ND		118	93.8		ug/L		79	50 - 150	12	40
Chrysene	ND		118	102		ug/L		86	50 - 150	1	40
Dibenz(a,h)anthracene	0.089	J B	118	112		ug/L		95	50 - 150	5	40
Fluoranthene	0.046	J B	118	114		ug/L		96	50 - 150	9	40
Fluorene	ND		118	115		ug/L		97	50 - 150	8	40
Indeno[1,2,3-cd]pyrene	0.10	J B	118	108		ug/L		91	50 - 150	5	40
Phenanthrene	ND		118	101		ug/L		85	50 - 150	8	40
Pyrene	ND		118	90.9		ug/L		77	50 - 150	2	40
1-Methylnaphthalene	ND		118	94.6		ug/L		80	50 - 150	5	40
2-Methylnaphthalene	ND		118	93.9		ug/L		79	50 - 150	6	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*73*		*18 - 147*
2-Fluorobiphenyl	*80*		*15 - 128*
Nitrobenzene-d5	*82*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-639353/1-A
Matrix: Water
Analysis Batch: 639362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639353

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		08/31/23 14:48	08/31/23 17:10	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		08/31/23 14:48	08/31/23 17:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*150*	*S1+*	*51 - 149*	*08/31/23 14:48*	*08/31/23 17:10*	*1*

Lab Sample ID: LCS 400-639353/2-A
Matrix: Water
Analysis Batch: 639362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639353

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.223	*+	ug/L		222	60 - 140		
1,2-Dibromoethane			0.101	0.200	*+	ug/L		198	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*149*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-639353/3-A
Matrix: Water
Analysis Batch: 639362

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639353

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.230	*+	ug/L		229	60 - 140	3	30
1,2-Dibromoethane			0.101	0.216	*+	ug/L		215	60 - 140	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*164*	*S1+*	*51 - 149*

Lab Sample ID: 400-242644-5 MS
Matrix: Water
Analysis Batch: 639362

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639353

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane	ND	F1 *+	0.104	0.338	F1	ug/L		324	10 - 150		
1,2-Dibromoethane	ND	F1 *+	0.105	0.208	F1	ug/L		199	39 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*146*		*51 - 149*

Lab Sample ID: 400-242644-5 MSD
Matrix: Water
Analysis Batch: 639362

Client Sample ID: MW3-ROX-082823
Prep Type: Total/NA
Prep Batch: 639353

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND	F1 *+	0.105	0.363	F1	ug/L		346	10 - 150	7	20
1,2-Dibromoethane	ND	F1 *+	0.105	0.233	F1	ug/L		222	39 - 150	11	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*156*	*S1+*	*51 149*

Shell Oil Products US Chain Of Custody Record

400-242644 COC

AECOM

(LOCATION)

☐ EST (_____)
☐ 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: Melissa Remiger

PO #: 60697537 – 3.3.2

PlaNet Site or Pr.: 25278

GSAP Project ID: USPC/00114/R/02

DATE: 8/28/2023

PAGE: 1 of 1

CK IF NO INCIDENT # APPLIES

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project / Task Number: Roxana Monthly GW 60697537 – 3.3.2

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; lorsdana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.3.2

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-082823-8260	8/28/2023	0000	Water	2					2	X			
	TB-ROX-082823-8011	8/28/2023	0000	Water	2					2		X		
	MW24-ROX-082823-EB	8/28/2023	0850	Water	6			2		8	X	X	X	X
	MW24-ROX-082823	8/28/2023	1025	Water	6			2		8	X	X	X	X
	MW3-ROX-082823	8/28/2023	1140	Water	6			2		8	X	X	X	X
	MW3-ROX-082823	8/28/2023	1140	Water	6			2		8	X	X	X	X
	MW3-ROX-082823	8/28/2023	1140	Water	6			2		8	X	X	X	X
	MW16-ROX-082823	8/28/2023	1310	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)

JOE MAYER

Relinquished by: (Signature)

Relinquished by: (Signature)

Received by: (Signature)

FEDEX: 6339 6594 5802

Received by: (Signature)

Received by: (Signature)

Date: 8/28/2023 Time: 1600

Date: 8/29/23 Time: 940

Date: Time:

Version 13Oct22

CUSTODY SEALS: 1599764, 1599765

1.2°C IR10

9/7/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-242644-1

Login Number: 242644
List Number: 1
Creator: Klingensmith, Leah

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.	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	1.2°C IR-10
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: 400-242644-1
Project/Site: ROXANA MONTHLY 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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Roxana Monthly Groundwater – August/September 2023 Data Review

Laboratory SDG: 400-242724-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 10/3/2023

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

Sample Identification	Sample Identification
TB-ROX-082923-8260-A	TB-ROX-082923-8011-B
TB-ROX-082923-8011-A	MW1-ROX-082923-EB
MW26-ROX-082923	MW1-ROX-082923
MW6C-ROX-082923	ROST4PZG-ROX-082923
MW6A-ROX-082923	P56-ROX-082923
MW6D-ROX-082923	P93A-ROX-082923
TB-ROX-082923-8260-B	--

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 case narrative stated that PAHs in sample MW6A-ROX-082923 were re-extracted 8 days outside extraction time criteria. SVOC and VOCs by 8011 LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Surrogate recoveries for VOCs by 8011 4-bromofluorobenzene in several investigative and quality control samples were outside criteria. Several VOCs and VOCs by 8011 MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in sample MW6C-ROX-082923. The continuing calibration verification (CCV) for multiple analytes were outside evaluation criteria, biased low. The initial calibration verification (ICV) for 4,6-dinitro-ortho-cresol and 3,3'-dichlorobenzidine 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?

No, PAHs in sample MW6A-ROX-082923 were re-extracted 8 days outside of extraction time criteria (7 days) and then re-analyzed as the initial analysis results were not consistent with historical data; the samples were re-extracted out of hold time and the results were non-detect. Holding time exceedances were not greater than two times (2X) criteria; both sets of data are reported. With regard to initial MW6A-ROX-082923 PAH

data, the laboratory previously 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. Data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-082923 – RERA	PAHs	Dibenz(a,h)anthracene	**UJ**
MW6A-ROX-082923 – RERA	PAHs	Indeno[1,2,3-cd]pyrene	**UJ**

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 400-639353/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**222/229**	9	60-140/30
LCS/LCSD 400-639353/2-A/3-A	VOCs by 8011	1,2-Dibromoethane	**198/215**	8	60-140/30
LCS/LCSD 400-639760/14-A/15-A	SVOCs	Benzenethiol	**1**/64	**192**	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
MW26-ROX-082923	SVOCs	Benzenethiol	**UJ**
MW6C-ROX-082923	SVOCs	Benzenethiol	**UJ**
MW6A-ROX-082923	SVOCs	Benzenethiol	**UJ**
MW6D-ROX-082923	SVOCs	Benzenethiol	**UJ**
MW1-ROX-082923	SVOCs	Benzenethiol	**UJ**
ROST4PZG-ROX-082923	SVOCs	Benzenethiol	**UJ**
P56-ROX-082923	SVOCs	Benzenethiol	**UJ**
P93A-ROX-082923	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW6C-ROX-082923	VOCs by 8011	4-Bromofluorobenzene	**154**	51-149
TB-ROX-082923-8011-B	VOCs by 8011	4-Bromofluorobenzene	**154**	51-149
LCSD 400-639353/3-A	VOCs by 8011	4-Bromofluorobenzene	**164**	51-149
MB 400-639353/1-A	VOCs by 8011	4-Bromofluorobenzene	**150**	51-149

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. 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 MW6C-ROX-082923 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
MW6C-ROX-082923 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW6C-ROX-082923 MS/MSD	VOCs	Hexachlorobutadiene	100/61	**49**	31-149/30
MW6C-ROX-082923 MS/MSD	VOCs	n-Butylbenzene	90/58	**43**	41-142/30
MW6C-ROX-082923 MS/MSD	VOCs	N-Propylbenzene	90/65	**32**	51-138/30
MW6C-ROX-082923 MS/MSD	VOCs	p-Isopropyltoluene	89/60	**39**	48-139/30
MW6C-ROX-082923 MS/MSD	VOCs	sec-Butylbenzene	90/63	**35**	50-138/30
MW6C-ROX-082923 MS/MSD	VOCs	tert-Butylbenzene	90/66	**31**	54-146/30
MW6C-ROX-082923 MS/MSD	VOCs	1,3,5-Trimethylbenzene	89/65	**31**	52-135/30
MW6C-ROX-082923 MS/MSD	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**325/343**	5	10-150/20
MW6C-ROX-082923 MS/MSD	VOCs by 8011	1,2-Dibromoethane	**216/211**	0	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
MW6C-ROX-082923	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 multiple analytes were outside evaluation criteria, biased low. Initial calibration verification (ICV) for 4,6-dinitro-ortho-cresol and 3,3'-dichlorobenzidine were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW6C-ROX-082923	VOCs	Chloromethane	**UJ**
MW1-ROX-082923	VOCs	Chloromethane	**UJ**
P56-ROX-082923	VOCs	Chloromethane	**UJ**
P93A-ROX-082923	VOCs	Chloromethane	**UJ**
ROST4PZG-ROX-082923	VOCs	Chloromethane	**UJ**
MW6C-ROX-082923	VOCs	1,1-Dichloroethene	**UJ**
MW1-ROX-082923	VOCs	1,1-Dichloroethene	**UJ**
P56-ROX-082923	VOCs	1,1-Dichloroethene	**UJ**
P93A-ROX-082923	VOCs	1,1-Dichloroethene	**UJ**
ROST4PZG-ROX-082923	VOCs	1,1-Dichloroethene	**UJ**
MW26-ROX-082923	VOCs	Bromomethane	**UJ**
MW6A-ROX-082923	VOCs	Bromomethane	**UJ**
MW6D-ROX-082923	VOCs	Bromomethane	**UJ**
MW26-ROX-082923	VOCs	Chloromethane	**UJ**
MW6A-ROX-082923	VOCs	Chloromethane	**UJ**
MW6D-ROX-082923	VOCs	Chloromethane	**UJ**
MW6C-ROX-082923	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW26-ROX-082923	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW6A-ROX-082923	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW6D-ROX-082923	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW1-ROX-082923	SVOCs	4,6-Dinitro-ortho-cresol	UJ
ROST4PZG-ROX-082923	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P56-ROX-082923	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P93A-ROX-082923	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW6C-ROX-082923	SVOCs	3,3'-Dichlorobenzidine	UJ
MW26-ROX-082923	SVOCs	3,3'-Dichlorobenzidine	UJ
MW6A-ROX-082923	SVOCs	3,3'-Dichlorobenzidine	UJ
MW6D-ROX-082923	SVOCs	3,3'-Dichlorobenzidine	UJ
MW1-ROX-082923	SVOCs	3,3'-Dichlorobenzidine	UJ
ROST4PZG-ROX-082923	SVOCs	3,3'-Dichlorobenzidine	UJ
P56-ROX-082923	SVOCs	3,3'-Dichlorobenzidine	UJ
P93A-ROX-082923	SVOCs	3,3'-Dichlorobenzidine	UJ
MW6C-ROX-082923	SVOCs	Hexachlorocyclopentadiene	UJ
MW26-ROX-082923	SVOCs	Hexachlorocyclopentadiene	UJ
MW6A-ROX-082923	SVOCs	Hexachlorocyclopentadiene	UJ
MW6D-ROX-082923	SVOCs	Hexachlorocyclopentadiene	UJ
MW1-ROX-082923	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZG-ROX-082923	SVOCs	Hexachlorocyclopentadiene	UJ
P56-ROX-082923	SVOCs	Hexachlorocyclopentadiene	UJ
P93A-ROX-082923	SVOCs	Hexachlorocyclopentadiene	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 9/22/2023 6:12:40 AM

JOB DESCRIPTION

ROXANA MONTHLY GW

JOB NUMBER

400-242724-1

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

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Job ID: 400-242724-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-242724-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 8/30/2023 9:30 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 2.1°C

Receipt Exceptions
Unable to find a AECOM: Roxana Monthly GW project, picked the closest one.

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640044 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene and Chloromethane. 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 8260D: 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: MW6C-ROX-082923 (400-242724-4), TB-ROX-082923-8260-B (400-242724-7), MW1-ROX-082923 (400-242724-10), ROST4PZG-ROX-082923 (400-242724-11), P56-ROX-082923 (400-242724-12) and P93A-ROX-082923 (400-242724-13). 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 8260D: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-640044 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-640044 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 400-640044 was outside control limits. Sample matrix interference is suspected.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640044 recovered above the upper control limit for 2-Chloroethyl vinyl ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640194 recovered outside acceptance criteria, low biased, for Bromomethane and Chloromethane. 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 8260D: The continuing calibration verification (CCV) associated with batch 400-640194 recovered above the upper control limit for 1,2-Dichloroethane, Dibromomethane and Vinyl acetate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-242724-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8260D: 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-082923-8260-A (400-242724-1), MW26-ROX-082923 (400-242724-3), MW6A-ROX-082923 (400-242724-5), MW6D-ROX-082923 (400-242724-6) and MW1-ROX-082923-EB (400-242724-9). The requested target analyte list includes 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 8270E: The laboratory control sample (LCS) for preparation batch 400-639760 and analytical batch 400-640111 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 8270E: The continuing calibration verification (CCV) associated with batch 400-640111 recovered above the upper control limit for 4-Nitrophenol, 2,4,5-Trichlorophenol, Phenol, 4-Chlorophenyl phenyl ether and 4-Bromophenyl phenyl ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640111 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-639760 and analytical batch 400-640111 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270E: The initial calibration verification (ICV) analyzed in batch 400-637784 was outside method criteria for the following analyte(s): 3,3'-Dichlorobenzidine and 4,6-Dinitro-ortho-cresol. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E_SIM: The following sample was re-prepared outside of preparation holding time for verification: MW6A-ROX-082923 (400-242724-5). Both 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 400-639478 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. The associated samples are impacted: (CCV 400-639353/6-A) and (CCV 400-639353/7-A).

Method 8011: Surrogate recovery for the following samples were outside the upper control limit: MW6C-ROX-082923 (400-242724-4) and TB-ROX-082923-8011-B (400-242724-8). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8011: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-639353 and analytical batch 400-639478 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected .The samples associated with this MS/MSD 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 400-639353 and analytical batch 400-639362 recovered outside control limits for the target analytes and surrogate: 4-Bromofluorobenzene, 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The target analytes were biased high in the LCS and were not detected in the

Job ID: 400-242724-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

associated samples; therefore, the data have been reported.

Method 8011: The surrogate recovery for the blank associated with preparation batch 400-639353 and analytical batch 400-639362 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.

Sample Summary

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

Job ID: 400-242724-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242724-1	TB-ROX-082923-8260-A	Water	08/29/23 12:00	08/30/23 09:30
400-242724-2	TB-ROX-082923-8011-A	Water	08/29/23 12:00	08/30/23 09:30
400-242724-3	MW26-ROX-082923	Water	08/29/23 09:20	08/30/23 09:30
400-242724-4	MW6C-ROX-082923	Water	08/29/23 11:00	08/30/23 09:30
400-242724-5	MW6A-ROX-082923	Water	08/29/23 12:20	08/30/23 09:30
400-242724-6	MW6D-ROX-082923	Water	08/29/23 13:30	08/30/23 09:30
400-242724-7	TB-ROX-082923-8260-B	Water	08/29/23 12:00	08/30/23 09:30
400-242724-8	TB-ROX-082923-8011-B	Water	08/29/23 12:00	08/30/23 09:30
400-242724-9	MW1-ROX-082923-EB	Water	08/29/23 08:10	08/30/23 09:30
400-242724-10	MW1-ROX-082923	Water	08/29/23 09:25	08/30/23 09:30
400-242724-11	ROST4PZG-ROX-082923	Water	08/29/23 10:35	08/30/23 09:30
400-242724-12	P56-ROX-082923	Water	08/29/23 12:50	08/30/23 09:30
400-242724-13	P93A-ROX-082923	Water	08/29/23 13:40	08/30/23 09:30

Detection Summary

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

Job ID: 400-242724-1

Client Sample ID: TB-ROX-082923-8260-A — Lab Sample ID: 400-242724-1

No Detections.

Client Sample ID: TB-ROX-082923-8011-A — Lab Sample ID: 400-242724-2

No Detections.

Client Sample ID: MW26-ROX-082923 — Lab Sample ID: 400-242724-3

No Detections.

Client Sample ID: MW6C-ROX-082923 — Lab Sample ID: 400-242724-4

No Detections.

Client Sample ID: MW6A-ROX-082923 — Lab Sample ID: 400-242724-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.28	J	1.0	0.22	ug/L	1		8260D	Total/NA
Dibenz(a,h)anthracene	0.048	J	0.20	0.048	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.054	J	0.20	0.034	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW6D-ROX-082923 — Lab Sample ID: 400-242724-6

No Detections.

Client Sample ID: TB-ROX-082923-8260-B — Lab Sample ID: 400-242724-7

No Detections.

Client Sample ID: TB-ROX-082923-8011-B — Lab Sample ID: 400-242724-8

No Detections.

Client Sample ID: MW1-ROX-082923-EB — Lab Sample ID: 400-242724-9

No Detections.

Client Sample ID: MW1-ROX-082923 — Lab Sample ID: 400-242724-10

No Detections.

Client Sample ID: ROST4PZG-ROX-082923 — Lab Sample ID: 400-242724-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	11	J	25	10	ug/L	1		8260D	Total/NA

Client Sample ID: P56-ROX-082923 — Lab Sample ID: 400-242724-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	22	J	25	10	ug/L	1		8260D	Total/NA
Isopropylbenzene	7.4		1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	6.6		5.0	0.63	ug/L	1		8260D	Total/NA
N-Propylbenzene	7.3		1.0	0.69	ug/L	1		8260D	Total/NA
sec-Butylbenzene	0.82	J	1.0	0.70	ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	1.6		1.0	0.82	ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	1.0		1.0	0.56	ug/L	1		8260D	Total/NA
Xylenes, Total	6.6	J	10	1.6	ug/L	1		8260D	Total/NA
Acenaphthene	0.40		0.19	0.094	ug/L	1		8270E SIM	Total/NA
Anthracene	0.072	J	0.19	0.045	ug/L	1		8270E SIM	Total/NA
Fluorene	0.27		0.19	0.085	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: P56-ROX-082923 (Continued)

Lab Sample ID: 400-242724-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.52		0.19	0.086	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	7.3		0.19	0.076	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	6.8		0.19	0.063	ug/L	1		8270E SIM	Total/NA
Dibenzofuran	0.33	J	9.5	0.16	ug/L	1		8270E	Total/NA

Client Sample ID: P93A-ROX-082923

Lab Sample ID: 400-242724-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	84		1.0	0.50	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-242724-1

Client Sample ID: TB-ROX-082923-8260-A
Date Collected: 08/29/23 12:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/08/23 16:47	1
Acrolein	ND		20	3.3	ug/L			09/08/23 16:47	1
Acrylonitrile	ND		10	2.8	ug/L			09/08/23 16:47	1
Benzene	ND		1.0	0.50	ug/L			09/08/23 16:47	1
Bromobenzene	ND		1.0	0.54	ug/L			09/08/23 16:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/08/23 16:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/08/23 16:47	1
Bromoform	ND		5.0	0.25	ug/L			09/08/23 16:47	1
Bromomethane	ND		1.0	0.98	ug/L			09/08/23 16:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/08/23 16:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/08/23 16:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/08/23 16:47	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/08/23 16:47	1
Chloroethane	ND		1.0	0.76	ug/L			09/08/23 16:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/08/23 16:47	1
Chloroform	ND		1.0	0.90	ug/L			09/08/23 16:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/08/23 16:47	1
Chloromethane	ND		1.0	0.90	ug/L			09/08/23 16:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/08/23 16:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/08/23 16:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/08/23 16:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/08/23 16:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/08/23 16:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/08/23 16:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/08/23 16:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/08/23 16:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/08/23 16:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 16:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 16:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 16:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 16:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/08/23 16:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/08/23 16:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/08/23 16:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/08/23 16:47	1
2-Hexanone	ND		25	1.4	ug/L			09/08/23 16:47	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/08/23 16:47	1
Methylene bromide	ND		5.0	0.22	ug/L			09/08/23 16:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/08/23 16:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/08/23 16:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/08/23 16:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/08/23 16:47	1
Naphthalene	ND		5.0	3.0	ug/L			09/08/23 16:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/08/23 16:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/08/23 16:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/08/23 16:47	1
o-Xylene	ND		5.0	0.60	ug/L			09/08/23 16:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/08/23 16:47	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/08/23 16:47	1

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

Job ID: 400-242724-1

Client Sample ID: TB-ROX-082923-8260-A
Date Collected: 08/29/23 12:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/08/23 16:47	1
Styrene	ND		1.0	1.0	ug/L			09/08/23 16:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/08/23 16:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/08/23 16:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/08/23 16:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/08/23 16:47	1
Toluene	ND		1.0	0.90	ug/L			09/08/23 16:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 16:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/08/23 16:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/08/23 16:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/08/23 16:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/08/23 16:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/08/23 16:47	1
Trichloroethene	ND		1.0	0.15	ug/L			09/08/23 16:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/08/23 16:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/08/23 16:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/08/23 16:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/08/23 16:47	1
Vinyl acetate	ND		25	0.93	ug/L			09/08/23 16:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/08/23 16:47	1
Xylenes, Total	ND		10	1.6	ug/L			09/08/23 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 130*		*09/08/23 16:47*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*09/08/23 16:47*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/08/23 16:47*	*1*

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

Job ID: 400-242724-1

Client Sample ID: TB-ROX-082923-8011-A
Date Collected: 08/29/23 12:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-2
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-Dibromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		08/31/23 15:18	09/01/23 13:09	1
1,2-Dibromoethane	ND	*+	0.021	0.016	ug/L		08/31/23 15:18	09/01/23 13:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*140*		*51 - 149*	*08/31/23 15:18*	*09/01/23 13:09*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW26-ROX-082923
Date Collected: 08/29/23 09:20
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/08/23 17:14	1
Acrolein	ND		20	3.3	ug/L			09/08/23 17:14	1
Acrylonitrile	ND		10	2.8	ug/L			09/08/23 17:14	1
Benzene	ND		1.0	0.50	ug/L			09/08/23 17:14	1
Bromobenzene	ND		1.0	0.54	ug/L			09/08/23 17:14	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/08/23 17:14	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/08/23 17:14	1
Bromoform	ND		5.0	0.25	ug/L			09/08/23 17:14	1
Bromomethane	ND		1.0	0.98	ug/L			09/08/23 17:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/08/23 17:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/08/23 17:14	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/08/23 17:14	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/08/23 17:14	1
Chloroethane	ND		1.0	0.76	ug/L			09/08/23 17:14	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/08/23 17:14	1
Chloroform	ND		1.0	0.90	ug/L			09/08/23 17:14	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/08/23 17:14	1
Chloromethane	ND		1.0	0.90	ug/L			09/08/23 17:14	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/08/23 17:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/08/23 17:14	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/08/23 17:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/08/23 17:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/08/23 17:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/08/23 17:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/08/23 17:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/08/23 17:14	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/08/23 17:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 17:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 17:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 17:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 17:14	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/08/23 17:14	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/08/23 17:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/08/23 17:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/08/23 17:14	1
2-Hexanone	ND		25	1.4	ug/L			09/08/23 17:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/08/23 17:14	1
Methylene bromide	ND		5.0	0.22	ug/L			09/08/23 17:14	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/08/23 17:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/08/23 17:14	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/08/23 17:14	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/08/23 17:14	1
Naphthalene	ND		5.0	3.0	ug/L			09/08/23 17:14	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/08/23 17:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/08/23 17:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/08/23 17:14	1
o-Xylene	ND		5.0	0.60	ug/L			09/08/23 17:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/08/23 17:14	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/08/23 17:14	1

Client Sample ID: MW26-ROX-082923
Date Collected: 08/29/23 09:20
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/08/23 17:14	1
Styrene	ND		1.0	1.0	ug/L			09/08/23 17:14	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/08/23 17:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/08/23 17:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/08/23 17:14	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/08/23 17:14	1
Toluene	ND		1.0	0.90	ug/L			09/08/23 17:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 17:14	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/08/23 17:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/08/23 17:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/08/23 17:14	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/08/23 17:14	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/08/23 17:14	1
Trichloroethene	ND		1.0	0.15	ug/L			09/08/23 17:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/08/23 17:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/08/23 17:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/08/23 17:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/08/23 17:14	1
Vinyl acetate	ND		25	0.93	ug/L			09/08/23 17:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/08/23 17:14	1
Xylenes, Total	ND		10	1.6	ug/L			09/08/23 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 130*		*09/08/23 17:14*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*09/08/23 17:14*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*09/08/23 17:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		09/05/23 14:55	09/08/23 19:20	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/05/23 14:55	09/08/23 19:20	1
Anthracene	ND		0.20	0.046	ug/L		09/05/23 14:55	09/08/23 19:20	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/05/23 14:55	09/08/23 19:20	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/05/23 14:55	09/08/23 19:20	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/05/23 14:55	09/08/23 19:20	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/05/23 14:55	09/08/23 19:20	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/05/23 14:55	09/08/23 19:20	1
Chrysene	ND		0.20	0.032	ug/L		09/05/23 14:55	09/08/23 19:20	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		09/05/23 14:55	09/08/23 19:20	1
Fluoranthene	ND		0.20	0.033	ug/L		09/05/23 14:55	09/08/23 19:20	1
Fluorene	ND		0.20	0.087	ug/L		09/05/23 14:55	09/08/23 19:20	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		09/05/23 14:55	09/08/23 19:20	1
Phenanthrene	ND		0.20	0.088	ug/L		09/05/23 14:55	09/08/23 19:20	1
Pyrene	ND		0.20	0.038	ug/L		09/05/23 14:55	09/12/23 11:32	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		09/05/23 14:55	09/08/23 19:20	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		09/05/23 14:55	09/08/23 19:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*95*		*18 - 147*	*09/05/23 14:55*	*09/08/23 19:20*	*1*
2-Fluorobiphenyl	*79*		*15 - 128*	*09/05/23 14:55*	*09/08/23 19:20*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW26-ROX-082923
Date Collected: 08/29/23 09:20
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*61*		*10 - 144*	*09/05/23 14:55*	*09/08/23 19:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		09/05/23 14:55	09/07/23 21:05	1
Benzenethiol	ND	*- *1 UJ	9.8	1.7	ug/L		09/05/23 14:55	09/07/23 21:05	1
Benzoic acid	ND		29	7.2	ug/L		09/05/23 14:55	09/07/23 21:05	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/05/23 14:55	09/07/23 21:05	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/05/23 14:55	09/07/23 21:05	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		09/05/23 14:55	09/07/23 21:05	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/05/23 14:55	09/07/23 21:05	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/05/23 14:55	09/07/23 21:05	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/05/23 14:55	09/07/23 21:05	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/05/23 14:55	09/07/23 21:05	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/05/23 14:55	09/07/23 21:05	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/05/23 14:55	09/07/23 21:05	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/05/23 14:55	09/07/23 21:05	1
2-Chlorophenol	ND		9.8	2.2	ug/L		09/05/23 14:55	09/07/23 21:05	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/05/23 14:55	09/07/23 21:05	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/05/23 14:55	09/07/23 21:05	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/05/23 14:55	09/07/23 21:05	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		09/05/23 14:55	09/07/23 21:05	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		09/05/23 14:55	09/07/23 21:05	1
Diethyl phthalate	ND		9.8	0.24	ug/L		09/05/23 14:55	09/07/23 21:05	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/05/23 14:55	09/07/23 21:05	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		09/05/23 14:55	09/07/23 21:05	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		09/05/23 14:55	09/07/23 21:05	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		09/05/23 14:55	09/07/23 21:05	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/05/23 14:55	09/07/23 21:05	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/05/23 14:55	09/07/23 21:05	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/05/23 14:55	09/07/23 21:05	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/05/23 14:55	09/07/23 21:05	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/05/23 14:55	09/07/23 21:05	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/05/23 14:55	09/07/23 21:05	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/05/23 14:55	09/07/23 21:05	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/05/23 14:55	09/07/23 21:05	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/05/23 14:55	09/07/23 21:05	1
Indene	ND		9.8	0.98	ug/L		09/05/23 14:55	09/07/23 21:05	1
Isophorone	ND		9.8	0.14	ug/L		09/05/23 14:55	09/07/23 21:05	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/05/23 14:55	09/07/23 21:05	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/05/23 14:55	09/07/23 21:05	1
2-Nitroaniline	ND		9.8	2.2	ug/L		09/05/23 14:55	09/07/23 21:05	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/05/23 14:55	09/07/23 21:05	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/05/23 14:55	09/07/23 21:05	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/05/23 14:55	09/07/23 21:05	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/05/23 14:55	09/07/23 21:05	1
4-Nitrophenol	ND		9.8	2.1	ug/L		09/05/23 14:55	09/07/23 21:05	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/05/23 14:55	09/07/23 21:05	1

Client Sample ID: MW26-ROX-082923
Date Collected: 08/29/23 09:20
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-3
Matrix: Water

Method: SW846 8270E - 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		09/05/23 14:55	09/07/23 21:05	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/05/23 14:55	09/07/23 21:05	1
Pentachlorophenol	ND		20	1.4	ug/L		09/05/23 14:55	09/07/23 21:05	1
Phenol	ND		9.8	2.6	ug/L		09/05/23 14:55	09/07/23 21:05	1
Pyridine	ND		9.8	3.1	ug/L		09/05/23 14:55	09/07/23 21:05	1
Quinoline	ND		9.8	4.4	ug/L		09/05/23 14:55	09/07/23 21:05	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/05/23 14:55	09/07/23 21:05	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/05/23 14:55	09/07/23 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*09/05/23 14:55*	*09/07/23 21:05*	*1*
2-Fluorophenol	*37*		*13 - 113*	*09/05/23 14:55*	*09/07/23 21:05*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*09/05/23 14:55*	*09/07/23 21:05*	*1*
Phenol-d5	*51*		*17 - 127*	*09/05/23 14:55*	*09/07/23 21:05*	*1*
Terphenyl-d14	*100*		*44 - 149*	*09/05/23 14:55*	*09/07/23 21:05*	*1*
2,4,6-Tribromophenol	*58*		*26 - 150*	*09/05/23 14:55*	*09/07/23 21:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		09/01/23 07:50	09/01/23 13:30	1
1,2-Dibromoethane	ND	*+	0.021	0.015	ug/L		09/01/23 07:50	09/01/23 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*148*		*51 - 149*	*09/01/23 07:50*	*09/01/23 13:30*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW6C-ROX-082923
Date Collected: 08/29/23 11:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/07/23 12:31	1
Acrolein	ND		20	3.3	ug/L			09/07/23 12:31	1
Acrylonitrile	ND		10	2.8	ug/L			09/07/23 12:31	1
Benzene	ND		1.0	0.50	ug/L			09/07/23 12:31	1
Bromobenzene	ND		1.0	0.54	ug/L			09/07/23 12:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/07/23 12:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/07/23 12:31	1
Bromoform	ND		5.0	0.25	ug/L			09/07/23 12:31	1
Bromomethane	ND		1.0	0.98	ug/L			09/07/23 12:31	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/07/23 12:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/07/23 12:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/07/23 12:31	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/07/23 12:31	1
Chloroethane	ND		1.0	0.76	ug/L			09/07/23 12:31	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			09/07/23 12:31	1
Chloroform	ND		1.0	0.90	ug/L			09/07/23 12:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/07/23 12:31	1
Chloromethane	ND		1.0	0.90	ug/L			09/07/23 12:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/07/23 12:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/07/23 12:31	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/07/23 12:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/07/23 12:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/07/23 12:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/07/23 12:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/07/23 12:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/07/23 12:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 12:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 12:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 12:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 12:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/07/23 12:31	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/07/23 12:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/07/23 12:31	1
Hexachlorobutadiene	ND	F2	5.0	0.90	ug/L			09/07/23 12:31	1
2-Hexanone	ND		25	1.4	ug/L			09/07/23 12:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/07/23 12:31	1
Methylene bromide	ND		5.0	0.22	ug/L			09/07/23 12:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/07/23 12:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/07/23 12:31	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/07/23 12:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/07/23 12:31	1
Naphthalene	ND		5.0	3.0	ug/L			09/07/23 12:31	1
n-Butylbenzene	ND	F2	1.0	0.76	ug/L			09/07/23 12:31	1
N-Propylbenzene	ND	F2	1.0	0.69	ug/L			09/07/23 12:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/07/23 12:31	1
o-Xylene	ND		5.0	0.60	ug/L			09/07/23 12:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/07/23 12:31	1
p-Isopropyltoluene	ND	F2	1.0	0.71	ug/L			09/07/23 12:31	1
sec-Butylbenzene	ND	F2	1.0	0.70	ug/L			09/07/23 12:31	1

Client Sample ID: MW6C-ROX-082923
Date Collected: 08/29/23 11:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			09/07/23 12:31	1
tert-Butylbenzene	ND	F2	1.0	0.63	ug/L			09/07/23 12:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/07/23 12:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/07/23 12:31	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/07/23 12:31	1
Toluene	ND		1.0	0.90	ug/L			09/07/23 12:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 12:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/07/23 12:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/07/23 12:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/07/23 12:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/07/23 12:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/07/23 12:31	1
Trichloroethene	ND		1.0	0.15	ug/L			09/07/23 12:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/07/23 12:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/07/23 12:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/07/23 12:31	1
1,3,5-Trimethylbenzene	ND	F2	1.0	0.56	ug/L			09/07/23 12:31	1
Vinyl acetate	ND		25	0.93	ug/L			09/07/23 12:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/07/23 12:31	1
Xylenes, Total	ND		10	1.6	ug/L			09/07/23 12:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 130*		*09/07/23 12:31*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*09/07/23 12:31*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/07/23 12:31*	*1*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/08/23 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*09/08/23 17:41*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*09/08/23 17:41*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*09/08/23 17:41*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/05/23 14:55	09/08/23 18:59	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/05/23 14:55	09/08/23 18:59	1
Anthracene	ND		0.20	0.047	ug/L		09/05/23 14:55	09/08/23 18:59	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 18:59	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/05/23 14:55	09/08/23 18:59	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/05/23 14:55	09/08/23 18:59	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/05/23 14:55	09/08/23 18:59	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/05/23 14:55	09/08/23 18:59	1
Chrysene	ND		0.20	0.033	ug/L		09/05/23 14:55	09/08/23 18:59	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/05/23 14:55	09/08/23 18:59	1
Fluoranthene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 18:59	1
Fluorene	ND		0.20	0.089	ug/L		09/05/23 14:55	09/08/23 18:59	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 18:59	1

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

Job ID: 400-242724-1

Client Sample ID: MW6C-ROX-082923
Date Collected: 08/29/23 11:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.20	0.090	ug/L		09/05/23 14:55	09/08/23 18:59	1
Pyrene	ND		0.20	0.039	ug/L		09/05/23 14:55	09/21/23 16:50	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/05/23 14:55	09/08/23 18:59	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/05/23 14:55	09/08/23 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*80*		*18 - 147*	*09/05/23 14:55*	*09/08/23 18:59*	*1*
2-Fluorobiphenyl	*76*		*15 - 128*	*09/05/23 14:55*	*09/08/23 18:59*	*1*
Nitrobenzene-d5	*61*		*10 - 144*	*09/05/23 14:55*	*09/08/23 18:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 20:43	1
Benzenethiol	ND	*- *1	10	1.7	ug/L		09/05/23 14:55	09/07/23 20:43	1
Benzoic acid	ND		30	7.3	ug/L		09/05/23 14:55	09/07/23 20:43	1
Benzyl alcohol	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 20:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 20:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 20:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 20:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/05/23 14:55	09/07/23 20:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/05/23 14:55	09/07/23 20:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/05/23 14:55	09/07/23 20:43	1
4-Chloroaniline	ND		10	3.4	ug/L		09/05/23 14:55	09/07/23 20:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 20:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 20:43	1
2-Chlorophenol	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 20:43	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 20:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 20:43	1
Dibenzofuran	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 20:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 20:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/05/23 14:55	09/07/23 20:43	1
Diethyl phthalate	ND		10	0.24	ug/L		09/05/23 14:55	09/07/23 20:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 20:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 20:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 20:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/05/23 14:55	09/07/23 20:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/05/23 14:55	09/07/23 20:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 20:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 20:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 20:43	1
1,4-Dioxane	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 20:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 20:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 20:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/05/23 14:55	09/07/23 20:43	1
Hexachloroethane	ND		10	4.2	ug/L		09/05/23 14:55	09/07/23 20:43	1
Indene	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 20:43	1
Isophorone	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 20:43	1
2-Methylphenol	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 20:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/05/23 14:55	09/07/23 20:43	1

Client Sample ID: MW6C-ROX-082923
Date Collected: 08/29/23 11:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-4
Matrix: Water

Method: SW846 8270E - 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		09/05/23 14:55	09/07/23 20:43	1
3-Nitroaniline	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 20:43	1
4-Nitroaniline	ND		10	1.5	ug/L		09/05/23 14:55	09/07/23 20:43	1
Nitrobenzene	ND		10	0.13	ug/L		09/05/23 14:55	09/07/23 20:43	1
2-Nitrophenol	ND		10	5.2	ug/L		09/05/23 14:55	09/07/23 20:43	1
4-Nitrophenol	ND		10	2.1	ug/L		09/05/23 14:55	09/07/23 20:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 20:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/05/23 14:55	09/07/23 20:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/05/23 14:55	09/07/23 20:43	1
Pentachlorophenol	ND		20	1.4	ug/L		09/05/23 14:55	09/07/23 20:43	1
Phenol	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 20:43	1
Pyridine	ND		10	3.2	ug/L		09/05/23 14:55	09/07/23 20:43	1
Quinoline	ND		10	4.5	ug/L		09/05/23 14:55	09/07/23 20:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/05/23 14:55	09/07/23 20:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*51*		*46 - 124*	*09/05/23 14:55*	*09/07/23 20:43*	*1*
2-Fluorophenol	*33*		*13 - 113*	*09/05/23 14:55*	*09/07/23 20:43*	*1*
Nitrobenzene-d5	*48*		*36 - 126*	*09/05/23 14:55*	*09/07/23 20:43*	*1*
Phenol-d5	*45*		*17 - 127*	*09/05/23 14:55*	*09/07/23 20:43*	*1*
Terphenyl-d14	*57*		*44 - 149*	*09/05/23 14:55*	*09/07/23 20:43*	*1*
2,4,6-Tribromophenol	*54*		*26 - 150*	*09/05/23 14:55*	*09/07/23 20:43*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ F1	0.031	0.018	ug/L		09/01/23 07:50	09/01/23 13:51	1
1,2-Dibromoethane	ND	*+ F1	0.021	0.016	ug/L		09/01/23 07:50	09/01/23 13:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*154*	*S1+*	*51 - 149*	*09/01/23 07:50*	*09/01/23 13:51*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW6A-ROX-082923
Date Collected: 08/29/23 12:20
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/08/23 18:08	1
Acrolein	ND		20	3.3	ug/L			09/08/23 18:08	1
Acrylonitrile	ND		10	2.8	ug/L			09/08/23 18:08	1
Benzene	ND		1.0	0.50	ug/L			09/08/23 18:08	1
Bromobenzene	ND		1.0	0.54	ug/L			09/08/23 18:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/08/23 18:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/08/23 18:08	1
Bromoform	ND		5.0	0.25	ug/L			09/08/23 18:08	1
Bromomethane	ND		1.0	0.98	ug/L			09/08/23 18:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/08/23 18:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/08/23 18:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/08/23 18:08	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/08/23 18:08	1
Chloroethane	ND		1.0	0.76	ug/L			09/08/23 18:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/08/23 18:08	1
Chloroform	ND		1.0	0.90	ug/L			09/08/23 18:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/08/23 18:08	1
Chloromethane	ND		1.0	0.90	ug/L			09/08/23 18:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/08/23 18:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/08/23 18:08	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/08/23 18:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/08/23 18:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/08/23 18:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/08/23 18:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/08/23 18:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/08/23 18:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/08/23 18:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 18:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 18:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 18:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 18:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/08/23 18:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/08/23 18:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/08/23 18:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/08/23 18:08	1
2-Hexanone	ND		25	1.4	ug/L			09/08/23 18:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/08/23 18:08	1
Methylene bromide	ND		5.0	0.22	ug/L			09/08/23 18:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/08/23 18:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/08/23 18:08	1
Methyl tert-butyl ether	**0.28**	**J**	1.0	0.22	ug/L			09/08/23 18:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/08/23 18:08	1
Naphthalene	ND		5.0	3.0	ug/L			09/08/23 18:08	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/08/23 18:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/08/23 18:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/08/23 18:08	1
o-Xylene	ND		5.0	0.60	ug/L			09/08/23 18:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/08/23 18:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/08/23 18:08	1

Client Sample ID: MW6A-ROX-082923
Date Collected: 08/29/23 12:20
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/08/23 18:08	1
Styrene	ND		1.0	1.0	ug/L			09/08/23 18:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/08/23 18:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/08/23 18:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/08/23 18:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/08/23 18:08	1
Toluene	ND		1.0	0.90	ug/L			09/08/23 18:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 18:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/08/23 18:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/08/23 18:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/08/23 18:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/08/23 18:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/08/23 18:08	1
Trichloroethene	ND		1.0	0.15	ug/L			09/08/23 18:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/08/23 18:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/08/23 18:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/08/23 18:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/08/23 18:08	1
Vinyl acetate	ND		25	0.93	ug/L			09/08/23 18:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/08/23 18:08	1
Xylenes, Total	ND		10	1.6	ug/L			09/08/23 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 130*		*09/08/23 18:08*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*09/08/23 18:08*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/08/23 18:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.10	ug/L		09/05/23 14:55	09/08/23 19:40	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/05/23 14:55	09/08/23 19:40	1
Anthracene	ND		0.20	0.047	ug/L		09/05/23 14:55	09/08/23 19:40	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 19:40	1
Benzo[a]pyrene	ND		0.20	0.065	ug/L		09/05/23 14:55	09/08/23 19:40	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/05/23 14:55	09/08/23 19:40	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/05/23 14:55	09/08/23 19:40	1
Benzo[k]fluoranthene	ND		0.20	0.063	ug/L		09/05/23 14:55	09/08/23 19:40	1
Chrysene	ND		0.20	0.033	ug/L		09/05/23 14:55	09/08/23 19:40	1
Dibenz(a,h)anthracene	**0.048**	**J**	0.20	0.048	ug/L		09/05/23 14:55	09/08/23 19:40	1
Fluoranthene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 19:40	1
Fluorene	ND		0.20	0.090	ug/L		09/05/23 14:55	09/08/23 19:40	1
Indeno[1,2,3-cd]pyrene	**0.054**	**J**	0.20	0.034	ug/L		09/05/23 14:55	09/08/23 19:40	1
Phenanthrene	ND		0.20	0.091	ug/L		09/05/23 14:55	09/08/23 19:40	1
Pyrene	ND		0.20	0.039	ug/L		09/05/23 14:55	09/12/23 12:14	1
1-Methylnaphthalene	ND		0.20	0.081	ug/L		09/05/23 14:55	09/08/23 19:40	1
2-Methylnaphthalene	ND		0.20	0.067	ug/L		09/05/23 14:55	09/08/23 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*66*		*18 - 147*	*09/05/23 14:55*	*09/08/23 19:40*	*1*
2-Fluorobiphenyl	*62*		*15 - 128*	*09/05/23 14:55*	*09/08/23 19:40*	*1*

Client Sample ID: MW6A-ROX-082923
Date Collected: 08/29/23 12:20
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-5
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*54*		*10 - 144*	*09/05/23 14:55*	*09/08/23 19:40*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.097	ug/L		09/13/23 10:04	09/15/23 18:26	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		09/13/23 10:04	09/15/23 18:26	1
Anthracene	ND	H	0.20	0.046	ug/L		09/13/23 10:04	09/15/23 18:26	1
Benzo[a]anthracene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 18:26	1
Benzo[a]pyrene	ND	H	0.20	0.062	ug/L		09/13/23 10:04	09/15/23 18:26	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		09/13/23 10:04	09/15/23 18:26	1
Benzo[g,h,i]perylene	ND	H	0.20	0.026	ug/L		09/13/23 10:04	09/15/23 18:26	1
Benzo[k]fluoranthene	ND	H	0.20	0.060	ug/L		09/13/23 10:04	09/15/23 18:26	1
Chrysene	ND	H	0.20	0.032	ug/L		09/13/23 10:04	09/15/23 18:26	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		09/13/23 10:04	09/15/23 18:26	1
Fluoranthene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 18:26	1
Fluorene	ND	H	0.20	0.087	ug/L		09/13/23 10:04	09/15/23 18:26	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 18:26	1
Phenanthrene	ND	H	0.20	0.088	ug/L		09/13/23 10:04	09/15/23 18:26	1
Pyrene	ND	H	0.20	0.038	ug/L		09/13/23 10:04	09/15/23 18:26	1
1-Methylnaphthalene	ND	H	0.20	0.078	ug/L		09/13/23 10:04	09/15/23 18:26	1
2-Methylnaphthalene	ND	H	0.20	0.064	ug/L		09/13/23 10:04	09/15/23 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*77*		*18 - 147*	*09/13/23 10:04*	*09/15/23 18:26*	*1*
2-Fluorobiphenyl	*76*		*15 - 128*	*09/13/23 10:04*	*09/15/23 18:26*	*1*
Nitrobenzene-d5	*78*		*10 - 144*	*09/13/23 10:04*	*09/15/23 18:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 21:26	1
Benzenethiol	ND	*- *1	10	1.7	ug/L		09/05/23 14:55	09/07/23 21:26	1
Benzoic acid	ND		30	7.4	ug/L		09/05/23 14:55	09/07/23 21:26	1
Benzyl alcohol	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 21:26	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 21:26	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 21:26	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 21:26	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/05/23 14:55	09/07/23 21:26	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/05/23 14:55	09/07/23 21:26	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/05/23 14:55	09/07/23 21:26	1
4-Chloroaniline	ND		10	3.4	ug/L		09/05/23 14:55	09/07/23 21:26	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 21:26	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 21:26	1
2-Chlorophenol	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 21:26	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 21:26	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 21:26	1
Dibenzofuran	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 21:26	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 21:26	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/05/23 14:55	09/07/23 21:26	1
Diethyl phthalate	ND		10	0.24	ug/L		09/05/23 14:55	09/07/23 21:26	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 21:26	1

Client Sample ID: MW6A-ROX-082923
Date Collected: 08/29/23 12:20
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 21:26	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 21:26	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/05/23 14:55	09/07/23 21:26	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/05/23 14:55	09/07/23 21:26	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 21:26	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 21:26	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 21:26	1
1,4-Dioxane	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 21:26	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 21:26	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 21:26	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/05/23 14:55	09/07/23 21:26	1
Hexachloroethane	ND		10	4.2	ug/L		09/05/23 14:55	09/07/23 21:26	1
Indene	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 21:26	1
Isophorone	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 21:26	1
2-Methylphenol	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 21:26	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/05/23 14:55	09/07/23 21:26	1
2-Nitroaniline	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 21:26	1
3-Nitroaniline	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 21:26	1
4-Nitroaniline	ND		10	1.5	ug/L		09/05/23 14:55	09/07/23 21:26	1
Nitrobenzene	ND		10	0.13	ug/L		09/05/23 14:55	09/07/23 21:26	1
2-Nitrophenol	ND		10	5.2	ug/L		09/05/23 14:55	09/07/23 21:26	1
4-Nitrophenol	ND		10	2.1	ug/L		09/05/23 14:55	09/07/23 21:26	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 21:26	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/05/23 14:55	09/07/23 21:26	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/05/23 14:55	09/07/23 21:26	1
Pentachlorophenol	ND		20	1.4	ug/L		09/05/23 14:55	09/07/23 21:26	1
Phenol	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 21:26	1
Pyridine	ND		10	3.2	ug/L		09/05/23 14:55	09/07/23 21:26	1
Quinoline	ND		10	4.5	ug/L		09/05/23 14:55	09/07/23 21:26	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/05/23 14:55	09/07/23 21:26	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*46 - 124*	*09/05/23 14:55*	*09/07/23 21:26*	*1*
2-Fluorophenol	*26*		*13 - 113*	*09/05/23 14:55*	*09/07/23 21:26*	*1*
Nitrobenzene-d5	*58*		*36 - 126*	*09/05/23 14:55*	*09/07/23 21:26*	*1*
Phenol-d5	*44*		*17 - 127*	*09/05/23 14:55*	*09/07/23 21:26*	*1*
Terphenyl-d14	*73*		*44 - 149*	*09/05/23 14:55*	*09/07/23 21:26*	*1*
2,4,6-Tribromophenol	*62*		*26 - 150*	*09/05/23 14:55*	*09/07/23 21:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		09/01/23 07:50	09/01/23 14:55	1
1,2-Dibromoethane	ND	*+	0.020	0.015	ug/L		09/01/23 07:50	09/01/23 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*146*		*51 - 149*	*09/01/23 07:50*	*09/01/23 14:55*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW6D-ROX-082923
Date Collected: 08/29/23 13:30
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/08/23 18:35	1
Acrolein	ND		20	3.3	ug/L			09/08/23 18:35	1
Acrylonitrile	ND		10	2.8	ug/L			09/08/23 18:35	1
Benzene	ND		1.0	0.50	ug/L			09/08/23 18:35	1
Bromobenzene	ND		1.0	0.54	ug/L			09/08/23 18:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/08/23 18:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/08/23 18:35	1
Bromoform	ND		5.0	0.25	ug/L			09/08/23 18:35	1
Bromomethane	ND		1.0	0.98	ug/L			09/08/23 18:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/08/23 18:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/08/23 18:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/08/23 18:35	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/08/23 18:35	1
Chloroethane	ND		1.0	0.76	ug/L			09/08/23 18:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/08/23 18:35	1
Chloroform	ND		1.0	0.90	ug/L			09/08/23 18:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/08/23 18:35	1
Chloromethane	ND		1.0	0.90	ug/L			09/08/23 18:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/08/23 18:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/08/23 18:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/08/23 18:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/08/23 18:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/08/23 18:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/08/23 18:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/08/23 18:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/08/23 18:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/08/23 18:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 18:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 18:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 18:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 18:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/08/23 18:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/08/23 18:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/08/23 18:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/08/23 18:35	1
2-Hexanone	ND		25	1.4	ug/L			09/08/23 18:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/08/23 18:35	1
Methylene bromide	ND		5.0	0.22	ug/L			09/08/23 18:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/08/23 18:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/08/23 18:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/08/23 18:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/08/23 18:35	1
Naphthalene	ND		5.0	3.0	ug/L			09/08/23 18:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/08/23 18:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/08/23 18:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/08/23 18:35	1
o-Xylene	ND		5.0	0.60	ug/L			09/08/23 18:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/08/23 18:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/08/23 18:35	1

Client Sample ID: MW6D-ROX-082923
Date Collected: 08/29/23 13:30
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/08/23 18:35	1
Styrene	ND		1.0	1.0	ug/L			09/08/23 18:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/08/23 18:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/08/23 18:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/08/23 18:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/08/23 18:35	1
Toluene	ND		1.0	0.90	ug/L			09/08/23 18:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 18:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/08/23 18:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/08/23 18:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/08/23 18:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/08/23 18:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/08/23 18:35	1
Trichloroethene	ND		1.0	0.15	ug/L			09/08/23 18:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/08/23 18:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/08/23 18:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/08/23 18:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/08/23 18:35	1
Vinyl acetate	ND		25	0.93	ug/L			09/08/23 18:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/08/23 18:35	1
Xylenes, Total	ND		10	1.6	ug/L			09/08/23 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 130*		*09/08/23 18:35*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*09/08/23 18:35*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*09/08/23 18:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/05/23 14:55	09/08/23 20:01	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/05/23 14:55	09/08/23 20:01	1
Anthracene	ND		0.20	0.047	ug/L		09/05/23 14:55	09/08/23 20:01	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 20:01	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/05/23 14:55	09/08/23 20:01	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/05/23 14:55	09/08/23 20:01	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/05/23 14:55	09/08/23 20:01	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/05/23 14:55	09/08/23 20:01	1
Chrysene	ND		0.20	0.033	ug/L		09/05/23 14:55	09/08/23 20:01	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/05/23 14:55	09/08/23 20:01	1
Fluoranthene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 20:01	1
Fluorene	ND		0.20	0.089	ug/L		09/05/23 14:55	09/08/23 20:01	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 20:01	1
Phenanthrene	ND		0.20	0.090	ug/L		09/05/23 14:55	09/08/23 20:01	1
Pyrene	ND		0.20	0.039	ug/L		09/05/23 14:55	09/12/23 12:35	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/05/23 14:55	09/08/23 20:01	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/05/23 14:55	09/08/23 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*76*		*18 - 147*	*09/05/23 14:55*	*09/08/23 20:01*	*1*
2-Fluorobiphenyl	*70*		*15 - 128*	*09/05/23 14:55*	*09/08/23 20:01*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW6D-ROX-082923
Date Collected: 08/29/23 13:30
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*57*		*10 - 144*	*09/05/23 14:55*	*09/08/23 20:01*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 21:47	1
Benzenethiol	ND	*- *1	10	1.7	ug/L		09/05/23 14:55	09/07/23 21:47	1
Benzoic acid	ND		30	7.3	ug/L		09/05/23 14:55	09/07/23 21:47	1
Benzyl alcohol	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 21:47	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 21:47	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 21:47	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 21:47	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/05/23 14:55	09/07/23 21:47	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/05/23 14:55	09/07/23 21:47	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/05/23 14:55	09/07/23 21:47	1
4-Chloroaniline	ND		10	3.4	ug/L		09/05/23 14:55	09/07/23 21:47	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 21:47	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 21:47	1
2-Chlorophenol	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 21:47	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 21:47	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 21:47	1
Dibenzofuran	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 21:47	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 21:47	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/05/23 14:55	09/07/23 21:47	1
Diethyl phthalate	ND		10	0.24	ug/L		09/05/23 14:55	09/07/23 21:47	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 21:47	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 21:47	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 21:47	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/05/23 14:55	09/07/23 21:47	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/05/23 14:55	09/07/23 21:47	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 21:47	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 21:47	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 21:47	1
1,4-Dioxane	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 21:47	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 21:47	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 21:47	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/05/23 14:55	09/07/23 21:47	1
Hexachloroethane	ND		10	4.2	ug/L		09/05/23 14:55	09/07/23 21:47	1
Indene	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 21:47	1
Isophorone	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 21:47	1
2-Methylphenol	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 21:47	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/05/23 14:55	09/07/23 21:47	1
2-Nitroaniline	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 21:47	1
3-Nitroaniline	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 21:47	1
4-Nitroaniline	ND		10	1.5	ug/L		09/05/23 14:55	09/07/23 21:47	1
Nitrobenzene	ND		10	0.13	ug/L		09/05/23 14:55	09/07/23 21:47	1
2-Nitrophenol	ND		10	5.2	ug/L		09/05/23 14:55	09/07/23 21:47	1
4-Nitrophenol	ND		10	2.1	ug/L		09/05/23 14:55	09/07/23 21:47	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 21:47	1

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

Job ID: 400-242724-1

Client Sample ID: MW6D-ROX-082923

Lab Sample ID: 400-242724-6

Date Collected: 08/29/23 13:30

Matrix: Water

Date Received: 08/30/23 09:30

Method: SW846 8270E - 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		09/05/23 14:55	09/07/23 21:47	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/05/23 14:55	09/07/23 21:47	1
Pentachlorophenol	ND		20	1.4	ug/L		09/05/23 14:55	09/07/23 21:47	1
Phenol	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 21:47	1
Pyridine	ND		10	3.2	ug/L		09/05/23 14:55	09/07/23 21:47	1
Quinoline	ND		10	4.5	ug/L		09/05/23 14:55	09/07/23 21:47	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/05/23 14:55	09/07/23 21:47	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*09/05/23 14:55*	*09/07/23 21:47*	*1*
2-Fluorophenol	*29*		*13 - 113*	*09/05/23 14:55*	*09/07/23 21:47*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*09/05/23 14:55*	*09/07/23 21:47*	*1*
Phenol-d5	*48*		*17 - 127*	*09/05/23 14:55*	*09/07/23 21:47*	*1*
Terphenyl-d14	*80*		*44 - 149*	*09/05/23 14:55*	*09/07/23 21:47*	*1*
2,4,6-Tribromophenol	*62*		*26 - 150*	*09/05/23 14:55*	*09/07/23 21:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		09/01/23 07:50	09/01/23 15:16	1
1,2-Dibromoethane	ND	*+	0.020	0.015	ug/L		09/01/23 07:50	09/01/23 15:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*142*		*51 - 149*	*09/01/23 07:50*	*09/01/23 15:16*	*1*

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

Job ID: 400-242724-1

Client Sample ID: TB-ROX-082923-8260-B
Date Collected: 08/29/23 12:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/07/23 16:09	1
Acrolein	ND		20	3.3	ug/L			09/07/23 16:09	1
Acrylonitrile	ND		10	2.8	ug/L			09/07/23 16:09	1
Benzene	ND		1.0	0.50	ug/L			09/07/23 16:09	1
Bromobenzene	ND		1.0	0.54	ug/L			09/07/23 16:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/07/23 16:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/07/23 16:09	1
Bromoform	ND		5.0	0.25	ug/L			09/07/23 16:09	1
Bromomethane	ND		1.0	0.98	ug/L			09/07/23 16:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/07/23 16:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/07/23 16:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/07/23 16:09	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/07/23 16:09	1
Chloroethane	ND		1.0	0.76	ug/L			09/07/23 16:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/07/23 16:09	1
Chloroform	ND		1.0	0.90	ug/L			09/07/23 16:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/07/23 16:09	1
Chloromethane	ND		1.0	0.90	ug/L			09/07/23 16:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/07/23 16:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/07/23 16:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/07/23 16:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/07/23 16:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/07/23 16:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/07/23 16:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/07/23 16:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/07/23 16:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/07/23 16:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 16:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 16:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 16:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 16:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/07/23 16:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/07/23 16:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/07/23 16:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/07/23 16:09	1
2-Hexanone	ND		25	1.4	ug/L			09/07/23 16:09	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/07/23 16:09	1
Methylene bromide	ND		5.0	0.22	ug/L			09/07/23 16:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/07/23 16:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/07/23 16:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/07/23 16:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/07/23 16:09	1
Naphthalene	ND		5.0	3.0	ug/L			09/07/23 16:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/07/23 16:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/07/23 16:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/07/23 16:09	1
o-Xylene	ND		5.0	0.60	ug/L			09/07/23 16:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/07/23 16:09	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/07/23 16:09	1

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

Job ID: 400-242724-1

Client Sample ID: TB-ROX-082923-8260-B
Date Collected: 08/29/23 12:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/07/23 16:09	1
Styrene	ND		1.0	1.0	ug/L			09/07/23 16:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/07/23 16:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/07/23 16:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/07/23 16:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/07/23 16:09	1
Toluene	ND		1.0	0.90	ug/L			09/07/23 16:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 16:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/07/23 16:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/07/23 16:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/07/23 16:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/07/23 16:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/07/23 16:09	1
Trichloroethene	ND		1.0	0.15	ug/L			09/07/23 16:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/07/23 16:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/07/23 16:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/07/23 16:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/07/23 16:09	1
Vinyl acetate	ND		25	0.93	ug/L			09/07/23 16:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/07/23 16:09	1
Xylenes, Total	ND		10	1.6	ug/L			09/07/23 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*09/07/23 16:09*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*09/07/23 16:09*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/07/23 16:09*	*1*

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

Job ID: 400-242724-1

Client Sample ID: TB-ROX-082923-8011-B
Date Collected: 08/29/23 12:00
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-8
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-Dibromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		09/01/23 07:50	09/01/23 15:37	1
1,2-Dibromoethane	ND	*+	0.021	0.016	ug/L		09/01/23 07:50	09/01/23 15:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*154*	*S1+*	*51 - 149*	*09/01/23 07:50*	*09/01/23 15:37*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW1-ROX-082923-EB
Date Collected: 08/29/23 08:10
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-9
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/08/23 19:02	1
Acrolein	ND		20	3.3	ug/L			09/08/23 19:02	1
Acrylonitrile	ND		10	2.8	ug/L			09/08/23 19:02	1
Benzene	ND		1.0	0.50	ug/L			09/08/23 19:02	1
Bromobenzene	ND		1.0	0.54	ug/L			09/08/23 19:02	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/08/23 19:02	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/08/23 19:02	1
Bromoform	ND		5.0	0.25	ug/L			09/08/23 19:02	1
Bromomethane	ND		1.0	0.98	ug/L			09/08/23 19:02	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/08/23 19:02	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/08/23 19:02	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/08/23 19:02	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/08/23 19:02	1
Chloroethane	ND		1.0	0.76	ug/L			09/08/23 19:02	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/08/23 19:02	1
Chloroform	ND		1.0	0.90	ug/L			09/08/23 19:02	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/08/23 19:02	1
Chloromethane	ND		1.0	0.90	ug/L			09/08/23 19:02	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/08/23 19:02	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/08/23 19:02	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/08/23 19:02	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/08/23 19:02	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/08/23 19:02	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/08/23 19:02	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/08/23 19:02	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/08/23 19:02	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/08/23 19:02	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 19:02	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 19:02	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 19:02	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 19:02	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/08/23 19:02	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/08/23 19:02	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/08/23 19:02	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/08/23 19:02	1
2-Hexanone	ND		25	1.4	ug/L			09/08/23 19:02	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/08/23 19:02	1
Methylene bromide	ND		5.0	0.22	ug/L			09/08/23 19:02	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/08/23 19:02	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/08/23 19:02	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/08/23 19:02	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/08/23 19:02	1
Naphthalene	ND		5.0	3.0	ug/L			09/08/23 19:02	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/08/23 19:02	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/08/23 19:02	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/08/23 19:02	1
o-Xylene	ND		5.0	0.60	ug/L			09/08/23 19:02	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/08/23 19:02	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/08/23 19:02	1

Client Sample ID: MW1-ROX-082923-EB

Lab Sample ID: 400-242724-9

Date Collected: 08/29/23 08:10

Matrix: Water

Date Received: 08/30/23 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/08/23 19:02	1
Styrene	ND		1.0	1.0	ug/L			09/08/23 19:02	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/08/23 19:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/08/23 19:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/08/23 19:02	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/08/23 19:02	1
Toluene	ND		1.0	0.90	ug/L			09/08/23 19:02	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 19:02	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/08/23 19:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/08/23 19:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/08/23 19:02	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/08/23 19:02	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/08/23 19:02	1
Trichloroethene	ND		1.0	0.15	ug/L			09/08/23 19:02	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/08/23 19:02	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/08/23 19:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/08/23 19:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/08/23 19:02	1
Vinyl acetate	ND		25	0.93	ug/L			09/08/23 19:02	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/08/23 19:02	1
Xylenes, Total	ND		10	1.6	ug/L			09/08/23 19:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 130*		*09/08/23 19:02*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*09/08/23 19:02*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/08/23 19:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		09/05/23 14:55	09/08/23 20:22	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/05/23 14:55	09/08/23 20:22	1
Anthracene	ND		0.19	0.045	ug/L		09/05/23 14:55	09/08/23 20:22	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 20:22	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/05/23 14:55	09/08/23 20:22	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/05/23 14:55	09/08/23 20:22	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/05/23 14:55	09/08/23 20:22	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/05/23 14:55	09/08/23 20:22	1
Chrysene	ND		0.19	0.031	ug/L		09/05/23 14:55	09/08/23 20:22	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/05/23 14:55	09/08/23 20:22	1
Fluoranthene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 20:22	1
Fluorene	ND		0.19	0.084	ug/L		09/05/23 14:55	09/08/23 20:22	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 20:22	1
Phenanthrene	ND		0.19	0.085	ug/L		09/05/23 14:55	09/08/23 20:22	1
Pyrene	ND		0.19	0.037	ug/L		09/05/23 14:55	09/12/23 12:56	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		09/05/23 14:55	09/08/23 20:22	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		09/05/23 14:55	09/08/23 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*92*		*18 - 147*	*09/05/23 14:55*	*09/08/23 20:22*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*09/05/23 14:55*	*09/08/23 20:22*	*1*

Client Sample ID: MW1-ROX-082923-EB
Date Collected: 08/29/23 08:10
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-9
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	58		10 - 144	09/05/23 14:55	09/08/23 20:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/05/23 14:55	09/07/23 22:08	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		09/05/23 14:55	09/07/23 22:08	1
Benzoic acid	ND		28	6.9	ug/L		09/05/23 14:55	09/07/23 22:08	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/05/23 14:55	09/07/23 22:08	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/05/23 14:55	09/07/23 22:08	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/05/23 14:55	09/07/23 22:08	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/05/23 14:55	09/07/23 22:08	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		09/05/23 14:55	09/07/23 22:08	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/05/23 14:55	09/07/23 22:08	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/05/23 14:55	09/07/23 22:08	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/05/23 14:55	09/07/23 22:08	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/05/23 14:55	09/07/23 22:08	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/05/23 14:55	09/07/23 22:08	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/05/23 14:55	09/07/23 22:08	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/05/23 14:55	09/07/23 22:08	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 22:08	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 22:08	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/05/23 14:55	09/07/23 22:08	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		09/05/23 14:55	09/07/23 22:08	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/05/23 14:55	09/07/23 22:08	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 22:08	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 22:08	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/05/23 14:55	09/07/23 22:08	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/05/23 14:55	09/07/23 22:08	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/05/23 14:55	09/07/23 22:08	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/05/23 14:55	09/07/23 22:08	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/05/23 14:55	09/07/23 22:08	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 22:08	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 22:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 22:08	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 22:08	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/05/23 14:55	09/07/23 22:08	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/05/23 14:55	09/07/23 22:08	1
Indene	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 22:08	1
Isophorone	ND		9.5	0.13	ug/L		09/05/23 14:55	09/07/23 22:08	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/05/23 14:55	09/07/23 22:08	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/05/23 14:55	09/07/23 22:08	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/05/23 14:55	09/07/23 22:08	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/05/23 14:55	09/07/23 22:08	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/05/23 14:55	09/07/23 22:08	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/05/23 14:55	09/07/23 22:08	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/05/23 14:55	09/07/23 22:08	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/05/23 14:55	09/07/23 22:08	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 22:08	1

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

Job ID: 400-242724-1

Client Sample ID: MW1-ROX-082923-EB

Date Collected: 08/29/23 08:10
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-9

Matrix: Water

Method: SW846 8270E - 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		09/05/23 14:55	09/07/23 22:08	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/05/23 14:55	09/07/23 22:08	1
Pentachlorophenol	ND		19	1.3	ug/L		09/05/23 14:55	09/07/23 22:08	1
Phenol	ND		9.5	2.5	ug/L		09/05/23 14:55	09/07/23 22:08	1
Pyridine	ND		9.5	3.0	ug/L		09/05/23 14:55	09/07/23 22:08	1
Quinoline	ND		9.5	4.3	ug/L		09/05/23 14:55	09/07/23 22:08	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/05/23 14:55	09/07/23 22:08	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*09/05/23 14:55*	*09/07/23 22:08*	*1*
2-Fluorophenol	*27*		*13 - 113*	*09/05/23 14:55*	*09/07/23 22:08*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*09/05/23 14:55*	*09/07/23 22:08*	*1*
Phenol-d5	*48*		*17 - 127*	*09/05/23 14:55*	*09/07/23 22:08*	*1*
Terphenyl-d14	*87*		*44 - 149*	*09/05/23 14:55*	*09/07/23 22:08*	*1*
2,4,6-Tribromophenol	*58*		*26 - 150*	*09/05/23 14:55*	*09/07/23 22:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		09/01/23 07:50	09/01/23 15:59	1
1,2-Dibromoethane	ND	*+	0.020	0.015	ug/L		09/01/23 07:50	09/01/23 15:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*135*		*51 - 149*	*09/01/23 07:50*	*09/01/23 15:59*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW1-ROX-082923
Date Collected: 08/29/23 09:25
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/07/23 18:24	1
Acrolein	ND		20	3.3	ug/L			09/07/23 18:24	1
Acrylonitrile	ND		10	2.8	ug/L			09/07/23 18:24	1
Benzene	ND		1.0	0.50	ug/L			09/07/23 18:24	1
Bromobenzene	ND		1.0	0.54	ug/L			09/07/23 18:24	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/07/23 18:24	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/07/23 18:24	1
Bromoform	ND		5.0	0.25	ug/L			09/07/23 18:24	1
Bromomethane	ND		1.0	0.98	ug/L			09/07/23 18:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/07/23 18:24	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/07/23 18:24	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/07/23 18:24	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/07/23 18:24	1
Chloroethane	ND		1.0	0.76	ug/L			09/07/23 18:24	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/07/23 18:24	1
Chloroform	ND		1.0	0.90	ug/L			09/07/23 18:24	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/07/23 18:24	1
Chloromethane	ND		1.0	0.90	ug/L			09/07/23 18:24	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/07/23 18:24	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/07/23 18:24	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/07/23 18:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/07/23 18:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/07/23 18:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/07/23 18:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/07/23 18:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/07/23 18:24	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/07/23 18:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 18:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 18:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 18:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 18:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/07/23 18:24	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/07/23 18:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/07/23 18:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/07/23 18:24	1
2-Hexanone	ND		25	1.4	ug/L			09/07/23 18:24	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/07/23 18:24	1
Methylene bromide	ND		5.0	0.22	ug/L			09/07/23 18:24	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/07/23 18:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/07/23 18:24	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/07/23 18:24	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/07/23 18:24	1
Naphthalene	ND		5.0	3.0	ug/L			09/07/23 18:24	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/07/23 18:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/07/23 18:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/07/23 18:24	1
o-Xylene	ND		5.0	0.60	ug/L			09/07/23 18:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/07/23 18:24	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/07/23 18:24	1

Client Sample ID: MW1-ROX-082923
Date Collected: 08/29/23 09:25
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/07/23 18:24	1
Styrene	ND		1.0	1.0	ug/L			09/07/23 18:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/07/23 18:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/07/23 18:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/07/23 18:24	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/07/23 18:24	1
Toluene	ND		1.0	0.90	ug/L			09/07/23 18:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 18:24	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/07/23 18:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/07/23 18:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/07/23 18:24	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/07/23 18:24	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/07/23 18:24	1
Trichloroethene	ND		1.0	0.15	ug/L			09/07/23 18:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/07/23 18:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/07/23 18:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/07/23 18:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/07/23 18:24	1
Vinyl acetate	ND		25	0.93	ug/L			09/07/23 18:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/07/23 18:24	1
Xylenes, Total	ND		10	1.6	ug/L			09/07/23 18:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 130*		*09/07/23 18:24*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*09/07/23 18:24*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*09/07/23 18:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		09/05/23 14:55	09/08/23 20:42	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/05/23 14:55	09/08/23 20:42	1
Anthracene	ND		0.19	0.044	ug/L		09/05/23 14:55	09/08/23 20:42	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 20:42	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/05/23 14:55	09/08/23 20:42	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/05/23 14:55	09/08/23 20:42	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/05/23 14:55	09/08/23 20:42	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/05/23 14:55	09/08/23 20:42	1
Chrysene	ND		0.19	0.031	ug/L		09/05/23 14:55	09/08/23 20:42	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/05/23 14:55	09/08/23 20:42	1
Fluoranthene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 20:42	1
Fluorene	ND		0.19	0.084	ug/L		09/05/23 14:55	09/08/23 20:42	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 20:42	1
Phenanthrene	ND		0.19	0.085	ug/L		09/05/23 14:55	09/08/23 20:42	1
Pyrene	ND		0.19	0.037	ug/L		09/05/23 14:55	09/12/23 13:17	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		09/05/23 14:55	09/08/23 20:42	1
2-Methylnaphthalene	ND		0.19	0.062	ug/L		09/05/23 14:55	09/08/23 20:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*76*		*18 - 147*	*09/05/23 14:55*	*09/08/23 20:42*	*1*
2-Fluorobiphenyl	*66*		*15 - 128*	*09/05/23 14:55*	*09/08/23 20:42*	*1*

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

Job ID: 400-242724-1

Client Sample ID: MW1-ROX-082923
Date Collected: 08/29/23 09:25
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-10
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*53*		*10 - 144*	*09/05/23 14:55*	*09/08/23 20:42*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/05/23 14:55	09/07/23 22:29	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		09/05/23 14:55	09/07/23 22:29	1
Benzoic acid	ND		28	6.9	ug/L		09/05/23 14:55	09/07/23 22:29	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/05/23 14:55	09/07/23 22:29	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/05/23 14:55	09/07/23 22:29	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/05/23 14:55	09/07/23 22:29	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/05/23 14:55	09/07/23 22:29	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		09/05/23 14:55	09/07/23 22:29	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/05/23 14:55	09/07/23 22:29	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/05/23 14:55	09/07/23 22:29	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/05/23 14:55	09/07/23 22:29	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/05/23 14:55	09/07/23 22:29	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/05/23 14:55	09/07/23 22:29	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/05/23 14:55	09/07/23 22:29	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/05/23 14:55	09/07/23 22:29	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 22:29	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 22:29	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/05/23 14:55	09/07/23 22:29	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		09/05/23 14:55	09/07/23 22:29	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/05/23 14:55	09/07/23 22:29	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 22:29	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 22:29	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/05/23 14:55	09/07/23 22:29	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/05/23 14:55	09/07/23 22:29	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/05/23 14:55	09/07/23 22:29	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/05/23 14:55	09/07/23 22:29	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/05/23 14:55	09/07/23 22:29	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 22:29	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 22:29	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 22:29	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 22:29	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/05/23 14:55	09/07/23 22:29	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/05/23 14:55	09/07/23 22:29	1
Indene	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 22:29	1
Isophorone	ND		9.5	0.13	ug/L		09/05/23 14:55	09/07/23 22:29	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/05/23 14:55	09/07/23 22:29	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/05/23 14:55	09/07/23 22:29	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/05/23 14:55	09/07/23 22:29	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/05/23 14:55	09/07/23 22:29	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/05/23 14:55	09/07/23 22:29	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/05/23 14:55	09/07/23 22:29	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/05/23 14:55	09/07/23 22:29	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/05/23 14:55	09/07/23 22:29	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 22:29	1

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

Job ID: 400-242724-1

Client Sample ID: MW1-ROX-082923
Date Collected: 08/29/23 09:25
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-10
Matrix: Water

Method: SW846 8270E - 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		09/05/23 14:55	09/07/23 22:29	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/05/23 14:55	09/07/23 22:29	1
Pentachlorophenol	ND		19	1.3	ug/L		09/05/23 14:55	09/07/23 22:29	1
Phenol	ND		9.5	2.5	ug/L		09/05/23 14:55	09/07/23 22:29	1
Pyridine	ND		9.5	3.0	ug/L		09/05/23 14:55	09/07/23 22:29	1
Quinoline	ND		9.5	4.3	ug/L		09/05/23 14:55	09/07/23 22:29	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/05/23 14:55	09/07/23 22:29	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 22:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*46 - 124*	*09/05/23 14:55*	*09/07/23 22:29*	*1*
2-Fluorophenol	*24*		*13 - 113*	*09/05/23 14:55*	*09/07/23 22:29*	*1*
Nitrobenzene-d5	*58*		*36 - 126*	*09/05/23 14:55*	*09/07/23 22:29*	*1*
Phenol-d5	*42*		*17 - 127*	*09/05/23 14:55*	*09/07/23 22:29*	*1*
Terphenyl-d14	*78*		*44 - 149*	*09/05/23 14:55*	*09/07/23 22:29*	*1*
2,4,6-Tribromophenol	*59*		*26 - 150*	*09/05/23 14:55*	*09/07/23 22:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		09/01/23 07:50	09/01/23 16:20	1
1,2-Dibromoethane	ND	*+	0.020	0.015	ug/L		09/01/23 07:50	09/01/23 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*124*		*51 - 149*	*09/01/23 07:50*	*09/01/23 16:20*	*1*

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

Job ID: 400-242724-1

Client Sample ID: ROST4PZG-ROX-082923
Date Collected: 08/29/23 10:35
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	11	J	25	10	ug/L			09/07/23 18:51	1
Acrolein	ND		20	3.3	ug/L			09/07/23 18:51	1
Acrylonitrile	ND		10	2.8	ug/L			09/07/23 18:51	1
Benzene	ND		1.0	0.50	ug/L			09/07/23 18:51	1
Bromobenzene	ND		1.0	0.54	ug/L			09/07/23 18:51	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/07/23 18:51	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/07/23 18:51	1
Bromoform	ND		5.0	0.25	ug/L			09/07/23 18:51	1
Bromomethane	ND		1.0	0.98	ug/L			09/07/23 18:51	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/07/23 18:51	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/07/23 18:51	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/07/23 18:51	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/07/23 18:51	1
Chloroethane	ND		1.0	0.76	ug/L			09/07/23 18:51	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/07/23 18:51	1
Chloroform	ND		1.0	0.90	ug/L			09/07/23 18:51	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/07/23 18:51	1
Chloromethane	ND		1.0	0.90	ug/L			09/07/23 18:51	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/07/23 18:51	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/07/23 18:51	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/07/23 18:51	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/07/23 18:51	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/07/23 18:51	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/07/23 18:51	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/07/23 18:51	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/07/23 18:51	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/07/23 18:51	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 18:51	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 18:51	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 18:51	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 18:51	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/07/23 18:51	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/07/23 18:51	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/07/23 18:51	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/07/23 18:51	1
2-Hexanone	ND		25	1.4	ug/L			09/07/23 18:51	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/07/23 18:51	1
Methylene bromide	ND		5.0	0.22	ug/L			09/07/23 18:51	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/07/23 18:51	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/07/23 18:51	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/07/23 18:51	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/07/23 18:51	1
Naphthalene	ND		5.0	3.0	ug/L			09/07/23 18:51	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/07/23 18:51	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/07/23 18:51	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/07/23 18:51	1
o-Xylene	ND		5.0	0.60	ug/L			09/07/23 18:51	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/07/23 18:51	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/07/23 18:51	1

Client Sample ID: ROST4PZG-ROX-082923
Date Collected: 08/29/23 10:35
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/07/23 18:51	1
Styrene	ND		1.0	1.0	ug/L			09/07/23 18:51	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/07/23 18:51	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/07/23 18:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/07/23 18:51	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/07/23 18:51	1
Toluene	ND		1.0	0.90	ug/L			09/07/23 18:51	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 18:51	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/07/23 18:51	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/07/23 18:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/07/23 18:51	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/07/23 18:51	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/07/23 18:51	1
Trichloroethene	ND		1.0	0.15	ug/L			09/07/23 18:51	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/07/23 18:51	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/07/23 18:51	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/07/23 18:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/07/23 18:51	1
Vinyl acetate	ND		25	0.93	ug/L			09/07/23 18:51	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/07/23 18:51	1
Xylenes, Total	ND		10	1.6	ug/L			09/07/23 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 130*		*09/07/23 18:51*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*09/07/23 18:51*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/07/23 18:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.093	ug/L		09/05/23 14:55	09/08/23 21:03	1
Acenaphthylene	ND		0.19	0.041	ug/L		09/05/23 14:55	09/08/23 21:03	1
Anthracene	ND		0.19	0.044	ug/L		09/05/23 14:55	09/08/23 21:03	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:03	1
Benzo[a]pyrene	ND		0.19	0.060	ug/L		09/05/23 14:55	09/08/23 21:03	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/05/23 14:55	09/08/23 21:03	1
Benzo[g,h,i]perylene	ND		0.19	0.025	ug/L		09/05/23 14:55	09/08/23 21:03	1
Benzo[k]fluoranthene	ND		0.19	0.058	ug/L		09/05/23 14:55	09/08/23 21:03	1
Chrysene	ND		0.19	0.031	ug/L		09/05/23 14:55	09/08/23 21:03	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/05/23 14:55	09/08/23 21:03	1
Fluoranthene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:03	1
Fluorene	ND		0.19	0.084	ug/L		09/05/23 14:55	09/08/23 21:03	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:03	1
Phenanthrene	ND		0.19	0.085	ug/L		09/05/23 14:55	09/08/23 21:03	1
Pyrene	ND		0.19	0.037	ug/L		09/05/23 14:55	09/12/23 13:38	1
1-Methylnaphthalene	ND		0.19	0.075	ug/L		09/05/23 14:55	09/08/23 21:03	1
2-Methylnaphthalene	ND		0.19	0.062	ug/L		09/05/23 14:55	09/08/23 21:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*73*		*18 - 147*	*09/05/23 14:55*	*09/08/23 21:03*	*1*
2-Fluorobiphenyl	*65*		*15 - 128*	*09/05/23 14:55*	*09/08/23 21:03*	*1*

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

Job ID: 400-242724-1

Client Sample ID: ROST4PZG-ROX-082923
Date Collected: 08/29/23 10:35
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-11
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*52*		*10 - 144*	*09/05/23 14:55*	*09/08/23 21:03*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		09/05/23 14:55	09/07/23 22:50	1
Benzenethiol	ND	*- *1	9.4	1.6	ug/L		09/05/23 14:55	09/07/23 22:50	1
Benzoic acid	ND		28	6.9	ug/L		09/05/23 14:55	09/07/23 22:50	1
Benzyl alcohol	ND		9.4	1.9	ug/L		09/05/23 14:55	09/07/23 22:50	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		09/05/23 14:55	09/07/23 22:50	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		09/05/23 14:55	09/07/23 22:50	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		09/05/23 14:55	09/07/23 22:50	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		09/05/23 14:55	09/07/23 22:50	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		09/05/23 14:55	09/07/23 22:50	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		09/05/23 14:55	09/07/23 22:50	1
4-Chloroaniline	ND		9.4	3.2	ug/L		09/05/23 14:55	09/07/23 22:50	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		09/05/23 14:55	09/07/23 22:50	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		09/05/23 14:55	09/07/23 22:50	1
2-Chlorophenol	ND		9.4	2.1	ug/L		09/05/23 14:55	09/07/23 22:50	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		09/05/23 14:55	09/07/23 22:50	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		09/05/23 14:55	09/07/23 22:50	1
Dibenzofuran	ND		9.4	0.16	ug/L		09/05/23 14:55	09/07/23 22:50	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		09/05/23 14:55	09/07/23 22:50	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		09/05/23 14:55	09/07/23 22:50	1
Diethyl phthalate	ND		9.4	0.23	ug/L		09/05/23 14:55	09/07/23 22:50	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		09/05/23 14:55	09/07/23 22:50	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		09/05/23 14:55	09/07/23 22:50	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		09/05/23 14:55	09/07/23 22:50	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		09/05/23 14:55	09/07/23 22:50	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/05/23 14:55	09/07/23 22:50	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		09/05/23 14:55	09/07/23 22:50	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		09/05/23 14:55	09/07/23 22:50	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		09/05/23 14:55	09/07/23 22:50	1
1,4-Dioxane	ND		9.4	0.94	ug/L		09/05/23 14:55	09/07/23 22:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		09/05/23 14:55	09/07/23 22:50	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		09/05/23 14:55	09/07/23 22:50	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		09/05/23 14:55	09/07/23 22:50	1
Hexachloroethane	ND		9.4	3.9	ug/L		09/05/23 14:55	09/07/23 22:50	1
Indene	ND		9.4	0.94	ug/L		09/05/23 14:55	09/07/23 22:50	1
Isophorone	ND		9.4	0.13	ug/L		09/05/23 14:55	09/07/23 22:50	1
2-Methylphenol	ND		9.4	1.7	ug/L		09/05/23 14:55	09/07/23 22:50	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/05/23 14:55	09/07/23 22:50	1
2-Nitroaniline	ND		9.4	2.1	ug/L		09/05/23 14:55	09/07/23 22:50	1
3-Nitroaniline	ND		9.4	1.7	ug/L		09/05/23 14:55	09/07/23 22:50	1
4-Nitroaniline	ND		9.4	1.4	ug/L		09/05/23 14:55	09/07/23 22:50	1
Nitrobenzene	ND		9.4	0.12	ug/L		09/05/23 14:55	09/07/23 22:50	1
2-Nitrophenol	ND		9.4	4.9	ug/L		09/05/23 14:55	09/07/23 22:50	1
4-Nitrophenol	ND		9.4	2.0	ug/L		09/05/23 14:55	09/07/23 22:50	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		09/05/23 14:55	09/07/23 22:50	1

Client Sample ID: ROST4PZG-ROX-082923
Date Collected: 08/29/23 10:35
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		09/05/23 14:55	09/07/23 22:50	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		09/05/23 14:55	09/07/23 22:50	1
Pentachlorophenol	ND		19	1.3	ug/L		09/05/23 14:55	09/07/23 22:50	1
Phenol	ND		9.4	2.4	ug/L		09/05/23 14:55	09/07/23 22:50	1
Pyridine	ND		9.4	3.0	ug/L		09/05/23 14:55	09/07/23 22:50	1
Quinoline	ND		9.4	4.2	ug/L		09/05/23 14:55	09/07/23 22:50	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		09/05/23 14:55	09/07/23 22:50	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		09/05/23 14:55	09/07/23 22:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*65*		*46 - 124*	*09/05/23 14:55*	*09/07/23 22:50*	*1*
2-Fluorophenol	*29*		*13 - 113*	*09/05/23 14:55*	*09/07/23 22:50*	*1*
Nitrobenzene-d5	*59*		*36 - 126*	*09/05/23 14:55*	*09/07/23 22:50*	*1*
Phenol-d5	*41*		*17 - 127*	*09/05/23 14:55*	*09/07/23 22:50*	*1*
Terphenyl-d14	*83*		*44 - 149*	*09/05/23 14:55*	*09/07/23 22:50*	*1*
2,4,6-Tribromophenol	*56*		*26 - 150*	*09/05/23 14:55*	*09/07/23 22:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		09/01/23 07:50	09/01/23 17:02	1
1,2-Dibromoethane	ND	*+	0.021	0.015	ug/L		09/01/23 07:50	09/01/23 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*148*		*51 - 149*	*09/01/23 07:50*	*09/01/23 17:02*	*1*

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

Job ID: 400-242724-1

Client Sample ID: P56-ROX-082923
Date Collected: 08/29/23 12:50
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**22**	**J**	25	10	ug/L			09/07/23 19:17	1
Acrolein	ND		20	3.3	ug/L			09/07/23 19:17	1
Acrylonitrile	ND		10	2.8	ug/L			09/07/23 19:17	1
Benzene	ND		1.0	0.50	ug/L			09/07/23 19:17	1
Bromobenzene	ND		1.0	0.54	ug/L			09/07/23 19:17	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/07/23 19:17	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/07/23 19:17	1
Bromoform	ND		5.0	0.25	ug/L			09/07/23 19:17	1
Bromomethane	ND		1.0	0.98	ug/L			09/07/23 19:17	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/07/23 19:17	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/07/23 19:17	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/07/23 19:17	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/07/23 19:17	1
Chloroethane	ND		1.0	0.76	ug/L			09/07/23 19:17	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/07/23 19:17	1
Chloroform	ND		1.0	0.90	ug/L			09/07/23 19:17	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/07/23 19:17	1
Chloromethane	ND		1.0	0.90	ug/L			09/07/23 19:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/07/23 19:17	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/07/23 19:17	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/07/23 19:17	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/07/23 19:17	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/07/23 19:17	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/07/23 19:17	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/07/23 19:17	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/07/23 19:17	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/07/23 19:17	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 19:17	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 19:17	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 19:17	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 19:17	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/07/23 19:17	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/07/23 19:17	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/07/23 19:17	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/07/23 19:17	1
2-Hexanone	ND		25	1.4	ug/L			09/07/23 19:17	1
Isopropylbenzene	**7.4**		1.0	0.53	ug/L			09/07/23 19:17	1
Methylene bromide	ND		5.0	0.22	ug/L			09/07/23 19:17	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/07/23 19:17	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/07/23 19:17	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/07/23 19:17	1
m-Xylene & p-Xylene	**6.6**		5.0	0.63	ug/L			09/07/23 19:17	1
Naphthalene	ND		5.0	3.0	ug/L			09/07/23 19:17	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/07/23 19:17	1
N-Propylbenzene	**7.3**		1.0	0.69	ug/L			09/07/23 19:17	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/07/23 19:17	1
o-Xylene	ND		5.0	0.60	ug/L			09/07/23 19:17	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/07/23 19:17	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/07/23 19:17	1

Client Sample ID: P56-ROX-082923
Date Collected: 08/29/23 12:50
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**0.82**	**J**	1.0	0.70	ug/L			09/07/23 19:17	1
Styrene	ND		1.0	1.0	ug/L			09/07/23 19:17	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/07/23 19:17	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/07/23 19:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/07/23 19:17	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/07/23 19:17	1
Toluene	ND		1.0	0.90	ug/L			09/07/23 19:17	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 19:17	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/07/23 19:17	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/07/23 19:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/07/23 19:17	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/07/23 19:17	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/07/23 19:17	1
Trichloroethene	ND		1.0	0.15	ug/L			09/07/23 19:17	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/07/23 19:17	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/07/23 19:17	1
1,2,4-Trimethylbenzene	**1.6**		1.0	0.82	ug/L			09/07/23 19:17	1
1,3,5-Trimethylbenzene	**1.0**		1.0	0.56	ug/L			09/07/23 19:17	1
Vinyl acetate	ND		25	0.93	ug/L			09/07/23 19:17	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/07/23 19:17	1
Xylenes, Total	**6.6**	**J**	10	1.6	ug/L			09/07/23 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 130*		*09/07/23 19:17*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*09/07/23 19:17*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/07/23 19:17*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.40**		0.19	0.094	ug/L		09/05/23 14:55	09/08/23 21:24	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/05/23 14:55	09/08/23 21:24	1
Anthracene	**0.072**	**J**	0.19	0.045	ug/L		09/05/23 14:55	09/08/23 21:24	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:24	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/05/23 14:55	09/08/23 21:24	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/05/23 14:55	09/08/23 21:24	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/05/23 14:55	09/08/23 21:24	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/05/23 14:55	09/08/23 21:24	1
Chrysene	ND		0.19	0.031	ug/L		09/05/23 14:55	09/08/23 21:24	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/05/23 14:55	09/08/23 21:24	1
Fluoranthene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:24	1
Fluorene	**0.27**		0.19	0.085	ug/L		09/05/23 14:55	09/08/23 21:24	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:24	1
Phenanthrene	**0.52**		0.19	0.086	ug/L		09/05/23 14:55	09/08/23 21:24	1
Pyrene	ND		0.19	0.037	ug/L		09/05/23 14:55	09/12/23 13:59	1
1-Methylnaphthalene	**7.3**		0.19	0.076	ug/L		09/05/23 14:55	09/08/23 21:24	1
2-Methylnaphthalene	**6.8**		0.19	0.063	ug/L		09/05/23 14:55	09/08/23 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*72*		*18 - 147*	*09/05/23 14:55*	*09/08/23 21:24*	*1*
2-Fluorobiphenyl	*58*		*15 - 128*	*09/05/23 14:55*	*09/08/23 21:24*	*1*

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

Job ID: 400-242724-1

Client Sample ID: P56-ROX-082923
Date Collected: 08/29/23 12:50
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-12
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	60		10 - 144	09/05/23 14:55	09/08/23 21:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/05/23 14:55	09/07/23 23:11	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		09/05/23 14:55	09/07/23 23:11	1
Benzoic acid	ND		29	7.0	ug/L		09/05/23 14:55	09/07/23 23:11	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/05/23 14:55	09/07/23 23:11	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/05/23 14:55	09/07/23 23:11	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/05/23 14:55	09/07/23 23:11	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/05/23 14:55	09/07/23 23:11	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		09/05/23 14:55	09/07/23 23:11	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/05/23 14:55	09/07/23 23:11	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/05/23 14:55	09/07/23 23:11	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/05/23 14:55	09/07/23 23:11	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/05/23 14:55	09/07/23 23:11	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/05/23 14:55	09/07/23 23:11	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/05/23 14:55	09/07/23 23:11	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/05/23 14:55	09/07/23 23:11	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 23:11	1
Dibenzofuran	**0.33**	**J**	9.5	0.16	ug/L		09/05/23 14:55	09/07/23 23:11	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/05/23 14:55	09/07/23 23:11	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		09/05/23 14:55	09/07/23 23:11	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/05/23 14:55	09/07/23 23:11	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 23:11	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 23:11	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/05/23 14:55	09/07/23 23:11	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/05/23 14:55	09/07/23 23:11	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		09/05/23 14:55	09/07/23 23:11	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/05/23 14:55	09/07/23 23:11	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/05/23 14:55	09/07/23 23:11	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 23:11	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 23:11	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 23:11	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 23:11	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/05/23 14:55	09/07/23 23:11	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/05/23 14:55	09/07/23 23:11	1
Indene	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 23:11	1
Isophorone	ND		9.5	0.13	ug/L		09/05/23 14:55	09/07/23 23:11	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/05/23 14:55	09/07/23 23:11	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/05/23 14:55	09/07/23 23:11	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/05/23 14:55	09/07/23 23:11	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/05/23 14:55	09/07/23 23:11	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/05/23 14:55	09/07/23 23:11	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/05/23 14:55	09/07/23 23:11	1
2-Nitrophenol	ND		9.5	5.0	ug/L		09/05/23 14:55	09/07/23 23:11	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/05/23 14:55	09/07/23 23:11	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 23:11	1

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

Job ID: 400-242724-1

Client Sample ID: P56-ROX-082923
Date Collected: 08/29/23 12:50
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-12
Matrix: Water

Method: SW846 8270E - 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		09/05/23 14:55	09/07/23 23:11	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/05/23 14:55	09/07/23 23:11	1
Pentachlorophenol	ND		19	1.3	ug/L		09/05/23 14:55	09/07/23 23:11	1
Phenol	ND		9.5	2.5	ug/L		09/05/23 14:55	09/07/23 23:11	1
Pyridine	ND		9.5	3.1	ug/L		09/05/23 14:55	09/07/23 23:11	1
Quinoline	ND		9.5	4.3	ug/L		09/05/23 14:55	09/07/23 23:11	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/05/23 14:55	09/07/23 23:11	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*09/05/23 14:55*	*09/07/23 23:11*	*1*
2-Fluorophenol	*43*		*13 - 113*	*09/05/23 14:55*	*09/07/23 23:11*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*09/05/23 14:55*	*09/07/23 23:11*	*1*
Phenol-d5	*60*		*17 - 127*	*09/05/23 14:55*	*09/07/23 23:11*	*1*
Terphenyl-d14	*82*		*44 - 149*	*09/05/23 14:55*	*09/07/23 23:11*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*09/05/23 14:55*	*09/07/23 23:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		09/01/23 07:50	09/01/23 17:24	1
1,2-Dibromoethane	ND	*+	0.021	0.015	ug/L		09/01/23 07:50	09/01/23 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*142*		*51 - 149*	*09/01/23 07:50*	*09/01/23 17:24*	*1*

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

Job ID: 400-242724-1

Client Sample ID: P93A-ROX-082923
Date Collected: 08/29/23 13:40
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/07/23 19:44	1
Acrolein	ND		20	3.3	ug/L			09/07/23 19:44	1
Acrylonitrile	ND		10	2.8	ug/L			09/07/23 19:44	1
Benzene	**84**		1.0	0.50	ug/L			09/07/23 19:44	1
Bromobenzene	ND		1.0	0.54	ug/L			09/07/23 19:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/07/23 19:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/07/23 19:44	1
Bromoform	ND		5.0	0.25	ug/L			09/07/23 19:44	1
Bromomethane	ND		1.0	0.98	ug/L			09/07/23 19:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/07/23 19:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/07/23 19:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/07/23 19:44	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/07/23 19:44	1
Chloroethane	ND		1.0	0.76	ug/L			09/07/23 19:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/07/23 19:44	1
Chloroform	ND		1.0	0.90	ug/L			09/07/23 19:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/07/23 19:44	1
Chloromethane	ND		1.0	0.90	ug/L			09/07/23 19:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/07/23 19:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/07/23 19:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/07/23 19:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/07/23 19:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/07/23 19:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/07/23 19:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/07/23 19:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/07/23 19:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/07/23 19:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 19:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 19:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 19:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 19:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/07/23 19:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/07/23 19:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/07/23 19:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/07/23 19:44	1
2-Hexanone	ND		25	1.4	ug/L			09/07/23 19:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/07/23 19:44	1
Methylene bromide	ND		5.0	0.22	ug/L			09/07/23 19:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/07/23 19:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/07/23 19:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/07/23 19:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/07/23 19:44	1
Naphthalene	ND		5.0	3.0	ug/L			09/07/23 19:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/07/23 19:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/07/23 19:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/07/23 19:44	1
o-Xylene	ND		5.0	0.60	ug/L			09/07/23 19:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/07/23 19:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/07/23 19:44	1

Client Sample ID: P93A-ROX-082923
Date Collected: 08/29/23 13:40
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/07/23 19:44	1
Styrene	ND		1.0	1.0	ug/L			09/07/23 19:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/07/23 19:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/07/23 19:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/07/23 19:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/07/23 19:44	1
Toluene	ND		1.0	0.90	ug/L			09/07/23 19:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 19:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/07/23 19:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/07/23 19:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/07/23 19:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/07/23 19:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/07/23 19:44	1
Trichloroethene	ND		1.0	0.15	ug/L			09/07/23 19:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/07/23 19:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/07/23 19:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/07/23 19:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/07/23 19:44	1
Vinyl acetate	ND		25	0.93	ug/L			09/07/23 19:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/07/23 19:44	1
Xylenes, Total	ND		10	1.6	ug/L			09/07/23 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 130*		*09/07/23 19:44*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*09/07/23 19:44*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/07/23 19:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		09/05/23 14:55	09/08/23 21:45	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/05/23 14:55	09/08/23 21:45	1
Anthracene	ND		0.19	0.045	ug/L		09/05/23 14:55	09/08/23 21:45	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:45	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/05/23 14:55	09/08/23 21:45	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/05/23 14:55	09/08/23 21:45	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/05/23 14:55	09/08/23 21:45	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/05/23 14:55	09/08/23 21:45	1
Chrysene	ND		0.19	0.031	ug/L		09/05/23 14:55	09/08/23 21:45	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/05/23 14:55	09/08/23 21:45	1
Fluoranthene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:45	1
Fluorene	ND		0.19	0.085	ug/L		09/05/23 14:55	09/08/23 21:45	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/05/23 14:55	09/08/23 21:45	1
Phenanthrene	ND		0.19	0.086	ug/L		09/05/23 14:55	09/08/23 21:45	1
Pyrene	ND		0.19	0.037	ug/L		09/05/23 14:55	09/12/23 14:20	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		09/05/23 14:55	09/08/23 21:45	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		09/05/23 14:55	09/08/23 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*70*		*18 - 147*	*09/05/23 14:55*	*09/08/23 21:45*	*1*
2-Fluorobiphenyl	*61*		*15 - 128*	*09/05/23 14:55*	*09/08/23 21:45*	*1*

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

Job ID: 400-242724-1

Client Sample ID: P93A-ROX-082923
Date Collected: 08/29/23 13:40
Date Received: 08/30/23 09:30

Lab Sample ID: 400-242724-13
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*50*		*10 - 144*	*09/05/23 14:55*	*09/08/23 21:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/05/23 14:55	09/07/23 23:32	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		09/05/23 14:55	09/07/23 23:32	1
Benzoic acid	ND		29	6.9	ug/L		09/05/23 14:55	09/07/23 23:32	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/05/23 14:55	09/07/23 23:32	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/05/23 14:55	09/07/23 23:32	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/05/23 14:55	09/07/23 23:32	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/05/23 14:55	09/07/23 23:32	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		09/05/23 14:55	09/07/23 23:32	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/05/23 14:55	09/07/23 23:32	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/05/23 14:55	09/07/23 23:32	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/05/23 14:55	09/07/23 23:32	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/05/23 14:55	09/07/23 23:32	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/05/23 14:55	09/07/23 23:32	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/05/23 14:55	09/07/23 23:32	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/05/23 14:55	09/07/23 23:32	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 23:32	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 23:32	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/05/23 14:55	09/07/23 23:32	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		09/05/23 14:55	09/07/23 23:32	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/05/23 14:55	09/07/23 23:32	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 23:32	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 23:32	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/05/23 14:55	09/07/23 23:32	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/05/23 14:55	09/07/23 23:32	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		09/05/23 14:55	09/07/23 23:32	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/05/23 14:55	09/07/23 23:32	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/05/23 14:55	09/07/23 23:32	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 23:32	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 23:32	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 23:32	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/05/23 14:55	09/07/23 23:32	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/05/23 14:55	09/07/23 23:32	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/05/23 14:55	09/07/23 23:32	1
Indene	ND		9.5	0.95	ug/L		09/05/23 14:55	09/07/23 23:32	1
Isophorone	ND		9.5	0.13	ug/L		09/05/23 14:55	09/07/23 23:32	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/05/23 14:55	09/07/23 23:32	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/05/23 14:55	09/07/23 23:32	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/05/23 14:55	09/07/23 23:32	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/05/23 14:55	09/07/23 23:32	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/05/23 14:55	09/07/23 23:32	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/05/23 14:55	09/07/23 23:32	1
2-Nitrophenol	ND		9.5	5.0	ug/L		09/05/23 14:55	09/07/23 23:32	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/05/23 14:55	09/07/23 23:32	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 23:32	1

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

Job ID: 400-242724-1

Client Sample ID: P93A-ROX-082923

Lab Sample ID: 400-242724-13

Date Collected: 08/29/23 13:40

Matrix: Water

Date Received: 08/30/23 09:30

Method: SW846 8270E - 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		09/05/23 14:55	09/07/23 23:32	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/05/23 14:55	09/07/23 23:32	1
Pentachlorophenol	ND		19	1.3	ug/L		09/05/23 14:55	09/07/23 23:32	1
Phenol	ND		9.5	2.5	ug/L		09/05/23 14:55	09/07/23 23:32	1
Pyridine	ND		9.5	3.0	ug/L		09/05/23 14:55	09/07/23 23:32	1
Quinoline	ND		9.5	4.3	ug/L		09/05/23 14:55	09/07/23 23:32	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/05/23 14:55	09/07/23 23:32	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/05/23 14:55	09/07/23 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*46 - 124*	*09/05/23 14:55*	*09/07/23 23:32*	*1*
2-Fluorophenol	*14*		*13 - 113*	*09/05/23 14:55*	*09/07/23 23:32*	*1*
Nitrobenzene-d5	*56*		*36 - 126*	*09/05/23 14:55*	*09/07/23 23:32*	*1*
Phenol-d5	*26*		*17 - 127*	*09/05/23 14:55*	*09/07/23 23:32*	*1*
Terphenyl-d14	*71*		*44 - 149*	*09/05/23 14:55*	*09/07/23 23:32*	*1*
2,4,6-Tribromophenol	*50*		*26 - 150*	*09/05/23 14:55*	*09/07/23 23:32*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		09/01/23 07:50	09/01/23 17:45	1
1,2-Dibromoethane	ND	*+	0.021	0.015	ug/L		09/01/23 07:50	09/01/23 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*140*		*51 - 149*	*09/01/23 07:50*	*09/01/23 17:45*	*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.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
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 MONTHLY GW

Job ID: 400-242724-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-242724-1	TB-ROX-082923-8260-A	102	107	99
400-242724-3	MW26-ROX-082923	100	108	97
400-242724-4	MW6C-ROX-082923	101	106	100
400-242724-4 - RA	MW6C-ROX-082923	103	107	98
400-242724-4 MS	MW6C-ROX-082923	102	103	100
400-242724-4 MSD	MW6C-ROX-082923	105	106	101
400-242724-5	MW6A-ROX-082923	100	109	99
400-242724-6	MW6D-ROX-082923	101	109	98
400-242724-7	TB-ROX-082923-8260-B	103	109	100
400-242724-9	MW1-ROX-082923-EB	102	109	99
400-242724-10	MW1-ROX-082923	100	110	98
400-242724-11	ROST4PZG-ROX-082923	103	105	101
400-242724-12	P56-ROX-082923	104	104	101
400-242724-13	P93A-ROX-082923	101	106	101
LCS 400-640044/1002	Lab Control Sample	104	107	101
LCS 400-640194/1002	Lab Control Sample	101	104	99
MB 400-640044/4	Method Blank	101	108	99
MB 400-640194/4	Method Blank	100	108	99

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-242724-3	MW26-ROX-082923	80	37	73	51	100	58
400-242724-4	MW6C-ROX-082923	51	33	48	45	57	54
400-242724-4 MS	MW6C-ROX-082923	84	46	77	67	89	78
400-242724-4 MSD	MW6C-ROX-082923	77	56	73	69	87	75
400-242724-5	MW6A-ROX-082923	63	26	58	44	73	62
400-242724-6	MW6D-ROX-082923	70	29	63	48	80	62
400-242724-9	MW1-ROX-082923-EB	70	27	64	48	87	58
400-242724-10	MW1-ROX-082923	66	24	58	42	78	59
400-242724-11	ROST4PZG-ROX-082923	65	29	59	41	83	56
400-242724-12	P56-ROX-082923	75	43	71	60	82	72
400-242724-13	P93A-ROX-082923	62	14	56	26	71	50
LCS 400-639760/14-A	Lab Control Sample	66	30	59	47	77	51
LCS 400-639760/2-A	Lab Control Sample	83	64	76	75	87	76
LCSD 400-639760/15-A	Lab Control Sample Dup	84	69	76	81	98	69
MB 400-639760/1-A	Method Blank	80	48	73	69	89	61

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5

Client: AECOM Technical Services Inc.
Job ID: 400-242724-1
Project/Site: ROXANA MONTHLY GW

TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-242724-3	MW26-ROX-082923	95	79	61
400-242724-4	MW6C-ROX-082923	80	76	61
400-242724-4 MS	MW6C-ROX-082923	78	78	58
400-242724-4 MSD	MW6C-ROX-082923	75	77	59
400-242724-5	MW6A-ROX-082923	66	62	54
400-242724-5 - RERA	MW6A-ROX-082923	77	76	78
400-242724-6	MW6D-ROX-082923	76	70	57
400-242724-9	MW1-ROX-082923-EB	92	72	58
400-242724-10	MW1-ROX-082923	76	66	53
400-242724-11	ROST4PZG-ROX-082923	73	65	52
400-242724-12	P56-ROX-082923	72	58	60
400-242724-13	P93A-ROX-082923	70	61	50
LCS 400-639760/16-A	Lab Control Sample	84	76	61
LCS 400-640651/19-A	Lab Control Sample	112	91	66
LCSD 400-639760/17-A	Lab Control Sample Dup	84	73	58
LCSD 400-640651/20-A	Lab Control Sample Dup	112	94	67
MB 400-639760/1-A	Method Blank	96	83	63
MB 400-640651/1-A	Method Blank	94	75	69

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-242724-2	TB-ROX-082923-8011-A	140
400-242724-3	MW26-ROX-082923	148
400-242724-4	MW6C-ROX-082923	154 S1+
400-242724-4 MS	MW6C-ROX-082923	146
400-242724-4 MSD	MW6C-ROX-082923	139
400-242724-5	MW6A-ROX-082923	146
400-242724-6	MW6D-ROX-082923	142
400-242724-8	TB-ROX-082923-8011-B	154 S1+
400-242724-9	MW1-ROX-082923-EB	135
400-242724-10	MW1-ROX-082923	124
400-242724-11	ROST4PZG-ROX-082923	148
400-242724-12	P56-ROX-082923	142
400-242724-13	P93A-ROX-082923	140
LCS 400-639353/2-A	Lab Control Sample	149
LCSD 400-639353/3-A	Lab Control Sample Dup	164 S1+
MB 400-639353/1-A	Method Blank	150 S1+

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-242724-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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 MONTHLY GW

Job ID: 400-242724-1

Client Sample ID: TB-ROX-082923-8260-A
Lab Sample ID: 400-242724-1
Date Collected: 08/29/23 12:00
Matrix: Water
Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640194	09/08/23 16:47	BPO	EET PEN

Client Sample ID: TB-ROX-082923-8011-A
Lab Sample ID: 400-242724-2
Date Collected: 08/29/23 12:00
Matrix: Water
Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.6 mL	35 mL	639353	08/31/23 15:18	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 13:09	PG	EET PEN

Client Sample ID: MW26-ROX-082923
Lab Sample ID: 400-242724-3
Date Collected: 08/29/23 09:20
Matrix: Water
Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640194	09/08/23 17:14	BPO	EET PEN
Total/NA	Prep	3520C			254.4 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 21:05	S1B	EET PEN
Total/NA	Prep	3520C			254.4 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 19:20	S1B	EET PEN
Total/NA	Prep	3520C			254.4 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 11:32	TH	EET PEN
Total/NA	Prep	8011			34 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 13:30	PG	EET PEN

Client Sample ID: MW6C-ROX-082923
Lab Sample ID: 400-242724-4
Date Collected: 08/29/23 11:00
Matrix: Water
Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640044	09/07/23 12:31	BPO	EET PEN
Total/NA	Analysis	8260D	RA	1	5 mL	5 mL	640194	09/08/23 17:41	BPO	EET PEN
Total/NA	Prep	3520C			251.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 20:43	S1B	EET PEN
Total/NA	Prep	3520C			251.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 18:59	S1B	EET PEN
Total/NA	Prep	3520C			251.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	642127	09/21/23 16:50	KJA	EET PEN
Total/NA	Prep	8011			33.4 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 13:51	PG	EET PEN

Client Sample ID: MW6A-ROX-082923

Lab Sample ID: 400-242724-5

Date Collected: 08/29/23 12:20

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640194	09/08/23 18:08	BPO	EET PEN
Total/NA	Prep	3520C			248 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 21:26	S1B	EET PEN
Total/NA	Prep	3520C			248 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 19:40	S1B	EET PEN
Total/NA	Prep	3520C			248 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 12:14	TH	EET PEN
Total/NA	Prep	3520C	RERA		256.4 mL	1 mL	640651	09/13/23 10:04	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	641154	09/15/23 18:26	KJA	EET PEN
Total/NA	Prep	8011			34.5 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 14:55	PG	EET PEN

Client Sample ID: MW6D-ROX-082923

Lab Sample ID: 400-242724-6

Date Collected: 08/29/23 13:30

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640194	09/08/23 18:35	BPO	EET PEN
Total/NA	Prep	3520C			249.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 21:47	S1B	EET PEN
Total/NA	Prep	3520C			249.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 20:01	S1B	EET PEN
Total/NA	Prep	3520C			249.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 12:35	TH	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 15:16	PG	EET PEN

Client Sample ID: TB-ROX-082923-8260-B

Lab Sample ID: 400-242724-7

Date Collected: 08/29/23 12:00

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640044	09/07/23 16:09	BPO	EET PEN

Client Sample ID: TB-ROX-082923-8011-B

Lab Sample ID: 400-242724-8

Date Collected: 08/29/23 12:00

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.8 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 15:37	PG	EET PEN

Client Sample ID: MW1-ROX-082923-EB

Lab Sample ID: 400-242724-9

Date Collected: 08/29/23 08:10

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640194	09/08/23 19:02	BPO	EET PEN
Total/NA	Prep	3520C			263.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 22:08	S1B	EET PEN
Total/NA	Prep	3520C			263.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 20:22	S1B	EET PEN
Total/NA	Prep	3520C			263.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 12:56	TH	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 15:59	PG	EET PEN

Client Sample ID: MW1-ROX-082923

Lab Sample ID: 400-242724-10

Date Collected: 08/29/23 09:25

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640044	09/07/23 18:24	BPO	EET PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 22:29	S1B	EET PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 20:42	S1B	EET PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 13:17	TH	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 16:20	PG	EET PEN

Client Sample ID: ROST4PZG-ROX-082923

Lab Sample ID: 400-242724-11

Date Collected: 08/29/23 10:35

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640044	09/07/23 18:51	BPO	EET PEN
Total/NA	Prep	3520C			266.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 22:50	S1B	EET PEN
Total/NA	Prep	3520C			266.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 21:03	S1B	EET PEN
Total/NA	Prep	3520C			266.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 13:38	TH	EET PEN
Total/NA	Prep	8011			34.1 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 17:02	PG	EET PEN

Client Sample ID: P56-ROX-082923

Lab Sample ID: 400-242724-12

Date Collected: 08/29/23 12:50

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640044	09/07/23 19:17	BPO	EET PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 23:11	S1B	EET PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 21:24	S1B	EET PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 13:59	TH	EET PEN
Total/NA	Prep	8011			34.1 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 17:24	PG	EET PEN

Client Sample ID: P93A-ROX-082923

Lab Sample ID: 400-242724-13

Date Collected: 08/29/23 13:40

Matrix: Water

Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640044	09/07/23 19:44	BPO	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 23:32	S1B	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 21:45	S1B	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 14:20	TH	EET PEN
Total/NA	Prep	8011			34.1 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 17:45	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-639353/1-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	639353	08/31/23 14:48	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 17:10	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-639760/1-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	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 18:36	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 15:52	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-242724-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640044/4
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	8260D		1	5 mL	5 mL	640044	09/07/23 11:37	BPO	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640194/4
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	8260D		1	5 mL	5 mL	640194	09/08/23 10:52	BPO	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640651/1-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641154	09/15/23 16:40	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639353/2-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	639353	08/31/23 14:48	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 17:32	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639760/14-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	639760	09/05/23 14:56	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 18:57	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639760/16-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	639760	09/05/23 14:56	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 17:36	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-242724-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639760/2-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	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 19:40	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640044/1002
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	8260D		1	5 mL	5 mL	640044	09/07/23 10:20	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640194/1002
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	8260D		1	5 mL	5 mL	640194	09/08/23 09:44	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/19-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:05	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-639353/3-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	639353	08/31/23 14:48	PG	EET PEN
Total/NA	Analysis	8011		1			639362	08/31/23 17:53	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-639760/15-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	639760	09/05/23 14:56	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 19:19	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-242724-1

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-639760/17-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	639760	09/05/23 14:56	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 17:57	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640651/20-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	640651	09/12/23 10:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:25	TH	EET PEN

Client Sample ID: MW6C-ROX-082923
Lab Sample ID: 400-242724-4 MS
Date Collected: 08/29/23 11:00
Matrix: Water
Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640044	09/07/23 14:20	BPO	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 20:01	S1B	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	640207	09/08/23 18:18	S1B	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 14:13	PG	EET PEN

Client Sample ID: MW6C-ROX-082923
Lab Sample ID: 400-242724-4 MSD
Date Collected: 08/29/23 11:00
Matrix: Water
Date Received: 08/30/23 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640044	09/07/23 14:47	BPO	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 20:22	S1B	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	640207	09/08/23 18:38	S1B	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	639353	09/01/23 07:50	PG	EET PEN
Total/NA	Analysis	8011		1			639478	09/01/23 14:34	PG	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 640044

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-4	MW6C-ROX-082923	Total/NA	Water	8260D	
400-242724-7	TB-ROX-082923-8260-B	Total/NA	Water	8260D	
400-242724-10	MW1-ROX-082923	Total/NA	Water	8260D	
400-242724-11	ROST4PZG-ROX-082923	Total/NA	Water	8260D	
400-242724-12	P56-ROX-082923	Total/NA	Water	8260D	
400-242724-13	P93A-ROX-082923	Total/NA	Water	8260D	
MB 400-640044/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640044/1002	Lab Control Sample	Total/NA	Water	8260D	
400-242724-4 MS	MW6C-ROX-082923	Total/NA	Water	8260D	
400-242724-4 MSD	MW6C-ROX-082923	Total/NA	Water	8260D	

Analysis Batch: 640194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-1	TB-ROX-082923-8260-A	Total/NA	Water	8260D	
400-242724-3	MW26-ROX-082923	Total/NA	Water	8260D	
400-242724-4 - RA	MW6C-ROX-082923	Total/NA	Water	8260D	
400-242724-5	MW6A-ROX-082923	Total/NA	Water	8260D	
400-242724-6	MW6D-ROX-082923	Total/NA	Water	8260D	
400-242724-9	MW1-ROX-082923-EB	Total/NA	Water	8260D	
MB 400-640194/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640194/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 639760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-3	MW26-ROX-082923	Total/NA	Water	3520C	
400-242724-4	MW6C-ROX-082923	Total/NA	Water	3520C	
400-242724-5	MW6A-ROX-082923	Total/NA	Water	3520C	
400-242724-6	MW6D-ROX-082923	Total/NA	Water	3520C	
400-242724-9	MW1-ROX-082923-EB	Total/NA	Water	3520C	
400-242724-10	MW1-ROX-082923	Total/NA	Water	3520C	
400-242724-11	ROST4PZG-ROX-082923	Total/NA	Water	3520C	
400-242724-12	P56-ROX-082923	Total/NA	Water	3520C	
400-242724-13	P93A-ROX-082923	Total/NA	Water	3520C	
MB 400-639760/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-639760/14-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-639760/16-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-639760/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-639760/15-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-639760/17-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-242724-4 MS	MW6C-ROX-082923	Total/NA	Water	3520C	
400-242724-4 MSD	MW6C-ROX-082923	Total/NA	Water	3520C	

Analysis Batch: 640111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-3	MW26-ROX-082923	Total/NA	Water	8270E	639760
400-242724-4	MW6C-ROX-082923	Total/NA	Water	8270E	639760
400-242724-5	MW6A-ROX-082923	Total/NA	Water	8270E	639760
400-242724-6	MW6D-ROX-082923	Total/NA	Water	8270E	639760
400-242724-9	MW1-ROX-082923-EB	Total/NA	Water	8270E	639760

GC/MS Semi VOA (Continued)

Analysis Batch: 640111 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-10	MW1-ROX-082923	Total/NA	Water	8270E	639760
400-242724-11	ROST4PZG-ROX-082923	Total/NA	Water	8270E	639760
400-242724-12	P56-ROX-082923	Total/NA	Water	8270E	639760
400-242724-13	P93A-ROX-082923	Total/NA	Water	8270E	639760
MB 400-639760/1-A	Method Blank	Total/NA	Water	8270E	639760
LCS 400-639760/14-A	Lab Control Sample	Total/NA	Water	8270E	639760
LCS 400-639760/2-A	Lab Control Sample	Total/NA	Water	8270E	639760
LCSD 400-639760/15-A	Lab Control Sample Dup	Total/NA	Water	8270E	639760
400-242724-4 MS	MW6C-ROX-082923	Total/NA	Water	8270E	639760
400-242724-4 MSD	MW6C-ROX-082923	Total/NA	Water	8270E	639760

Analysis Batch: 640207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-3	MW26-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-4	MW6C-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-5	MW6A-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-6	MW6D-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-9	MW1-ROX-082923-EB	Total/NA	Water	8270E SIM	639760
400-242724-10	MW1-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-11	ROST4PZG-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-12	P56-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-13	P93A-ROX-082923	Total/NA	Water	8270E SIM	639760
MB 400-639760/1-A	Method Blank	Total/NA	Water	8270E SIM	639760
LCS 400-639760/16-A	Lab Control Sample	Total/NA	Water	8270E SIM	639760
LCSD 400-639760/17-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	639760
400-242724-4 MS	MW6C-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-4 MSD	MW6C-ROX-082923	Total/NA	Water	8270E SIM	639760

Analysis Batch: 640637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-3	MW26-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-5	MW6A-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-6	MW6D-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-9	MW1-ROX-082923-EB	Total/NA	Water	8270E SIM	639760
400-242724-10	MW1-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-11	ROST4PZG-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-12	P56-ROX-082923	Total/NA	Water	8270E SIM	639760
400-242724-13	P93A-ROX-082923	Total/NA	Water	8270E SIM	639760

Prep Batch: 640651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-5 - RERA	MW6A-ROX-082923	Total/NA	Water	3520C	
MB 400-640651/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-640651/19-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-640651/20-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 641090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-640651/19-A	Lab Control Sample	Total/NA	Water	8270E SIM	640651
LCSD 400-640651/20-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	640651

GC/MS Semi VOA

Analysis Batch: 641154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-5 - RERA	MW6A-ROX-082923	Total/NA	Water	8270E SIM	640651
MB 400-640651/1-A	Method Blank	Total/NA	Water	8270E SIM	640651

Analysis Batch: 642127

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-4	MW6C-ROX-082923	Total/NA	Water	8270E SIM	639760

GC Semi VOA

Prep Batch: 639353

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-2	TB-ROX-082923-8011-A	Total/NA	Water	8011	
400-242724-3	MW26-ROX-082923	Total/NA	Water	8011	
400-242724-4	MW6C-ROX-082923	Total/NA	Water	8011	
400-242724-5	MW6A-ROX-082923	Total/NA	Water	8011	
400-242724-6	MW6D-ROX-082923	Total/NA	Water	8011	
400-242724-8	TB-ROX-082923-8011-B	Total/NA	Water	8011	
400-242724-9	MW1-ROX-082923-EB	Total/NA	Water	8011	
400-242724-10	MW1-ROX-082923	Total/NA	Water	8011	
400-242724-11	ROST4PZG-ROX-082923	Total/NA	Water	8011	
400-242724-12	P56-ROX-082923	Total/NA	Water	8011	
400-242724-13	P93A-ROX-082923	Total/NA	Water	8011	
MB 400-639353/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-639353/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-639353/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-242724-4 MS	MW6C-ROX-082923	Total/NA	Water	8011	
400-242724-4 MSD	MW6C-ROX-082923	Total/NA	Water	8011	

Analysis Batch: 639362

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-639353/1-A	Method Blank	Total/NA	Water	8011	639353
LCS 400-639353/2-A	Lab Control Sample	Total/NA	Water	8011	639353
LCSD 400-639353/3-A	Lab Control Sample Dup	Total/NA	Water	8011	639353

Analysis Batch: 639478

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242724-2	TB-ROX-082923-8011-A	Total/NA	Water	8011	639353
400-242724-3	MW26-ROX-082923	Total/NA	Water	8011	639353
400-242724-4	MW6C-ROX-082923	Total/NA	Water	8011	639353
400-242724-5	MW6A-ROX-082923	Total/NA	Water	8011	639353
400-242724-6	MW6D-ROX-082923	Total/NA	Water	8011	639353
400-242724-8	TB-ROX-082923-8011-B	Total/NA	Water	8011	639353
400-242724-9	MW1-ROX-082923-EB	Total/NA	Water	8011	639353
400-242724-10	MW1-ROX-082923	Total/NA	Water	8011	639353
400-242724-11	ROST4PZG-ROX-082923	Total/NA	Water	8011	639353
400-242724-12	P56-ROX-082923	Total/NA	Water	8011	639353
400-242724-13	P93A-ROX-082923	Total/NA	Water	8011	639353
400-242724-4 MS	MW6C-ROX-082923	Total/NA	Water	8011	639353
400-242724-4 MSD	MW6C-ROX-082923	Total/NA	Water	8011	639353

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-640044/4
Matrix: Water
Analysis Batch: 640044

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			09/07/23 11:37	1
Acrolein	ND		20	3.3	ug/L			09/07/23 11:37	1
Acrylonitrile	ND		10	2.8	ug/L			09/07/23 11:37	1
Benzene	ND		1.0	0.50	ug/L			09/07/23 11:37	1
Bromobenzene	ND		1.0	0.54	ug/L			09/07/23 11:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/07/23 11:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/07/23 11:37	1
Bromoform	ND		5.0	0.25	ug/L			09/07/23 11:37	1
Bromomethane	ND		1.0	0.98	ug/L			09/07/23 11:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/07/23 11:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/07/23 11:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/07/23 11:37	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/07/23 11:37	1
Chloroethane	ND		1.0	0.76	ug/L			09/07/23 11:37	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/07/23 11:37	1
Chloroform	ND		1.0	0.90	ug/L			09/07/23 11:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/07/23 11:37	1
Chloromethane	ND		1.0	0.90	ug/L			09/07/23 11:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/07/23 11:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/07/23 11:37	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/07/23 11:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/07/23 11:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/07/23 11:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/07/23 11:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/07/23 11:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/07/23 11:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/07/23 11:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 11:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 11:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 11:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/07/23 11:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/07/23 11:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/07/23 11:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/07/23 11:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/07/23 11:37	1
2-Hexanone	ND		25	1.4	ug/L			09/07/23 11:37	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/07/23 11:37	1
Methylene bromide	ND		5.0	0.22	ug/L			09/07/23 11:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/07/23 11:37	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/07/23 11:37	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/07/23 11:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/07/23 11:37	1
Naphthalene	ND		5.0	3.0	ug/L			09/07/23 11:37	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/07/23 11:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/07/23 11:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/07/23 11:37	1
o-Xylene	ND		5.0	0.60	ug/L			09/07/23 11:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/07/23 11:37	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640044/4
Matrix: Water
Analysis Batch: 640044

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			09/07/23 11:37	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/07/23 11:37	1
Styrene	ND		1.0	1.0	ug/L			09/07/23 11:37	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/07/23 11:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/07/23 11:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/07/23 11:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/07/23 11:37	1
Toluene	ND		1.0	0.90	ug/L			09/07/23 11:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/07/23 11:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/07/23 11:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/07/23 11:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/07/23 11:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/07/23 11:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/07/23 11:37	1
Trichloroethene	ND		1.0	0.15	ug/L			09/07/23 11:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/07/23 11:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/07/23 11:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/07/23 11:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/07/23 11:37	1
Vinyl acetate	ND		25	0.93	ug/L			09/07/23 11:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/07/23 11:37	1
Xylenes, Total	ND		10	1.6	ug/L			09/07/23 11:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 130*		*09/07/23 11:37*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*09/07/23 11:37*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/07/23 11:37*	*1*

Lab Sample ID: LCS 400-640044/1002
Matrix: Water
Analysis Batch: 640044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	200		ug/L		100	43 - 160
Acrolein	500	608		ug/L		122	38 - 160
Acrylonitrile	500	504		ug/L		101	64 - 142
Benzene	50.0	46.5		ug/L		93	70 - 130
Bromobenzene	50.0	46.1		ug/L		92	70 - 132
Bromochloromethane	50.0	46.1		ug/L		92	70 - 130
Bromodichloromethane	50.0	48.0		ug/L		96	67 - 133
Bromoform	50.0	48.4		ug/L		97	57 - 140
Bromomethane	50.0	45.4		ug/L		91	10 - 160
2-Butanone (MEK)	200	230		ug/L		115	61 - 145
Carbon disulfide	50.0	34.2		ug/L		68	61 - 137
Carbon tetrachloride	50.0	49.2		ug/L		98	61 - 137
Chlorobenzene	50.0	46.3		ug/L		93	70 - 130
Chloroethane	50.0	46.2		ug/L		92	55 - 141
2-Chloroethyl vinyl ether	50.0	60.1		ug/L		120	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640044/1002
Matrix: Water
Analysis Batch: 640044

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	48.2		ug/L		96	69 - 130
1-Chlorohexane	50.0	46.9		ug/L		94	69 - 130
Chloromethane	50.0	38.4		ug/L		77	58 - 137
cis-1,2-Dichloroethene	50.0	49.1		ug/L		98	68 - 130
cis-1,3-Dichloropropene	50.0	44.6		ug/L		89	69 - 132
Dibromochloromethane	50.0	47.1		ug/L		94	67 - 135
1,2-Dichlorobenzene	50.0	44.9		ug/L		90	67 - 130
1,3-Dichlorobenzene	50.0	45.1		ug/L		90	70 - 130
1,4-Dichlorobenzene	50.0	45.0		ug/L		90	70 - 130
Dichlorodifluoromethane	50.0	47.3		ug/L		95	41 - 146
1,1-Dichloroethane	50.0	47.5		ug/L		95	70 - 130
1,2-Dichloroethane	50.0	51.3		ug/L		103	69 - 130
1,1-Dichloroethene	50.0	37.2		ug/L		74	63 - 134
1,2-Dichloropropane	50.0	46.3		ug/L		93	70 - 130
1,3-Dichloropropane	50.0	47.3		ug/L		95	70 - 130
2,2-Dichloropropane	50.0	48.9		ug/L		98	52 - 135
1,1-Dichloropropene	50.0	46.8		ug/L		94	70 - 130
Ethylbenzene	50.0	45.8		ug/L		92	70 - 130
Ethyl methacrylate	50.0	49.4		ug/L		99	68 - 130
Hexachlorobutadiene	50.0	47.2		ug/L		94	53 - 140
2-Hexanone	200	221		ug/L		110	65 - 137
Isopropylbenzene	50.0	46.3		ug/L		93	70 - 130
Methylene bromide	50.0	50.1		ug/L		100	70 - 130
Methylene Chloride	50.0	42.7		ug/L		85	66 - 135
4-Methyl-2-pentanone (MIBK)	200	200		ug/L		100	69 - 138
Methyl tert-butyl ether	50.0	47.5		ug/L		95	66 - 130
m-Xylene & p-Xylene	50.0	45.8		ug/L		92	70 - 130
Naphthalene	50.0	48.3		ug/L		97	47 - 149
n-Butylbenzene	50.0	46.1		ug/L		92	67 - 130
N-Propylbenzene	50.0	45.8		ug/L		92	70 - 130
o-Chlorotoluene	50.0	46.9		ug/L		94	70 - 130
o-Xylene	50.0	44.3		ug/L		89	70 - 130
p-Chlorotoluene	50.0	46.0		ug/L		92	70 - 130
p-Isopropyltoluene	50.0	44.4		ug/L		89	65 - 130
sec-Butylbenzene	50.0	45.6		ug/L		91	66 - 130
Styrene	50.0	44.5		ug/L		89	70 - 130
tert-Butylbenzene	50.0	45.5		ug/L		91	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.0		ug/L		94	67 - 131
1,1,2,2-Tetrachloroethane	50.0	47.2		ug/L		94	70 - 131
Tetrachloroethene	50.0	50.9		ug/L		102	65 - 130
Toluene	50.0	45.6		ug/L		91	70 - 130
trans-1,2-Dichloroethene	50.0	46.6		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	48.4		ug/L		97	63 - 130
1,2,3-Trichlorobenzene	50.0	46.5		ug/L		93	60 - 138
1,2,4-Trichlorobenzene	50.0	46.2		ug/L		92	60 - 140
1,1,1-Trichloroethane	50.0	49.8		ug/L		100	68 - 130
1,1,2-Trichloroethane	50.0	47.8		ug/L		96	70 - 130
Trichloroethene	50.0	47.6		ug/L		95	70 - 130
Trichlorofluoromethane	50.0	47.4		ug/L		95	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640044/1002
Matrix: Water
Analysis Batch: 640044

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	50.2		ug/L		100	70 - 130
1,2,4-Trimethylbenzene	50.0	43.8		ug/L		88	70 - 130
1,3,5-Trimethylbenzene	50.0	44.4		ug/L		89	69 - 130
Vinyl acetate	100	117		ug/L		117	26 - 160
Vinyl chloride	50.0	45.2		ug/L		90	59 - 136
Xylenes, Total	100	90.1		ug/L		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*72 - 130*
Dibromofluoromethane	*107*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: 400-242724-4 MS
Matrix: Water
Analysis Batch: 640044

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	136		ug/L		68	43 - 150
Acrolein	ND		500	506		ug/L		101	38 - 150
Acrylonitrile	ND		500	496		ug/L		99	62 - 149
Benzene	ND		50.0	46.6		ug/L		93	56 - 142
Bromobenzene	ND		50.0	46.0		ug/L		92	59 - 136
Bromochloromethane	ND		50.0	46.3		ug/L		93	64 - 140
Bromodichloromethane	ND		50.0	48.1		ug/L		96	59 - 143
Bromoform	ND		50.0	47.7		ug/L		95	50 - 140
Bromomethane	ND		50.0	24.4		ug/L		49	10 - 150
2-Butanone (MEK)	ND		200	195		ug/L		98	55 - 150
Carbon disulfide	ND		50.0	34.4		ug/L		69	48 - 150
Carbon tetrachloride	ND		50.0	47.6		ug/L		95	55 - 145
Chlorobenzene	ND		50.0	46.1		ug/L		92	64 - 130
Chloroethane	ND		50.0	40.8		ug/L		82	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	48.4		ug/L		97	60 - 141
1-Chlorohexane	ND		50.0	46.0		ug/L		92	56 - 136
Chloromethane	ND		50.0	28.9		ug/L		58	49 - 148
cis-1,2-Dichloroethene	ND		50.0	48.4		ug/L		97	59 - 143
cis-1,3-Dichloropropene	ND		50.0	44.4		ug/L		89	57 - 140
Dibromochloromethane	ND		50.0	46.7		ug/L		93	56 - 143
1,2-Dichlorobenzene	ND		50.0	45.4		ug/L		91	52 - 137
1,3-Dichlorobenzene	ND		50.0	45.2		ug/L		90	54 - 135
1,4-Dichlorobenzene	ND		50.0	44.8		ug/L		90	53 - 135
Dichlorodifluoromethane	ND		50.0	36.4		ug/L		73	16 - 150
1,1-Dichloroethane	ND		50.0	46.7		ug/L		93	61 - 144
1,2-Dichloroethane	0.64	J	50.0	52.2		ug/L		103	60 - 141
1,1-Dichloroethene	ND		50.0	37.5		ug/L		75	54 - 147
1,2-Dichloropropane	ND		50.0	47.1		ug/L		94	66 - 137
1,3-Dichloropropane	ND		50.0	47.5		ug/L		95	66 - 133
2,2-Dichloropropane	ND		50.0	46.9		ug/L		94	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242724-4 MS
Matrix: Water
Analysis Batch: 640044

Client Sample ID: MW6C-ROX-082923
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	45.7		ug/L		91	65 - 136
Ethylbenzene	ND		50.0	46.1		ug/L		92	58 - 131
Ethyl methacrylate	ND		50.0	50.4		ug/L		101	64 - 130
Hexachlorobutadiene	ND	F2	50.0	49.9		ug/L		100	31 - 149
2-Hexanone	ND		200	197		ug/L		98	65 - 140
Isopropylbenzene	ND		50.0	46.2		ug/L		92	56 - 133
Methylene bromide	ND		50.0	50.2		ug/L		100	63 - 138
Methylene Chloride	ND		50.0	42.7		ug/L		85	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	198		ug/L		99	63 - 146
Methyl tert-butyl ether	ND		50.0	47.6		ug/L		95	59 - 137
m-Xylene & p-Xylene	ND		50.0	45.6		ug/L		91	57 - 130
Naphthalene	ND		50.0	48.1		ug/L		96	25 - 150
n-Butylbenzene	ND	F2	50.0	44.9		ug/L		90	41 - 142
N-Propylbenzene	ND	F2	50.0	44.9		ug/L		90	51 - 138
o-Chlorotoluene	ND		50.0	44.9		ug/L		90	53 - 134
o-Xylene	ND		50.0	44.8		ug/L		90	61 - 130
p-Chlorotoluene	ND		50.0	45.6		ug/L		91	54 - 133
p-Isopropyltoluene	ND	F2	50.0	44.7		ug/L		89	48 - 139
sec-Butylbenzene	ND	F2	50.0	44.9		ug/L		90	50 - 138
Styrene	ND		50.0	44.8		ug/L		90	58 - 131
tert-Butylbenzene	ND	F2	50.0	45.0		ug/L		90	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	48.5		ug/L		97	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	47.8		ug/L		96	66 - 135
Tetrachloroethene	ND		50.0	44.9		ug/L		90	52 - 133
Toluene	ND		50.0	45.2		ug/L		90	65 - 130
trans-1,2-Dichloroethene	ND		50.0	45.6		ug/L		91	61 - 143
trans-1,3-Dichloropropene	ND		50.0	48.3		ug/L		97	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	46.3		ug/L		93	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	45.6		ug/L		91	39 - 148
1,1,1-Trichloroethane	ND		50.0	48.1		ug/L		96	57 - 142
1,1,2-Trichloroethane	ND		50.0	48.0		ug/L		96	66 - 131
Trichloroethene	ND		50.0	46.8		ug/L		94	64 - 136
Trichlorofluoromethane	ND		50.0	41.0		ug/L		82	54 - 150
1,2,3-Trichloropropane	ND		50.0	50.2		ug/L		100	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	43.7		ug/L		87	50 - 139
1,3,5-Trimethylbenzene	ND	F2	50.0	44.6		ug/L		89	52 - 135
Vinyl acetate	ND		100	100		ug/L		100	26 - 150
Vinyl chloride	ND		50.0	36.2		ug/L		72	46 - 150
Xylenes, Total	ND		100	90.4		ug/L		90	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*72 - 130*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242724-4 MSD
Matrix: Water
Analysis Batch: 640044

Client Sample ID: MW6C-ROX-082923
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	131		ug/L		65	43 - 150	4	30
Acrolein	ND		500	514		ug/L		103	38 - 150	2	31
Acrylonitrile	ND		500	490		ug/L		98	62 - 149	1	30
Benzene	ND		50.0	41.3		ug/L		83	56 - 142	12	30
Bromobenzene	ND		50.0	38.5		ug/L		77	59 - 136	18	30
Bromochloromethane	ND		50.0	43.1		ug/L		86	64 - 140	7	30
Bromodichloromethane	ND		50.0	44.0		ug/L		88	59 - 143	9	30
Bromoform	ND		50.0	45.4		ug/L		91	50 - 140	5	30
Bromomethane	ND		50.0	29.0		ug/L		58	10 - 150	17	50
2-Butanone (MEK)	ND		200	190		ug/L		95	55 - 150	3	30
Carbon disulfide	ND		50.0	30.1		ug/L		60	48 - 150	13	30
Carbon tetrachloride	ND		50.0	41.9		ug/L		84	55 - 145	13	30
Chlorobenzene	ND		50.0	37.9		ug/L		76	64 - 130	19	30
Chloroethane	ND		50.0	38.1		ug/L		76	50 - 150	7	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	44.3		ug/L		89	60 - 141	9	30
1-Chlorohexane	ND		50.0	34.8		ug/L		70	56 - 136	28	30
Chloromethane	ND		50.0	29.8		ug/L		60	49 - 148	3	31
cis-1,2-Dichloroethene	ND		50.0	44.5		ug/L		89	59 - 143	8	30
cis-1,3-Dichloropropene	ND		50.0	40.2		ug/L		80	57 - 140	10	30
Dibromochloromethane	ND		50.0	43.5		ug/L		87	56 - 143	7	30
1,2-Dichlorobenzene	ND		50.0	36.5		ug/L		73	52 - 137	22	30
1,3-Dichlorobenzene	ND		50.0	34.8		ug/L		70	54 - 135	26	30
1,4-Dichlorobenzene	ND		50.0	34.6		ug/L		69	53 - 135	26	30
Dichlorodifluoromethane	ND		50.0	36.3		ug/L		73	16 - 150	0	31
1,1-Dichloroethane	ND		50.0	43.4		ug/L		87	61 - 144	7	30
1,2-Dichloroethane	0.64	J	50.0	48.9		ug/L		97	60 - 141	6	30
1,1-Dichloroethene	ND		50.0	33.0		ug/L		66	54 - 147	13	30
1,2-Dichloropropane	ND		50.0	44.1		ug/L		88	66 - 137	7	30
1,3-Dichloropropane	ND		50.0	44.9		ug/L		90	66 - 133	6	30
2,2-Dichloropropane	ND		50.0	43.8		ug/L		88	42 - 144	7	31
1,1-Dichloropropene	ND		50.0	40.1		ug/L		80	65 - 136	13	30
Ethylbenzene	ND		50.0	36.0		ug/L		72	58 - 131	25	30
Ethyl methacrylate	ND		50.0	48.2		ug/L		96	64 - 130	4	30
Hexachlorobutadiene	ND	F2	50.0	30.4	F2	ug/L		61	31 - 149	49	36
2-Hexanone	ND		200	192		ug/L		96	65 - 140	2	30
Isopropylbenzene	ND		50.0	34.0		ug/L		68	56 - 133	30	30
Methylene bromide	ND		50.0	47.2		ug/L		94	63 - 138	6	30
Methylene Chloride	ND		50.0	39.9		ug/L		80	60 - 146	7	32
4-Methyl-2-pentanone (MIBK)	ND		200	193		ug/L		96	63 - 146	3	30
Methyl tert-butyl ether	ND		50.0	46.8		ug/L		94	59 - 137	2	30
m-Xylene & p-Xylene	ND		50.0	35.3		ug/L		71	57 - 130	25	30
Naphthalene	ND		50.0	44.1		ug/L		88	25 - 150	9	30
n-Butylbenzene	ND	F2	50.0	29.0	F2	ug/L		58	41 - 142	43	31
N-Propylbenzene	ND	F2	50.0	32.4	F2	ug/L		65	51 - 138	32	30
o-Chlorotoluene	ND		50.0	34.1		ug/L		68	53 - 134	27	30
o-Xylene	ND		50.0	35.2		ug/L		70	61 - 130	24	30
p-Chlorotoluene	ND		50.0	34.6		ug/L		69	54 - 133	28	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242724-4 MSD
Matrix: Water
Analysis Batch: 640044

Client Sample ID: MW6C-ROX-082923
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	F2	50.0	30.0	F2	ug/L		60	48 - 139	39	30
sec-Butylbenzene	ND	F2	50.0	31.4	F2	ug/L		63	50 - 138	35	30
Styrene	ND		50.0	35.5		ug/L		71	58 - 131	23	30
tert-Butylbenzene	ND	F2	50.0	33.1	F2	ug/L		66	54 - 146	31	30
1,1,1,2-Tetrachloroethane	ND		50.0	41.4		ug/L		83	59 - 137	16	30
1,1,2,2-Tetrachloroethane	ND		50.0	46.2		ug/L		92	66 - 135	3	30
Tetrachloroethene	ND		50.0	36.1		ug/L		72	52 - 133	22	30
Toluene	ND		50.0	38.5		ug/L		77	65 - 130	16	30
trans-1,2-Dichloroethene	ND		50.0	41.0		ug/L		82	61 - 143	11	30
trans-1,3-Dichloropropene	ND		50.0	44.4		ug/L		89	53 - 133	8	30
1,2,3-Trichlorobenzene	ND		50.0	38.7		ug/L		77	43 - 145	18	30
1,2,4-Trichlorobenzene	ND		50.0	36.3		ug/L		73	39 - 148	23	30
1,1,1-Trichloroethane	ND		50.0	43.6		ug/L		87	57 - 142	10	30
1,1,2-Trichloroethane	ND		50.0	44.8		ug/L		90	66 - 131	7	30
Trichloroethene	ND		50.0	40.4		ug/L		81	64 - 136	15	30
Trichlorofluoromethane	ND		50.0	37.3		ug/L		75	54 - 150	10	30
1,2,3-Trichloropropane	ND		50.0	48.8		ug/L		98	65 - 133	3	30
1,2,4-Trimethylbenzene	ND		50.0	32.5		ug/L		65	50 - 139	29	30
1,3,5-Trimethylbenzene	ND	F2	50.0	32.7	F2	ug/L		65	52 - 135	31	30
Vinyl acetate	ND		100	97.7		ug/L		98	26 - 150	2	33
Vinyl chloride	ND		50.0	36.1		ug/L		72	46 - 150	0	30
Xylenes, Total	ND		100	70.4		ug/L		70	59 - 130	25	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 130*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: MB 400-640194/4
Matrix: Water
Analysis Batch: 640194

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			09/08/23 10:52	1
Acrolein	ND		20	3.3	ug/L			09/08/23 10:52	1
Acrylonitrile	ND		10	2.8	ug/L			09/08/23 10:52	1
Benzene	ND		1.0	0.50	ug/L			09/08/23 10:52	1
Bromobenzene	ND		1.0	0.54	ug/L			09/08/23 10:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/08/23 10:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/08/23 10:52	1
Bromoform	ND		5.0	0.25	ug/L			09/08/23 10:52	1
Bromomethane	ND		1.0	0.98	ug/L			09/08/23 10:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/08/23 10:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/08/23 10:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/08/23 10:52	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/08/23 10:52	1
Chloroethane	ND		1.0	0.76	ug/L			09/08/23 10:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/08/23 10:52	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640194/4
Matrix: Water
Analysis Batch: 640194

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.90	ug/L			09/08/23 10:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/08/23 10:52	1
Chloromethane	ND		1.0	0.90	ug/L			09/08/23 10:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/08/23 10:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/08/23 10:52	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/08/23 10:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/08/23 10:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/08/23 10:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/08/23 10:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/08/23 10:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/08/23 10:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/08/23 10:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 10:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 10:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 10:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/08/23 10:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/08/23 10:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/08/23 10:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/08/23 10:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/08/23 10:52	1
2-Hexanone	ND		25	1.4	ug/L			09/08/23 10:52	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/08/23 10:52	1
Methylene bromide	ND		5.0	0.22	ug/L			09/08/23 10:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/08/23 10:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/08/23 10:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/08/23 10:52	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/08/23 10:52	1
Naphthalene	ND		5.0	3.0	ug/L			09/08/23 10:52	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/08/23 10:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/08/23 10:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/08/23 10:52	1
o-Xylene	ND		5.0	0.60	ug/L			09/08/23 10:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/08/23 10:52	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/08/23 10:52	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/08/23 10:52	1
Styrene	ND		1.0	1.0	ug/L			09/08/23 10:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/08/23 10:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/08/23 10:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/08/23 10:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/08/23 10:52	1
Toluene	ND		1.0	0.90	ug/L			09/08/23 10:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/08/23 10:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/08/23 10:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/08/23 10:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/08/23 10:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/08/23 10:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/08/23 10:52	1
Trichloroethene	ND		1.0	0.15	ug/L			09/08/23 10:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/08/23 10:52	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640194/4
Matrix: Water
Analysis Batch: 640194

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			09/08/23 10:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/08/23 10:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/08/23 10:52	1
Vinyl acetate	ND		25	0.93	ug/L			09/08/23 10:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/08/23 10:52	1
Xylenes, Total	ND		10	1.6	ug/L			09/08/23 10:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 130*		*09/08/23 10:52*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*09/08/23 10:52*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/08/23 10:52*	*1*

Lab Sample ID: LCS 400-640194/1002
Matrix: Water
Analysis Batch: 640194

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	241		ug/L		121	43 - 160
Acrolein	500	605		ug/L		121	38 - 160
Acrylonitrile	500	593		ug/L		119	64 - 142
Benzene	50.0	54.1		ug/L		108	70 - 130
Bromobenzene	50.0	52.7		ug/L		105	70 - 132
Bromochloromethane	50.0	54.3		ug/L		109	70 - 130
Bromodichloromethane	50.0	58.1		ug/L		116	67 - 133
Bromoform	50.0	56.4		ug/L		113	57 - 140
Bromomethane	50.0	29.4		ug/L		59	10 - 160
2-Butanone (MEK)	200	278		ug/L		139	61 - 145
Carbon disulfide	50.0	39.3		ug/L		79	61 - 137
Carbon tetrachloride	50.0	56.0		ug/L		112	61 - 137
Chlorobenzene	50.0	53.8		ug/L		108	70 - 130
Chloroethane	50.0	44.0		ug/L		88	55 - 141
2-Chloroethyl vinyl ether	50.0	59.7		ug/L		119	10 - 160
Chloroform	50.0	56.2		ug/L		112	69 - 130
1-Chlorohexane	50.0	53.6		ug/L		107	69 - 130
Chloromethane	50.0	38.9		ug/L		78	58 - 137
cis-1,2-Dichloroethene	50.0	56.7		ug/L		113	68 - 130
cis-1,3-Dichloropropene	50.0	53.3		ug/L		107	69 - 132
Dibromochloromethane	50.0	56.4		ug/L		113	67 - 135
1,2-Dichlorobenzene	50.0	52.7		ug/L		105	67 - 130
1,3-Dichlorobenzene	50.0	51.9		ug/L		104	70 - 130
1,4-Dichlorobenzene	50.0	51.9		ug/L		104	70 - 130
Dichlorodifluoromethane	50.0	43.2		ug/L		86	41 - 146
1,1-Dichloroethane	50.0	54.5		ug/L		109	70 - 130
1,2-Dichloroethane	50.0	61.4		ug/L		123	69 - 130
1,1-Dichloroethene	50.0	42.5		ug/L		85	63 - 134
1,2-Dichloropropane	50.0	56.8		ug/L		114	70 - 130
1,3-Dichloropropane	50.0	56.4		ug/L		113	70 - 130
2,2-Dichloropropane	50.0	55.1		ug/L		110	52 - 135

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640194/1002
Matrix: Water
Analysis Batch: 640194

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	53.3		ug/L		107	70 - 130
Ethylbenzene	50.0	53.0		ug/L		106	70 - 130
Ethyl methacrylate	50.0	58.6		ug/L		117	68 - 130
Hexachlorobutadiene	50.0	55.2		ug/L		110	53 - 140
2-Hexanone	200	260		ug/L		130	65 - 137
Isopropylbenzene	50.0	53.2		ug/L		106	70 - 130
Methylene bromide	50.0	60.4		ug/L		121	70 - 130
Methylene Chloride	50.0	50.2		ug/L		100	66 - 135
4-Methyl-2-pentanone (MIBK)	200	244		ug/L		122	69 - 138
Methyl tert-butyl ether	50.0	55.3		ug/L		111	66 - 130
m-Xylene & p-Xylene	50.0	52.5		ug/L		105	70 - 130
Naphthalene	50.0	53.8		ug/L		108	47 - 149
n-Butylbenzene	50.0	50.6		ug/L		101	67 - 130
N-Propylbenzene	50.0	51.7		ug/L		103	70 - 130
o-Chlorotoluene	50.0	50.0		ug/L		100	70 - 130
o-Xylene	50.0	51.4		ug/L		103	70 - 130
p-Chlorotoluene	50.0	52.8		ug/L		106	70 - 130
p-Isopropyltoluene	50.0	51.2		ug/L		102	65 - 130
sec-Butylbenzene	50.0	51.6		ug/L		103	66 - 130
Styrene	50.0	52.2		ug/L		104	70 - 130
tert-Butylbenzene	50.0	51.5		ug/L		103	64 - 139
1,1,1,2-Tetrachloroethane	50.0	56.2		ug/L		112	67 - 131
1,1,2,2-Tetrachloroethane	50.0	55.2		ug/L		110	70 - 131
Tetrachloroethene	50.0	58.6		ug/L		117	65 - 130
Toluene	50.0	52.1		ug/L		104	70 - 130
trans-1,2-Dichloroethene	50.0	52.7		ug/L		105	70 - 130
trans-1,3-Dichloropropene	50.0	57.7		ug/L		115	63 - 130
1,2,3-Trichlorobenzene	50.0	52.5		ug/L		105	60 - 138
1,2,4-Trichlorobenzene	50.0	52.7		ug/L		105	60 - 140
1,1,1-Trichloroethane	50.0	56.8		ug/L		114	68 - 130
1,1,2-Trichloroethane	50.0	56.4		ug/L		113	70 - 130
Trichloroethene	50.0	55.1		ug/L		110	70 - 130
Trichlorofluoromethane	50.0	48.4		ug/L		97	65 - 138
1,2,3-Trichloropropane	50.0	58.3		ug/L		117	70 - 130
1,2,4-Trimethylbenzene	50.0	50.3		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	50.0	51.0		ug/L		102	69 - 130
Vinyl acetate	100	122		ug/L		122	26 - 160
Vinyl chloride	50.0	42.4		ug/L		85	59 - 136
Xylenes, Total	100	104		ug/L		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*72 - 130*
Dibromofluoromethane	*104*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

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

Lab Sample ID: MB 400-639760/1-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 18:36	1
Benzenethiol	ND		10	1.7	ug/L		09/05/23 14:55	09/07/23 18:36	1
Benzoic acid	ND		30	7.3	ug/L		09/05/23 14:55	09/07/23 18:36	1
Benzyl alcohol	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 18:36	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 18:36	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 18:36	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/05/23 14:55	09/07/23 18:36	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Chloroaniline	ND		10	3.4	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Chlorophenol	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Dibenzofuran	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 18:36	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Diethyl phthalate	ND		10	0.24	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 18:36	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 18:36	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 18:36	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 18:36	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 18:36	1
1,4-Dioxane	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 18:36	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/05/23 14:55	09/07/23 18:36	1
Hexachloroethane	ND		10	4.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
Indene	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Isophorone	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Methylphenol	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 18:36	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Nitroaniline	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
3-Nitroaniline	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Nitroaniline	ND		10	1.5	ug/L		09/05/23 14:55	09/07/23 18:36	1
Nitrobenzene	ND		10	0.13	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Nitrophenol	ND		10	5.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Nitrophenol	ND		10	2.1	ug/L		09/05/23 14:55	09/07/23 18:36	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 18:36	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/05/23 14:55	09/07/23 18:36	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/05/23 14:55	09/07/23 18:36	1
Pentachlorophenol	ND		20	1.4	ug/L		09/05/23 14:55	09/07/23 18:36	1
Phenol	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 18:36	1

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

Lab Sample ID: MB 400-639760/1-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
Quinoline	ND		10	4.5	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 18:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
2-Fluorophenol	*48*		*13 - 113*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
Phenol-d5	*69*		*17 - 127*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
Terphenyl-d14	*89*		*44 - 149*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*09/05/23 14:55*	*09/07/23 18:36*	*1*

Lab Sample ID: LCS 400-639760/14-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	ND	*-	ug/L		1	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*66*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*59*		*36 - 126*
Phenol-d5	*47*		*17 - 127*
Terphenyl-d14	*77*		*44 - 149*
2,4,6-Tribromophenol	*51*		*26 - 150*

Lab Sample ID: LCS 400-639760/2-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	82.3		ug/L		69	21 - 120
Benzoic acid	522	269		ug/L		52	10 - 144
Benzyl alcohol	120	94.0		ug/L		78	28 - 120
Bis(2-chloroethoxy)methane	120	77.7		ug/L		65	47 - 120
Bis(2-chloroethyl)ether	120	78.7		ug/L		66	44 - 120
bis (2-chloroisopropyl) ether	120	80.2		ug/L		67	33 - 121
Bis(2-ethylhexyl) phthalate	120	82.6		ug/L		69	52 - 147
4-Bromophenyl phenyl ether	120	93.9		ug/L		78	54 - 122
Butyl benzyl phthalate	120	82.4		ug/L		69	54 - 133
4-Chloroaniline	120	53.4		ug/L		45	26 - 120
4-Chloro-3-methylphenol	120	91.5		ug/L		76	48 - 131
2-Chloronaphthalene	120	87.5		ug/L		73	52 - 121
2-Chlorophenol	120	80.7		ug/L		67	40 - 120
4-Chlorophenyl phenyl ether	120	103		ug/L		86	56 - 125
Dibenz[a,h]acridine	120	105		ug/L		88	31 - 150

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

Lab Sample ID: LCS 400-639760/2-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenzofuran	120	93.1		ug/L		78	56 - 122
3,3'-Dichlorobenzidine	160	140		ug/L		88	36 - 132
2,4-Dichlorophenol	120	85.1		ug/L		71	49 - 120
Diethyl phthalate	120	91.7		ug/L		76	50 - 137
2,4-Dimethylphenol	120	90.1		ug/L		75	48 - 120
Dimethyl phthalate	120	92.6		ug/L		77	57 - 124
Di-n-butyl phthalate	120	87.2		ug/L		73	58 - 126
4,6-Dinitro-ortho-cresol	240	186		ug/L		78	23 - 148
2,4-Dinitrophenol	240	184		ug/L		77	10 - 150
2,4-Dinitrotoluene	120	98.1		ug/L		82	54 - 142
2,6-Dinitrotoluene	120	90.3		ug/L		75	55 - 130
Di-n-octyl phthalate	120	84.1		ug/L		70	57 - 138
1,4-Dioxane	120	63.6		ug/L		53	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	82.3		ug/L		69	45 - 124
Hexachlorobenzene	120	93.4		ug/L		78	52 - 129
Hexachlorocyclopentadiene	120	38.8		ug/L		32	10 - 134
Hexachloroethane	120	69.4		ug/L		58	20 - 120
Indene	120	84.4		ug/L		70	49 - 120
Isophorone	120	83.9		ug/L		70	48 - 120
2-Methylphenol	120	87.6		ug/L		73	46 - 124
3 & 4 Methylphenol	120	89.7		ug/L		75	45 - 120
2-Nitroaniline	120	97.3		ug/L		81	51 - 145
3-Nitroaniline	120	94.4		ug/L		79	37 - 127
4-Nitroaniline	120	115		ug/L		96	36 - 137
Nitrobenzene	120	82.3		ug/L		69	45 - 120
2-Nitrophenol	120	86.1		ug/L		72	40 - 124
4-Nitrophenol	240	207		ug/L		86	23 - 146
N-Nitrosodimethylamine	120	94.0		ug/L		78	29 - 137
N-Nitrosodi-n-propylamine	120	95.2		ug/L		79	45 - 120
N-Nitrosodiphenylamine	119	86.0		ug/L		72	54 - 120
Pentachlorophenol	240	169		ug/L		71	31 - 130
Phenol	120	89.4		ug/L		74	11 - 120
Pyridine	240	130		ug/L		54	16 - 120
Quinoline	120	102		ug/L		86	49 - 130
2,4,5-Trichlorophenol	120	101		ug/L		84	51 - 136
2,4,6-Trichlorophenol	120	91.6		ug/L		76	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*64*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*76*		*26 - 150*

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

Lab Sample ID: LCSD 400-639760/15-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639760

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	76.4	*1	ug/L		64	10 - 120	192	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*69*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*69*		*26 - 150*

Lab Sample ID: 400-242724-4 MS
Matrix: Water
Analysis Batch: 640111

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		118	84.5		ug/L		72	10 - 120
Benzoic acid	ND		512	334		ug/L		65	10 - 149
Benzyl alcohol	ND		118	93.1		ug/L		79	33 - 120
Bis(2-chloroethoxy)methane	ND		118	78.0		ug/L		66	26 - 120
Bis(2-chloroethyl)ether	ND		118	75.8		ug/L		64	42 - 120
bis (2-chloroisopropyl) ether	ND		118	79.1		ug/L		67	28 - 120
Bis(2-ethylhexyl) phthalate	ND		118	84.6		ug/L		72	39 - 120
4-Bromophenyl phenyl ether	ND		118	93.2		ug/L		79	40 - 120
Butyl benzyl phthalate	ND		118	84.4		ug/L		72	45 - 120
4-Chloroaniline	ND		118	72.9		ug/L		62	10 - 120
4-Chloro-3-methylphenol	ND		118	89.9		ug/L		76	34 - 120
2-Chloronaphthalene	ND		118	86.4		ug/L		73	39 - 120
2-Chlorophenol	ND		118	68.2		ug/L		58	25 - 120
4-Chlorophenyl phenyl ether	ND		118	103		ug/L		88	44 - 120
Dibenz[a,h]acridine	ND		117	103		ug/L		88	50 - 150
Dibenzofuran	ND		118	92.9		ug/L		79	25 - 130
3,3'-Dichlorobenzidine	ND		157	127		ug/L		81	10 - 120
2,4-Dichlorophenol	ND		118	79.9		ug/L		68	31 - 120
Diethyl phthalate	ND		118	92.5		ug/L		79	46 - 120
2,4-Dimethylphenol	ND		118	88.6		ug/L		75	21 - 120
Dimethyl phthalate	ND		118	93.9		ug/L		80	38 - 120
Di-n-butyl phthalate	ND		118	87.9		ug/L		75	49 - 120
4,6-Dinitro-ortho-cresol	ND		235	192		ug/L		81	25 - 120
2,4-Dinitrophenol	ND		235	204		ug/L		86	15 - 140
2,4-Dinitrotoluene	ND		118	97.8		ug/L		83	53 - 120
2,6-Dinitrotoluene	ND		118	92.5		ug/L		79	43 - 120
Di-n-octyl phthalate	ND		118	85.2		ug/L		72	35 - 121
1,4-Dioxane	ND		118	64.2		ug/L		55	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		118	82.6		ug/L		70	50 - 150
Hexachlorobenzene	ND		118	93.2		ug/L		79	38 - 122
Hexachlorocyclopentadiene	ND		118	57.1		ug/L		49	10 - 120
Hexachloroethane	ND		118	67.6		ug/L		57	10 - 150

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

Lab Sample ID: 400-242724-4 MS
Matrix: Water
Analysis Batch: 640111

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indene	ND		118	83.1		ug/L		71	50 - 150
Isophorone	ND		118	83.3		ug/L		71	42 - 120
2-Methylphenol	ND		118	82.3		ug/L		70	28 - 120
3 & 4 Methylphenol	ND		118	84.4		ug/L		72	31 - 120
2-Nitroaniline	ND		118	97.1		ug/L		82	45 - 120
3-Nitroaniline	ND		118	93.0		ug/L		79	10 - 130
4-Nitroaniline	ND		118	105		ug/L		89	10 - 132
Nitrobenzene	ND		118	82.5		ug/L		70	39 - 120
2-Nitrophenol	ND		118	78.5		ug/L		67	33 - 120
4-Nitrophenol	ND		235	214		ug/L		91	10 - 120
N-Nitrosodimethylamine	ND		118	92.7		ug/L		79	10 - 139
N-Nitrosodi-n-propylamine	ND		118	93.5		ug/L		79	37 - 124
N-Nitrosodiphenylamine	ND		117	85.4		ug/L		73	10 - 150
Pentachlorophenol	ND		235	178		ug/L		75	29 - 130
Phenol	ND		118	79.6		ug/L		68	10 - 150
Pyridine	ND		235	130		ug/L		55	10 - 120
Quinoline	ND		117	101		ug/L		86	51 - 120
2,4,5-Trichlorophenol	ND		118	101		ug/L		86	34 - 120
2,4,6-Trichlorophenol	ND		118	89.5		ug/L		76	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*46*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*67*		*17 - 127*
Terphenyl-d14	*89*		*44 - 149*
2,4,6-Tribromophenol	*78*		*26 - 150*

Lab Sample ID: 400-242724-4 MSD
Matrix: Water
Analysis Batch: 640111

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		118	83.0		ug/L		70	10 - 120	2	63
Benzoic acid	ND		512	326		ug/L		64	10 - 149	2	49
Benzyl alcohol	ND		118	86.9		ug/L		74	33 - 120	7	37
Bis(2-chloroethoxy)methane	ND		118	72.5		ug/L		62	26 - 120	7	70
Bis(2-chloroethyl)ether	ND		118	68.9		ug/L		59	42 - 120	10	42
bis (2-chloroisopropyl) ether	ND		118	74.0		ug/L		63	28 - 120	7	41
Bis(2-ethylhexyl) phthalate	ND		118	77.0		ug/L		65	39 - 120	9	35
4-Bromophenyl phenyl ether	ND		118	87.3		ug/L		74	40 - 120	7	30
Butyl benzyl phthalate	ND		118	80.3		ug/L		68	45 - 120	5	32
4-Chloroaniline	ND		118	49.8		ug/L		42	10 - 120	38	94
4-Chloro-3-methylphenol	ND		118	85.4		ug/L		73	34 - 120	5	40
2-Chloronaphthalene	ND		118	80.3		ug/L		68	39 - 120	7	29
2-Chlorophenol	ND		118	74.3		ug/L		63	25 - 120	9	42
4-Chlorophenyl phenyl ether	ND		118	94.1		ug/L		80	44 - 120	9	27
Dibenz[a,h]acridine	ND		117	96.6		ug/L		82	50 - 150	7	40

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

Lab Sample ID: 400-242724-4 MSD
Matrix: Water
Analysis Batch: 640111

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenzofuran	ND		118	84.9		ug/L		72	25 - 130	9	29
3,3'-Dichlorobenzidine	ND		157	121		ug/L		77	10 - 120	5	58
2,4-Dichlorophenol	ND		118	80.1		ug/L		68	31 - 120	0	43
Diethyl phthalate	ND		118	84.4		ug/L		72	46 - 120	9	40
2,4-Dimethylphenol	ND		118	85.5		ug/L		73	21 - 120	4	47
Dimethyl phthalate	ND		118	85.5		ug/L		73	38 - 120	9	36
Di-n-butyl phthalate	ND		118	78.8		ug/L		67	49 - 120	11	32
4,6-Dinitro-ortho-cresol	ND		235	183		ug/L		78	25 - 120	5	42
2,4-Dinitrophenol	ND		235	191		ug/L		81	15 - 140	6	36
2,4-Dinitrotoluene	ND		118	91.7		ug/L		78	53 - 120	6	28
2,6-Dinitrotoluene	ND		118	85.1		ug/L		72	43 - 120	8	28
Di-n-octyl phthalate	ND		118	76.2		ug/L		65	35 - 121	11	35
1,4-Dioxane	ND		118	62.6		ug/L		53	50 - 150	2	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		118	77.2		ug/L		66	50 - 150	7	40
Hexachlorobenzene	ND		118	87.2		ug/L		74	38 - 122	7	33
Hexachlorocyclopentadiene	ND		118	61.2		ug/L		52	10 - 120	7	50
Hexachloroethane	ND		118	64.2		ug/L		55	10 - 150	5	41
Indene	ND		118	78.2		ug/L		66	50 - 150	6	40
Isophorone	ND		118	77.7		ug/L		66	42 - 120	7	33
2-Methylphenol	ND		118	82.1		ug/L		70	28 - 120	0	47
3 & 4 Methylphenol	ND		118	83.1		ug/L		71	31 - 120	2	47
2-Nitroaniline	ND		118	91.1		ug/L		77	45 - 120	6	33
3-Nitroaniline	ND		118	87.7		ug/L		74	10 - 130	6	39
4-Nitroaniline	ND		118	102		ug/L		86	10 - 132	4	50
Nitrobenzene	ND		118	78.3		ug/L		67	39 - 120	5	35
2-Nitrophenol	ND		118	83.6		ug/L		71	33 - 120	6	43
4-Nitrophenol	ND		235	206		ug/L		88	10 - 120	4	82
N-Nitrosodimethylamine	ND		118	93.0		ug/L		79	10 - 139	0	62
N-Nitrosodi-n-propylamine	ND		118	88.7		ug/L		75	37 - 124	5	36
N-Nitrosodiphenylamine	ND		117	80.6		ug/L		69	10 - 150	6	34
Pentachlorophenol	ND		235	169		ug/L		72	29 - 130	5	42
Phenol	ND		118	84.0		ug/L		71	10 - 150	5	52
Pyridine	ND		235	124		ug/L		52	10 - 120	5	55
Quinoline	ND		117	94.1		ug/L		80	51 - 120	7	40
2,4,5-Trichlorophenol	ND		118	95.4		ug/L		81	34 - 120	5	42
2,4,6-Trichlorophenol	ND		118	85.6		ug/L		73	33 - 120	4	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*56*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*75*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-639760/1-A
Matrix: Water
Analysis Batch: 640207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/05/23 14:55	09/08/23 15:52	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/05/23 14:55	09/08/23 15:52	1
Anthracene	ND		0.20	0.047	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/05/23 14:55	09/08/23 15:52	1
Chrysene	ND		0.20	0.033	ug/L		09/05/23 14:55	09/08/23 15:52	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/05/23 14:55	09/08/23 15:52	1
Fluoranthene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 15:52	1
Fluorene	ND		0.20	0.089	ug/L		09/05/23 14:55	09/08/23 15:52	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 15:52	1
Phenanthrene	ND		0.20	0.090	ug/L		09/05/23 14:55	09/08/23 15:52	1
Pyrene	ND		0.20	0.039	ug/L		09/05/23 14:55	09/08/23 15:52	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/05/23 14:55	09/08/23 15:52	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/05/23 14:55	09/08/23 15:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*96*		*18 - 147*	*09/05/23 14:55*	*09/08/23 15:52*	*1*
2-Fluorobiphenyl	*83*		*15 - 128*	*09/05/23 14:55*	*09/08/23 15:52*	*1*
Nitrobenzene-d5	*63*		*10 - 144*	*09/05/23 14:55*	*09/08/23 15:52*	*1*

Lab Sample ID: LCS 400-639760/16-A
Matrix: Water
Analysis Batch: 640207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.59		ug/L		80	40 - 140
Acenaphthylene	2.00	1.55		ug/L		77	40 - 140
Anthracene	2.00	1.56		ug/L		78	40 - 140
Benzo[a]anthracene	2.00	1.55		ug/L		78	40 - 140
Benzo[a]pyrene	2.00	1.28		ug/L		64	40 - 140
Benzo[b]fluoranthene	2.00	1.35		ug/L		67	40 - 140
Benzo[g,h,i]perylene	2.00	1.32		ug/L		66	40 - 140
Benzo[k]fluoranthene	2.00	1.37		ug/L		68	40 - 140
Chrysene	2.00	1.57		ug/L		79	40 - 140
Dibenz(a,h)anthracene	2.00	1.18		ug/L		59	40 - 140
Fluoranthene	2.00	1.74		ug/L		87	40 - 140
Fluorene	2.00	1.58		ug/L		79	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.26		ug/L		63	40 - 140
Phenanthrene	2.00	1.59		ug/L		80	40 - 140
Pyrene	2.00	1.43		ug/L		71	40 - 140
1-Methylnaphthalene	2.00	1.61		ug/L		80	40 - 140
2-Methylnaphthalene	2.00	1.59		ug/L		80	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*84*		*18 - 147*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-639760/16-A
Matrix: Water
Analysis Batch: 640207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	76		15 - 128
Nitrobenzene-d5	61		10 - 144

Lab Sample ID: LCSD 400-639760/17-A
Matrix: Water
Analysis Batch: 640207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639760

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.54		ug/L		77	40 - 140	4	40
Acenaphthylene			2.00	1.59		ug/L		80	40 - 140	3	40
Anthracene			2.00	1.50		ug/L		75	40 - 140	4	40
Benzo[a]anthracene			2.00	1.54		ug/L		77	40 - 140	1	40
Benzo[a]pyrene			2.00	1.29		ug/L		65	40 - 140	1	40
Benzo[b]fluoranthene			2.00	1.29		ug/L		64	40 - 140	4	40
Benzo[g,h,i]perylene			2.00	1.30		ug/L		65	40 - 140	1	40
Benzo[k]fluoranthene			2.00	1.34		ug/L		67	40 - 140	2	40
Chrysene			2.00	1.51		ug/L		76	40 - 140	4	40
Dibenz(a,h)anthracene			2.00	1.20		ug/L		60	40 - 140	2	40
Fluoranthene			2.00	1.71		ug/L		86	40 - 140	2	40
Fluorene			2.00	1.61		ug/L		81	40 - 140	2	40
Indeno[1,2,3-cd]pyrene			2.00	1.28		ug/L		64	40 - 140	1	40
Phenanthrene			2.00	1.49		ug/L		74	40 - 140	7	40
Pyrene			2.00	1.33		ug/L		67	40 - 140	7	40
1-Methylnaphthalene			2.00	1.56		ug/L		78	40 - 140	3	40
2-Methylnaphthalene			2.00	1.53		ug/L		76	40 - 140	4	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Terphenyl-d14	84		18 - 147
2-Fluorobiphenyl	73		15 - 128
Nitrobenzene-d5	58		10 - 144

Lab Sample ID: 400-242724-4 MS
Matrix: Water
Analysis Batch: 640207

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		118	95.7		ug/L		81	50 - 150
Acenaphthylene	ND		118	100		ug/L		85	50 - 150
Anthracene	ND		118	97.7		ug/L		83	50 - 150
Benzo[a]anthracene	ND		118	98.5		ug/L		84	50 - 150
Benzo[a]pyrene	ND		118	88.5		ug/L		75	50 - 150
Benzo[b]fluoranthene	ND		118	94.3		ug/L		80	50 - 150
Benzo[g,h,i]perylene	ND		118	93.5		ug/L		79	50 - 150
Benzo[k]fluoranthene	ND		118	81.3		ug/L		69	50 - 150
Chrysene	ND		118	90.9		ug/L		77	50 - 150
Dibenz(a,h)anthracene	ND		118	91.1		ug/L		77	50 - 150
Fluoranthene	ND		118	106		ug/L		90	50 - 150
Fluorene	ND		118	101		ug/L		85	50 - 150

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 400-242724-4 MS
Matrix: Water
Analysis Batch: 640207

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indeno[1,2,3-cd]pyrene	ND		118	93.3		ug/L		79	50 - 150
Phenanthrene	ND		118	93.7		ug/L		80	50 - 150
Pyrene	ND		118	80.8		ug/L		69	50 - 150
1-Methylnaphthalene	ND		118	79.5		ug/L		68	50 - 150
2-Methylnaphthalene	ND		118	78.6		ug/L		67	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*78*		*18 - 147*
2-Fluorobiphenyl	*78*		*15 - 128*
Nitrobenzene-d5	*58*		*10 - 144*

Lab Sample ID: 400-242724-4 MSD
Matrix: Water
Analysis Batch: 640207

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		118	95.1		ug/L		81	50 - 150	1	40
Acenaphthylene	ND		118	98.6		ug/L		84	50 - 150	1	40
Anthracene	ND		118	97.2		ug/L		83	50 - 150	1	40
Benzo[a]anthracene	ND		118	96.1		ug/L		82	50 - 150	2	40
Benzo[a]pyrene	ND		118	88.8		ug/L		75	50 - 150	0	40
Benzo[b]fluoranthene	ND		118	87.1		ug/L		74	50 - 150	8	40
Benzo[g,h,i]perylene	ND		118	85.4		ug/L		73	50 - 150	9	40
Benzo[k]fluoranthene	ND		118	85.7		ug/L		73	50 - 150	5	40
Chrysene	ND		118	88.5		ug/L		75	50 - 150	3	40
Dibenz(a,h)anthracene	ND		118	86.0		ug/L		73	50 - 150	6	40
Fluoranthene	ND		118	105		ug/L		89	50 - 150	1	40
Fluorene	ND		118	99.5		ug/L		85	50 - 150	1	40
Indeno[1,2,3-cd]pyrene	ND		118	87.2		ug/L		74	50 - 150	7	40
Phenanthrene	ND		118	92.8		ug/L		79	50 - 150	1	40
Pyrene	ND		118	77.3		ug/L		66	50 - 150	4	40
1-Methylnaphthalene	ND		118	79.7		ug/L		68	50 - 150	0	40
2-Methylnaphthalene	ND		118	78.8		ug/L		67	50 - 150	0	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*75*		*18 - 147*
2-Fluorobiphenyl	*77*		*15 - 128*
Nitrobenzene-d5	*59*		*10 - 144*

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/12/23 10:32	09/15/23 16:40	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/12/23 10:32	09/15/23 16:40	1
Anthracene	ND		0.20	0.047	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/12/23 10:32	09/15/23 16:40	1
Chrysene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/15/23 16:40	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/12/23 10:32	09/15/23 16:40	1
Fluoranthene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Fluorene	ND		0.20	0.089	ug/L		09/12/23 10:32	09/15/23 16:40	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Phenanthrene	ND		0.20	0.090	ug/L		09/12/23 10:32	09/15/23 16:40	1
Pyrene	ND		0.20	0.039	ug/L		09/12/23 10:32	09/15/23 16:40	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/12/23 10:32	09/15/23 16:40	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/12/23 10:32	09/15/23 16:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*94*		*18 - 147*	*09/12/23 10:32*	*09/15/23 16:40*	*1*
2-Fluorobiphenyl	*75*		*15 - 128*	*09/12/23 10:32*	*09/15/23 16:40*	*1*
Nitrobenzene-d5	*69*		*10 - 144*	*09/12/23 10:32*	*09/15/23 16:40*	*1*

Lab Sample ID: LCS 400-640651/19-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.64		ug/L		82	40 - 140
Acenaphthylene	2.00	1.79		ug/L		89	40 - 140
Anthracene	2.00	1.55		ug/L		77	40 - 140
Benzo[a]anthracene	2.00	1.74		ug/L		87	40 - 140
Benzo[a]pyrene	2.00	1.41		ug/L		71	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		78	40 - 140
Benzo[g,h,i]perylene	2.00	1.54		ug/L		77	40 - 140
Benzo[k]fluoranthene	2.00	1.60		ug/L		80	40 - 140
Chrysene	2.00	1.73		ug/L		87	40 - 140
Dibenz(a,h)anthracene	2.00	1.37		ug/L		69	40 - 140
Fluoranthene	2.00	1.78		ug/L		89	40 - 140
Fluorene	2.00	1.67		ug/L		83	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.45		ug/L		73	40 - 140
Phenanthrene	2.00	1.52		ug/L		76	40 - 140
Pyrene	2.00	1.72		ug/L		86	40 - 140
1-Methylnaphthalene	2.00	1.74		ug/L		87	40 - 140
2-Methylnaphthalene	2.00	1.78		ug/L		89	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*112*		*18 - 147*
2-Fluorobiphenyl	*91*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-640651/20-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.63		ug/L		81	40 - 140	1	40
Acenaphthylene			2.00	1.75		ug/L		87	40 - 140	2	40
Anthracene			2.00	1.57		ug/L		79	40 - 140	1	40
Benzo[a]anthracene			2.00	1.82		ug/L		91	40 - 140	4	40
Benzo[a]pyrene			2.00	1.43		ug/L		72	40 - 140	2	40
Benzo[b]fluoranthene			2.00	1.46		ug/L		73	40 - 140	6	40
Benzo[g,h,i]perylene			2.00	1.47		ug/L		74	40 - 140	4	40
Benzo[k]fluoranthene			2.00	1.54		ug/L		77	40 - 140	4	40
Chrysene			2.00	1.72		ug/L		86	40 - 140	1	40
Dibenz(a,h)anthracene			2.00	1.34		ug/L		67	40 - 140	2	40
Fluoranthene			2.00	1.82		ug/L		91	40 - 140	3	40
Fluorene			2.00	1.63		ug/L		82	40 - 140	2	40
Indeno[1,2,3-cd]pyrene			2.00	1.44		ug/L		72	40 - 140	1	40
Phenanthrene			2.00	1.54		ug/L		77	40 - 140	1	40
Pyrene			2.00	1.71		ug/L		85	40 - 140	1	40
1-Methylnaphthalene			2.00	1.83		ug/L		91	40 - 140	5	40
2-Methylnaphthalene			2.00	1.86		ug/L		93	40 - 140	4	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*112*		*18 - 147*
2-Fluorobiphenyl	*94*		*15 - 128*
Nitrobenzene-d5	*67*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-639353/1-A
Matrix: Water
Analysis Batch: 639362

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639353

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		08/31/23 14:48	08/31/23 17:10	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		08/31/23 14:48	08/31/23 17:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*150*	*S1+*	*51 - 149*	*08/31/23 14:48*	*08/31/23 17:10*	*1*

Lab Sample ID: LCS 400-639353/2-A
Matrix: Water
Analysis Batch: 639362

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639353

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane			0.101	0.223	*+	ug/L		222	60 - 140
1,2-Dibromoethane			0.101	0.200	*+	ug/L		198	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*149*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-639353/3-A
Matrix: Water
Analysis Batch: 639362

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639353

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.230	*+	ug/L		229	60 - 140	9	30
1,2-Dibromoethane			0.101	0.216	*+	ug/L		215	60 - 140	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*164*	*S1+*	*51 - 149*

Lab Sample ID: 400-242724-4 MS
Matrix: Water
Analysis Batch: 639478

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639353

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane	ND	*+ F1	0.103	0.334	F1	ug/L		325	10 - 150		
1,2-Dibromoethane	ND	*+ F1 F2	0.103	0.223	F1	ug/L		216	39 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*146*		*51 - 149*

Lab Sample ID: 400-242724-4 MSD
Matrix: Water
Analysis Batch: 639478

Client Sample ID: MW6C-ROX-082923
Prep Type: Total/NA
Prep Batch: 639353

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND	*+ F1	0.103	0.353	F1	ug/L		343	10 - 150	5	20
1,2-Dibromoethane	ND	*+ F1	0.103	0.218	F1	ug/L		211	39 - 150	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*139*		*51 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____) 400-242724 COC

☐ 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: 8/29/2023
PO #	**GSAP Project ID**	PAGE: 1 of 2
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2

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; ioredana.filimon@aecom.com**

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.3.2

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-082923-8260-A	8/29/2023	0000	Water	2					2	X			
	TB-ROX-082923-8011-A	8/29/2023	0000	Water	2					2		X		
	MW26-ROX-082923	8/29/2023	0920	Water	6			2		8	X	X	X	X
	MW6C-ROX-082923	8/29/2023	1100	Water	6			2		8	X	X	X	X
	MW6C-ROX-082923-MS	8/29/2023	1100	Water	6			2		8	X	X	X	X
	MW6C-ROX-082923-MSD	8/29/2023	1100	Water	6			2		8	X	X	X	X
	MW6A-ROX-082923	8/29/2023	1220	Water	6			2		8	X	X	X	X
	MW6D-ROX-082923	8/29/2023	1330	Water	6			2		8	X	X	X	X

8-29-23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time
JOE MAYER	FEDEX: 6339 6594 5813, 6339 6594 5824	8/29/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time
		8/30/23	0930
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

CUSTODY SEALS: 1599768, 1599769, 1599770, 1599771

0.0°C IR8
2.1° IR8

Version: 10/2022

Page 80 of 94

9/22/2023

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: 8/29/2023
PO #	**GSAP Project ID**	PAGE: 2 of 2
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2
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. 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 :

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* Please include "J" values on Reports
* Please provide sample receipt upon login.
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☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.3.2

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 8270 SIMS
	TB-ROX-082923-8260-B	8/29/2023	0000	Water	2					2	X			
	TB-ROX-082923-8011-B	8/29/2023	0000	Water	2					2		X		
	MW1-ROX-082923-EB	8/29/2023	0810	Water	6			2		8	X	X	X	X
	MW1-ROX-082923	8/29/2023	0925	Water	6			2		8	X	X	X	X
	ROST4PZG-ROX-082923	8/29/2023	1035	Water	6			2		8	X	X	X	X
	P56-ROX-082923	8/29/2023	1250	Water	6			2		8	X	X	X	X
	P93A-ROX-082923	8/29/2023	1340	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: See page 1	8/29/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 8/30/23	Time: 0930
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

8/29/23

CUSTODY SEALS: See page 1

0,0°C IR8

Version: 12July23

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-242724-1

Login Number: 242724
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, 2.1°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: 400-242724-1
Project/Site: ROXANA MONTHLY 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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

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Roxana Groundwater Monthly August/September 2023 Data Review

Laboratory SDG: 400-242794-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 10/4/2023

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

Sample Identification	Sample Identification
TB-ROX-083023-8260-A	TB-ROX-083023-8011-A
MW6B-ROX-083023	MW6B-ROX-083023-DUP
MW11-ROX-083023	MW28-ROX-083023
P54-ROX-083023	TB-ROX-083023-8260-B
TB-ROX-083023-8011-B	P93D-ROX-083023
ROST4PZC-ROX-083023	ROST4PZE-ROX-083023
MW12-ROX-083023-EB	MW12-ROX-083023
MW22-083023	--

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 PAHs in samples MW6B-ROX-083023-DUP, P54-ROX-083023, P93D-ROX-083023 and MW12-ROX-083023 were re-extracted outside extraction time criteria. LCS/LCSD recoveries and the LCS/LCSD RPD for benzenethiol were outside evaluation criteria. Several SVOC and VOC by 8011 surrogate recoveries were outside criteria in several investigative and quality control samples. MS/MSD recoveries for 2-chloroethyl vinyl ether were outside evaluation criteria in sample P93D-ROX-083023. VOCs in sample MW22-083023 were diluted to bring target analytes into calibration range of the instrument. The initial calibration verification (ICV) and the continuing calibration verification (CCV) for several analytes was outside evaluation criteria, biased low. The CCV for fluoranthene was outside evaluation criteria, biased high. 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 sample receipt form indicated a discrepancy on the COC with respect to the sample label ID for sample MW6B-ROX-083023-DUP; the sample label was correctly used in processing and reporting the sample. No qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No, PAHs in samples MW6B-ROX-083023-DUP, P54-ROX-083023, P93D-ROX-083023 and MW12-ROX-083023 were re-extracted 7 days outside of extraction time criteria (7 days) and then re-analyzed for confirmation; the samples were re-extracted out of hold time and the results were non-detect. Holding time exceedances were not greater than two times (2X) criteria; both sets of data are reported. With regard to initial MW6B-ROX-083023-DUP, P54-ROX-083023, P93D-ROX-083023 and MW12-ROX-083023 PAH data, the laboratory previously 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. Data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW6B-ROX-083023-DUP – RERA	PAHs	Dibenz(a,h)anthracene	UJ
MW6B-ROX-083023-DUP – RERA	PAHs	Fluoranthene	UJ
MW6B-ROX-083023-DUP – RERA	PAHs	Indeno[1,2,3-cd]pyrene	UJ
P54-ROX-083023 – RERA	PAHs	Acenaphthylene	UJ
P54-ROX-083023 – RERA	PAHs	Benzo[a]anthracene	UJ
P54-ROX-083023 – RERA	PAHs	Benzo[a]pyrene	UJ
P54-ROX-083023 – RERA	PAHs	Benzo[b]fluoranthene	UJ
P54-ROX-083023 – RERA	PAHs	Benzo[g,h,i]perylene	UJ
P54-ROX-083023 – RERA	PAHs	Benzo[k]fluoranthene	UJ
P54-ROX-083023 – RERA	PAHs	Chrysene	UJ
P54-ROX-083023 – RERA	PAHs	Dibenz(a,h)anthracene	UJ
P54-ROX-083023 – RERA	PAHs	Indeno[1,2,3-cd]pyrene	UJ
P93D-ROX-083023 – RERA	PAHs	Acenaphthylene	UJ
P93D-ROX-083023 – RERA	PAHs	Benzo[b]fluoranthene	UJ
P93D-ROX-083023 – RERA	PAHs	Benzo[k]fluoranthene	UJ
P93D-ROX-083023 – RERA	PAHs	Chrysene	UJ
P93D-ROX-083023 – RERA	PAHs	Dibenz(a,h)anthracene	UJ
P93D-ROX-083023 – RERA	PAHs	Fluoranthene	UJ
P93D-ROX-083023 – RERA	PAHs	Indeno[1,2,3-cd]pyrene	UJ
MW12-ROX-083023 – RERA	PAHs	Acenaphthylene	UJ
MW12-ROX-083023 – RERA	PAHs	Benzo[a]anthracene	UJ
MW12-ROX-083023 – RERA	PAHs	Benzo[a]pyrene	UJ
MW12-ROX-083023 – RERA	PAHs	Benzo[b]fluoranthene	UJ
MW12-ROX-083023 – RERA	PAHs	Benzo[g,h,i]perylene	UJ
MW12-ROX-083023 – RERA	PAHs	Benzo[k]fluoranthene	UJ
MW12-ROX-083023 – RERA	PAHs	Chrysene	UJ
MW12-ROX-083023 – RERA	PAHs	Dibenz(a,h)anthracene	UJ
MW12-ROX-083023 – RERA	PAHs	Indeno[1,2,3-cd]pyrene	UJ

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 400-639760/14-A/15-A	SVOCs	Benzenethiol	**1**/64	**192**	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
MW6B-ROX-083023	SVOCs	Benzenethiol	**UJ**
MW6B-ROX-083023-DUP	SVOCs	Benzenethiol	**UJ**
MW11-ROX-083023	SVOCs	Benzenethiol	**UJ**
MW28-ROX-083023	SVOCs	Benzenethiol	**UJ**
P54-ROX-083023	SVOCs	Benzenethiol	**UJ**
P93D-ROX-083023	SVOCs	Benzenethiol	**UJ**
ROST4PZC-ROX-083023	SVOCs	Benzenethiol	**UJ**
ROST4PZE-ROX-083023	SVOCs	Benzenethiol	**UJ**
MW12-ROX-083023	SVOCs	Benzenethiol	**UJ**
MW22-083023	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW6B-ROX-083023-DUP	SVOCs	2-Fluorobiphenyl	**41**	46-124
MW28-ROX-083023	SVOCs	2-Fluorophenol	**10**	13-113
LCS 400-639897/2-A	VOCs by 8011	4-Bromofluorobenzene	**47**	51-149

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Laboratory control samples 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 P93D-ROX-083023 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
P93D-ROX-083023 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50

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.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-083023	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?

Yes

Field ID	Field Duplicate ID
MW6B-ROX-083023	MW6B-ROX-083023-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 initial calibration verification (ICV) for 4,6-dinitro-ortho-cresol and 3,3'-dichlorobenzidine, and the continuing calibration verification (CCV) for several analytes were outside evaluation criteria, biased low. The CCV for fluoranthene was outside evaluation criteria, biased high. Fluoranthene in sample MW6B-ROX-083023-DUP, has been previously qualified in Section 3.0 of this data review due to due to hold time exceedance; no further qualification of data is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-083023	VOCs	Dichlorodifluoromethane	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW22-083023	VOCs	Dichlorodifluoromethane	UJ
MW6B-ROX-083023	VOCs	Dichlorodifluoromethane	UJ
MW6B-ROX-083023-DUP	VOCs	Dichlorodifluoromethane	UJ
MW28-ROX-083023	VOCs	Dichlorodifluoromethane	UJ
P54-ROX-083023	VOCs	Dichlorodifluoromethane	UJ
ROST4PZC-ROX-083023	VOCs	Dichlorodifluoromethane	UJ
MW12-ROX-083023	VOCs	Dichlorodifluoromethane	UJ
MW11-ROX-083023	VOCs	Dichlorodifluoromethane	UJ
ROST4PZE-ROX-083023	VOCs	Dichlorodifluoromethane	UJ
MW11-ROX-083023	VOCs	2-Chloroethyl vinyl ether	UJ
ROST4PZE-ROX-083023	VOCs	2-Chloroethyl vinyl ether	UJ
MW6B-ROX-083023-DUP	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW6B-ROX-083023-DUP	SVOCs	3,3'-Dichlorobenzidine	UJ
MW11-ROX-083023	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW11-ROX-083023	SVOCs	3,3'-Dichlorobenzidine	UJ
MW28-ROX-083023	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW28-ROX-083023	SVOCs	3,3'-Dichlorobenzidine	UJ
P54-ROX-083023	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P54-ROX-083023	SVOCs	3,3'-Dichlorobenzidine	UJ
ROST4PZC-ROX-083023	SVOCs	4,6-Dinitro-ortho-cresol	UJ
ROST4PZC-ROX-083023	SVOCs	3,3'-Dichlorobenzidine	UJ
ROST4PZE-ROX-083023	SVOCs	4,6-Dinitro-ortho-cresol	UJ
ROST4PZE-ROX-083023	SVOCs	3,3'-Dichlorobenzidine	UJ
MW12-ROX-083023	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW12-ROX-083023	SVOCs	3,3'-Dichlorobenzidine	UJ
MW22-083023	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW22-083023	SVOCs	3,3'-Dichlorobenzidine	UJ
MW6B-ROX-083023	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW6B-ROX-083023	SVOCs	3,3'-Dichlorobenzidine	UJ
MW6B-ROX-083023-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
MW11-ROX-083023	SVOCs	Hexachlorocyclopentadiene	UJ
MW28-ROX-083023	SVOCs	Hexachlorocyclopentadiene	UJ
P54-ROX-083023	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZC-ROX-083023	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZE-ROX-083023	SVOCs	Hexachlorocyclopentadiene	UJ
MW12-ROX-083023	SVOCs	Hexachlorocyclopentadiene	UJ
MW22-083023	SVOCs	Hexachlorocyclopentadiene	UJ
MW6B-ROX-083023	SVOCs	Hexachlorocyclopentadiene	UJ
P93D-ROX-083023	SVOCs	Aniline	UJ
P93D-ROX-083023	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZE-ROX-083023	PAHs	Fluoranthene	J

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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 9/18/2023 1:26:00 PM

JOB DESCRIPTION

ROXANA MONTHLY GW

JOB NUMBER

400-242794-1

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

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Job ID: 400-242794-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-242794-1

Receipt
The samples were received on 8/31/2023 9:19 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 3.3°C and 5.3°C

Receipt Exceptions
COC says project is Roxana Monthly GW, there is no project with that description, picked the closest one.

The container label for the following sample(s) did not match the information listed on the Chain-of-Custody (COC):The container labels list MW6B-ROX-083023-DUP, while the COC lists MW6B-ROX-083023. Used the container labels to login because there is already a sample MW-6B.

GC/MS VOA
Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-633903 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-640361 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-640361 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640361 recovered outside acceptance criteria, low biased, for Dichlorodifluoromethane. 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 8260D: 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-083023-8260-A (400-242794-1), MW6B-ROX-083023 (400-242794-3), MW6B-ROX-083023-DUP (400-242794-4), MW28-ROX-083023 (400-242794-6), P54-ROX-083023 (400-242794-7), TB-ROX-083023-8260-B (400-242794-8), P93D-ROX-083023 (400-242794-10), ROST4PZC-ROX-083023 (400-242794-11), MW12-ROX-083023-EB (400-242794-13), MW12-ROX-083023 (400-242794-14) and MW22-083023 (400-242795-1). 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 8260D: The continuing calibration verification (CCV) associated with batch 400-640415 recovered outside acceptance criteria, low biased, for 2-Chloroethyl vinyl ether and Dichlorodifluoromethane. 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 8260D: The continuing calibration verification (CCV) associated with batch 400-640415 recovered above the upper control limit for 1-Chlorohexane and Hexachlorobutadiene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260D: 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: MW11-ROX-083023 (400-242794-5) and ROST4PZE-ROX-083023 (400-242794-12). 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 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW22-083023 (400-242795-1). Elevated reporting limits (RLs) are provided.

Job ID: 400-242794-1 (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/MS Semi VOA

Method 8270E: The laboratory control sample (LCS) for preparation batch 400-639760 and analytical batch 400-640111 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-639415 was outside method criteria for the following analyte(s): Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-639760 and analytical batch 400-640111 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640527 recovered above the upper control limit for 2,4,5-Trichlorophenol, 2-Nitrophenol and 4-Chlorophenyl phenyl ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640527 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 8270E: The continuing calibration verification (CCV) associated with batch 400-640723 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 8270E: The continuing calibration verification (CCV) associated with batch 400-640672 recovered above the upper control limit for 2,4,5-Trichlorophenol, 2,4-Dinitrotoluene, 2-Nitrophenol, 4-Bromophenyl phenyl ether, 4-Chlorophenyl phenyl ether, 4-Nitrophenol, Dibenzofuran, Diethyl phthalate and Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640672 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-637784 was outside method criteria for the following analyte(s): 3,3'-Dichlorobenzidine and 4,6-Dinitro-ortho-cresol. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640846 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene and Aniline. 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 8270E: The initial calibration verification (ICV) analyzed in batch 400-633924 was outside method criteria for the following analyte(s): Hexachlorocyclopentadiene. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E_SIM: The continuing calibration verification (CCV) associated with batch 400-640497 recovered above the upper control limit for Fluoranthene. The samples associated with this CCV were below the reporting limits (RL) for the affected analytes; therefore, the data have been reported.

Job ID: 400-242794-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270E_SIM: The following samples were re-prepared outside of preparation holding time for verification: MW6B-ROX-083023-DUP (400-242794-4), P54-ROX-083023 (400-242794-7), P93D-ROX-083023 (400-242794-10) and MW12-ROX-083023 (400-242794-14). Both 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 400-639945 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: Surrogate recovery for (LCS 400-639897/2-A) was outside control limits. The spiked target analytes recovered within limits; therefore, the data has 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 MONTHLY GW

Job ID: 400-242794-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242794-1	TB-ROX-083023-8260-A	Water	08/30/23 12:00	08/31/23 09:19
400-242794-2	TB-ROX-083023-8011-A	Water	08/30/23 12:00	08/31/23 09:19
400-242794-3	MW6B-ROX-083023	Water	08/30/23 09:20	08/31/23 09:19
400-242794-4	MW6B-ROX-083023-DUP	Water	08/30/23 09:20	08/31/23 09:19
400-242794-5	MW11-ROX-083023	Water	08/30/23 10:30	08/31/23 09:19
400-242794-6	MW28-ROX-083023	Water	08/30/23 11:45	08/31/23 09:19
400-242794-7	P54-ROX-083023	Water	08/30/23 13:35	08/31/23 09:19
400-242794-8	TB-ROX-083023-8260-B	Water	08/30/23 12:00	08/31/23 09:19
400-242794-9	TB-ROX-083023-8011-B	Water	08/30/23 12:00	08/31/23 09:19
400-242794-10	P93D-ROX-083023	Water	08/30/23 09:50	08/31/23 09:19
400-242794-11	ROST4PZC-ROX-083023	Water	08/30/23 10:15	08/31/23 09:19
400-242794-12	ROST4PZE-ROX-083023	Water	08/30/23 11:00	08/31/23 09:19
400-242794-13	MW12-ROX-083023-EB	Water	08/30/23 11:50	08/31/23 09:19
400-242794-14	MW12-ROX-083023	Water	08/30/23 12:20	08/31/23 09:19
400-242795-1	MW22-083023	Water	08/30/23 13:20	08/31/23 09:19

Detection Summary

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

Job ID: 400-242794-1

Client Sample ID: TB-ROX-083023-8260-A — Lab Sample ID: 400-242794-1

No Detections.

Client Sample ID: TB-ROX-083023-8011-A — Lab Sample ID: 400-242794-2

No Detections.

Client Sample ID: MW6B-ROX-083023 — Lab Sample ID: 400-242794-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.42	J	1.0	0.22	ug/L	1		8260D	Total/NA

Client Sample ID: MW6B-ROX-083023-DUP — Lab Sample ID: 400-242794-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.47	J	1.0	0.22	ug/L	1		8260D	Total/NA
Dibenz(a,h)anthracene	0.049	J	0.20	0.047	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.090	J	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.058	J	0.20	0.033	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW11-ROX-083023 — Lab Sample ID: 400-242794-5

No Detections.

Client Sample ID: MW28-ROX-083023 — Lab Sample ID: 400-242794-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.7		1.0	0.22	ug/L	1		8260D	Total/NA

Client Sample ID: P54-ROX-083023 — Lab Sample ID: 400-242794-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.069	J	0.20	0.044	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.063	J	0.20	0.034	ug/L	1		8270E SIM	Total/NA
Benzo[a]pyrene	0.13	J	0.20	0.063	ug/L	1		8270E SIM	Total/NA
Benzo[b]fluoranthene	0.18	J	0.20	0.037	ug/L	1		8270E SIM	Total/NA
Benzo[g,h,i]perylene	0.15	J	0.20	0.027	ug/L	1		8270E SIM	Total/NA
Benzo[k]fluoranthene	0.069	J	0.20	0.061	ug/L	1		8270E SIM	Total/NA
Chrysene	0.068	J	0.20	0.033	ug/L	1		8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.071	J	0.20	0.048	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.17	J	0.20	0.034	ug/L	1		8270E SIM	Total/NA

Client Sample ID: TB-ROX-083023-8260-B — Lab Sample ID: 400-242794-8

No Detections.

Client Sample ID: TB-ROX-083023-8011-B — Lab Sample ID: 400-242794-9

No Detections.

Client Sample ID: P93D-ROX-083023 — Lab Sample ID: 400-242794-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.81	J	1.0	0.22	ug/L	1		8260D	Total/NA
Acenaphthylene	0.043	J	0.19	0.042	ug/L	1		8270E SIM	Total/NA
Benzo[b]fluoranthene	0.063	J	0.19	0.035	ug/L	1		8270E SIM	Total/NA
Benzo[k]fluoranthene	0.060	J	0.19	0.059	ug/L	1		8270E SIM	Total/NA
Chrysene	0.061	J	0.19	0.031	ug/L	1		8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.10	J	0.19	0.045	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: P93D-ROX-083023 (Continued) — Lab Sample ID: 400-242794-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	0.10	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.10	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Butyl benzyl phthalate	0.40	J	9.5	0.18	ug/L	1		8270E	Total/NA

Client Sample ID: ROST4PZC-ROX-083023 — Lab Sample ID: 400-242794-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.6		1.0	0.50	ug/L	1		8260D	Total/NA
2-Butanone (MEK)	11	J	25	2.6	ug/L	1		8260D	Total/NA
Ethylbenzene	1.9		1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	4.2		1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	28		5.0	0.63	ug/L	1		8260D	Total/NA
Naphthalene	47		5.0	3.0	ug/L	1		8260D	Total/NA
N-Propylbenzene	6.7		1.0	0.69	ug/L	1		8260D	Total/NA
o-Xylene	2.0	J	5.0	0.60	ug/L	1		8260D	Total/NA
Toluene	5.9		1.0	0.90	ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	5.0		1.0	0.82	ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	1.1		1.0	0.56	ug/L	1		8260D	Total/NA
Xylenes, Total	30		10	1.6	ug/L	1		8260D	Total/NA
Acenaphthene	0.66		0.19	0.094	ug/L	1		8270E SIM	Total/NA
Anthracene	0.27		0.19	0.044	ug/L	1		8270E SIM	Total/NA
Fluorene	0.55		0.19	0.084	ug/L	1		8270E SIM	Total/NA
Phenanthrene	1.4		0.19	0.085	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	15		0.19	0.076	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	2.3		0.19	0.062	ug/L	1		8270E SIM	Total/NA

Client Sample ID: ROST4PZE-ROX-083023 — Lab Sample ID: 400-242794-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.0		1.0	0.50	ug/L	1		8260D	Total/NA
Ethylbenzene	7.7		1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	1.8		1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	11		5.0	0.63	ug/L	1		8260D	Total/NA
Naphthalene	5.9		5.0	3.0	ug/L	1		8260D	Total/NA
N-Propylbenzene	1.8		1.0	0.69	ug/L	1		8260D	Total/NA
o-Xylene	2.1	J	5.0	0.60	ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	29		1.0	0.82	ug/L	1		8260D	Total/NA
Xylenes, Total	13		10	1.6	ug/L	1		8260D	Total/NA
Acenaphthene	0.99		0.19	0.094	ug/L	1		8270E SIM	Total/NA
Anthracene	0.76		0.19	0.045	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.13	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Fluorene	1.0		0.19	0.085	ug/L	1		8270E SIM	Total/NA
Phenanthrene	3.6		0.19	0.086	ug/L	1		8270E SIM	Total/NA
Pyrene	0.052	J	0.19	0.037	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	12		0.19	0.076	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.6		0.19	0.063	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW12-ROX-083023-EB — Lab Sample ID: 400-242794-13

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

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

Job ID: 400-242794-1

Client Sample ID: MW12-ROX-083023 — Lab Sample ID: 400-242794-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.13	J	0.19	0.042	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.046	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Benzo[a]pyrene	0.17	J	0.19	0.061	ug/L	1		8270E SIM	Total/NA
Benzo[b]fluoranthene	0.19		0.19	0.035	ug/L	1		8270E SIM	Total/NA
Benzo[g,h,i]perylene	0.17	J	0.19	0.026	ug/L	1		8270E SIM	Total/NA
Benzo[k]fluoranthene	0.082	J	0.19	0.059	ug/L	1		8270E SIM	Total/NA
Chrysene	0.045	J	0.19	0.031	ug/L	1		8270E SIM	Total/NA
Dibenz(a,h)anthracene	0.076	J	0.19	0.045	ug/L	1		8270E SIM	Total/NA
Indeno[1,2,3-cd]pyrene	0.22		0.19	0.032	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW22-083023 — Lab Sample ID: 400-242795-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	15		1.0	0.50	ug/L	1		8260D	Total/NA
Ethylbenzene	58		1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	50		1.0	0.53	ug/L	1		8260D	Total/NA
Naphthalene	89		5.0	3.0	ug/L	1		8260D	Total/NA
n-Butylbenzene	11		1.0	0.76	ug/L	1		8260D	Total/NA
N-Propylbenzene	110		1.0	0.69	ug/L	1		8260D	Total/NA
p-Isopropyltoluene	7.3		1.0	0.71	ug/L	1		8260D	Total/NA
sec-Butylbenzene	6.4		1.0	0.70	ug/L	1		8260D	Total/NA
tert-Butylbenzene	14		1.0	0.63	ug/L	1		8260D	Total/NA
Toluene	23		1.0	0.90	ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	240		1.0	0.82	ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	140		1.0	0.56	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene - DL	400		10	1.3	ug/L	2		8260D	Total/NA
Xylenes, Total - DL	400		20	3.2	ug/L	2		8260D	Total/NA
1-Methylnaphthalene	5.9		0.19	0.076	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	6.6		0.19	0.062	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-242794-1

Client Sample ID: TB-ROX-083023-8260-A
Date Collected: 08/30/23 12:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 09:30	1
Acrolein	ND		20	3.3	ug/L			09/09/23 09:30	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 09:30	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 09:30	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 09:30	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 09:30	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 09:30	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 09:30	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 09:30	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 09:30	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 09:30	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 09:30	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 09:30	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 09:30	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 09:30	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 09:30	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 09:30	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 09:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 09:30	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 09:30	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 09:30	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 09:30	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 09:30	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 09:30	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 09:30	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 09:30	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 09:30	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 09:30	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:30	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:30	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:30	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 09:30	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 09:30	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 09:30	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 09:30	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 09:30	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 09:30	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 09:30	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 09:30	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 09:30	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/09/23 09:30	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 09:30	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 09:30	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 09:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 09:30	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 09:30	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 09:30	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 09:30	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 09:30	1

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

Job ID: 400-242794-1

Client Sample ID: TB-ROX-083023-8260-A
Date Collected: 08/30/23 12:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 09:30	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 09:30	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 09:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 09:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 09:30	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 09:30	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 09:30	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 09:30	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 09:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 09:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 09:30	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 09:30	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 09:30	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 09:30	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 09:30	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 09:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 09:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 09:30	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 09:30	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 09:30	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 09:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 130*		*09/09/23 09:30*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*09/09/23 09:30*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/09/23 09:30*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: TB-ROX-083023-8011-A
Date Collected: 08/30/23 12:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-2
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-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		09/06/23 12:59	09/06/23 16:56	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 16:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*58*		*51 - 149*	*09/06/23 12:59*	*09/06/23 16:56*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW6B-ROX-083023
Date Collected: 08/30/23 09:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 13:23	1
Acrolein	ND		20	3.3	ug/L			09/09/23 13:23	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 13:23	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 13:23	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 13:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 13:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 13:23	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 13:23	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 13:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 13:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 13:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 13:23	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 13:23	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 13:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 13:23	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 13:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 13:23	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 13:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 13:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 13:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 13:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 13:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 13:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 13:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 13:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 13:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 13:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 13:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 13:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 13:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 13:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 13:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 13:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 13:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 13:23	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 13:23	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 13:23	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 13:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 13:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 13:23	1
Methyl tert-butyl ether	**0.42**	**J**	1.0	0.22	ug/L			09/09/23 13:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 13:23	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 13:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 13:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 13:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 13:23	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 13:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 13:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 13:23	1

Client Sample ID: MW6B-ROX-083023
Date Collected: 08/30/23 09:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 13:23	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 13:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 13:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 13:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 13:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 13:23	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 13:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 13:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 13:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 13:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 13:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 13:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 13:23	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 13:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 13:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 13:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 13:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 13:23	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 13:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 13:23	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 13:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/09/23 13:23*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/09/23 13:23*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/09/23 13:23*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/06/23 14:31	09/11/23 18:32	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/06/23 14:31	09/11/23 18:32	1
Anthracene	ND		0.20	0.047	ug/L		09/06/23 14:31	09/11/23 18:32	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/06/23 14:31	09/11/23 18:32	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/06/23 14:31	09/11/23 18:32	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/06/23 14:31	09/11/23 18:32	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/06/23 14:31	09/11/23 18:32	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/06/23 14:31	09/11/23 18:32	1
Chrysene	ND		0.20	0.033	ug/L		09/06/23 14:31	09/11/23 18:32	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/06/23 14:31	09/11/23 18:32	1
Fluoranthene	ND		0.20	0.034	ug/L		09/06/23 14:31	09/11/23 18:32	1
Fluorene	ND		0.20	0.089	ug/L		09/06/23 14:31	09/11/23 18:32	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/06/23 14:31	09/11/23 18:32	1
Phenanthrene	ND		0.20	0.090	ug/L		09/06/23 14:31	09/11/23 18:32	1
Pyrene	ND		0.20	0.039	ug/L		09/06/23 14:31	09/11/23 18:32	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/06/23 14:31	09/11/23 18:32	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/06/23 14:31	09/11/23 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*55*		*18 - 147*	*09/06/23 14:31*	*09/11/23 18:32*	*1*
2-Fluorobiphenyl	*54*		*15 - 128*	*09/06/23 14:31*	*09/11/23 18:32*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW6B-ROX-083023
Date Collected: 08/30/23 09:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-3
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*67*		*10 - 144*	*09/06/23 14:31*	*09/11/23 18:32*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/06/23 14:31	09/12/23 16:19	1
Benzenethiol	ND	*1	10	1.7	ug/L		09/06/23 14:31	09/12/23 16:19	1
Benzoic acid	ND		30	7.3	ug/L		09/06/23 14:31	09/12/23 16:19	1
Benzyl alcohol	ND		10	2.0	ug/L		09/06/23 14:31	09/12/23 16:19	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/06/23 14:31	09/12/23 16:19	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/06/23 14:31	09/12/23 16:19	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/06/23 14:31	09/12/23 16:19	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/06/23 14:31	09/12/23 16:19	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/06/23 14:31	09/12/23 16:19	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/06/23 14:31	09/12/23 16:19	1
4-Chloroaniline	ND		10	3.4	ug/L		09/06/23 14:31	09/12/23 16:19	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/06/23 14:31	09/12/23 16:19	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/06/23 14:31	09/12/23 16:19	1
2-Chlorophenol	ND		10	2.2	ug/L		09/06/23 14:31	09/12/23 16:19	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/06/23 14:31	09/12/23 16:19	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/06/23 14:31	09/12/23 16:19	1
Dibenzofuran	ND		10	0.17	ug/L		09/06/23 14:31	09/12/23 16:19	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/06/23 14:31	09/12/23 16:19	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/06/23 14:31	09/12/23 16:19	1
Diethyl phthalate	ND		10	0.24	ug/L		09/06/23 14:31	09/12/23 16:19	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/06/23 14:31	09/12/23 16:19	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/06/23 14:31	09/12/23 16:19	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/06/23 14:31	09/12/23 16:19	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/06/23 14:31	09/12/23 16:19	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/06/23 14:31	09/12/23 16:19	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/06/23 14:31	09/12/23 16:19	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/06/23 14:31	09/12/23 16:19	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/06/23 14:31	09/12/23 16:19	1
1,4-Dioxane	ND		10	1.0	ug/L		09/06/23 14:31	09/12/23 16:19	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/06/23 14:31	09/12/23 16:19	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/06/23 14:31	09/12/23 16:19	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/06/23 14:31	09/12/23 16:19	1
Hexachloroethane	ND		10	4.2	ug/L		09/06/23 14:31	09/12/23 16:19	1
Indene	ND		10	1.0	ug/L		09/06/23 14:31	09/12/23 16:19	1
Isophorone	ND		10	0.14	ug/L		09/06/23 14:31	09/12/23 16:19	1
2-Methylphenol	ND		10	1.8	ug/L		09/06/23 14:31	09/12/23 16:19	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/06/23 14:31	09/12/23 16:19	1
2-Nitroaniline	ND		10	2.2	ug/L		09/06/23 14:31	09/12/23 16:19	1
3-Nitroaniline	ND		10	1.8	ug/L		09/06/23 14:31	09/12/23 16:19	1
4-Nitroaniline	ND		10	1.5	ug/L		09/06/23 14:31	09/12/23 16:19	1
Nitrobenzene	ND		10	0.13	ug/L		09/06/23 14:31	09/12/23 16:19	1
2-Nitrophenol	ND		10	5.2	ug/L		09/06/23 14:31	09/12/23 16:19	1
4-Nitrophenol	ND		10	2.1	ug/L		09/06/23 14:31	09/12/23 16:19	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/06/23 14:31	09/12/23 16:19	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW6B-ROX-083023

Lab Sample ID: 400-242794-3

Date Collected: 08/30/23 09:20

Matrix: Water

Date Received: 08/31/23 09:19

Method: SW846 8270E - 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		09/06/23 14:31	09/12/23 16:19	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/06/23 14:31	09/12/23 16:19	1
Pentachlorophenol	ND		20	1.4	ug/L		09/06/23 14:31	09/12/23 16:19	1
Phenol	ND		10	2.6	ug/L		09/06/23 14:31	09/12/23 16:19	1
Pyridine	ND		10	3.2	ug/L		09/06/23 14:31	09/12/23 16:19	1
Quinoline	ND		10	4.5	ug/L		09/06/23 14:31	09/12/23 16:19	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/06/23 14:31	09/12/23 16:19	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/06/23 14:31	09/12/23 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*57*		*46 - 124*	*09/06/23 14:31*	*09/12/23 16:19*	*1*
2-Fluorophenol	*24*		*13 - 113*	*09/06/23 14:31*	*09/12/23 16:19*	*1*
Nitrobenzene-d5	*47*		*36 - 126*	*09/06/23 14:31*	*09/12/23 16:19*	*1*
Phenol-d5	*38*		*17 - 127*	*09/06/23 14:31*	*09/12/23 16:19*	*1*
Terphenyl-d14	*67*		*44 - 149*	*09/06/23 14:31*	*09/12/23 16:19*	*1*
2,4,6-Tribromophenol	*59*		*26 - 150*	*09/06/23 14:31*	*09/12/23 16:19*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/06/23 12:59	09/06/23 17:17	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		09/06/23 12:59	09/06/23 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*73*		*51 - 149*	*09/06/23 12:59*	*09/06/23 17:17*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW6B-ROX-083023-DUP
Date Collected: 08/30/23 09:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 13:48	1
Acrolein	ND		20	3.3	ug/L			09/09/23 13:48	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 13:48	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 13:48	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 13:48	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 13:48	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 13:48	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 13:48	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 13:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 13:48	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 13:48	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 13:48	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 13:48	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 13:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 13:48	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 13:48	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 13:48	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 13:48	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 13:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 13:48	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 13:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 13:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 13:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 13:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 13:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 13:48	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 13:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 13:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 13:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 13:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 13:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 13:48	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 13:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 13:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 13:48	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 13:48	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 13:48	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 13:48	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 13:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 13:48	1
Methyl tert-butyl ether	**0.47**	**J**	1.0	0.22	ug/L			09/09/23 13:48	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 13:48	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 13:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 13:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 13:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 13:48	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 13:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 13:48	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 13:48	1

Client Sample ID: MW6B-ROX-083023-DUP

Date Collected: 08/30/23 09:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 13:48	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 13:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 13:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 13:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 13:48	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 13:48	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 13:48	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 13:48	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 13:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 13:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 13:48	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 13:48	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 13:48	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 13:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 13:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 13:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 13:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 13:48	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 13:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 13:48	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*09/09/23 13:48*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/09/23 13:48*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/09/23 13:48*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		09/06/23 14:31	09/11/23 18:53	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/06/23 14:31	09/11/23 18:53	1
Anthracene	ND		0.20	0.046	ug/L		09/06/23 14:31	09/11/23 18:53	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/06/23 14:31	09/11/23 18:53	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/06/23 14:31	09/11/23 18:53	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/06/23 14:31	09/11/23 18:53	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		09/06/23 14:31	09/11/23 18:53	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/06/23 14:31	09/11/23 18:53	1
Chrysene	ND		0.20	0.032	ug/L		09/06/23 14:31	09/11/23 18:53	1
Dibenz(a,h)anthracene	**0.049**	**J**	0.20	0.047	ug/L		09/06/23 14:31	09/11/23 18:53	1
Fluoranthene	**0.090**	**J**	0.20	0.033	ug/L		09/06/23 14:31	09/11/23 18:53	1
Fluorene	ND		0.20	0.087	ug/L		09/06/23 14:31	09/11/23 18:53	1
Indeno[1,2,3-cd]pyrene	**0.058**	**J**	0.20	0.033	ug/L		09/06/23 14:31	09/11/23 18:53	1
Phenanthrene	ND		0.20	0.088	ug/L		09/06/23 14:31	09/11/23 18:53	1
Pyrene	ND		0.20	0.038	ug/L		09/06/23 14:31	09/11/23 18:53	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		09/06/23 14:31	09/11/23 18:53	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		09/06/23 14:31	09/11/23 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*79*		*18 - 147*	*09/06/23 14:31*	*09/11/23 18:53*	*1*
2-Fluorobiphenyl	*72*		*15 - 128*	*09/06/23 14:31*	*09/11/23 18:53*	*1*

Client Sample ID: MW6B-ROX-083023-DUP

Lab Sample ID: 400-242794-4

Date Collected: 08/30/23 09:20

Matrix: Water

Date Received: 08/31/23 09:19

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*88*		*10 - 144*	*09/06/23 14:31*	*09/11/23 18:53*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.097	ug/L		09/13/23 10:04	09/15/23 17:22	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		09/13/23 10:04	09/15/23 17:22	1
Anthracene	ND	H	0.20	0.046	ug/L		09/13/23 10:04	09/15/23 17:22	1
Benzo[a]anthracene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 17:22	1
Benzo[a]pyrene	ND	H	0.20	0.062	ug/L		09/13/23 10:04	09/15/23 17:22	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		09/13/23 10:04	09/15/23 17:22	1
Benzo[g,h,i]perylene	ND	H	0.20	0.026	ug/L		09/13/23 10:04	09/15/23 17:22	1
Benzo[k]fluoranthene	ND	H	0.20	0.060	ug/L		09/13/23 10:04	09/15/23 17:22	1
Chrysene	ND	H	0.20	0.032	ug/L		09/13/23 10:04	09/15/23 17:22	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		09/13/23 10:04	09/15/23 17:22	1
Fluoranthene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 17:22	1
Fluorene	ND	H	0.20	0.087	ug/L		09/13/23 10:04	09/15/23 17:22	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 17:22	1
Phenanthrene	ND	H	0.20	0.088	ug/L		09/13/23 10:04	09/15/23 17:22	1
Pyrene	ND	H	0.20	0.038	ug/L		09/13/23 10:04	09/15/23 17:22	1
1-Methylnaphthalene	ND	H	0.20	0.078	ug/L		09/13/23 10:04	09/15/23 17:22	1
2-Methylnaphthalene	ND	H	0.20	0.064	ug/L		09/13/23 10:04	09/15/23 17:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*78*		*18 - 147*	*09/13/23 10:04*	*09/15/23 17:22*	*1*
2-Fluorobiphenyl	*77*		*15 - 128*	*09/13/23 10:04*	*09/15/23 17:22*	*1*
Nitrobenzene-d5	*70*		*10 - 144*	*09/13/23 10:04*	*09/15/23 17:22*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		09/06/23 14:31	09/11/23 16:53	1
Benzenethiol	ND	*- *1	9.8	1.7	ug/L		09/06/23 14:31	09/11/23 16:53	1
Benzoic acid	ND		29	7.1	ug/L		09/06/23 14:31	09/11/23 16:53	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/06/23 14:31	09/11/23 16:53	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/06/23 14:31	09/11/23 16:53	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		09/06/23 14:31	09/11/23 16:53	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/06/23 14:31	09/11/23 16:53	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/06/23 14:31	09/11/23 16:53	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/06/23 14:31	09/11/23 16:53	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/06/23 14:31	09/11/23 16:53	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/06/23 14:31	09/11/23 16:53	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/06/23 14:31	09/11/23 16:53	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/06/23 14:31	09/11/23 16:53	1
2-Chlorophenol	ND		9.8	2.2	ug/L		09/06/23 14:31	09/11/23 16:53	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/06/23 14:31	09/11/23 16:53	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/06/23 14:31	09/11/23 16:53	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/06/23 14:31	09/11/23 16:53	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		09/06/23 14:31	09/11/23 16:53	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		09/06/23 14:31	09/11/23 16:53	1
Diethyl phthalate	ND		9.8	0.23	ug/L		09/06/23 14:31	09/11/23 16:53	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/06/23 14:31	09/11/23 16:53	1

Client Sample ID: MW6B-ROX-083023-DUP

Date Collected: 08/30/23 09:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-4
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.8	0.17	ug/L		09/06/23 14:31	09/11/23 16:53	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		09/06/23 14:31	09/11/23 16:53	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		09/06/23 14:31	09/11/23 16:53	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/06/23 14:31	09/11/23 16:53	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/06/23 14:31	09/11/23 16:53	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/06/23 14:31	09/11/23 16:53	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/06/23 14:31	09/11/23 16:53	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/06/23 14:31	09/11/23 16:53	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/06/23 14:31	09/11/23 16:53	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/06/23 14:31	09/11/23 16:53	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		09/06/23 14:31	09/11/23 16:53	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/06/23 14:31	09/11/23 16:53	1
Indene	ND		9.8	0.98	ug/L		09/06/23 14:31	09/11/23 16:53	1
Isophorone	ND		9.8	0.14	ug/L		09/06/23 14:31	09/11/23 16:53	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/06/23 14:31	09/11/23 16:53	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/06/23 14:31	09/11/23 16:53	1
2-Nitroaniline	ND		9.8	2.2	ug/L		09/06/23 14:31	09/11/23 16:53	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/06/23 14:31	09/11/23 16:53	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/06/23 14:31	09/11/23 16:53	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/06/23 14:31	09/11/23 16:53	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/06/23 14:31	09/11/23 16:53	1
4-Nitrophenol	ND		9.8	2.1	ug/L		09/06/23 14:31	09/11/23 16:53	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/06/23 14:31	09/11/23 16:53	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		09/06/23 14:31	09/11/23 16:53	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/06/23 14:31	09/11/23 16:53	1
Pentachlorophenol	ND		20	1.4	ug/L		09/06/23 14:31	09/11/23 16:53	1
Phenol	ND		9.8	2.5	ug/L		09/06/23 14:31	09/11/23 16:53	1
Pyridine	ND		9.8	3.1	ug/L		09/06/23 14:31	09/11/23 16:53	1
Quinoline	ND		9.8	4.4	ug/L		09/06/23 14:31	09/11/23 16:53	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/06/23 14:31	09/11/23 16:53	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/06/23 14:31	09/11/23 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*41*	*S1-*	*46 - 124*	*09/06/23 14:31*	*09/11/23 16:53*	*1*
2-Fluorophenol	*18*		*13 - 113*	*09/06/23 14:31*	*09/11/23 16:53*	*1*
Nitrobenzene-d5	*38*		*36 - 126*	*09/06/23 14:31*	*09/11/23 16:53*	*1*
Phenol-d5	*26*		*17 - 127*	*09/06/23 14:31*	*09/11/23 16:53*	*1*
Terphenyl-d14	*47*		*44 - 149*	*09/06/23 14:31*	*09/11/23 16:53*	*1*
2,4,6-Tribromophenol	*50*		*26 - 150*	*09/06/23 14:31*	*09/11/23 16:53*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/06/23 12:59	09/06/23 17:37	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		09/06/23 12:59	09/06/23 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*72*		*51 - 149*	*09/06/23 12:59*	*09/06/23 17:37*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW11-ROX-083023
Date Collected: 08/30/23 10:30
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/11/23 11:09	1
Acrolein	ND		20	3.3	ug/L			09/11/23 11:09	1
Acrylonitrile	ND		10	2.8	ug/L			09/11/23 11:09	1
Benzene	ND		1.0	0.50	ug/L			09/11/23 11:09	1
Bromobenzene	ND		1.0	0.54	ug/L			09/11/23 11:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/11/23 11:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/11/23 11:09	1
Bromoform	ND		5.0	0.25	ug/L			09/11/23 11:09	1
Bromomethane	ND		1.0	0.98	ug/L			09/11/23 11:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/11/23 11:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/11/23 11:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/11/23 11:09	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/11/23 11:09	1
Chloroethane	ND		1.0	0.76	ug/L			09/11/23 11:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/11/23 11:09	1
Chloroform	ND		1.0	0.90	ug/L			09/11/23 11:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/11/23 11:09	1
Chloromethane	ND		1.0	0.90	ug/L			09/11/23 11:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/11/23 11:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/11/23 11:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/11/23 11:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/11/23 11:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/11/23 11:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/11/23 11:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/11/23 11:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/11/23 11:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/11/23 11:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/11/23 11:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 11:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 11:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 11:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/11/23 11:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/11/23 11:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/11/23 11:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/11/23 11:09	1
2-Hexanone	ND		25	1.4	ug/L			09/11/23 11:09	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/11/23 11:09	1
Methylene bromide	ND		5.0	0.22	ug/L			09/11/23 11:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/11/23 11:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/11/23 11:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/11/23 11:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/11/23 11:09	1
Naphthalene	ND		5.0	3.0	ug/L			09/11/23 11:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/11/23 11:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/11/23 11:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/11/23 11:09	1
o-Xylene	ND		5.0	0.60	ug/L			09/11/23 11:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/11/23 11:09	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/11/23 11:09	1

Client Sample ID: MW11-ROX-083023
Date Collected: 08/30/23 10:30
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/11/23 11:09	1
Styrene	ND		1.0	1.0	ug/L			09/11/23 11:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/11/23 11:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/11/23 11:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/11/23 11:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/11/23 11:09	1
Toluene	ND		1.0	0.90	ug/L			09/11/23 11:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/11/23 11:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/11/23 11:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/11/23 11:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/11/23 11:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/11/23 11:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/11/23 11:09	1
Trichloroethene	ND		1.0	0.15	ug/L			09/11/23 11:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/11/23 11:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/11/23 11:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/11/23 11:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/11/23 11:09	1
Vinyl acetate	ND		25	0.93	ug/L			09/11/23 11:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/11/23 11:09	1
Xylenes, Total	ND		10	1.6	ug/L			09/11/23 11:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*72 - 130*		*09/11/23 11:09*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*09/11/23 11:09*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/11/23 11:09*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/06/23 14:31	09/11/23 19:14	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/06/23 14:31	09/11/23 19:14	1
Anthracene	ND		0.20	0.047	ug/L		09/06/23 14:31	09/11/23 19:14	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/06/23 14:31	09/11/23 19:14	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/06/23 14:31	09/11/23 19:14	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/06/23 14:31	09/11/23 19:14	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/06/23 14:31	09/11/23 19:14	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/06/23 14:31	09/11/23 19:14	1
Chrysene	ND		0.20	0.033	ug/L		09/06/23 14:31	09/11/23 19:14	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/06/23 14:31	09/11/23 19:14	1
Fluoranthene	ND		0.20	0.034	ug/L		09/06/23 14:31	09/11/23 19:14	1
Fluorene	ND		0.20	0.089	ug/L		09/06/23 14:31	09/11/23 19:14	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/06/23 14:31	09/11/23 19:14	1
Phenanthrene	ND		0.20	0.090	ug/L		09/06/23 14:31	09/11/23 19:14	1
Pyrene	ND		0.20	0.039	ug/L		09/06/23 14:31	09/11/23 19:14	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/06/23 14:31	09/11/23 19:14	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/06/23 14:31	09/11/23 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*59*		*18 - 147*	*09/06/23 14:31*	*09/11/23 19:14*	*1*
2-Fluorobiphenyl	*57*		*15 - 128*	*09/06/23 14:31*	*09/11/23 19:14*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW11-ROX-083023
Date Collected: 08/30/23 10:30
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-5
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*71*		*10 - 144*	*09/06/23 14:31*	*09/11/23 19:14*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/06/23 14:31	09/11/23 17:15	1
Benzenethiol	ND	*- *1	10	1.7	ug/L		09/06/23 14:31	09/11/23 17:15	1
Benzoic acid	ND		30	7.3	ug/L		09/06/23 14:31	09/11/23 17:15	1
Benzyl alcohol	ND		10	2.0	ug/L		09/06/23 14:31	09/11/23 17:15	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/06/23 14:31	09/11/23 17:15	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/06/23 14:31	09/11/23 17:15	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/06/23 14:31	09/11/23 17:15	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/06/23 14:31	09/11/23 17:15	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/06/23 14:31	09/11/23 17:15	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/06/23 14:31	09/11/23 17:15	1
4-Chloroaniline	ND		10	3.4	ug/L		09/06/23 14:31	09/11/23 17:15	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/06/23 14:31	09/11/23 17:15	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/06/23 14:31	09/11/23 17:15	1
2-Chlorophenol	ND		10	2.2	ug/L		09/06/23 14:31	09/11/23 17:15	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/06/23 14:31	09/13/23 02:40	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/06/23 14:31	09/11/23 17:15	1
Dibenzofuran	ND		10	0.17	ug/L		09/06/23 14:31	09/11/23 17:15	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/06/23 14:31	09/11/23 17:15	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/06/23 14:31	09/11/23 17:15	1
Diethyl phthalate	ND		10	0.24	ug/L		09/06/23 14:31	09/11/23 17:15	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/06/23 14:31	09/11/23 17:15	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/06/23 14:31	09/11/23 17:15	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/06/23 14:31	09/11/23 17:15	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/06/23 14:31	09/11/23 17:15	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/06/23 14:31	09/11/23 17:15	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/06/23 14:31	09/11/23 17:15	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/06/23 14:31	09/11/23 17:15	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/06/23 14:31	09/11/23 17:15	1
1,4-Dioxane	ND		10	1.0	ug/L		09/06/23 14:31	09/11/23 17:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/06/23 14:31	09/11/23 17:15	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/06/23 14:31	09/11/23 17:15	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/06/23 14:31	09/13/23 02:40	1
Hexachloroethane	ND		10	4.2	ug/L		09/06/23 14:31	09/11/23 17:15	1
Indene	ND		10	1.0	ug/L		09/06/23 14:31	09/11/23 17:15	1
Isophorone	ND		10	0.14	ug/L		09/06/23 14:31	09/11/23 17:15	1
2-Methylphenol	ND		10	1.8	ug/L		09/06/23 14:31	09/11/23 17:15	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/06/23 14:31	09/11/23 17:15	1
2-Nitroaniline	ND		10	2.2	ug/L		09/06/23 14:31	09/11/23 17:15	1
3-Nitroaniline	ND		10	1.8	ug/L		09/06/23 14:31	09/11/23 17:15	1
4-Nitroaniline	ND		10	1.5	ug/L		09/06/23 14:31	09/11/23 17:15	1
Nitrobenzene	ND		10	0.13	ug/L		09/06/23 14:31	09/11/23 17:15	1
2-Nitrophenol	ND		10	5.2	ug/L		09/06/23 14:31	09/13/23 02:40	1
4-Nitrophenol	ND		10	2.1	ug/L		09/06/23 14:31	09/11/23 17:15	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/06/23 14:31	09/11/23 17:15	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW11-ROX-083023

Lab Sample ID: 400-242794-5

Date Collected: 08/30/23 10:30

Matrix: Water

Date Received: 08/31/23 09:19

Method: SW846 8270E - 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		09/06/23 14:31	09/11/23 17:15	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/06/23 14:31	09/11/23 17:15	1
Pentachlorophenol	ND		20	1.4	ug/L		09/06/23 14:31	09/11/23 17:15	1
Phenol	ND		10	2.6	ug/L		09/06/23 14:31	09/11/23 17:15	1
Pyridine	ND		10	3.2	ug/L		09/06/23 14:31	09/11/23 17:15	1
Quinoline	ND		10	4.5	ug/L		09/06/23 14:31	09/11/23 17:15	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/06/23 14:31	09/13/23 02:40	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/06/23 14:31	09/11/23 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*54*		*46 - 124*	*09/06/23 14:31*	*09/13/23 02:40*	*1*
2-Fluorophenol	*32*		*13 - 113*	*09/06/23 14:31*	*09/13/23 02:40*	*1*
Nitrobenzene-d5	*54*		*36 - 126*	*09/06/23 14:31*	*09/13/23 02:40*	*1*
Phenol-d5	*46*		*17 - 127*	*09/06/23 14:31*	*09/13/23 02:40*	*1*
Terphenyl-d14	*76*		*44 - 149*	*09/06/23 14:31*	*09/13/23 02:40*	*1*
2,4,6-Tribromophenol	*46*		*26 - 150*	*09/06/23 14:31*	*09/13/23 02:40*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.017	ug/L		09/06/23 12:59	09/06/23 17:57	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*69*		*51 - 149*	*09/06/23 12:59*	*09/06/23 17:57*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW28-ROX-083023
Date Collected: 08/30/23 11:45
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 14:37	1
Acrolein	ND		20	3.3	ug/L			09/09/23 14:37	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 14:37	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 14:37	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 14:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 14:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 14:37	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 14:37	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 14:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 14:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 14:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 14:37	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 14:37	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 14:37	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 14:37	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 14:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 14:37	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 14:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 14:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 14:37	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 14:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 14:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 14:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 14:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 14:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 14:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 14:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 14:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 14:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 14:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 14:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 14:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 14:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 14:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 14:37	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 14:37	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 14:37	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 14:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 14:37	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 14:37	1
Methyl tert-butyl ether	**1.7**		1.0	0.22	ug/L			09/09/23 14:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 14:37	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 14:37	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 14:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 14:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 14:37	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 14:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 14:37	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 14:37	1

Client Sample ID: MW28-ROX-083023
Date Collected: 08/30/23 11:45
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 14:37	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 14:37	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 14:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 14:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 14:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 14:37	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 14:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 14:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 14:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 14:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 14:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 14:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 14:37	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 14:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 14:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 14:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 14:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 14:37	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 14:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 14:37	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 14:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*09/09/23 14:37*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/09/23 14:37*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/09/23 14:37*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.096	ug/L		09/06/23 14:31	09/11/23 19:35	1
Acenaphthylene	ND		0.19	0.043	ug/L		09/06/23 14:31	09/11/23 19:35	1
Anthracene	ND		0.19	0.046	ug/L		09/06/23 14:31	09/11/23 19:35	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/06/23 14:31	09/11/23 19:35	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/06/23 14:31	09/11/23 19:35	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/06/23 14:31	09/11/23 19:35	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/06/23 14:31	09/11/23 19:35	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/06/23 14:31	09/11/23 19:35	1
Chrysene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 19:35	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		09/06/23 14:31	09/11/23 19:35	1
Fluoranthene	ND		0.19	0.033	ug/L		09/06/23 14:31	09/11/23 19:35	1
Fluorene	ND		0.19	0.086	ug/L		09/06/23 14:31	09/11/23 19:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/06/23 14:31	09/11/23 19:35	1
Phenanthrene	ND		0.19	0.087	ug/L		09/06/23 14:31	09/11/23 19:35	1
Pyrene	ND		0.19	0.038	ug/L		09/06/23 14:31	09/11/23 19:35	1
1-Methylnaphthalene	ND		0.19	0.078	ug/L		09/06/23 14:31	09/11/23 19:35	1
2-Methylnaphthalene	ND		0.19	0.064	ug/L		09/06/23 14:31	09/11/23 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*58*		*18 - 147*	*09/06/23 14:31*	*09/11/23 19:35*	*1*
2-Fluorobiphenyl	*56*		*15 - 128*	*09/06/23 14:31*	*09/11/23 19:35*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW28-ROX-083023
Date Collected: 08/30/23 11:45
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-6
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*66*		*10 - 144*	*09/06/23 14:31*	*09/11/23 19:35*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		09/06/23 14:31	09/11/23 17:36	1
Benzenethiol	ND	*- *1	9.7	1.6	ug/L		09/06/23 14:31	09/11/23 17:36	1
Benzoic acid	ND		29	7.1	ug/L		09/06/23 14:31	09/11/23 17:36	1
Benzyl alcohol	ND		9.7	1.9	ug/L		09/06/23 14:31	09/11/23 17:36	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		09/06/23 14:31	09/11/23 17:36	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		09/06/23 14:31	09/11/23 17:36	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		09/06/23 14:31	09/11/23 17:36	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		09/06/23 14:31	09/11/23 17:36	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		09/06/23 14:31	09/11/23 17:36	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		09/06/23 14:31	09/11/23 17:36	1
4-Chloroaniline	ND		9.7	3.3	ug/L		09/06/23 14:31	09/11/23 17:36	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		09/06/23 14:31	09/11/23 17:36	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		09/06/23 14:31	09/11/23 17:36	1
2-Chlorophenol	ND		9.7	2.1	ug/L		09/06/23 14:31	09/11/23 17:36	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		09/06/23 14:31	09/11/23 17:36	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		09/06/23 14:31	09/11/23 17:36	1
Dibenzofuran	ND		9.7	0.16	ug/L		09/06/23 14:31	09/11/23 17:36	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		09/06/23 14:31	09/11/23 17:36	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		09/06/23 14:31	09/11/23 17:36	1
Diethyl phthalate	ND		9.7	0.23	ug/L		09/06/23 14:31	09/11/23 17:36	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		09/06/23 14:31	09/11/23 17:36	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		09/06/23 14:31	09/11/23 17:36	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		09/06/23 14:31	09/11/23 17:36	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		09/06/23 14:31	09/11/23 17:36	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/06/23 14:31	09/11/23 17:36	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		09/06/23 14:31	09/11/23 17:36	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		09/06/23 14:31	09/11/23 17:36	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		09/06/23 14:31	09/11/23 17:36	1
1,4-Dioxane	ND		9.7	0.97	ug/L		09/06/23 14:31	09/11/23 17:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		09/06/23 14:31	09/11/23 17:36	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		09/06/23 14:31	09/11/23 17:36	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/06/23 14:31	09/11/23 17:36	1
Hexachloroethane	ND		9.7	4.1	ug/L		09/06/23 14:31	09/11/23 17:36	1
Indene	ND		9.7	0.97	ug/L		09/06/23 14:31	09/11/23 17:36	1
Isophorone	ND		9.7	0.14	ug/L		09/06/23 14:31	09/11/23 17:36	1
2-Methylphenol	ND		9.7	1.7	ug/L		09/06/23 14:31	09/11/23 17:36	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/06/23 14:31	09/11/23 17:36	1
2-Nitroaniline	ND		9.7	2.1	ug/L		09/06/23 14:31	09/11/23 17:36	1
3-Nitroaniline	ND		9.7	1.7	ug/L		09/06/23 14:31	09/11/23 17:36	1
4-Nitroaniline	ND		9.7	1.5	ug/L		09/06/23 14:31	09/11/23 17:36	1
Nitrobenzene	ND		9.7	0.13	ug/L		09/06/23 14:31	09/11/23 17:36	1
2-Nitrophenol	ND		9.7	5.0	ug/L		09/06/23 14:31	09/11/23 17:36	1
4-Nitrophenol	ND		9.7	2.0	ug/L		09/06/23 14:31	09/11/23 17:36	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		09/06/23 14:31	09/11/23 17:36	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW28-ROX-083023

Date Collected: 08/30/23 11:45
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-6

Matrix: Water

Method: SW846 8270E - 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		09/06/23 14:31	09/11/23 17:36	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		09/06/23 14:31	09/11/23 17:36	1
Pentachlorophenol	ND		19	1.4	ug/L		09/06/23 14:31	09/11/23 17:36	1
Phenol	ND		9.7	2.5	ug/L		09/06/23 14:31	09/11/23 17:36	1
Pyridine	ND		9.7	3.1	ug/L		09/06/23 14:31	09/11/23 17:36	1
Quinoline	ND		9.7	4.4	ug/L		09/06/23 14:31	09/11/23 17:36	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		09/06/23 14:31	09/11/23 17:36	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		09/06/23 14:31	09/11/23 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*46 - 124*	*09/06/23 14:31*	*09/11/23 17:36*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*09/06/23 14:31*	*09/11/23 17:36*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*09/06/23 14:31*	*09/11/23 17:36*	*1*
Phenol-d5	*27*		*17 - 127*	*09/06/23 14:31*	*09/11/23 17:36*	*1*
Terphenyl-d14	*81*		*44 - 149*	*09/06/23 14:31*	*09/11/23 17:36*	*1*
2,4,6-Tribromophenol	*54*		*26 - 150*	*09/06/23 14:31*	*09/11/23 17:36*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		09/06/23 12:59	09/06/23 18:18	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*70*		*51 - 149*	*09/06/23 12:59*	*09/06/23 18:18*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: P54-ROX-083023
Date Collected: 08/30/23 13:35
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 15:02	1
Acrolein	ND		20	3.3	ug/L			09/09/23 15:02	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 15:02	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 15:02	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 15:02	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 15:02	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 15:02	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 15:02	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 15:02	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 15:02	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 15:02	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 15:02	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 15:02	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 15:02	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 15:02	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 15:02	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 15:02	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 15:02	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 15:02	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 15:02	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 15:02	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 15:02	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 15:02	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 15:02	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 15:02	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 15:02	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 15:02	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 15:02	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 15:02	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 15:02	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 15:02	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 15:02	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 15:02	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 15:02	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 15:02	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 15:02	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 15:02	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 15:02	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 15:02	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 15:02	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/09/23 15:02	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 15:02	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 15:02	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 15:02	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 15:02	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 15:02	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 15:02	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 15:02	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 15:02	1

Client Sample ID: P54-ROX-083023
Date Collected: 08/30/23 13:35
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 15:02	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 15:02	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 15:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 15:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 15:02	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 15:02	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 15:02	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 15:02	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 15:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 15:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 15:02	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 15:02	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 15:02	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 15:02	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 15:02	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 15:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 15:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 15:02	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 15:02	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 15:02	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 15:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/09/23 15:02*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/09/23 15:02*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*09/09/23 15:02*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.098	ug/L		09/06/23 14:31	09/11/23 19:56	1
Acenaphthylene	**0.069**	**J**	0.20	0.044	ug/L		09/06/23 14:31	09/11/23 19:56	1
Anthracene	ND		0.20	0.047	ug/L		09/06/23 14:31	09/11/23 19:56	1
Benzo[a]anthracene	**0.063**	**J**	0.20	0.034	ug/L		09/06/23 14:31	09/11/23 19:56	1
Benzo[a]pyrene	**0.13**	**J**	0.20	0.063	ug/L		09/06/23 14:31	09/11/23 19:56	1
Benzo[b]fluoranthene	**0.18**	**J**	0.20	0.037	ug/L		09/06/23 14:31	09/11/23 19:56	1
Benzo[g,h,i]perylene	**0.15**	**J**	0.20	0.027	ug/L		09/06/23 14:31	09/11/23 19:56	1
Benzo[k]fluoranthene	**0.069**	**J**	0.20	0.061	ug/L		09/06/23 14:31	09/11/23 19:56	1
Chrysene	**0.068**	**J**	0.20	0.033	ug/L		09/06/23 14:31	09/11/23 19:56	1
Dibenz(a,h)anthracene	**0.071**	**J**	0.20	0.048	ug/L		09/06/23 14:31	09/11/23 19:56	1
Fluoranthene	ND		0.20	0.034	ug/L		09/06/23 14:31	09/11/23 19:56	1
Fluorene	ND		0.20	0.088	ug/L		09/06/23 14:31	09/11/23 19:56	1
Indeno[1,2,3-cd]pyrene	**0.17**	**J**	0.20	0.034	ug/L		09/06/23 14:31	09/11/23 19:56	1
Phenanthrene	ND		0.20	0.089	ug/L		09/06/23 14:31	09/11/23 19:56	1
Pyrene	ND		0.20	0.039	ug/L		09/06/23 14:31	09/11/23 19:56	1
1-Methylnaphthalene	ND		0.20	0.079	ug/L		09/06/23 14:31	09/11/23 19:56	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		09/06/23 14:31	09/11/23 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*119*		*18 - 147*	*09/06/23 14:31*	*09/11/23 19:56*	*1*
2-Fluorobiphenyl	*116*		*15 - 128*	*09/06/23 14:31*	*09/11/23 19:56*	*1*

Client Sample ID: P54-ROX-083023
Date Collected: 08/30/23 13:35
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-7
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*143*		*10 - 144*	*09/06/23 14:31*	*09/11/23 19:56*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.20	0.097	ug/L		09/13/23 10:04	09/15/23 17:44	1
Acenaphthylene	ND	H	0.20	0.043	ug/L		09/13/23 10:04	09/15/23 17:44	1
Anthracene	ND	H	0.20	0.046	ug/L		09/13/23 10:04	09/15/23 17:44	1
Benzo[a]anthracene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 17:44	1
Benzo[a]pyrene	ND	H	0.20	0.063	ug/L		09/13/23 10:04	09/15/23 17:44	1
Benzo[b]fluoranthene	ND	H	0.20	0.036	ug/L		09/13/23 10:04	09/15/23 17:44	1
Benzo[g,h,i]perylene	ND	H	0.20	0.027	ug/L		09/13/23 10:04	09/15/23 17:44	1
Benzo[k]fluoranthene	ND	H	0.20	0.061	ug/L		09/13/23 10:04	09/15/23 17:44	1
Chrysene	ND	H	0.20	0.032	ug/L		09/13/23 10:04	09/15/23 17:44	1
Dibenz(a,h)anthracene	ND	H	0.20	0.047	ug/L		09/13/23 10:04	09/15/23 17:44	1
Fluoranthene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 17:44	1
Fluorene	ND	H	0.20	0.088	ug/L		09/13/23 10:04	09/15/23 17:44	1
Indeno[1,2,3-cd]pyrene	ND	H	0.20	0.033	ug/L		09/13/23 10:04	09/15/23 17:44	1
Phenanthrene	ND	H	0.20	0.089	ug/L		09/13/23 10:04	09/15/23 17:44	1
Pyrene	ND	H	0.20	0.038	ug/L		09/13/23 10:04	09/15/23 17:44	1
1-Methylnaphthalene	ND	H	0.20	0.079	ug/L		09/13/23 10:04	09/15/23 17:44	1
2-Methylnaphthalene	ND	H	0.20	0.065	ug/L		09/13/23 10:04	09/15/23 17:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*93*		*18 - 147*	*09/13/23 10:04*	*09/15/23 17:44*	*1*
2-Fluorobiphenyl	*83*		*15 - 128*	*09/13/23 10:04*	*09/15/23 17:44*	*1*
Nitrobenzene-d5	*76*		*10 - 144*	*09/13/23 10:04*	*09/15/23 17:44*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		09/06/23 14:31	09/11/23 17:57	1
Benzenethiol	ND	*- *1	9.9	1.7	ug/L		09/06/23 14:31	09/11/23 17:57	1
Benzoic acid	ND		30	7.2	ug/L		09/06/23 14:31	09/11/23 17:57	1
Benzyl alcohol	ND		9.9	2.0	ug/L		09/06/23 14:31	09/11/23 17:57	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		09/06/23 14:31	09/11/23 17:57	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		09/06/23 14:31	09/11/23 17:57	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		09/06/23 14:31	09/11/23 17:57	1
Bis(2-ethylhexyl) phthalate	ND		9.9	5.0	ug/L		09/06/23 14:31	09/11/23 17:57	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		09/06/23 14:31	09/11/23 17:57	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		09/06/23 14:31	09/11/23 17:57	1
4-Chloroaniline	ND		9.9	3.4	ug/L		09/06/23 14:31	09/11/23 17:57	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		09/06/23 14:31	09/11/23 17:57	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		09/06/23 14:31	09/11/23 17:57	1
2-Chlorophenol	ND		9.9	2.2	ug/L		09/06/23 14:31	09/11/23 17:57	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		09/06/23 14:31	09/11/23 17:57	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		09/06/23 14:31	09/11/23 17:57	1
Dibenzofuran	ND		9.9	0.17	ug/L		09/06/23 14:31	09/11/23 17:57	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		09/06/23 14:31	09/11/23 17:57	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		09/06/23 14:31	09/11/23 17:57	1
Diethyl phthalate	ND		9.9	0.24	ug/L		09/06/23 14:31	09/11/23 17:57	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		09/06/23 14:31	09/11/23 17:57	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: P54-ROX-083023
Date Collected: 08/30/23 13:35
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-7
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.9	0.17	ug/L		09/06/23 14:31	09/11/23 17:57	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		09/06/23 14:31	09/11/23 17:57	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		09/06/23 14:31	09/11/23 17:57	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/06/23 14:31	09/11/23 17:57	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		09/06/23 14:31	09/11/23 17:57	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		09/06/23 14:31	09/11/23 17:57	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		09/06/23 14:31	09/11/23 17:57	1
1,4-Dioxane	ND		9.9	0.99	ug/L		09/06/23 14:31	09/11/23 17:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		09/06/23 14:31	09/11/23 17:57	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		09/06/23 14:31	09/11/23 17:57	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/06/23 14:31	09/11/23 17:57	1
Hexachloroethane	ND		9.9	4.2	ug/L		09/06/23 14:31	09/11/23 17:57	1
Indene	ND		9.9	0.99	ug/L		09/06/23 14:31	09/11/23 17:57	1
Isophorone	ND		9.9	0.14	ug/L		09/06/23 14:31	09/11/23 17:57	1
2-Methylphenol	ND		9.9	1.8	ug/L		09/06/23 14:31	09/11/23 17:57	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/06/23 14:31	09/11/23 17:57	1
2-Nitroaniline	ND		9.9	2.2	ug/L		09/06/23 14:31	09/11/23 17:57	1
3-Nitroaniline	ND		9.9	1.8	ug/L		09/06/23 14:31	09/11/23 17:57	1
4-Nitroaniline	ND		9.9	1.5	ug/L		09/06/23 14:31	09/11/23 17:57	1
Nitrobenzene	ND		9.9	0.13	ug/L		09/06/23 14:31	09/11/23 17:57	1
2-Nitrophenol	ND		9.9	5.2	ug/L		09/06/23 14:31	09/11/23 17:57	1
4-Nitrophenol	ND		9.9	2.1	ug/L		09/06/23 14:31	09/11/23 17:57	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		09/06/23 14:31	09/11/23 17:57	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		09/06/23 14:31	09/11/23 17:57	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		09/06/23 14:31	09/11/23 17:57	1
Pentachlorophenol	ND		20	1.4	ug/L		09/06/23 14:31	09/11/23 17:57	1
Phenol	ND		9.9	2.6	ug/L		09/06/23 14:31	09/11/23 17:57	1
Pyridine	ND		9.9	3.2	ug/L		09/06/23 14:31	09/11/23 17:57	1
Quinoline	ND		9.9	4.5	ug/L		09/06/23 14:31	09/11/23 17:57	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		09/06/23 14:31	09/11/23 17:57	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		09/06/23 14:31	09/11/23 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*46 - 124*	*09/06/23 14:31*	*09/11/23 17:57*	*1*
2-Fluorophenol	*61*		*13 - 113*	*09/06/23 14:31*	*09/11/23 17:57*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*09/06/23 14:31*	*09/11/23 17:57*	*1*
Phenol-d5	*77*		*17 - 127*	*09/06/23 14:31*	*09/11/23 17:57*	*1*
Terphenyl-d14	*103*		*44 - 149*	*09/06/23 14:31*	*09/11/23 17:57*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*09/06/23 14:31*	*09/11/23 17:57*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/06/23 18:38	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*71*		*51 - 149*	*09/06/23 12:59*	*09/06/23 18:38*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: TB-ROX-083023-8260-B
Date Collected: 08/30/23 12:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 12:59	1
Acrolein	ND		20	3.3	ug/L			09/09/23 12:59	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 12:59	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 12:59	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 12:59	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 12:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 12:59	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 12:59	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 12:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 12:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 12:59	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 12:59	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 12:59	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 12:59	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 12:59	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 12:59	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 12:59	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 12:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 12:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 12:59	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 12:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 12:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 12:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 12:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 12:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 12:59	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 12:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 12:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 12:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 12:59	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 12:59	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 12:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 12:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 12:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 12:59	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 12:59	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 12:59	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 12:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 12:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 12:59	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/09/23 12:59	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 12:59	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 12:59	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 12:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 12:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 12:59	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 12:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 12:59	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 12:59	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: TB-ROX-083023-8260-B
Date Collected: 08/30/23 12:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 12:59	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 12:59	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 12:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 12:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 12:59	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 12:59	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 12:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 12:59	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 12:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 12:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 12:59	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 12:59	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 12:59	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 12:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 12:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 12:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 12:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 12:59	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 12:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 12:59	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 12:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 130*		*09/09/23 12:59*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/09/23 12:59*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/09/23 12:59*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: TB-ROX-083023-8011-B
Date Collected: 08/30/23 12:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-9
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-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/06/23 12:59	09/06/23 18:58	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		09/06/23 12:59	09/06/23 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*63*		*51 - 149*	*09/06/23 12:59*	*09/06/23 18:58*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: P93D-ROX-083023
Date Collected: 08/30/23 09:50
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 09:54	1
Acrolein	ND		20	3.3	ug/L			09/09/23 09:54	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 09:54	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 09:54	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 09:54	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 09:54	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 09:54	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 09:54	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 09:54	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 09:54	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 09:54	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 09:54	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 09:54	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 09:54	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			09/09/23 09:54	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 09:54	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 09:54	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 09:54	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 09:54	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 09:54	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 09:54	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 09:54	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 09:54	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 09:54	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 09:54	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 09:54	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 09:54	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 09:54	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:54	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:54	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:54	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 09:54	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 09:54	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 09:54	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 09:54	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 09:54	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 09:54	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 09:54	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 09:54	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 09:54	1
Methyl tert-butyl ether	**0.81**	**J**	1.0	0.22	ug/L			09/09/23 09:54	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 09:54	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 09:54	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 09:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 09:54	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 09:54	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 09:54	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 09:54	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 09:54	1

Client Sample ID: P93D-ROX-083023
Date Collected: 08/30/23 09:50
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 09:54	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 09:54	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 09:54	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 09:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 09:54	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 09:54	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 09:54	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 09:54	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 09:54	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 09:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 09:54	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 09:54	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 09:54	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 09:54	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 09:54	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 09:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 09:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 09:54	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 09:54	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 09:54	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 09:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/09/23 09:54*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*09/09/23 09:54*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/09/23 09:54*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		09/06/23 14:31	09/11/23 18:11	1
Acenaphthylene	**0.043**	**J**	0.19	0.042	ug/L		09/06/23 14:31	09/11/23 18:11	1
Anthracene	ND		0.19	0.044	ug/L		09/06/23 14:31	09/11/23 18:11	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 18:11	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/06/23 14:31	09/11/23 18:11	1
Benzo[b]fluoranthene	**0.063**	**J**	0.19	0.035	ug/L		09/06/23 14:31	09/11/23 18:11	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/06/23 14:31	09/11/23 18:11	1
Benzo[k]fluoranthene	**0.060**	**J**	0.19	0.059	ug/L		09/06/23 14:31	09/11/23 18:11	1
Chrysene	**0.061**	**J**	0.19	0.031	ug/L		09/06/23 14:31	09/11/23 18:11	1
Dibenz(a,h)anthracene	**0.10**	**J**	0.19	0.045	ug/L		09/06/23 14:31	09/11/23 18:11	1
Fluoranthene	**0.10**	**J**	0.19	0.032	ug/L		09/06/23 14:31	09/11/23 18:11	1
Fluorene	ND		0.19	0.084	ug/L		09/06/23 14:31	09/11/23 18:11	1
Indeno[1,2,3-cd]pyrene	**0.10**	**J**	0.19	0.032	ug/L		09/06/23 14:31	09/11/23 18:11	1
Phenanthrene	ND		0.19	0.085	ug/L		09/06/23 14:31	09/11/23 18:11	1
Pyrene	ND		0.19	0.037	ug/L		09/06/23 14:31	09/11/23 18:11	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		09/06/23 14:31	09/11/23 18:11	1
2-Methylnaphthalene	ND		0.19	0.062	ug/L		09/06/23 14:31	09/11/23 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*46*		*18 - 147*	*09/06/23 14:31*	*09/11/23 18:11*	*1*
2-Fluorobiphenyl	*45*		*15 - 128*	*09/06/23 14:31*	*09/11/23 18:11*	*1*

Client Sample ID: P93D-ROX-083023
Date Collected: 08/30/23 09:50
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-10
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*55*		*10 - 144*	*09/06/23 14:31*	*09/11/23 18:11*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.19	0.093	ug/L		09/13/23 10:04	09/15/23 17:01	1
Acenaphthylene	ND	H	0.19	0.042	ug/L		09/13/23 10:04	09/15/23 17:01	1
Anthracene	ND	H	0.19	0.044	ug/L		09/13/23 10:04	09/15/23 17:01	1
Benzo[a]anthracene	ND	H	0.19	0.032	ug/L		09/13/23 10:04	09/15/23 17:01	1
Benzo[a]pyrene	ND	H	0.19	0.060	ug/L		09/13/23 10:04	09/15/23 17:01	1
Benzo[b]fluoranthene	ND	H	0.19	0.035	ug/L		09/13/23 10:04	09/15/23 17:01	1
Benzo[g,h,i]perylene	ND	H	0.19	0.025	ug/L		09/13/23 10:04	09/15/23 17:01	1
Benzo[k]fluoranthene	ND	H	0.19	0.058	ug/L		09/13/23 10:04	09/15/23 17:01	1
Chrysene	ND	H	0.19	0.031	ug/L		09/13/23 10:04	09/15/23 17:01	1
Dibenz(a,h)anthracene	ND	H	0.19	0.045	ug/L		09/13/23 10:04	09/15/23 17:01	1
Fluoranthene	ND	H	0.19	0.032	ug/L		09/13/23 10:04	09/15/23 17:01	1
Fluorene	ND	H	0.19	0.084	ug/L		09/13/23 10:04	09/15/23 17:01	1
Indeno[1,2,3-cd]pyrene	ND	H	0.19	0.032	ug/L		09/13/23 10:04	09/15/23 17:01	1
Phenanthrene	ND	H	0.19	0.085	ug/L		09/13/23 10:04	09/15/23 17:01	1
Pyrene	ND	H	0.19	0.037	ug/L		09/13/23 10:04	09/15/23 17:01	1
1-Methylnaphthalene	ND	H	0.19	0.075	ug/L		09/13/23 10:04	09/15/23 17:01	1
2-Methylnaphthalene	ND	H	0.19	0.062	ug/L		09/13/23 10:04	09/15/23 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*85*		*18 - 147*	*09/13/23 10:04*	*09/15/23 17:01*	*1*
2-Fluorobiphenyl	*82*		*15 - 128*	*09/13/23 10:04*	*09/15/23 17:01*	*1*
Nitrobenzene-d5	*76*		*10 - 144*	*09/13/23 10:04*	*09/15/23 17:01*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/06/23 14:31	09/13/23 17:46	1
Benzenethiol	ND	*1	9.5	1.6	ug/L		09/06/23 14:31	09/12/23 15:58	1
Benzoic acid	ND		28	6.9	ug/L		09/06/23 14:31	09/12/23 15:58	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/06/23 14:31	09/13/23 17:46	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/06/23 14:31	09/13/23 17:46	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/06/23 14:31	09/13/23 17:46	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/06/23 14:31	09/13/23 17:46	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		09/06/23 14:31	09/13/23 17:46	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/06/23 14:31	09/13/23 17:46	1
Butyl benzyl phthalate	**0.40**	**J**	9.5	0.18	ug/L		09/06/23 14:31	09/13/23 17:46	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/06/23 14:31	09/13/23 17:46	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/06/23 14:31	09/13/23 17:46	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/06/23 14:31	09/13/23 17:46	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/06/23 14:31	09/13/23 17:46	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/06/23 14:31	09/13/23 17:46	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/06/23 14:31	09/13/23 17:46	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/06/23 14:31	09/13/23 17:46	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/06/23 14:31	09/13/23 17:46	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		09/06/23 14:31	09/13/23 17:46	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/06/23 14:31	09/13/23 17:46	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/13/23 17:46	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: P93D-ROX-083023
Date Collected: 08/30/23 09:50
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-10
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/13/23 17:46	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/06/23 14:31	09/13/23 17:46	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/06/23 14:31	09/13/23 17:46	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/06/23 14:31	09/13/23 17:46	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/13/23 17:46	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/13/23 17:46	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/13/23 17:46	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/06/23 14:31	09/13/23 17:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/06/23 14:31	09/13/23 17:46	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/06/23 14:31	09/13/23 17:46	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/06/23 14:31	09/13/23 17:46	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/06/23 14:31	09/13/23 17:46	1
Indene	ND	F1	9.5	0.95	ug/L		09/06/23 14:31	09/12/23 15:58	1
Isophorone	ND		9.5	0.13	ug/L		09/06/23 14:31	09/13/23 17:46	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/06/23 14:31	09/13/23 17:46	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/06/23 14:31	09/13/23 17:46	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/06/23 14:31	09/13/23 17:46	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/06/23 14:31	09/13/23 17:46	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/06/23 14:31	09/13/23 17:46	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/06/23 14:31	09/13/23 17:46	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/06/23 14:31	09/13/23 17:46	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/06/23 14:31	09/13/23 17:46	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/06/23 14:31	09/13/23 17:46	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		09/06/23 14:31	09/13/23 17:46	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/06/23 14:31	09/13/23 17:46	1
Pentachlorophenol	ND		19	1.3	ug/L		09/06/23 14:31	09/13/23 17:46	1
Phenol	ND		9.5	2.5	ug/L		09/06/23 14:31	09/13/23 17:46	1
Pyridine	ND		9.5	3.0	ug/L		09/06/23 14:31	09/13/23 17:46	1
Quinoline	ND		9.5	4.3	ug/L		09/06/23 14:31	09/13/23 17:46	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/06/23 14:31	09/13/23 17:46	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/13/23 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*09/06/23 14:31*	*09/13/23 17:46*	*1*
2-Fluorophenol	*34*		*13 - 113*	*09/06/23 14:31*	*09/13/23 17:46*	*1*
Nitrobenzene-d5	*56*		*36 - 126*	*09/06/23 14:31*	*09/13/23 17:46*	*1*
Phenol-d5	*49*		*17 - 127*	*09/06/23 14:31*	*09/13/23 17:46*	*1*
Terphenyl-d14	*74*		*44 - 149*	*09/06/23 14:31*	*09/13/23 17:46*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*09/06/23 14:31*	*09/13/23 17:46*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/06/23 19:39	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 19:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*69*		*51 - 149*	*09/06/23 12:59*	*09/06/23 19:39*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: ROST4PZC-ROX-083023
Date Collected: 08/30/23 10:15
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 15:26	1
Acrolein	ND		20	3.3	ug/L			09/09/23 15:26	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 15:26	1
Benzene	**2.6**		1.0	0.50	ug/L			09/09/23 15:26	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 15:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 15:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 15:26	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 15:26	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 15:26	1
2-Butanone (MEK)	**11**	**J**	25	2.6	ug/L			09/09/23 15:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 15:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 15:26	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 15:26	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 15:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 15:26	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 15:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 15:26	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 15:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 15:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 15:26	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 15:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 15:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 15:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 15:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 15:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 15:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 15:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 15:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 15:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 15:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 15:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 15:26	1
Ethylbenzene	**1.9**		1.0	0.50	ug/L			09/09/23 15:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 15:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 15:26	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 15:26	1
Isopropylbenzene	**4.2**		1.0	0.53	ug/L			09/09/23 15:26	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 15:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 15:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 15:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/09/23 15:26	1
m-Xylene & p-Xylene	**28**		5.0	0.63	ug/L			09/09/23 15:26	1
Naphthalene	**47**		5.0	3.0	ug/L			09/09/23 15:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 15:26	1
N-Propylbenzene	**6.7**		1.0	0.69	ug/L			09/09/23 15:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 15:26	1
o-Xylene	**2.0**	**J**	5.0	0.60	ug/L			09/09/23 15:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 15:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 15:26	1

Client Sample ID: ROST4PZC-ROX-083023

Date Collected: 08/30/23 10:15
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 15:26	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 15:26	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 15:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 15:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 15:26	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 15:26	1
Toluene	**5.9**		1.0	0.90	ug/L			09/09/23 15:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 15:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 15:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 15:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 15:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 15:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 15:26	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 15:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 15:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 15:26	1
1,2,4-Trimethylbenzene	**5.0**		1.0	0.82	ug/L			09/09/23 15:26	1
1,3,5-Trimethylbenzene	**1.1**		1.0	0.56	ug/L			09/09/23 15:26	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 15:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 15:26	1
Xylenes, Total	**30**		10	1.6	ug/L			09/09/23 15:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*09/09/23 15:26*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*09/09/23 15:26*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/09/23 15:26*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.66**		0.19	0.094	ug/L		09/06/23 14:31	09/11/23 20:17	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/06/23 14:31	09/11/23 20:17	1
Anthracene	**0.27**		0.19	0.044	ug/L		09/06/23 14:31	09/11/23 20:17	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:17	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/06/23 14:31	09/11/23 20:17	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/06/23 14:31	09/11/23 20:17	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/06/23 14:31	09/11/23 20:17	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/06/23 14:31	09/11/23 20:17	1
Chrysene	ND		0.19	0.031	ug/L		09/06/23 14:31	09/11/23 20:17	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/06/23 14:31	09/11/23 20:17	1
Fluoranthene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:17	1
Fluorene	**0.55**		0.19	0.084	ug/L		09/06/23 14:31	09/11/23 20:17	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:17	1
Phenanthrene	**1.4**		0.19	0.085	ug/L		09/06/23 14:31	09/11/23 20:17	1
Pyrene	ND		0.19	0.037	ug/L		09/06/23 14:31	09/11/23 20:17	1
1-Methylnaphthalene	**15**		0.19	0.076	ug/L		09/06/23 14:31	09/11/23 20:17	1
2-Methylnaphthalene	**2.3**		0.19	0.062	ug/L		09/06/23 14:31	09/11/23 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*115*		*18 - 147*	*09/06/23 14:31*	*09/11/23 20:17*	*1*
2-Fluorobiphenyl	*89*		*15 - 128*	*09/06/23 14:31*	*09/11/23 20:17*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: ROST4PZC-ROX-083023
Date Collected: 08/30/23 10:15
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-11
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*139*		*10 - 144*	*09/06/23 14:31*	*09/11/23 20:17*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/06/23 14:31	09/11/23 18:18	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		09/06/23 14:31	09/11/23 18:18	1
Benzoic acid	ND		28	6.9	ug/L		09/06/23 14:31	09/11/23 18:18	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/06/23 14:31	09/11/23 18:18	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/06/23 14:31	09/11/23 18:18	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/06/23 14:31	09/11/23 18:18	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/06/23 14:31	09/11/23 18:18	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		09/06/23 14:31	09/11/23 18:18	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/06/23 14:31	09/11/23 18:18	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/06/23 14:31	09/11/23 18:18	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/06/23 14:31	09/11/23 18:18	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/06/23 14:31	09/11/23 18:18	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/06/23 14:31	09/11/23 18:18	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/06/23 14:31	09/11/23 18:18	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/06/23 14:31	09/11/23 18:18	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 18:18	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 18:18	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/06/23 14:31	09/11/23 18:18	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		09/06/23 14:31	09/11/23 18:18	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/06/23 14:31	09/11/23 18:18	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 18:18	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 18:18	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/06/23 14:31	09/11/23 18:18	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/06/23 14:31	09/11/23 18:18	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/06/23 14:31	09/11/23 18:18	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/11/23 18:18	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/11/23 18:18	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 18:18	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 18:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 18:18	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 18:18	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/06/23 14:31	09/11/23 18:18	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/06/23 14:31	09/11/23 18:18	1
Indene	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 18:18	1
Isophorone	ND		9.5	0.13	ug/L		09/06/23 14:31	09/11/23 18:18	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/06/23 14:31	09/11/23 18:18	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/06/23 14:31	09/11/23 18:18	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/06/23 14:31	09/11/23 18:18	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/06/23 14:31	09/11/23 18:18	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/06/23 14:31	09/11/23 18:18	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/06/23 14:31	09/11/23 18:18	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/06/23 14:31	09/11/23 18:18	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/06/23 14:31	09/11/23 18:18	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 18:18	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: ROST4PZC-ROX-083023
Date Collected: 08/30/23 10:15
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-11
Matrix: Water

Method: SW846 8270E - 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		09/06/23 14:31	09/11/23 18:18	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/06/23 14:31	09/11/23 18:18	1
Pentachlorophenol	ND		19	1.3	ug/L		09/06/23 14:31	09/11/23 18:18	1
Phenol	ND		9.5	2.5	ug/L		09/06/23 14:31	09/11/23 18:18	1
Pyridine	ND		9.5	3.0	ug/L		09/06/23 14:31	09/11/23 18:18	1
Quinoline	ND		9.5	4.3	ug/L		09/06/23 14:31	09/11/23 18:18	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/06/23 14:31	09/11/23 18:18	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*46 - 124*	*09/06/23 14:31*	*09/11/23 18:18*	*1*
2-Fluorophenol	*53*		*13 - 113*	*09/06/23 14:31*	*09/11/23 18:18*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*09/06/23 14:31*	*09/11/23 18:18*	*1*
Phenol-d5	*76*		*17 - 127*	*09/06/23 14:31*	*09/11/23 18:18*	*1*
Terphenyl-d14	*96*		*44 - 149*	*09/06/23 14:31*	*09/11/23 18:18*	*1*
2,4,6-Tribromophenol	*84*		*26 - 150*	*09/06/23 14:31*	*09/11/23 18:18*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/06/23 20:40	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*69*		*51 - 149*	*09/06/23 12:59*	*09/06/23 20:40*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: ROST4PZE-ROX-083023

Date Collected: 08/30/23 11:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-12

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/11/23 11:34	1
Acrolein	ND		20	3.3	ug/L			09/11/23 11:34	1
Acrylonitrile	ND		10	2.8	ug/L			09/11/23 11:34	1
Benzene	**2.0**		1.0	0.50	ug/L			09/11/23 11:34	1
Bromobenzene	ND		1.0	0.54	ug/L			09/11/23 11:34	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/11/23 11:34	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/11/23 11:34	1
Bromoform	ND		5.0	0.25	ug/L			09/11/23 11:34	1
Bromomethane	ND		1.0	0.98	ug/L			09/11/23 11:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/11/23 11:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/11/23 11:34	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/11/23 11:34	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/11/23 11:34	1
Chloroethane	ND		1.0	0.76	ug/L			09/11/23 11:34	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/11/23 11:34	1
Chloroform	ND		1.0	0.90	ug/L			09/11/23 11:34	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/11/23 11:34	1
Chloromethane	ND		1.0	0.90	ug/L			09/11/23 11:34	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/11/23 11:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/11/23 11:34	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/11/23 11:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/11/23 11:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/11/23 11:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/11/23 11:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/11/23 11:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/11/23 11:34	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/11/23 11:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/11/23 11:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 11:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 11:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 11:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/11/23 11:34	1
Ethylbenzene	**7.7**		1.0	0.50	ug/L			09/11/23 11:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/11/23 11:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/11/23 11:34	1
2-Hexanone	ND		25	1.4	ug/L			09/11/23 11:34	1
Isopropylbenzene	**1.8**		1.0	0.53	ug/L			09/11/23 11:34	1
Methylene bromide	ND		5.0	0.22	ug/L			09/11/23 11:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/11/23 11:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/11/23 11:34	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/11/23 11:34	1
m-Xylene & p-Xylene	**11**		5.0	0.63	ug/L			09/11/23 11:34	1
Naphthalene	**5.9**		5.0	3.0	ug/L			09/11/23 11:34	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/11/23 11:34	1
N-Propylbenzene	**1.8**		1.0	0.69	ug/L			09/11/23 11:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/11/23 11:34	1
o-Xylene	**2.1**	**J**	5.0	0.60	ug/L			09/11/23 11:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/11/23 11:34	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/11/23 11:34	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: ROST4PZE-ROX-083023
Date Collected: 08/30/23 11:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/11/23 11:34	1
Styrene	ND		1.0	1.0	ug/L			09/11/23 11:34	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/11/23 11:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/11/23 11:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/11/23 11:34	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/11/23 11:34	1
Toluene	ND		1.0	0.90	ug/L			09/11/23 11:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/11/23 11:34	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/11/23 11:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/11/23 11:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/11/23 11:34	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/11/23 11:34	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/11/23 11:34	1
Trichloroethene	ND		1.0	0.15	ug/L			09/11/23 11:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/11/23 11:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/11/23 11:34	1
1,2,4-Trimethylbenzene	**29**		1.0	0.82	ug/L			09/11/23 11:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/11/23 11:34	1
Vinyl acetate	ND		25	0.93	ug/L			09/11/23 11:34	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/11/23 11:34	1
Xylenes, Total	**13**		10	1.6	ug/L			09/11/23 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 130*		*09/11/23 11:34*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/11/23 11:34*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*09/11/23 11:34*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.99**		0.19	0.094	ug/L		09/06/23 14:31	09/11/23 20:38	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/06/23 14:31	09/11/23 20:38	1
Anthracene	**0.76**		0.19	0.045	ug/L		09/06/23 14:31	09/11/23 20:38	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:38	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/06/23 14:31	09/11/23 20:38	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/06/23 14:31	09/11/23 20:38	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/06/23 14:31	09/11/23 20:38	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/06/23 14:31	09/11/23 20:38	1
Chrysene	ND		0.19	0.031	ug/L		09/06/23 14:31	09/11/23 20:38	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/06/23 14:31	09/11/23 20:38	1
Fluoranthene	**0.13**	**J**	0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:38	1
Fluorene	**1.0**		0.19	0.085	ug/L		09/06/23 14:31	09/11/23 20:38	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:38	1
Phenanthrene	**3.6**		0.19	0.086	ug/L		09/06/23 14:31	09/11/23 20:38	1
Pyrene	**0.052**	**J**	0.19	0.037	ug/L		09/06/23 14:31	09/11/23 20:38	1
1-Methylnaphthalene	**12**		0.19	0.076	ug/L		09/06/23 14:31	09/11/23 20:38	1
2-Methylnaphthalene	**1.6**		0.19	0.063	ug/L		09/06/23 14:31	09/11/23 20:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*98*		*18 - 147*	*09/06/23 14:31*	*09/11/23 20:38*	*1*
2-Fluorobiphenyl	*116*		*15 - 128*	*09/06/23 14:31*	*09/11/23 20:38*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: ROST4PZE-ROX-083023
Date Collected: 08/30/23 11:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-12
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*139*		*10 - 144*	*09/06/23 14:31*	*09/11/23 20:38*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/06/23 14:31	09/11/23 18:40	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		09/06/23 14:31	09/11/23 18:40	1
Benzoic acid	ND		29	6.9	ug/L		09/06/23 14:31	09/11/23 18:40	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/06/23 14:31	09/11/23 18:40	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/06/23 14:31	09/11/23 18:40	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/06/23 14:31	09/11/23 18:40	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/06/23 14:31	09/11/23 18:40	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		09/06/23 14:31	09/11/23 18:40	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/06/23 14:31	09/11/23 18:40	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/06/23 14:31	09/11/23 18:40	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/06/23 14:31	09/11/23 18:40	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/06/23 14:31	09/11/23 18:40	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/06/23 14:31	09/11/23 18:40	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/06/23 14:31	09/11/23 18:40	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/06/23 14:31	09/11/23 18:40	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 18:40	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 18:40	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/06/23 14:31	09/11/23 18:40	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		09/06/23 14:31	09/11/23 18:40	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/06/23 14:31	09/11/23 18:40	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 18:40	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 18:40	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/06/23 14:31	09/11/23 18:40	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/06/23 14:31	09/11/23 18:40	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		09/06/23 14:31	09/11/23 18:40	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/11/23 18:40	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/11/23 18:40	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 18:40	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 18:40	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 18:40	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 18:40	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/06/23 14:31	09/11/23 18:40	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/06/23 14:31	09/11/23 18:40	1
Indene	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 18:40	1
Isophorone	ND		9.5	0.13	ug/L		09/06/23 14:31	09/11/23 18:40	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/06/23 14:31	09/11/23 18:40	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/06/23 14:31	09/11/23 18:40	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/06/23 14:31	09/11/23 18:40	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/06/23 14:31	09/11/23 18:40	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/06/23 14:31	09/11/23 18:40	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/06/23 14:31	09/11/23 18:40	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/06/23 14:31	09/11/23 18:40	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/06/23 14:31	09/11/23 18:40	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 18:40	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: ROST4PZE-ROX-083023
Date Collected: 08/30/23 11:00
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-12
Matrix: Water

Method: SW846 8270E - 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		09/06/23 14:31	09/11/23 18:40	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/06/23 14:31	09/11/23 18:40	1
Pentachlorophenol	ND		19	1.3	ug/L		09/06/23 14:31	09/11/23 18:40	1
Phenol	ND		9.5	2.5	ug/L		09/06/23 14:31	09/11/23 18:40	1
Pyridine	ND		9.5	3.0	ug/L		09/06/23 14:31	09/11/23 18:40	1
Quinoline	ND		9.5	4.3	ug/L		09/06/23 14:31	09/11/23 18:40	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/06/23 14:31	09/11/23 18:40	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 18:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*09/06/23 14:31*	*09/11/23 18:40*	*1*
2-Fluorophenol	*63*		*13 - 113*	*09/06/23 14:31*	*09/11/23 18:40*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*09/06/23 14:31*	*09/11/23 18:40*	*1*
Phenol-d5	*77*		*17 - 127*	*09/06/23 14:31*	*09/11/23 18:40*	*1*
Terphenyl-d14	*94*		*44 - 149*	*09/06/23 14:31*	*09/11/23 18:40*	*1*
2,4,6-Tribromophenol	*89*		*26 - 150*	*09/06/23 14:31*	*09/11/23 18:40*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/06/23 21:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*79*		*51 - 149*	*09/06/23 12:59*	*09/06/23 21:00*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW12-ROX-083023-EB
Date Collected: 08/30/23 11:50
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 09:08	1
Acrolein	ND		20	3.3	ug/L			09/09/23 09:08	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 09:08	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 09:08	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 09:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 09:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 09:08	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 09:08	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 09:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 09:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 09:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 09:08	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 09:08	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 09:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 09:08	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 09:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 09:08	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 09:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 09:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 09:08	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 09:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 09:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 09:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 09:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 09:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 09:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 09:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 09:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 09:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 09:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 09:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 09:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 09:08	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 09:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 09:08	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 09:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 09:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 09:08	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/09/23 09:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 09:08	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 09:08	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 09:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 09:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 09:08	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 09:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 09:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 09:08	1

Client Sample ID: MW12-ROX-083023-EB

Date Collected: 08/30/23 11:50
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 09:08	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 09:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 09:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 09:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 09:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 09:08	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 09:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 09:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 09:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 09:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 09:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 09:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 09:08	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 09:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 09:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 09:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 09:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 09:08	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 09:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 09:08	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 09:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*09/09/23 09:08*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/09/23 09:08*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*09/09/23 09:08*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.093	ug/L		09/06/23 14:31	09/11/23 20:59	1
Acenaphthylene	ND		0.19	0.041	ug/L		09/06/23 14:31	09/11/23 20:59	1
Anthracene	ND		0.19	0.044	ug/L		09/06/23 14:31	09/11/23 20:59	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:59	1
Benzo[a]pyrene	ND		0.19	0.060	ug/L		09/06/23 14:31	09/11/23 20:59	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/06/23 14:31	09/11/23 20:59	1
Benzo[g,h,i]perylene	ND		0.19	0.025	ug/L		09/06/23 14:31	09/11/23 20:59	1
Benzo[k]fluoranthene	ND		0.19	0.058	ug/L		09/06/23 14:31	09/11/23 20:59	1
Chrysene	ND		0.19	0.031	ug/L		09/06/23 14:31	09/11/23 20:59	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/06/23 14:31	09/11/23 20:59	1
Fluoranthene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:59	1
Fluorene	ND		0.19	0.084	ug/L		09/06/23 14:31	09/11/23 20:59	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 20:59	1
Phenanthrene	ND		0.19	0.085	ug/L		09/06/23 14:31	09/11/23 20:59	1
Pyrene	ND		0.19	0.037	ug/L		09/06/23 14:31	09/11/23 20:59	1
1-Methylnaphthalene	ND		0.19	0.075	ug/L		09/06/23 14:31	09/11/23 20:59	1
2-Methylnaphthalene	ND		0.19	0.062	ug/L		09/06/23 14:31	09/11/23 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*64*		*18 - 147*	*09/06/23 14:31*	*09/11/23 20:59*	*1*
2-Fluorobiphenyl	*61*		*15 - 128*	*09/06/23 14:31*	*09/11/23 20:59*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW12-ROX-083023-EB

Date Collected: 08/30/23 11:50
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-13

Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*73*		*10 - 144*	*09/06/23 14:31*	*09/11/23 20:59*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		09/06/23 14:31	09/11/23 19:01	1
Benzenethiol	ND	*1	9.4	1.6	ug/L		09/06/23 14:31	09/11/23 19:01	1
Benzoic acid	ND		28	6.9	ug/L		09/06/23 14:31	09/11/23 19:01	1
Benzyl alcohol	ND		9.4	1.9	ug/L		09/06/23 14:31	09/11/23 19:01	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		09/06/23 14:31	09/11/23 19:01	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		09/06/23 14:31	09/11/23 19:01	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		09/06/23 14:31	09/11/23 19:01	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		09/06/23 14:31	09/12/23 16:40	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		09/06/23 14:31	09/11/23 19:01	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		09/06/23 14:31	09/11/23 19:01	1
4-Chloroaniline	ND		9.4	3.2	ug/L		09/06/23 14:31	09/11/23 19:01	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		09/06/23 14:31	09/11/23 19:01	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		09/06/23 14:31	09/11/23 19:01	1
2-Chlorophenol	ND		9.4	2.1	ug/L		09/06/23 14:31	09/11/23 19:01	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		09/06/23 14:31	09/11/23 19:01	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		09/06/23 14:31	09/11/23 19:01	1
Dibenzofuran	ND		9.4	0.16	ug/L		09/06/23 14:31	09/11/23 19:01	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		09/06/23 14:31	09/11/23 19:01	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		09/06/23 14:31	09/11/23 19:01	1
Diethyl phthalate	ND		9.4	0.23	ug/L		09/06/23 14:31	09/11/23 19:01	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		09/06/23 14:31	09/11/23 19:01	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		09/06/23 14:31	09/11/23 19:01	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		09/06/23 14:31	09/11/23 19:01	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		09/06/23 14:31	09/11/23 19:01	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/06/23 14:31	09/11/23 19:01	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		09/06/23 14:31	09/11/23 19:01	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		09/06/23 14:31	09/11/23 19:01	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		09/06/23 14:31	09/11/23 19:01	1
1,4-Dioxane	ND		9.4	0.94	ug/L		09/06/23 14:31	09/11/23 19:01	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		09/06/23 14:31	09/11/23 19:01	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		09/06/23 14:31	09/11/23 19:01	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/06/23 14:31	09/11/23 19:01	1
Hexachloroethane	ND		9.4	4.0	ug/L		09/06/23 14:31	09/11/23 19:01	1
Indene	ND		9.4	0.94	ug/L		09/06/23 14:31	09/11/23 19:01	1
Isophorone	ND		9.4	0.13	ug/L		09/06/23 14:31	09/11/23 19:01	1
2-Methylphenol	ND		9.4	1.7	ug/L		09/06/23 14:31	09/11/23 19:01	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/06/23 14:31	09/11/23 19:01	1
2-Nitroaniline	ND		9.4	2.1	ug/L		09/06/23 14:31	09/11/23 19:01	1
3-Nitroaniline	ND		9.4	1.7	ug/L		09/06/23 14:31	09/11/23 19:01	1
4-Nitroaniline	ND		9.4	1.4	ug/L		09/06/23 14:31	09/11/23 19:01	1
Nitrobenzene	ND		9.4	0.12	ug/L		09/06/23 14:31	09/11/23 19:01	1
2-Nitrophenol	ND		9.4	4.9	ug/L		09/06/23 14:31	09/11/23 19:01	1
4-Nitrophenol	ND		9.4	2.0	ug/L		09/06/23 14:31	09/11/23 19:01	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		09/06/23 14:31	09/11/23 19:01	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW12-ROX-083023-EB

Lab Sample ID: 400-242794-13

Date Collected: 08/30/23 11:50

Matrix: Water

Date Received: 08/31/23 09:19

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		09/06/23 14:31	09/11/23 19:01	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		09/06/23 14:31	09/11/23 19:01	1
Pentachlorophenol	ND		19	1.3	ug/L		09/06/23 14:31	09/11/23 19:01	1
Phenol	ND		9.4	2.5	ug/L		09/06/23 14:31	09/11/23 19:01	1
Pyridine	ND		9.4	3.0	ug/L		09/06/23 14:31	09/11/23 19:01	1
Quinoline	ND		9.4	4.2	ug/L		09/06/23 14:31	09/11/23 19:01	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		09/06/23 14:31	09/11/23 19:01	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		09/06/23 14:31	09/11/23 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*09/06/23 14:31*	*09/11/23 19:01*	*1*
2-Fluorophenol	*48*		*13 - 113*	*09/06/23 14:31*	*09/11/23 19:01*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*09/06/23 14:31*	*09/11/23 19:01*	*1*
Phenol-d5	*67*		*17 - 127*	*09/06/23 14:31*	*09/11/23 19:01*	*1*
Terphenyl-d14	*99*		*44 - 149*	*09/06/23 14:31*	*09/11/23 19:01*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*09/06/23 14:31*	*09/11/23 19:01*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.016	ug/L		09/06/23 12:59	09/06/23 21:20	1
1,2-Dibromoethane	ND		0.019	0.014	ug/L		09/06/23 12:59	09/06/23 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*63*		*51 - 149*	*09/06/23 12:59*	*09/06/23 21:20*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW12-ROX-083023
Date Collected: 08/30/23 12:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 16:15	1
Acrolein	ND		20	3.3	ug/L			09/09/23 16:15	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 16:15	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 16:15	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 16:15	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 16:15	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 16:15	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 16:15	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 16:15	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 16:15	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 16:15	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 16:15	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 16:15	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 16:15	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 16:15	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 16:15	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 16:15	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 16:15	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 16:15	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 16:15	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 16:15	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 16:15	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 16:15	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 16:15	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 16:15	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 16:15	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 16:15	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 16:15	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 16:15	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 16:15	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 16:15	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 16:15	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 16:15	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 16:15	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 16:15	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 16:15	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 16:15	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 16:15	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 16:15	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 16:15	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/09/23 16:15	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 16:15	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 16:15	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 16:15	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 16:15	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 16:15	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 16:15	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 16:15	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/09/23 16:15	1

Client Sample ID: MW12-ROX-083023
Date Collected: 08/30/23 12:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 16:15	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 16:15	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 16:15	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 16:15	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 16:15	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 16:15	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 16:15	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 16:15	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 16:15	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 16:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 16:15	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 16:15	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 16:15	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 16:15	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 16:15	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 16:15	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 16:15	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 16:15	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 16:15	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 16:15	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*09/09/23 16:15*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/09/23 16:15*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/09/23 16:15*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		09/06/23 14:31	09/11/23 21:20	1
Acenaphthylene	**0.13**	**J**	0.19	0.042	ug/L		09/06/23 14:31	09/11/23 21:20	1
Anthracene	ND		0.19	0.045	ug/L		09/06/23 14:31	09/11/23 21:20	1
Benzo[a]anthracene	**0.046**	**J**	0.19	0.032	ug/L		09/06/23 14:31	09/11/23 21:20	1
Benzo[a]pyrene	**0.17**	**J**	0.19	0.061	ug/L		09/06/23 14:31	09/11/23 21:20	1
Benzo[b]fluoranthene	**0.19**		0.19	0.035	ug/L		09/06/23 14:31	09/11/23 21:20	1
Benzo[g,h,i]perylene	**0.17**	**J**	0.19	0.026	ug/L		09/06/23 14:31	09/11/23 21:20	1
Benzo[k]fluoranthene	**0.082**	**J**	0.19	0.059	ug/L		09/06/23 14:31	09/11/23 21:20	1
Chrysene	**0.045**	**J**	0.19	0.031	ug/L		09/06/23 14:31	09/11/23 21:20	1
Dibenz(a,h)anthracene	**0.076**	**J**	0.19	0.045	ug/L		09/06/23 14:31	09/11/23 21:20	1
Fluoranthene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 21:20	1
Fluorene	ND		0.19	0.084	ug/L		09/06/23 14:31	09/11/23 21:20	1
Indeno[1,2,3-cd]pyrene	**0.22**		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 21:20	1
Phenanthrene	ND		0.19	0.085	ug/L		09/06/23 14:31	09/11/23 21:20	1
Pyrene	ND		0.19	0.037	ug/L		09/06/23 14:31	09/11/23 21:20	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		09/06/23 14:31	09/11/23 21:20	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		09/06/23 14:31	09/11/23 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*64*		*18 - 147*	*09/06/23 14:31*	*09/11/23 21:20*	*1*
2-Fluorobiphenyl	*61*		*15 - 128*	*09/06/23 14:31*	*09/11/23 21:20*	*1*

Client Sample ID: MW12-ROX-083023
Date Collected: 08/30/23 12:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-14
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*75*		*10 - 144*	*09/06/23 14:31*	*09/11/23 21:20*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.19	0.095	ug/L		09/13/23 10:04	09/15/23 18:05	1
Acenaphthylene	ND	H	0.19	0.042	ug/L		09/13/23 10:04	09/15/23 18:05	1
Anthracene	ND	H	0.19	0.045	ug/L		09/13/23 10:04	09/15/23 18:05	1
Benzo[a]anthracene	ND	H	0.19	0.033	ug/L		09/13/23 10:04	09/15/23 18:05	1
Benzo[a]pyrene	ND	H	0.19	0.061	ug/L		09/13/23 10:04	09/15/23 18:05	1
Benzo[b]fluoranthene	ND	H	0.19	0.035	ug/L		09/13/23 10:04	09/15/23 18:05	1
Benzo[g,h,i]perylene	ND	H	0.19	0.026	ug/L		09/13/23 10:04	09/15/23 18:05	1
Benzo[k]fluoranthene	ND	H	0.19	0.059	ug/L		09/13/23 10:04	09/15/23 18:05	1
Chrysene	ND	H	0.19	0.032	ug/L		09/13/23 10:04	09/15/23 18:05	1
Dibenz(a,h)anthracene	ND	H	0.19	0.046	ug/L		09/13/23 10:04	09/15/23 18:05	1
Fluoranthene	ND	H	0.19	0.033	ug/L		09/13/23 10:04	09/15/23 18:05	1
Fluorene	ND	H	0.19	0.085	ug/L		09/13/23 10:04	09/15/23 18:05	1
Indeno[1,2,3-cd]pyrene	ND	H	0.19	0.033	ug/L		09/13/23 10:04	09/15/23 18:05	1
Phenanthrene	ND	H	0.19	0.086	ug/L		09/13/23 10:04	09/15/23 18:05	1
Pyrene	ND	H	0.19	0.037	ug/L		09/13/23 10:04	09/15/23 18:05	1
1-Methylnaphthalene	ND	H	0.19	0.077	ug/L		09/13/23 10:04	09/15/23 18:05	1
2-Methylnaphthalene	ND	H	0.19	0.063	ug/L		09/13/23 10:04	09/15/23 18:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*82*		*18 - 147*	*09/13/23 10:04*	*09/15/23 18:05*	*1*
2-Fluorobiphenyl	*78*		*15 - 128*	*09/13/23 10:04*	*09/15/23 18:05*	*1*
Nitrobenzene-d5	*74*		*10 - 144*	*09/13/23 10:04*	*09/15/23 18:05*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/06/23 14:31	09/11/23 19:22	1
Benzenethiol	ND	*1	9.5	1.6	ug/L		09/06/23 14:31	09/11/23 19:22	1
Benzoic acid	ND		28	6.9	ug/L		09/06/23 14:31	09/11/23 19:22	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/06/23 14:31	09/11/23 19:22	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/06/23 14:31	09/11/23 19:22	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/06/23 14:31	09/11/23 19:22	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/06/23 14:31	09/11/23 19:22	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		09/06/23 14:31	09/11/23 19:22	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/06/23 14:31	09/11/23 19:22	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/06/23 14:31	09/11/23 19:22	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/06/23 14:31	09/11/23 19:22	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/06/23 14:31	09/11/23 19:22	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/06/23 14:31	09/11/23 19:22	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/06/23 14:31	09/11/23 19:22	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/06/23 14:31	09/11/23 19:22	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 19:22	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 19:22	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/06/23 14:31	09/11/23 19:22	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		09/06/23 14:31	09/11/23 19:22	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/06/23 14:31	09/11/23 19:22	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 19:22	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW12-ROX-083023
Date Collected: 08/30/23 12:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-14
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 19:22	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/06/23 14:31	09/11/23 19:22	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/06/23 14:31	09/11/23 19:22	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/06/23 14:31	09/11/23 19:22	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/11/23 19:22	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/11/23 19:22	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 19:22	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 19:22	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 19:22	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 19:22	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/06/23 14:31	09/11/23 19:22	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/06/23 14:31	09/11/23 19:22	1
Indene	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 19:22	1
Isophorone	ND		9.5	0.13	ug/L		09/06/23 14:31	09/11/23 19:22	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/06/23 14:31	09/11/23 19:22	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/06/23 14:31	09/11/23 19:22	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/06/23 14:31	09/11/23 19:22	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/06/23 14:31	09/11/23 19:22	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/06/23 14:31	09/11/23 19:22	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/06/23 14:31	09/11/23 19:22	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/06/23 14:31	09/11/23 19:22	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/06/23 14:31	09/11/23 19:22	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 19:22	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		09/06/23 14:31	09/11/23 19:22	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/06/23 14:31	09/11/23 19:22	1
Pentachlorophenol	ND		19	1.3	ug/L		09/06/23 14:31	09/11/23 19:22	1
Phenol	ND		9.5	2.5	ug/L		09/06/23 14:31	09/11/23 19:22	1
Pyridine	ND		9.5	3.0	ug/L		09/06/23 14:31	09/11/23 19:22	1
Quinoline	ND		9.5	4.3	ug/L		09/06/23 14:31	09/11/23 19:22	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/06/23 14:31	09/11/23 19:22	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*48*		*46 - 124*	*09/06/23 14:31*	*09/11/23 19:22*	*1*
2-Fluorophenol	*27*		*13 - 113*	*09/06/23 14:31*	*09/11/23 19:22*	*1*
Nitrobenzene-d5	*44*		*36 - 126*	*09/06/23 14:31*	*09/11/23 19:22*	*1*
Phenol-d5	*38*		*17 - 127*	*09/06/23 14:31*	*09/11/23 19:22*	*1*
Terphenyl-d14	*54*		*44 - 149*	*09/06/23 14:31*	*09/11/23 19:22*	*1*
2,4,6-Tribromophenol	*38*		*26 - 150*	*09/06/23 14:31*	*09/11/23 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-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/06/23 12:59	09/06/23 21:40	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		09/06/23 12:59	09/06/23 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*78*		*51 - 149*	*09/06/23 12:59*	*09/06/23 21:40*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW22-083023
Date Collected: 08/30/23 13:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242795-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/09/23 10:17	1
Acrolein	ND		20	3.3	ug/L			09/09/23 10:17	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 10:17	1
Benzene	**15**		1.0	0.50	ug/L			09/09/23 10:17	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 10:17	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 10:17	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 10:17	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 10:17	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 10:17	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 10:17	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 10:17	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 10:17	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 10:17	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 10:17	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 10:17	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 10:17	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 10:17	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 10:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 10:17	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 10:17	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 10:17	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 10:17	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 10:17	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 10:17	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 10:17	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 10:17	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 10:17	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 10:17	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 10:17	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 10:17	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 10:17	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 10:17	1
Ethylbenzene	**58**		1.0	0.50	ug/L			09/09/23 10:17	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 10:17	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 10:17	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 10:17	1
Isopropylbenzene	**50**		1.0	0.53	ug/L			09/09/23 10:17	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 10:17	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 10:17	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 10:17	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/09/23 10:17	1
Naphthalene	**89**		5.0	3.0	ug/L			09/09/23 10:17	1
n-Butylbenzene	**11**		1.0	0.76	ug/L			09/09/23 10:17	1
N-Propylbenzene	**110**		1.0	0.69	ug/L			09/09/23 10:17	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 10:17	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 10:17	1
p-Isopropyltoluene	**7.3**		1.0	0.71	ug/L			09/09/23 10:17	1
sec-Butylbenzene	**6.4**		1.0	0.70	ug/L			09/09/23 10:17	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 10:17	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW22-083023
Date Collected: 08/30/23 13:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242795-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	**14**		1.0	0.63	ug/L			09/09/23 10:17	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 10:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 10:17	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 10:17	1
Toluene	**23**		1.0	0.90	ug/L			09/09/23 10:17	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 10:17	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 10:17	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 10:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 10:17	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 10:17	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 10:17	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 10:17	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 10:17	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 10:17	1
1,2,4-Trimethylbenzene	**240**		1.0	0.82	ug/L			09/09/23 10:17	1
1,3,5-Trimethylbenzene	**140**		1.0	0.56	ug/L			09/09/23 10:17	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 10:17	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 10:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*72 - 130*		*09/09/23 10:17*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*09/09/23 10:17*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*09/09/23 10:17*	*1*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	**400**		10	1.3	ug/L			09/11/23 14:45	2
o-Xylene	ND		10	1.2	ug/L			09/11/23 14:45	2
Xylenes, Total	**400**		20	3.2	ug/L			09/11/23 14:45	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 130*		*09/11/23 14:45*	*2*
Dibromofluoromethane	*92*		*75 - 126*		*09/11/23 14:45*	*2*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/11/23 14:45*	*2*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		09/06/23 14:31	09/11/23 21:41	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/06/23 14:31	09/11/23 21:41	1
Anthracene	ND		0.19	0.044	ug/L		09/06/23 14:31	09/11/23 21:41	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 21:41	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/06/23 14:31	09/11/23 21:41	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/06/23 14:31	09/11/23 21:41	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/06/23 14:31	09/11/23 21:41	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/06/23 14:31	09/11/23 21:41	1
Chrysene	ND		0.19	0.031	ug/L		09/06/23 14:31	09/11/23 21:41	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/06/23 14:31	09/11/23 21:41	1
Fluoranthene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 21:41	1
Fluorene	ND		0.19	0.084	ug/L		09/06/23 14:31	09/11/23 21:41	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/06/23 14:31	09/11/23 21:41	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW22-083023
Date Collected: 08/30/23 13:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242795-1
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.19	0.085	ug/L		09/06/23 14:31	09/11/23 21:41	1
Pyrene	ND		0.19	0.037	ug/L		09/06/23 14:31	09/11/23 21:41	1
1-Methylnaphthalene	**5.9**		0.19	0.076	ug/L		09/06/23 14:31	09/11/23 21:41	1
2-Methylnaphthalene	**6.6**		0.19	0.062	ug/L		09/06/23 14:31	09/11/23 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*54*		*18 - 147*	*09/06/23 14:31*	*09/11/23 21:41*	*1*
2-Fluorobiphenyl	*42*		*15 - 128*	*09/06/23 14:31*	*09/11/23 21:41*	*1*
Nitrobenzene-d5	*61*		*10 - 144*	*09/06/23 14:31*	*09/11/23 21:41*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/06/23 14:31	09/11/23 19:44	1
Benzenethiol	ND	*1	9.5	1.6	ug/L		09/06/23 14:31	09/11/23 19:44	1
Benzoic acid	ND		28	6.9	ug/L		09/06/23 14:31	09/11/23 19:44	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/06/23 14:31	09/11/23 19:44	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/06/23 14:31	09/11/23 19:44	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/06/23 14:31	09/11/23 19:44	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/06/23 14:31	09/11/23 19:44	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		09/06/23 14:31	09/11/23 19:44	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/06/23 14:31	09/11/23 19:44	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/06/23 14:31	09/11/23 19:44	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/06/23 14:31	09/11/23 19:44	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/06/23 14:31	09/11/23 19:44	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/06/23 14:31	09/11/23 19:44	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/06/23 14:31	09/11/23 19:44	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/06/23 14:31	09/11/23 19:44	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 19:44	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 19:44	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/06/23 14:31	09/11/23 19:44	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		09/06/23 14:31	09/11/23 19:44	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/06/23 14:31	09/11/23 19:44	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 19:44	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 19:44	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/06/23 14:31	09/11/23 19:44	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/06/23 14:31	09/11/23 19:44	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/06/23 14:31	09/11/23 19:44	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/11/23 19:44	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/06/23 14:31	09/11/23 19:44	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 19:44	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 19:44	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 19:44	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/06/23 14:31	09/11/23 19:44	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/06/23 14:31	09/11/23 19:44	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/06/23 14:31	09/11/23 19:44	1
Indene	ND		9.5	0.95	ug/L		09/06/23 14:31	09/11/23 19:44	1
Isophorone	ND		9.5	0.13	ug/L		09/06/23 14:31	09/11/23 19:44	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/06/23 14:31	09/11/23 19:44	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/06/23 14:31	09/11/23 19:44	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW22-083023
Date Collected: 08/30/23 13:20
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242795-1
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.5	2.1	ug/L		09/06/23 14:31	09/11/23 19:44	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/06/23 14:31	09/11/23 19:44	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/06/23 14:31	09/11/23 19:44	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/06/23 14:31	09/11/23 19:44	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/06/23 14:31	09/11/23 19:44	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/06/23 14:31	09/11/23 19:44	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 19:44	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		09/06/23 14:31	09/11/23 19:44	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/06/23 14:31	09/11/23 19:44	1
Pentachlorophenol	ND		19	1.3	ug/L		09/06/23 14:31	09/11/23 19:44	1
Phenol	ND		9.5	2.5	ug/L		09/06/23 14:31	09/11/23 19:44	1
Pyridine	ND		9.5	3.0	ug/L		09/06/23 14:31	09/11/23 19:44	1
Quinoline	ND		9.5	4.3	ug/L		09/06/23 14:31	09/11/23 19:44	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/06/23 14:31	09/11/23 19:44	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/06/23 14:31	09/11/23 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*09/06/23 14:31*	*09/11/23 19:44*	*1*
2-Fluorophenol	*46*		*13 - 113*	*09/06/23 14:31*	*09/11/23 19:44*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*09/06/23 14:31*	*09/11/23 19:44*	*1*
Phenol-d5	*59*		*17 - 127*	*09/06/23 14:31*	*09/11/23 19:44*	*1*
Terphenyl-d14	*80*		*44 - 149*	*09/06/23 14:31*	*09/11/23 19:44*	*1*
2,4,6-Tribromophenol	*60*		*26 - 150*	*09/06/23 14:31*	*09/11/23 19:44*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/06/23 12:59	09/06/23 22:01	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		09/06/23 12:59	09/06/23 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*09/06/23 12:59*	*09/06/23 22:01*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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
S1-	Surrogate recovery exceeds control limits, low 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 MONTHLY GW

Job ID: 400-242794-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-242794-1	TB-ROX-083023-8260-A	106	96	99
400-242794-3	MW6B-ROX-083023	110	95	100
400-242794-4	MW6B-ROX-083023-DUP	109	94	101
400-242794-5	MW11-ROX-083023	112	93	101
400-242794-6	MW28-ROX-083023	107	94	101
400-242794-7	P54-ROX-083023	110	95	102
400-242794-8	TB-ROX-083023-8260-B	108	94	101
400-242794-10	P93D-ROX-083023	110	96	99
400-242794-10 MS	P93D-ROX-083023	106	92	101
400-242794-10 MSD	P93D-ROX-083023	104	90	100
400-242794-11	ROST4PZC-ROX-083023	109	93	100
400-242794-12	ROST4PZE-ROX-083023	108	94	99
400-242794-13	MW12-ROX-083023-EB	109	95	102
400-242794-14	MW12-ROX-083023	107	94	100
400-242795-1	MW22-083023	111	93	103
400-242795-1 - DL	MW22-083023	108	92	101
LCS 400-640361/1002	Lab Control Sample	104	91	100
LCS 400-640415/1002	Lab Control Sample	107	92	101
MB 400-640361/4	Method Blank	107	95	101
MB 400-640415/4	Method Blank	108	94	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-242794-3	MW6B-ROX-083023	57	24	47	38	67	59
400-242794-4	MW6B-ROX-083023-DUP	41 S1-	18	38	26	47	50
400-242794-5	MW11-ROX-083023	54	32	54	46	76	46
400-242794-6	MW28-ROX-083023	68	10 S1-	61	27	81	54
400-242794-7	P54-ROX-083023	93	61	84	77	103	77
400-242794-10	P93D-ROX-083023	69	34	56	49	74	69
400-242794-10 MS	P93D-ROX-083023	73	53	71	64	74	83
400-242794-10 MSD	P93D-ROX-083023	76	55	71	64	76	82
400-242794-11	ROST4PZC-ROX-083023	86	53	79	76	96	84
400-242794-12	ROST4PZE-ROX-083023	87	63	80	77	94	89
400-242794-13	MW12-ROX-083023-EB	81	48	70	67	99	61
400-242794-14	MW12-ROX-083023	48	27	44	38	54	38
400-242795-1	MW22-083023	69	46	61	59	80	60
LCS 400-639760/14-A	Lab Control Sample	66	30	59	47	77	51
LCS 400-639760/2-A	Lab Control Sample	83	64	76	75	87	76
LCSD 400-639760/15-A	Lab Control Sample Dup	84	69	76	81	98	69
MB 400-639760/1-A	Method Blank	80	48	73	69	89	61

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TPHL (18-147)	FBP (15-128)	NBZ (10-144)
400-242794-3	MW6B-ROX-083023	55	54	67
400-242794-4	MW6B-ROX-083023-DUP	79	72	88
400-242794-4 - RERA	MW6B-ROX-083023-DUP	78	77	70
400-242794-5	MW11-ROX-083023	59	57	71
400-242794-6	MW28-ROX-083023	58	56	66
400-242794-7	P54-ROX-083023	119	116	143
400-242794-7 - RERA	P54-ROX-083023	93	83	76
400-242794-10	P93D-ROX-083023	46	45	55
400-242794-10 - RERA	P93D-ROX-083023	85	82	76
400-242794-10 MS	P93D-ROX-083023	65	68	80
400-242794-10 MSD	P93D-ROX-083023	68	72	89
400-242794-11	ROST4PZC-ROX-083023	115	89	139
400-242794-12	ROST4PZE-ROX-083023	98	116	139
400-242794-13	MW12-ROX-083023-EB	64	61	73
400-242794-14	MW12-ROX-083023	64	61	75
400-242794-14 - RERA	MW12-ROX-083023	82	78	74
400-242795-1	MW22-083023	54	42	61
LCS 400-639760/16-A	Lab Control Sample	84	76	61
LCS 400-640651/19-A	Lab Control Sample	112	91	66
LCSD 400-639760/17-A	Lab Control Sample Dup	84	73	58
LCSD 400-640651/20-A	Lab Control Sample Dup	112	94	67
MB 400-639760/1-A	Method Blank	96	83	63
MB 400-640651/1-A	Method Blank	94	75	69

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-242794-2	TB-ROX-083023-8011-A	58
400-242794-3	MW6B-ROX-083023	73
400-242794-4	MW6B-ROX-083023-DUP	72
400-242794-5	MW11-ROX-083023	69
400-242794-6	MW28-ROX-083023	70
400-242794-7	P54-ROX-083023	71
400-242794-9	TB-ROX-083023-8011-B	63
400-242794-10	P93D-ROX-083023	69
400-242794-10 MS	P93D-ROX-083023	70

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB2 (51-149)
400-242794-10 MSD	P93D-ROX-083023	66
400-242794-11	ROST4PZC-ROX-083023	69
400-242794-12	ROST4PZE-ROX-083023	79
400-242794-13	MW12-ROX-083023-EB	63
400-242794-14	MW12-ROX-083023	78
400-242795-1	MW22-083023	81
LCS 400-639897/2-A	Lab Control Sample	47 S1-
LCSD 400-639897/3-A	Lab Control Sample Dup	55
MB 400-639897/1-A	Method Blank	70

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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 MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: TB-ROX-083023-8260-A
Lab Sample ID: 400-242794-1
Date Collected: 08/30/23 12:00
Matrix: Water
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 09:30	WPD	EET PEN

Client Sample ID: TB-ROX-083023-8011-A
Lab Sample ID: 400-242794-2
Date Collected: 08/30/23 12:00
Matrix: Water
Date Received: 08/31/23 09:19

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	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 16:56	PG	EET PEN

Client Sample ID: MW6B-ROX-083023
Lab Sample ID: 400-242794-3
Date Collected: 08/30/23 09:20
Matrix: Water
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 13:23	WPD	EET PEN
Total/NA	Prep	3520C			250.4 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 16:19	S1B	EET PEN
Total/NA	Prep	3520C			250.4 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 18:32	TH	EET PEN
Total/NA	Prep	8011			33.9 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 17:17	PG	EET PEN

Client Sample ID: MW6B-ROX-083023-DUP
Lab Sample ID: 400-242794-4
Date Collected: 08/30/23 09:20
Matrix: Water
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 13:48	WPD	EET PEN
Total/NA	Prep	3520C			255.4 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 16:53	S1B	EET PEN
Total/NA	Prep	3520C			255.4 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 18:53	TH	EET PEN
Total/NA	Prep	3520C	RERA		256.2 mL	1 mL	640651	09/13/23 10:04	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	641154	09/15/23 17:22	KJA	EET PEN
Total/NA	Prep	8011			34 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 17:37	PG	EET PEN

Client Sample ID: MW11-ROX-083023
Lab Sample ID: 400-242794-5
Date Collected: 08/30/23 10:30
Matrix: Water
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640415	09/11/23 11:09	WPD	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: MW11-ROX-083023

Lab Sample ID: 400-242794-5
Matrix: Water
Date Collected: 08/30/23 10:30
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250.8 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640723	09/13/23 02:40	S1B	EET PEN
Total/NA	Prep	3520C			250.8 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 17:15	S1B	EET PEN
Total/NA	Prep	3520C			250.8 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 19:14	TH	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 17:57	PG	EET PEN

Client Sample ID: MW28-ROX-083023

Lab Sample ID: 400-242794-6
Matrix: Water
Date Collected: 08/30/23 11:45
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 14:37	WPD	EET PEN
Total/NA	Prep	3520C			258 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 17:36	S1B	EET PEN
Total/NA	Prep	3520C			258 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 19:35	TH	EET PEN
Total/NA	Prep	8011			35.8 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 18:18	PG	EET PEN

Client Sample ID: P54-ROX-083023

Lab Sample ID: 400-242794-7
Matrix: Water
Date Collected: 08/30/23 13:35
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 15:02	WPD	EET PEN
Total/NA	Prep	3520C			252.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 17:57	S1B	EET PEN
Total/NA	Prep	3520C			252.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 19:56	TH	EET PEN
Total/NA	Prep	3520C	RERA		254 mL	1 mL	640651	09/13/23 10:04	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	641154	09/15/23 17:44	KJA	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 18:38	PG	EET PEN

Client Sample ID: TB-ROX-083023-8260-B

Lab Sample ID: 400-242794-8
Matrix: Water
Date Collected: 08/30/23 12:00
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 12:59	WPD	EET PEN

Client Sample ID: TB-ROX-083023-8011-B

Lab Sample ID: 400-242794-9

Date Collected: 08/30/23 12:00

Matrix: Water

Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.4 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 18:58	PG	EET PEN

Client Sample ID: P93D-ROX-083023

Lab Sample ID: 400-242794-10

Date Collected: 08/30/23 09:50

Matrix: Water

Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 09:54	WPD	EET PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 15:58	S1B	EET PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640846	09/13/23 17:46	S1B	EET PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 18:11	TH	EET PEN
Total/NA	Prep	3520C	RERA		265 mL	1 mL	640651	09/13/23 10:04	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	641154	09/15/23 17:01	KJA	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 19:39	PG	EET PEN

Client Sample ID: ROST4PZC-ROX-083023

Lab Sample ID: 400-242794-11

Date Collected: 08/30/23 10:15

Matrix: Water

Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 15:26	WPD	EET PEN
Total/NA	Prep	3520C			264.4 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 18:18	S1B	EET PEN
Total/NA	Prep	3520C			264.4 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 20:17	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 20:40	PG	EET PEN

Client Sample ID: ROST4PZE-ROX-083023

Lab Sample ID: 400-242794-12

Date Collected: 08/30/23 11:00

Matrix: Water

Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640415	09/11/23 11:34	WPD	EET PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 18:40	S1B	EET PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 20:38	TH	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 21:00	PG	EET PEN

Client Sample ID: MW12-ROX-083023-EB

Lab Sample ID: 400-242794-13

Date Collected: 08/30/23 11:50

Matrix: Water

Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 09:08	WPD	EET PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 19:01	S1B	EET PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 16:40	S1B	EET PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 20:59	TH	EET PEN
Total/NA	Prep	8011			36.3 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 21:20	PG	EET PEN

Client Sample ID: MW12-ROX-083023

Lab Sample ID: 400-242794-14

Date Collected: 08/30/23 12:20

Matrix: Water

Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 16:15	WPD	EET PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 19:22	S1B	EET PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 21:20	TH	EET PEN
Total/NA	Prep	3520C	RERA		261 mL	1 mL	640651	09/13/23 10:04	BKL	EET PEN
Total/NA	Analysis	8270E SIM	RERA	1	0.4 mL	0.4 mL	641154	09/15/23 18:05	KJA	EET PEN
Total/NA	Prep	8011			33.5 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 21:40	PG	EET PEN

Client Sample ID: MW22-083023

Lab Sample ID: 400-242795-1

Date Collected: 08/30/23 13:20

Matrix: Water

Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 10:17	WPD	EET PEN
Total/NA	Analysis	8260D	DL	2	5 mL	5 mL	640415	09/11/23 14:45	WPD	EET PEN
Total/NA	Prep	3520C			264.4 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640527	09/11/23 19:44	S1B	EET PEN
Total/NA	Prep	3520C			264.4 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640497	09/11/23 21:41	TH	EET PEN
Total/NA	Prep	8011			33.4 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 22:01	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-639760/1-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	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 18:36	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 15:52	S1B	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-639897/1-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	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 15:55	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640361/4
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	8260D		1	5 mL	5 mL	640361	09/09/23 08:23	WPD	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640415/4
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	8260D		1	5 mL	5 mL	640415	09/11/23 10:45	WPD	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640651/1-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641154	09/15/23 16:40	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639760/14-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	639760	09/05/23 14:56	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 18:57	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639760/16-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	639760	09/05/23 14:56	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 17:36	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639760/2-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	639760	09/05/23 14:55	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 19:40	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639897/2-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	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 16:16	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640361/1002
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	8260D		1	5 mL	5 mL	640361	09/09/23 07:39	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640415/1002
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	8260D		1	5 mL	5 mL	640415	09/11/23 09:58	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/19-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:05	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-639760/15-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	639760	09/05/23 14:56	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640111	09/07/23 19:19	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-639760/17-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	639760	09/05/23 14:56	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640207	09/08/23 17:57	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-639897/3-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	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 16:36	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640651/20-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	640651	09/12/23 10:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:25	TH	EET PEN

Client Sample ID: P93D-ROX-083023
Lab Sample ID: 400-242794-10 MS
Date Collected: 08/30/23 09:50
Matrix: Water
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 11:45	WPD	EET PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640846	09/13/23 16:54	S1B	EET PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	640497	09/11/23 17:29	TH	EET PEN
Total/NA	Prep	8011			35.2 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 19:59	PG	EET PEN

Client Sample ID: P93D-ROX-083023
Lab Sample ID: 400-242794-10 MSD
Date Collected: 08/30/23 09:50
Matrix: Water
Date Received: 08/31/23 09:19

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640361	09/09/23 12:09	WPD	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

Client Sample ID: P93D-ROX-083023

Date Collected: 08/30/23 09:50
Date Received: 08/31/23 09:19

Lab Sample ID: 400-242794-10 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	Prep	3520C			262 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640846	09/13/23 17:20	S1B	EET PEN
Total/NA	Prep	3520C			262 mL	1 mL	639760	09/06/23 14:31	BKL	EET PEN
Total/NA	Analysis	8270E SIM		20	0.4 mL	0.4 mL	640497	09/11/23 17:50	TH	EET PEN
Total/NA	Prep	8011			35.8 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 20:19	PG	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 640361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-1	TB-ROX-083023-8260-A	Total/NA	Water	8260D	
400-242794-3	MW6B-ROX-083023	Total/NA	Water	8260D	
400-242794-4	MW6B-ROX-083023-DUP	Total/NA	Water	8260D	
400-242794-6	MW28-ROX-083023	Total/NA	Water	8260D	
400-242794-7	P54-ROX-083023	Total/NA	Water	8260D	
400-242794-8	TB-ROX-083023-8260-B	Total/NA	Water	8260D	
400-242794-10	P93D-ROX-083023	Total/NA	Water	8260D	
400-242794-11	ROST4PZC-ROX-083023	Total/NA	Water	8260D	
400-242794-13	MW12-ROX-083023-EB	Total/NA	Water	8260D	
400-242794-14	MW12-ROX-083023	Total/NA	Water	8260D	
400-242795-1	MW22-083023	Total/NA	Water	8260D	
MB 400-640361/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640361/1002	Lab Control Sample	Total/NA	Water	8260D	
400-242794-10 MS	P93D-ROX-083023	Total/NA	Water	8260D	
400-242794-10 MSD	P93D-ROX-083023	Total/NA	Water	8260D	

Analysis Batch: 640415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-5	MW11-ROX-083023	Total/NA	Water	8260D	
400-242794-12	ROST4PZE-ROX-083023	Total/NA	Water	8260D	
400-242795-1 - DL	MW22-083023	Total/NA	Water	8260D	
MB 400-640415/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640415/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 639760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-3	MW6B-ROX-083023	Total/NA	Water	3520C	
400-242794-4	MW6B-ROX-083023-DUP	Total/NA	Water	3520C	
400-242794-5	MW11-ROX-083023	Total/NA	Water	3520C	
400-242794-6	MW28-ROX-083023	Total/NA	Water	3520C	
400-242794-7	P54-ROX-083023	Total/NA	Water	3520C	
400-242794-10	P93D-ROX-083023	Total/NA	Water	3520C	
400-242794-11	ROST4PZC-ROX-083023	Total/NA	Water	3520C	
400-242794-12	ROST4PZE-ROX-083023	Total/NA	Water	3520C	
400-242794-13	MW12-ROX-083023-EB	Total/NA	Water	3520C	
400-242794-14	MW12-ROX-083023	Total/NA	Water	3520C	
400-242795-1	MW22-083023	Total/NA	Water	3520C	
MB 400-639760/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-639760/14-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-639760/16-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-639760/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-639760/15-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-639760/17-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-242794-10 MS	P93D-ROX-083023	Total/NA	Water	3520C	
400-242794-10 MSD	P93D-ROX-083023	Total/NA	Water	3520C	

Analysis Batch: 640111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-639760/1-A	Method Blank	Total/NA	Water	8270E	639760

GC/MS Semi VOA (Continued)

Analysis Batch: 640111 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-639760/14-A	Lab Control Sample	Total/NA	Water	8270E	639760
LCS 400-639760/2-A	Lab Control Sample	Total/NA	Water	8270E	639760
LCSD 400-639760/15-A	Lab Control Sample Dup	Total/NA	Water	8270E	639760

Analysis Batch: 640207

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-639760/1-A	Method Blank	Total/NA	Water	8270E SIM	639760
LCS 400-639760/16-A	Lab Control Sample	Total/NA	Water	8270E SIM	639760
LCSD 400-639760/17-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	639760

Analysis Batch: 640497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-3	MW6B-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242794-4	MW6B-ROX-083023-DUP	Total/NA	Water	8270E SIM	639760
400-242794-5	MW11-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242794-6	MW28-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242794-7	P54-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242794-10	P93D-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242794-11	ROST4PZC-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242794-12	ROST4PZE-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242794-13	MW12-ROX-083023-EB	Total/NA	Water	8270E SIM	639760
400-242794-14	MW12-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242795-1	MW22-083023	Total/NA	Water	8270E SIM	639760
400-242794-10 MS	P93D-ROX-083023	Total/NA	Water	8270E SIM	639760
400-242794-10 MSD	P93D-ROX-083023	Total/NA	Water	8270E SIM	639760

Analysis Batch: 640527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-4	MW6B-ROX-083023-DUP	Total/NA	Water	8270E	639760
400-242794-5	MW11-ROX-083023	Total/NA	Water	8270E	639760
400-242794-6	MW28-ROX-083023	Total/NA	Water	8270E	639760
400-242794-7	P54-ROX-083023	Total/NA	Water	8270E	639760
400-242794-11	ROST4PZC-ROX-083023	Total/NA	Water	8270E	639760
400-242794-12	ROST4PZE-ROX-083023	Total/NA	Water	8270E	639760
400-242794-13	MW12-ROX-083023-EB	Total/NA	Water	8270E	639760
400-242794-14	MW12-ROX-083023	Total/NA	Water	8270E	639760
400-242795-1	MW22-083023	Total/NA	Water	8270E	639760

Prep Batch: 640651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-4 - RERA	MW6B-ROX-083023-DUP	Total/NA	Water	3520C	
400-242794-7 - RERA	P54-ROX-083023	Total/NA	Water	3520C	
400-242794-10 - RERA	P93D-ROX-083023	Total/NA	Water	3520C	
400-242794-14 - RERA	MW12-ROX-083023	Total/NA	Water	3520C	
MB 400-640651/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-640651/19-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-640651/20-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 640672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-3	MW6B-ROX-083023	Total/NA	Water	8270E	639760

GC/MS Semi VOA (Continued)

Analysis Batch: 640672 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-10	P93D-ROX-083023	Total/NA	Water	8270E	639760
400-242794-13	MW12-ROX-083023-EB	Total/NA	Water	8270E	639760

Analysis Batch: 640723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-5	MW11-ROX-083023	Total/NA	Water	8270E	639760

Analysis Batch: 640846

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-10	P93D-ROX-083023	Total/NA	Water	8270E	639760
400-242794-10 MS	P93D-ROX-083023	Total/NA	Water	8270E	639760
400-242794-10 MSD	P93D-ROX-083023	Total/NA	Water	8270E	639760

Analysis Batch: 641090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-640651/19-A	Lab Control Sample	Total/NA	Water	8270E SIM	640651
LCSD 400-640651/20-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	640651

Analysis Batch: 641154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-4 - RERA	MW6B-ROX-083023-DUP	Total/NA	Water	8270E SIM	640651
400-242794-7 - RERA	P54-ROX-083023	Total/NA	Water	8270E SIM	640651
400-242794-10 - RERA	P93D-ROX-083023	Total/NA	Water	8270E SIM	640651
400-242794-14 - RERA	MW12-ROX-083023	Total/NA	Water	8270E SIM	640651
MB 400-640651/1-A	Method Blank	Total/NA	Water	8270E SIM	640651

GC Semi VOA

Prep Batch: 639897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-2	TB-ROX-083023-8011-A	Total/NA	Water	8011	
400-242794-3	MW6B-ROX-083023	Total/NA	Water	8011	
400-242794-4	MW6B-ROX-083023-DUP	Total/NA	Water	8011	
400-242794-5	MW11-ROX-083023	Total/NA	Water	8011	
400-242794-6	MW28-ROX-083023	Total/NA	Water	8011	
400-242794-7	P54-ROX-083023	Total/NA	Water	8011	
400-242794-9	TB-ROX-083023-8011-B	Total/NA	Water	8011	
400-242794-10	P93D-ROX-083023	Total/NA	Water	8011	
400-242794-11	ROST4PZC-ROX-083023	Total/NA	Water	8011	
400-242794-12	ROST4PZE-ROX-083023	Total/NA	Water	8011	
400-242794-13	MW12-ROX-083023-EB	Total/NA	Water	8011	
400-242794-14	MW12-ROX-083023	Total/NA	Water	8011	
400-242795-1	MW22-083023	Total/NA	Water	8011	
MB 400-639897/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-639897/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-639897/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-242794-10 MS	P93D-ROX-083023	Total/NA	Water	8011	
400-242794-10 MSD	P93D-ROX-083023	Total/NA	Water	8011	

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242794-1

GC Semi VOA

Analysis Batch: 639945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242794-2	TB-ROX-083023-8011-A	Total/NA	Water	8011	639897
400-242794-3	MW6B-ROX-083023	Total/NA	Water	8011	639897
400-242794-4	MW6B-ROX-083023-DUP	Total/NA	Water	8011	639897
400-242794-5	MW11-ROX-083023	Total/NA	Water	8011	639897
400-242794-6	MW28-ROX-083023	Total/NA	Water	8011	639897
400-242794-7	P54-ROX-083023	Total/NA	Water	8011	639897
400-242794-9	TB-ROX-083023-8011-B	Total/NA	Water	8011	639897
400-242794-10	P93D-ROX-083023	Total/NA	Water	8011	639897
400-242794-11	ROST4PZC-ROX-083023	Total/NA	Water	8011	639897
400-242794-12	ROST4PZE-ROX-083023	Total/NA	Water	8011	639897
400-242794-13	MW12-ROX-083023-EB	Total/NA	Water	8011	639897
400-242794-14	MW12-ROX-083023	Total/NA	Water	8011	639897
400-242795-1	MW22-083023	Total/NA	Water	8011	639897
MB 400-639897/1-A	Method Blank	Total/NA	Water	8011	639897
LCS 400-639897/2-A	Lab Control Sample	Total/NA	Water	8011	639897
LCSD 400-639897/3-A	Lab Control Sample Dup	Total/NA	Water	8011	639897
400-242794-10 MS	P93D-ROX-083023	Total/NA	Water	8011	639897
400-242794-10 MSD	P93D-ROX-083023	Total/NA	Water	8011	639897

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-640361/4
Matrix: Water
Analysis Batch: 640361

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			09/09/23 08:23	1
Acrolein	ND		20	3.3	ug/L			09/09/23 08:23	1
Acrylonitrile	ND		10	2.8	ug/L			09/09/23 08:23	1
Benzene	ND		1.0	0.50	ug/L			09/09/23 08:23	1
Bromobenzene	ND		1.0	0.54	ug/L			09/09/23 08:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/09/23 08:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/09/23 08:23	1
Bromoform	ND		5.0	0.25	ug/L			09/09/23 08:23	1
Bromomethane	ND		1.0	0.98	ug/L			09/09/23 08:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/09/23 08:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/09/23 08:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/09/23 08:23	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/09/23 08:23	1
Chloroethane	ND		1.0	0.76	ug/L			09/09/23 08:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/09/23 08:23	1
Chloroform	ND		1.0	0.90	ug/L			09/09/23 08:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/09/23 08:23	1
Chloromethane	ND		1.0	0.90	ug/L			09/09/23 08:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/09/23 08:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/09/23 08:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/09/23 08:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/09/23 08:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/09/23 08:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/09/23 08:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/09/23 08:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/09/23 08:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/09/23 08:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 08:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 08:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 08:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/09/23 08:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/09/23 08:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/09/23 08:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/09/23 08:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/09/23 08:23	1
2-Hexanone	ND		25	1.4	ug/L			09/09/23 08:23	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/09/23 08:23	1
Methylene bromide	ND		5.0	0.22	ug/L			09/09/23 08:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/09/23 08:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/09/23 08:23	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/09/23 08:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/09/23 08:23	1
Naphthalene	ND		5.0	3.0	ug/L			09/09/23 08:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/09/23 08:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/09/23 08:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/09/23 08:23	1
o-Xylene	ND		5.0	0.60	ug/L			09/09/23 08:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/09/23 08:23	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640361/4
Matrix: Water
Analysis Batch: 640361

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			09/09/23 08:23	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/09/23 08:23	1
Styrene	ND		1.0	1.0	ug/L			09/09/23 08:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/09/23 08:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/09/23 08:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/09/23 08:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/09/23 08:23	1
Toluene	ND		1.0	0.90	ug/L			09/09/23 08:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/09/23 08:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/09/23 08:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/09/23 08:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/09/23 08:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/09/23 08:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/09/23 08:23	1
Trichloroethene	ND		1.0	0.15	ug/L			09/09/23 08:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/09/23 08:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/09/23 08:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/09/23 08:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/09/23 08:23	1
Vinyl acetate	ND		25	0.93	ug/L			09/09/23 08:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/09/23 08:23	1
Xylenes, Total	ND		10	1.6	ug/L			09/09/23 08:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*09/09/23 08:23*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/09/23 08:23*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/09/23 08:23*	*1*

Lab Sample ID: LCS 400-640361/1002
Matrix: Water
Analysis Batch: 640361

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	219		ug/L		110	43 - 160
Acrolein	250	324		ug/L		129	38 - 160
Acrylonitrile	500	468		ug/L		94	64 - 142
Benzene	50.0	47.8		ug/L		96	70 - 130
Bromobenzene	50.0	46.5		ug/L		93	70 - 132
Bromochloromethane	50.0	42.7		ug/L		85	70 - 130
Bromodichloromethane	50.0	47.5		ug/L		95	67 - 133
Bromoform	50.0	47.9		ug/L		96	57 - 140
Bromomethane	25.0	23.5		ug/L		94	10 - 160
2-Butanone (MEK)	200	196		ug/L		98	61 - 145
Carbon disulfide	50.0	40.4		ug/L		81	61 - 137
Carbon tetrachloride	50.0	45.7		ug/L		91	61 - 137
Chlorobenzene	50.0	46.8		ug/L		94	70 - 130
Chloroethane	25.0	26.7		ug/L		107	55 - 141
2-Chloroethyl vinyl ether	25.0	20.8		ug/L		83	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640361/1002
Matrix: Water
Analysis Batch: 640361

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	45.9		ug/L		92	69 - 130
1-Chlorohexane	50.0	53.5		ug/L		107	69 - 130
Chloromethane	25.0	27.4		ug/L		110	58 - 137
cis-1,2-Dichloroethene	50.0	49.6		ug/L		99	68 - 130
cis-1,3-Dichloropropene	50.0	48.8		ug/L		98	69 - 132
Dibromochloromethane	50.0	46.6		ug/L		93	67 - 135
1,2-Dichlorobenzene	50.0	45.8		ug/L		92	67 - 130
1,3-Dichlorobenzene	50.0	47.0		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	46.3		ug/L		93	70 - 130
Dichlorodifluoromethane	25.0	17.1		ug/L		68	41 - 146
1,1-Dichloroethane	50.0	49.7		ug/L		99	70 - 130
1,2-Dichloroethane	50.0	46.6		ug/L		93	69 - 130
1,1-Dichloroethene	50.0	41.0		ug/L		82	63 - 134
1,2-Dichloropropane	50.0	51.7		ug/L		103	70 - 130
1,3-Dichloropropane	50.0	49.2		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	45.6		ug/L		91	52 - 135
1,1-Dichloropropene	50.0	47.5		ug/L		95	70 - 130
Ethylbenzene	50.0	48.1		ug/L		96	70 - 130
Ethyl methacrylate	50.0	48.4		ug/L		97	68 - 130
Hexachlorobutadiene	50.0	53.0		ug/L		106	53 - 140
2-Hexanone	200	202		ug/L		101	65 - 137
Isopropylbenzene	50.0	46.1		ug/L		92	70 - 130
Methylene bromide	50.0	44.7		ug/L		89	70 - 130
Methylene Chloride	50.0	43.4		ug/L		87	66 - 135
4-Methyl-2-pentanone (MIBK)	200	192		ug/L		96	69 - 138
Methyl tert-butyl ether	50.0	44.5		ug/L		89	66 - 130
m-Xylene & p-Xylene	50.0	47.8		ug/L		96	70 - 130
Naphthalene	50.0	43.6		ug/L		87	47 - 149
n-Butylbenzene	50.0	48.6		ug/L		97	67 - 130
N-Propylbenzene	50.0	46.4		ug/L		93	70 - 130
o-Chlorotoluene	50.0	48.1		ug/L		96	70 - 130
o-Xylene	50.0	47.8		ug/L		96	70 - 130
p-Chlorotoluene	50.0	47.4		ug/L		95	70 - 130
p-Isopropyltoluene	50.0	45.9		ug/L		92	65 - 130
sec-Butylbenzene	50.0	46.5		ug/L		93	66 - 130
Styrene	50.0	45.7		ug/L		91	70 - 130
tert-Butylbenzene	50.0	52.8		ug/L		106	64 - 139
1,1,1,2-Tetrachloroethane	50.0	48.2		ug/L		96	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.9		ug/L		92	70 - 131
Tetrachloroethene	50.0	47.0		ug/L		94	65 - 130
Toluene	50.0	48.3		ug/L		97	70 - 130
trans-1,2-Dichloroethene	50.0	44.6		ug/L		89	70 - 130
trans-1,3-Dichloropropene	50.0	48.8		ug/L		98	63 - 130
1,2,3-Trichlorobenzene	50.0	48.7		ug/L		97	60 - 138
1,2,4-Trichlorobenzene	50.0	49.1		ug/L		98	60 - 140
1,1,1-Trichloroethane	50.0	44.8		ug/L		90	68 - 130
1,1,2-Trichloroethane	50.0	48.7		ug/L		97	70 - 130
Trichloroethene	50.0	44.0		ug/L		88	70 - 130
Trichlorofluoromethane	25.0	25.2		ug/L		101	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640361/1002
Matrix: Water
Analysis Batch: 640361

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	43.1		ug/L		86	70 - 130
1,2,4-Trimethylbenzene	50.0	45.2		ug/L		90	70 - 130
1,3,5-Trimethylbenzene	50.0	45.8		ug/L		92	69 - 130
Vinyl acetate	50.0	52.2		ug/L		104	26 - 160
Vinyl chloride	25.0	25.1		ug/L		100	59 - 136
Xylenes, Total	100	95.6		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*72 - 130*
Dibromofluoromethane	*91*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: 400-242794-10 MS
Matrix: Water
Analysis Batch: 640361

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	109		ug/L		55	43 - 150
Acrolein	ND		250	339		ug/L		136	38 - 150
Acrylonitrile	ND		500	605		ug/L		121	62 - 149
Benzene	ND		50.0	56.2		ug/L		112	56 - 142
Bromobenzene	ND		50.0	53.3		ug/L		107	59 - 136
Bromochloromethane	ND		50.0	51.9		ug/L		104	64 - 140
Bromodichloromethane	ND		50.0	57.0		ug/L		114	59 - 143
Bromoform	ND		50.0	59.1		ug/L		118	50 - 140
Bromomethane	ND		25.0	22.9		ug/L		92	10 - 150
2-Butanone (MEK)	ND		200	151		ug/L		76	55 - 150
Carbon disulfide	ND		50.0	47.9		ug/L		96	48 - 150
Carbon tetrachloride	ND		50.0	54.4		ug/L		109	55 - 145
Chlorobenzene	ND		50.0	53.3		ug/L		107	64 - 130
Chloroethane	ND		25.0	27.3		ug/L		109	50 - 150
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	54.4		ug/L		109	60 - 141
1-Chlorohexane	ND		50.0	61.8		ug/L		124	56 - 136
Chloromethane	ND		25.0	28.0		ug/L		112	49 - 148
cis-1,2-Dichloroethene	ND		50.0	59.9		ug/L		120	59 - 143
cis-1,3-Dichloropropene	ND		50.0	58.1		ug/L		116	57 - 140
Dibromochloromethane	ND		50.0	56.0		ug/L		112	56 - 143
1,2-Dichlorobenzene	ND		50.0	50.9		ug/L		102	52 - 137
1,3-Dichlorobenzene	ND		50.0	51.7		ug/L		103	54 - 135
1,4-Dichlorobenzene	ND		50.0	50.1		ug/L		100	53 - 135
Dichlorodifluoromethane	ND		25.0	18.0		ug/L		72	16 - 150
1,1-Dichloroethane	ND		50.0	59.6		ug/L		119	61 - 144
1,2-Dichloroethane	ND		50.0	55.4		ug/L		111	60 - 141
1,1-Dichloroethene	ND		50.0	52.3		ug/L		105	54 - 147
1,2-Dichloropropane	ND		50.0	61.7		ug/L		123	66 - 137
1,3-Dichloropropane	ND		50.0	59.1		ug/L		118	66 - 133
2,2-Dichloropropane	ND		50.0	55.0		ug/L		110	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242794-10 MS
Matrix: Water
Analysis Batch: 640361

Client Sample ID: P93D-ROX-083023
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	56.7		ug/L		113	65 - 136
Ethylbenzene	ND		50.0	54.6		ug/L		109	58 - 131
Ethyl methacrylate	ND		50.0	59.4		ug/L		119	64 - 130
Hexachlorobutadiene	ND		50.0	55.7		ug/L		111	31 - 149
2-Hexanone	ND		200	198		ug/L		99	65 - 140
Isopropylbenzene	ND		50.0	51.8		ug/L		104	56 - 133
Methylene bromide	ND		50.0	54.3		ug/L		109	63 - 138
Methylene Chloride	ND		50.0	52.9		ug/L		106	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	239		ug/L		119	63 - 146
Methyl tert-butyl ether	0.81	J	50.0	56.2		ug/L		111	59 - 137
m-Xylene & p-Xylene	ND		50.0	53.8		ug/L		108	57 - 130
Naphthalene	ND		50.0	52.5		ug/L		105	25 - 150
n-Butylbenzene	ND		50.0	50.2		ug/L		100	41 - 142
N-Propylbenzene	ND		50.0	52.0		ug/L		104	51 - 138
o-Chlorotoluene	ND		50.0	53.0		ug/L		106	53 - 134
o-Xylene	ND		50.0	54.1		ug/L		108	61 - 130
p-Chlorotoluene	ND		50.0	52.6		ug/L		105	54 - 133
p-Isopropyltoluene	ND		50.0	50.0		ug/L		100	48 - 139
sec-Butylbenzene	ND		50.0	51.9		ug/L		104	50 - 138
Styrene	ND		50.0	51.5		ug/L		103	58 - 131
tert-Butylbenzene	ND		50.0	58.9		ug/L		118	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	56.0		ug/L		112	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	56.4		ug/L		113	66 - 135
Tetrachloroethene	ND		50.0	51.5		ug/L		103	52 - 133
Toluene	ND		50.0	56.0		ug/L		112	65 - 130
trans-1,2-Dichloroethene	ND		50.0	54.1		ug/L		108	61 - 143
trans-1,3-Dichloropropene	ND		50.0	57.2		ug/L		114	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	54.6		ug/L		109	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	51.9		ug/L		104	39 - 148
1,1,1-Trichloroethane	ND		50.0	53.3		ug/L		107	57 - 142
1,1,2-Trichloroethane	ND		50.0	59.4		ug/L		119	66 - 131
Trichloroethene	ND		50.0	52.1		ug/L		104	64 - 136
Trichlorofluoromethane	ND		25.0	24.9		ug/L		99	54 - 150
1,2,3-Trichloropropane	ND		50.0	53.3		ug/L		107	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	50.4		ug/L		101	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	51.2		ug/L		102	52 - 135
Vinyl acetate	ND		50.0	59.4		ug/L		119	26 - 150
Vinyl chloride	ND		25.0	26.0		ug/L		104	46 - 150
Xylenes, Total	ND		100	108		ug/L		108	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*72 - 130*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242794-10 MSD
Matrix: Water
Analysis Batch: 640361

Client Sample ID: P93D-ROX-083023
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	104		ug/L		52	43 - 150	5	30
Acrolein	ND		250	347		ug/L		139	38 - 150	2	31
Acrylonitrile	ND		500	570		ug/L		114	62 - 149	6	30
Benzene	ND		50.0	54.5		ug/L		109	56 - 142	3	30
Bromobenzene	ND		50.0	46.5		ug/L		93	59 - 136	14	30
Bromochloromethane	ND		50.0	49.3		ug/L		99	64 - 140	5	30
Bromodichloromethane	ND		50.0	53.7		ug/L		107	59 - 143	6	30
Bromoform	ND		50.0	54.2		ug/L		108	50 - 140	9	30
Bromomethane	ND		25.0	25.1		ug/L		100	10 - 150	9	50
2-Butanone (MEK)	ND		200	147		ug/L		73	55 - 150	3	30
Carbon disulfide	ND		50.0	46.1		ug/L		92	48 - 150	4	30
Carbon tetrachloride	ND		50.0	51.2		ug/L		102	55 - 145	6	30
Chlorobenzene	ND		50.0	48.8		ug/L		98	64 - 130	9	30
Chloroethane	ND		25.0	27.7		ug/L		111	50 - 150	2	30
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	51.7		ug/L		103	60 - 141	5	30
1-Chlorohexane	ND		50.0	55.0		ug/L		110	56 - 136	12	30
Chloromethane	ND		25.0	29.2		ug/L		117	49 - 148	4	31
cis-1,2-Dichloroethene	ND		50.0	56.3		ug/L		113	59 - 143	6	30
cis-1,3-Dichloropropene	ND		50.0	53.4		ug/L		107	57 - 140	8	30
Dibromochloromethane	ND		50.0	52.4		ug/L		105	56 - 143	7	30
1,2-Dichlorobenzene	ND		50.0	43.5		ug/L		87	52 - 137	16	30
1,3-Dichlorobenzene	ND		50.0	43.0		ug/L		86	54 - 135	18	30
1,4-Dichlorobenzene	ND		50.0	42.4		ug/L		85	53 - 135	17	30
Dichlorodifluoromethane	ND		25.0	17.7		ug/L		71	16 - 150	1	31
1,1-Dichloroethane	ND		50.0	57.3		ug/L		115	61 - 144	4	30
1,2-Dichloroethane	ND		50.0	52.5		ug/L		105	60 - 141	6	30
1,1-Dichloroethene	ND		50.0	50.1		ug/L		100	54 - 147	4	30
1,2-Dichloropropane	ND		50.0	58.5		ug/L		117	66 - 137	5	30
1,3-Dichloropropane	ND		50.0	56.8		ug/L		114	66 - 133	4	30
2,2-Dichloropropane	ND		50.0	51.6		ug/L		103	42 - 144	6	31
1,1-Dichloropropene	ND		50.0	53.4		ug/L		107	65 - 136	6	30
Ethylbenzene	ND		50.0	49.2		ug/L		98	58 - 131	10	30
Ethyl methacrylate	ND		50.0	56.0		ug/L		112	64 - 130	6	30
Hexachlorobutadiene	ND		50.0	39.5		ug/L		79	31 - 149	34	36
2-Hexanone	ND		200	187		ug/L		93	65 - 140	6	30
Isopropylbenzene	ND		50.0	45.7		ug/L		91	56 - 133	12	30
Methylene bromide	ND		50.0	51.4		ug/L		103	63 - 138	6	30
Methylene Chloride	ND		50.0	49.5		ug/L		99	60 - 146	7	32
4-Methyl-2-pentanone (MIBK)	ND		200	224		ug/L		112	63 - 146	7	30
Methyl tert-butyl ether	0.81	J	50.0	53.2		ug/L		105	59 - 137	5	30
m-Xylene & p-Xylene	ND		50.0	48.4		ug/L		97	57 - 130	11	30
Naphthalene	ND		50.0	44.9		ug/L		90	25 - 150	16	30
n-Butylbenzene	ND		50.0	38.6		ug/L		77	41 - 142	26	31
N-Propylbenzene	ND		50.0	43.3		ug/L		87	51 - 138	18	30
o-Chlorotoluene	ND		50.0	47.1		ug/L		94	53 - 134	12	30
o-Xylene	ND		50.0	48.6		ug/L		97	61 - 130	11	30
p-Chlorotoluene	ND		50.0	43.8		ug/L		88	54 - 133	18	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242794-10 MSD
Matrix: Water
Analysis Batch: 640361

Client Sample ID: P93D-ROX-083023
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	39.4		ug/L		79	48 - 139	24	30
sec-Butylbenzene	ND		50.0	42.4		ug/L		85	50 - 138	20	30
Styrene	ND		50.0	46.5		ug/L		93	58 - 131	10	30
tert-Butylbenzene	ND		50.0	49.7		ug/L		99	54 - 146	17	30
1,1,1,2-Tetrachloroethane	ND		50.0	52.0		ug/L		104	59 - 137	7	30
1,1,2,2-Tetrachloroethane	ND		50.0	53.0		ug/L		106	66 - 135	6	30
Tetrachloroethene	ND		50.0	48.0		ug/L		96	52 - 133	7	30
Toluene	ND		50.0	52.2		ug/L		104	65 - 130	7	30
trans-1,2-Dichloroethene	ND		50.0	50.8		ug/L		102	61 - 143	6	30
trans-1,3-Dichloropropene	ND		50.0	53.9		ug/L		108	53 - 133	6	30
1,2,3-Trichlorobenzene	ND		50.0	44.6		ug/L		89	43 - 145	20	30
1,2,4-Trichlorobenzene	ND		50.0	41.8		ug/L		84	39 - 148	22	30
1,1,1-Trichloroethane	ND		50.0	51.1		ug/L		102	57 - 142	4	30
1,1,2-Trichloroethane	ND		50.0	55.8		ug/L		112	66 - 131	6	30
Trichloroethene	ND		50.0	49.1		ug/L		98	64 - 136	6	30
Trichlorofluoromethane	ND		25.0	25.6		ug/L		102	54 - 150	3	30
1,2,3-Trichloropropane	ND		50.0	49.1		ug/L		98	65 - 133	8	30
1,2,4-Trimethylbenzene	ND		50.0	42.2		ug/L		84	50 - 139	18	30
1,3,5-Trimethylbenzene	ND		50.0	42.9		ug/L		86	52 - 135	17	30
Vinyl acetate	ND		50.0	53.2		ug/L		106	26 - 150	11	33
Vinyl chloride	ND		25.0	25.7		ug/L		103	46 - 150	1	30
Xylenes, Total	ND		100	96.9		ug/L		97	59 - 130	11	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*72 - 130*
Dibromofluoromethane	*90*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: MB 400-640415/4
Matrix: Water
Analysis Batch: 640415

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			09/11/23 10:45	1
Acrolein	ND		20	3.3	ug/L			09/11/23 10:45	1
Acrylonitrile	ND		10	2.8	ug/L			09/11/23 10:45	1
Benzene	ND		1.0	0.50	ug/L			09/11/23 10:45	1
Bromobenzene	ND		1.0	0.54	ug/L			09/11/23 10:45	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/11/23 10:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/11/23 10:45	1
Bromoform	ND		5.0	0.25	ug/L			09/11/23 10:45	1
Bromomethane	ND		1.0	0.98	ug/L			09/11/23 10:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/11/23 10:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/11/23 10:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/11/23 10:45	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/11/23 10:45	1
Chloroethane	ND		1.0	0.76	ug/L			09/11/23 10:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/11/23 10:45	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640415/4
Matrix: Water
Analysis Batch: 640415

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.90	ug/L			09/11/23 10:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/11/23 10:45	1
Chloromethane	ND		1.0	0.90	ug/L			09/11/23 10:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/11/23 10:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/11/23 10:45	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/11/23 10:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/11/23 10:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/11/23 10:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/11/23 10:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/11/23 10:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/11/23 10:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/11/23 10:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/11/23 10:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 10:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 10:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/11/23 10:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/11/23 10:45	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/11/23 10:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/11/23 10:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/11/23 10:45	1
2-Hexanone	ND		25	1.4	ug/L			09/11/23 10:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/11/23 10:45	1
Methylene bromide	ND		5.0	0.22	ug/L			09/11/23 10:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/11/23 10:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/11/23 10:45	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/11/23 10:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/11/23 10:45	1
Naphthalene	ND		5.0	3.0	ug/L			09/11/23 10:45	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/11/23 10:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/11/23 10:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/11/23 10:45	1
o-Xylene	ND		5.0	0.60	ug/L			09/11/23 10:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/11/23 10:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/11/23 10:45	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/11/23 10:45	1
Styrene	ND		1.0	1.0	ug/L			09/11/23 10:45	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/11/23 10:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/11/23 10:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/11/23 10:45	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/11/23 10:45	1
Toluene	ND		1.0	0.90	ug/L			09/11/23 10:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/11/23 10:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/11/23 10:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/11/23 10:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/11/23 10:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/11/23 10:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/11/23 10:45	1
Trichloroethene	ND		1.0	0.15	ug/L			09/11/23 10:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/11/23 10:45	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640415/4
Matrix: Water
Analysis Batch: 640415

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			09/11/23 10:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/11/23 10:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/11/23 10:45	1
Vinyl acetate	ND		25	0.93	ug/L			09/11/23 10:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/11/23 10:45	1
Xylenes, Total	ND		10	1.6	ug/L			09/11/23 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 130*		*09/11/23 10:45*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/11/23 10:45*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*09/11/23 10:45*	*1*

Lab Sample ID: LCS 400-640415/1002
Matrix: Water
Analysis Batch: 640415

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	270		ug/L		135	43 - 160
Acrolein	250	306		ug/L		122	38 - 160
Acrylonitrile	500	538		ug/L		108	64 - 142
Benzene	50.0	53.5		ug/L		107	70 - 130
Bromobenzene	50.0	53.0		ug/L		106	70 - 132
Bromochloromethane	50.0	47.2		ug/L		94	70 - 130
Bromodichloromethane	50.0	54.0		ug/L		108	67 - 133
Bromoform	50.0	55.9		ug/L		112	57 - 140
Bromomethane	25.0	24.4		ug/L		97	10 - 160
2-Butanone (MEK)	200	251		ug/L		125	61 - 145
Carbon disulfide	50.0	45.4		ug/L		91	61 - 137
Carbon tetrachloride	50.0	51.0		ug/L		102	61 - 137
Chlorobenzene	50.0	53.1		ug/L		106	70 - 130
Chloroethane	25.0	26.0		ug/L		104	55 - 141
2-Chloroethyl vinyl ether	25.0	18.2		ug/L		73	10 - 160
Chloroform	50.0	50.4		ug/L		101	69 - 130
1-Chlorohexane	50.0	63.0		ug/L		126	69 - 130
Chloromethane	25.0	25.6		ug/L		102	58 - 137
cis-1,2-Dichloroethene	50.0	55.7		ug/L		111	68 - 130
cis-1,3-Dichloropropene	50.0	55.1		ug/L		110	69 - 132
Dibromochloromethane	50.0	52.5		ug/L		105	67 - 135
1,2-Dichlorobenzene	50.0	53.0		ug/L		106	67 - 130
1,3-Dichlorobenzene	50.0	54.0		ug/L		108	70 - 130
1,4-Dichlorobenzene	50.0	54.6		ug/L		109	70 - 130
Dichlorodifluoromethane	25.0	16.7		ug/L		67	41 - 146
1,1-Dichloroethane	50.0	55.5		ug/L		111	70 - 130
1,2-Dichloroethane	50.0	50.5		ug/L		101	69 - 130
1,1-Dichloroethene	50.0	48.4		ug/L		97	63 - 134
1,2-Dichloropropane	50.0	58.4		ug/L		117	70 - 130
1,3-Dichloropropane	50.0	55.0		ug/L		110	70 - 130
2,2-Dichloropropane	50.0	51.5		ug/L		103	52 - 135

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640415/1002
Matrix: Water
Analysis Batch: 640415

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	54.2		ug/L		108	70 - 130
Ethylbenzene	50.0	56.3		ug/L		113	70 - 130
Ethyl methacrylate	50.0	54.6		ug/L		109	68 - 130
Hexachlorobutadiene	50.0	60.5		ug/L		121	53 - 140
2-Hexanone	200	266		ug/L		133	65 - 137
Isopropylbenzene	50.0	53.6		ug/L		107	70 - 130
Methylene bromide	50.0	49.4		ug/L		99	70 - 130
Methylene Chloride	50.0	47.1		ug/L		94	66 - 135
4-Methyl-2-pentanone (MIBK)	200	229		ug/L		115	69 - 138
Methyl tert-butyl ether	50.0	49.3		ug/L		99	66 - 130
m-Xylene & p-Xylene	50.0	55.4		ug/L		111	70 - 130
Naphthalene	50.0	48.2		ug/L		96	47 - 149
n-Butylbenzene	50.0	59.6		ug/L		119	67 - 130
N-Propylbenzene	50.0	55.8		ug/L		112	70 - 130
o-Chlorotoluene	50.0	58.7		ug/L		117	70 - 130
o-Xylene	50.0	54.3		ug/L		109	70 - 130
p-Chlorotoluene	50.0	56.0		ug/L		112	70 - 130
p-Isopropyltoluene	50.0	55.5		ug/L		111	65 - 130
sec-Butylbenzene	50.0	56.7		ug/L		113	66 - 130
Styrene	50.0	52.0		ug/L		104	70 - 130
tert-Butylbenzene	50.0	52.5		ug/L		105	64 - 139
1,1,1,2-Tetrachloroethane	50.0	53.3		ug/L		107	67 - 131
1,1,2,2-Tetrachloroethane	50.0	50.6		ug/L		101	70 - 131
Tetrachloroethene	50.0	51.4		ug/L		103	65 - 130
Toluene	50.0	54.1		ug/L		108	70 - 130
trans-1,2-Dichloroethene	50.0	49.1		ug/L		98	70 - 130
trans-1,3-Dichloropropene	50.0	54.4		ug/L		109	63 - 130
1,2,3-Trichlorobenzene	50.0	54.9		ug/L		110	60 - 138
1,2,4-Trichlorobenzene	50.0	55.0		ug/L		110	60 - 140
1,1,1-Trichloroethane	50.0	49.7		ug/L		99	68 - 130
1,1,2-Trichloroethane	50.0	54.9		ug/L		110	70 - 130
Trichloroethene	50.0	49.5		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	23.6		ug/L		95	65 - 138
1,2,3-Trichloropropane	50.0	48.2		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	55.2		ug/L		110	70 - 130
1,3,5-Trimethylbenzene	50.0	54.6		ug/L		109	69 - 130
Vinyl acetate	50.0	51.5		ug/L		103	26 - 160
Vinyl chloride	25.0	24.9		ug/L		99	59 - 136
Xylenes, Total	100	110		ug/L		110	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*72 - 130*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-639760/1-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 18:36	1
Benzenethiol	ND		10	1.7	ug/L		09/05/23 14:55	09/07/23 18:36	1
Benzoic acid	ND		30	7.3	ug/L		09/05/23 14:55	09/07/23 18:36	1
Benzyl alcohol	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 18:36	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 18:36	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/05/23 14:55	09/07/23 18:36	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/05/23 14:55	09/07/23 18:36	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Chloroaniline	ND		10	3.4	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Chlorophenol	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Dibenzofuran	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 18:36	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Diethyl phthalate	ND		10	0.24	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 18:36	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 18:36	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/05/23 14:55	09/07/23 18:36	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/05/23 14:55	09/07/23 18:36	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 18:36	1
1,4-Dioxane	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/05/23 14:55	09/07/23 18:36	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/05/23 14:55	09/07/23 18:36	1
Hexachloroethane	ND		10	4.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
Indene	ND		10	1.0	ug/L		09/05/23 14:55	09/07/23 18:36	1
Isophorone	ND		10	0.14	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Methylphenol	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 18:36	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Nitroaniline	ND		10	2.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
3-Nitroaniline	ND		10	1.8	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Nitroaniline	ND		10	1.5	ug/L		09/05/23 14:55	09/07/23 18:36	1
Nitrobenzene	ND		10	0.13	ug/L		09/05/23 14:55	09/07/23 18:36	1
2-Nitrophenol	ND		10	5.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
4-Nitrophenol	ND		10	2.1	ug/L		09/05/23 14:55	09/07/23 18:36	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 18:36	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/05/23 14:55	09/07/23 18:36	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/05/23 14:55	09/07/23 18:36	1
Pentachlorophenol	ND		20	1.4	ug/L		09/05/23 14:55	09/07/23 18:36	1
Phenol	ND		10	2.6	ug/L		09/05/23 14:55	09/07/23 18:36	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-639760/1-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		09/05/23 14:55	09/07/23 18:36	1
Quinoline	ND		10	4.5	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/05/23 14:55	09/07/23 18:36	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/05/23 14:55	09/07/23 18:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
2-Fluorophenol	*48*		*13 - 113*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
Phenol-d5	*69*		*17 - 127*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
Terphenyl-d14	*89*		*44 - 149*	*09/05/23 14:55*	*09/07/23 18:36*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*09/05/23 14:55*	*09/07/23 18:36*	*1*

Lab Sample ID: LCS 400-639760/14-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	ND	*-	ug/L		1	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*66*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*59*		*36 - 126*
Phenol-d5	*47*		*17 - 127*
Terphenyl-d14	*77*		*44 - 149*
2,4,6-Tribromophenol	*51*		*26 - 150*

Lab Sample ID: LCS 400-639760/2-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	82.3		ug/L		69	21 - 120
Benzoic acid	522	269		ug/L		52	10 - 144
Benzyl alcohol	120	94.0		ug/L		78	28 - 120
Bis(2-chloroethoxy)methane	120	77.7		ug/L		65	47 - 120
Bis(2-chloroethyl)ether	120	78.7		ug/L		66	44 - 120
bis (2-chloroisopropyl) ether	120	80.2		ug/L		67	33 - 121
Bis(2-ethylhexyl) phthalate	120	82.6		ug/L		69	52 - 147
4-Bromophenyl phenyl ether	120	93.9		ug/L		78	54 - 122
Butyl benzyl phthalate	120	82.4		ug/L		69	54 - 133
4-Chloroaniline	120	53.4		ug/L		45	26 - 120
4-Chloro-3-methylphenol	120	91.5		ug/L		76	48 - 131
2-Chloronaphthalene	120	87.5		ug/L		73	52 - 121
2-Chlorophenol	120	80.7		ug/L		67	40 - 120
4-Chlorophenyl phenyl ether	120	103		ug/L		86	56 - 125
Dibenz[a,h]acridine	120	105		ug/L		88	31 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-639760/2-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenzofuran	120	93.1		ug/L		78	56 - 122
3,3'-Dichlorobenzidine	160	140		ug/L		88	36 - 132
2,4-Dichlorophenol	120	85.1		ug/L		71	49 - 120
Diethyl phthalate	120	91.7		ug/L		76	50 - 137
2,4-Dimethylphenol	120	90.1		ug/L		75	48 - 120
Dimethyl phthalate	120	92.6		ug/L		77	57 - 124
Di-n-butyl phthalate	120	87.2		ug/L		73	58 - 126
4,6-Dinitro-ortho-cresol	240	186		ug/L		78	23 - 148
2,4-Dinitrophenol	240	184		ug/L		77	10 - 150
2,4-Dinitrotoluene	120	98.1		ug/L		82	54 - 142
2,6-Dinitrotoluene	120	90.3		ug/L		75	55 - 130
Di-n-octyl phthalate	120	84.1		ug/L		70	57 - 138
1,4-Dioxane	120	63.6		ug/L		53	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	82.3		ug/L		69	45 - 124
Hexachlorobenzene	120	93.4		ug/L		78	52 - 129
Hexachlorocyclopentadiene	120	38.8		ug/L		32	10 - 134
Hexachloroethane	120	69.4		ug/L		58	20 - 120
Indene	120	84.4		ug/L		70	49 - 120
Isophorone	120	83.9		ug/L		70	48 - 120
2-Methylphenol	120	87.6		ug/L		73	46 - 124
3 & 4 Methylphenol	120	89.7		ug/L		75	45 - 120
2-Nitroaniline	120	97.3		ug/L		81	51 - 145
3-Nitroaniline	120	94.4		ug/L		79	37 - 127
4-Nitroaniline	120	115		ug/L		96	36 - 137
Nitrobenzene	120	82.3		ug/L		69	45 - 120
2-Nitrophenol	120	86.1		ug/L		72	40 - 124
4-Nitrophenol	240	207		ug/L		86	23 - 146
N-Nitrosodimethylamine	120	94.0		ug/L		78	29 - 137
N-Nitrosodi-n-propylamine	120	95.2		ug/L		79	45 - 120
N-Nitrosodiphenylamine	119	86.0		ug/L		72	54 - 120
Pentachlorophenol	240	169		ug/L		71	31 - 130
Phenol	120	89.4		ug/L		74	11 - 120
Pyridine	240	130		ug/L		54	16 - 120
Quinoline	120	102		ug/L		86	49 - 130
2,4,5-Trichlorophenol	120	101		ug/L		84	51 - 136
2,4,6-Trichlorophenol	120	91.6		ug/L		76	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*64*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*76*		*26 - 150*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-639760/15-A
Matrix: Water
Analysis Batch: 640111

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639760

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	76.4	*1	ug/L		64	10 - 120	192	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*69*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*98*		*44 - 149*
2,4,6-Tribromophenol	*69*		*26 - 150*

Lab Sample ID: 400-242794-10 MS
Matrix: Water
Analysis Batch: 640846

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		114	52.7		ug/L		46	10 - 120
Benzoic acid	ND		495	344		ug/L		69	10 - 149
Benzyl alcohol	ND		114	81.7		ug/L		72	33 - 120
Bis(2-chloroethoxy)methane	ND		114	80.5		ug/L		71	26 - 120
Bis(2-chloroethyl)ether	ND		114	98.7		ug/L		87	42 - 120
bis (2-chloroisopropyl) ether	ND		114	60.0		ug/L		53	28 - 120
Bis(2-ethylhexyl) phthalate	ND		114	93.4		ug/L		82	39 - 120
4-Bromophenyl phenyl ether	ND		114	88.2		ug/L		77	40 - 120
Butyl benzyl phthalate	0.40	J	114	93.3		ug/L		82	45 - 120
4-Chloroaniline	ND		114	67.7		ug/L		59	10 - 120
4-Chloro-3-methylphenol	ND		114	90.8		ug/L		80	34 - 120
2-Chloronaphthalene	ND		114	86.4		ug/L		76	39 - 120
2-Chlorophenol	ND		114	79.4		ug/L		70	25 - 120
4-Chlorophenyl phenyl ether	ND		114	92.6		ug/L		81	44 - 120
Dibenz[a,h]acridine	ND		56.8	64.4		ug/L		113	50 - 150
Dibenzofuran	ND		114	91.0		ug/L		80	25 - 130
3,3'-Dichlorobenzidine	ND		152	88.4		ug/L		58	10 - 120
2,4-Dichlorophenol	ND		114	88.6		ug/L		78	31 - 120
Diethyl phthalate	ND		114	96.4		ug/L		85	46 - 120
2,4-Dimethylphenol	ND		114	85.8		ug/L		75	21 - 120
Dimethyl phthalate	ND		114	91.7		ug/L		80	38 - 120
Di-n-butyl phthalate	ND		114	97.3		ug/L		85	49 - 120
4,6-Dinitro-ortho-cresol	ND		228	209		ug/L		91	25 - 120
2,4-Dinitrophenol	ND		228	193		ug/L		85	15 - 140
2,4-Dinitrotoluene	ND		114	97.9		ug/L		86	53 - 120
2,6-Dinitrotoluene	ND		114	92.0		ug/L		81	43 - 120
Di-n-octyl phthalate	ND		114	98.9		ug/L		87	35 - 121
1,4-Dioxane	ND		114	57.6		ug/L		51	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		114	78.8		ug/L		69	50 - 150
Hexachlorobenzene	ND		114	91.8		ug/L		80	38 - 122
Hexachlorocyclopentadiene	ND		114	27.8		ug/L		24	10 - 120
Hexachloroethane	ND		114	67.6		ug/L		59	10 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-242794-10 MS
Matrix: Water
Analysis Batch: 640846

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indene	ND		114	85.1		ug/L		75	50 - 150
Isophorone	ND		114	78.8		ug/L		69	42 - 120
2-Methylphenol	ND		114	83.5		ug/L		73	28 - 120
3 & 4 Methylphenol	ND		114	81.1		ug/L		71	31 - 120
2-Nitroaniline	ND		114	76.9		ug/L		67	45 - 120
3-Nitroaniline	ND		114	65.4		ug/L		57	10 - 130
4-Nitroaniline	ND		114	87.0		ug/L		76	10 - 132
Nitrobenzene	ND		114	78.6		ug/L		69	39 - 120
2-Nitrophenol	ND		114	89.2		ug/L		78	33 - 120
4-Nitrophenol	ND		228	181		ug/L		79	10 - 120
N-Nitrosodimethylamine	ND		114	58.0		ug/L		51	10 - 139
N-Nitrosodi-n-propylamine	ND		114	77.5		ug/L		68	37 - 124
N-Nitrosodiphenylamine	ND		113	84.9		ug/L		75	10 - 150
Pentachlorophenol	ND		228	206		ug/L		90	29 - 130
Phenol	ND		114	84.2		ug/L		74	10 - 150
Pyridine	ND		228	93.3		ug/L		41	10 - 120
Quinoline	ND		56.8	36.1		ug/L		64	51 - 120
2,4,5-Trichlorophenol	ND		114	89.6		ug/L		79	34 - 120
2,4,6-Trichlorophenol	ND		114	89.9		ug/L		79	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*73*		*46 - 124*
2-Fluorophenol	*53*		*13 - 113*
Nitrobenzene-d5	*71*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*74*		*44 - 149*
2,4,6-Tribromophenol	*83*		*26 - 150*

Lab Sample ID: 400-242794-10 MSD
Matrix: Water
Analysis Batch: 640846

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		115	53.6		ug/L		47	10 - 120	2	63
Benzoic acid	ND		498	357		ug/L		72	10 - 149	4	49
Benzyl alcohol	ND		115	84.1		ug/L		73	33 - 120	3	37
Bis(2-chloroethoxy)methane	ND		115	83.3		ug/L		73	26 - 120	4	70
Bis(2-chloroethyl)ether	ND		115	102		ug/L		89	42 - 120	3	42
bis (2-chloroisopropyl) ether	ND		115	64.4		ug/L		56	28 - 120	7	41
Bis(2-ethylhexyl) phthalate	ND		115	100		ug/L		87	39 - 120	7	35
4-Bromophenyl phenyl ether	ND		115	92.5		ug/L		81	40 - 120	5	30
Butyl benzyl phthalate	0.40	J	115	98.3		ug/L		85	45 - 120	5	32
4-Chloroaniline	ND		115	69.5		ug/L		61	10 - 120	3	94
4-Chloro-3-methylphenol	ND		115	92.5		ug/L		81	34 - 120	2	40
2-Chloronaphthalene	ND		115	89.7		ug/L		78	39 - 120	4	29
2-Chlorophenol	ND		115	82.9		ug/L		72	25 - 120	4	42
4-Chlorophenyl phenyl ether	ND		115	96.7		ug/L		84	44 - 120	4	27
Dibenz[a,h]acridine	ND		57.1	65.2		ug/L		114	50 - 150	1	40

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-242794-10 MSD
Matrix: Water
Analysis Batch: 640846

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenzofuran	ND		115	95.6		ug/L		83	25 - 130	5	29
3,3'-Dichlorobenzidine	ND		153	88.0		ug/L		58	10 - 120	0	58
2,4-Dichlorophenol	ND		115	89.1		ug/L		78	31 - 120	1	43
Diethyl phthalate	ND		115	102		ug/L		89	46 - 120	5	40
2,4-Dimethylphenol	ND		115	88.6		ug/L		77	21 - 120	3	47
Dimethyl phthalate	ND		115	95.9		ug/L		84	38 - 120	4	36
Di-n-butyl phthalate	ND		115	103		ug/L		90	49 - 120	6	32
4,6-Dinitro-ortho-cresol	ND		229	217		ug/L		95	25 - 120	4	42
2,4-Dinitrophenol	ND		229	206		ug/L		90	15 - 140	7	36
2,4-Dinitrotoluene	ND		115	103		ug/L		90	53 - 120	5	28
2,6-Dinitrotoluene	ND		115	95.7		ug/L		84	43 - 120	4	28
Di-n-octyl phthalate	ND		115	105		ug/L		92	35 - 121	6	35
1,4-Dioxane	ND		115	64.2		ug/L		56	50 - 150	11	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		115	81.7		ug/L		71	50 - 150	4	40
Hexachlorobenzene	ND		115	94.0		ug/L		82	38 - 122	2	33
Hexachlorocyclopentadiene	ND		115	32.5		ug/L		28	10 - 120	16	50
Hexachloroethane	ND		115	72.7		ug/L		64	10 - 150	7	41
Indene	ND		115	89.5		ug/L		78	50 - 150	5	40
Isophorone	ND		115	81.4		ug/L		71	42 - 120	3	33
2-Methylphenol	ND		115	85.7		ug/L		75	28 - 120	3	47
3 & 4 Methylphenol	ND		115	81.9		ug/L		72	31 - 120	1	47
2-Nitroaniline	ND		115	79.7		ug/L		70	45 - 120	4	33
3-Nitroaniline	ND		115	68.1		ug/L		59	10 - 130	4	39
4-Nitroaniline	ND		115	89.3		ug/L		78	10 - 132	3	50
Nitrobenzene	ND		115	80.4		ug/L		70	39 - 120	2	35
2-Nitrophenol	ND		115	89.8		ug/L		78	33 - 120	1	43
4-Nitrophenol	ND		229	186		ug/L		81	10 - 120	3	82
N-Nitrosodimethylamine	ND		115	59.1		ug/L		52	10 - 139	2	62
N-Nitrosodi-n-propylamine	ND		115	80.8		ug/L		71	37 - 124	4	36
N-Nitrosodiphenylamine	ND		114	88.2		ug/L		78	10 - 150	4	34
Pentachlorophenol	ND		229	216		ug/L		94	29 - 130	5	42
Phenol	ND		115	86.7		ug/L		76	10 - 150	3	52
Pyridine	ND		229	130		ug/L		57	10 - 120	33	55
Quinoline	ND		57.1	48.9		ug/L		86	51 - 120	30	40
2,4,5-Trichlorophenol	ND		115	91.3		ug/L		80	34 - 120	2	42
2,4,6-Trichlorophenol	ND		115	93.8		ug/L		82	33 - 120	4	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*46 - 124*
2-Fluorophenol	*55*		*13 - 113*
Nitrobenzene-d5	*71*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*76*		*44 - 149*
2,4,6-Tribromophenol	*82*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-639760/1-A
Matrix: Water
Analysis Batch: 640207

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/05/23 14:55	09/08/23 15:52	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/05/23 14:55	09/08/23 15:52	1
Anthracene	ND		0.20	0.047	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/05/23 14:55	09/08/23 15:52	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/05/23 14:55	09/08/23 15:52	1
Chrysene	ND		0.20	0.033	ug/L		09/05/23 14:55	09/08/23 15:52	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/05/23 14:55	09/08/23 15:52	1
Fluoranthene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 15:52	1
Fluorene	ND		0.20	0.089	ug/L		09/05/23 14:55	09/08/23 15:52	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/05/23 14:55	09/08/23 15:52	1
Phenanthrene	ND		0.20	0.090	ug/L		09/05/23 14:55	09/08/23 15:52	1
Pyrene	ND		0.20	0.039	ug/L		09/05/23 14:55	09/08/23 15:52	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/05/23 14:55	09/08/23 15:52	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/05/23 14:55	09/08/23 15:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*96*		*18 - 147*	*09/05/23 14:55*	*09/08/23 15:52*	*1*
2-Fluorobiphenyl	*83*		*15 - 128*	*09/05/23 14:55*	*09/08/23 15:52*	*1*
Nitrobenzene-d5	*63*		*10 - 144*	*09/05/23 14:55*	*09/08/23 15:52*	*1*

Lab Sample ID: LCS 400-639760/16-A
Matrix: Water
Analysis Batch: 640207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.59		ug/L		80	40 - 140
Acenaphthylene	2.00	1.55		ug/L		77	40 - 140
Anthracene	2.00	1.56		ug/L		78	40 - 140
Benzo[a]anthracene	2.00	1.55		ug/L		78	40 - 140
Benzo[a]pyrene	2.00	1.28		ug/L		64	40 - 140
Benzo[b]fluoranthene	2.00	1.35		ug/L		67	40 - 140
Benzo[g,h,i]perylene	2.00	1.32		ug/L		66	40 - 140
Benzo[k]fluoranthene	2.00	1.37		ug/L		68	40 - 140
Chrysene	2.00	1.57		ug/L		79	40 - 140
Dibenz(a,h)anthracene	2.00	1.18		ug/L		59	40 - 140
Fluoranthene	2.00	1.74		ug/L		87	40 - 140
Fluorene	2.00	1.58		ug/L		79	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.26		ug/L		63	40 - 140
Phenanthrene	2.00	1.59		ug/L		80	40 - 140
Pyrene	2.00	1.43		ug/L		71	40 - 140
1-Methylnaphthalene	2.00	1.61		ug/L		80	40 - 140
2-Methylnaphthalene	2.00	1.59		ug/L		80	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*84*		*18 - 147*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-639760/16-A
Matrix: Water
Analysis Batch: 640207

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639760

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	76		15 - 128
Nitrobenzene-d5	61		10 - 144

Lab Sample ID: LCSD 400-639760/17-A
Matrix: Water
Analysis Batch: 640207

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639760

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.54		ug/L		77	40 - 140	4	40
Acenaphthylene			2.00	1.59		ug/L		80	40 - 140	3	40
Anthracene			2.00	1.50		ug/L		75	40 - 140	4	40
Benzo[a]anthracene			2.00	1.54		ug/L		77	40 - 140	1	40
Benzo[a]pyrene			2.00	1.29		ug/L		65	40 - 140	1	40
Benzo[b]fluoranthene			2.00	1.29		ug/L		64	40 - 140	4	40
Benzo[g,h,i]perylene			2.00	1.30		ug/L		65	40 - 140	1	40
Benzo[k]fluoranthene			2.00	1.34		ug/L		67	40 - 140	2	40
Chrysene			2.00	1.51		ug/L		76	40 - 140	4	40
Dibenz(a,h)anthracene			2.00	1.20		ug/L		60	40 - 140	2	40
Fluoranthene			2.00	1.71		ug/L		86	40 - 140	2	40
Fluorene			2.00	1.61		ug/L		81	40 - 140	2	40
Indeno[1,2,3-cd]pyrene			2.00	1.28		ug/L		64	40 - 140	1	40
Phenanthrene			2.00	1.49		ug/L		74	40 - 140	7	40
Pyrene			2.00	1.33		ug/L		67	40 - 140	7	40
1-Methylnaphthalene			2.00	1.56		ug/L		78	40 - 140	3	40
2-Methylnaphthalene			2.00	1.53		ug/L		76	40 - 140	4	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Terphenyl-d14	84		18 - 147
2-Fluorobiphenyl	73		15 - 128
Nitrobenzene-d5	58		10 - 144

Lab Sample ID: 400-242794-10 MS
Matrix: Water
Analysis Batch: 640497

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		114	98.4		ug/L		86	50 - 150
Acenaphthylene	0.043	J	114	101		ug/L		89	50 - 150
Anthracene	ND		114	102		ug/L		90	50 - 150
Benzo[a]anthracene	ND		114	102		ug/L		89	50 - 150
Benzo[a]pyrene	ND		114	95.8		ug/L		84	50 - 150
Benzo[b]fluoranthene	0.063	J	114	91.6		ug/L		80	50 - 150
Benzo[g,h,i]perylene	ND		114	99.4		ug/L		87	50 - 150
Benzo[k]fluoranthene	0.060	J	114	88.4		ug/L		77	50 - 150
Chrysene	0.061	J	114	96.1		ug/L		84	50 - 150
Dibenz(a,h)anthracene	0.10	J	114	104		ug/L		91	50 - 150
Fluoranthene	0.10	J	114	119		ug/L		104	50 - 150
Fluorene	ND		114	107		ug/L		94	50 - 150

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 400-242794-10 MS
Matrix: Water
Analysis Batch: 640497

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indeno[1,2,3-cd]pyrene	0.10	J	114	102		ug/L		89	50 - 150
Phenanthrene	ND		114	98.0		ug/L		86	50 - 150
Pyrene	ND		114	81.7		ug/L		72	50 - 150
1-Methylnaphthalene	ND		114	81.1		ug/L		71	50 - 150
2-Methylnaphthalene	ND		114	80.8		ug/L		71	50 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*65*		*18 - 147*
2-Fluorobiphenyl	*68*		*15 - 128*
Nitrobenzene-d5	*80*		*10 - 144*

Lab Sample ID: 400-242794-10 MSD
Matrix: Water
Analysis Batch: 640497

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		115	103		ug/L		90	50 - 150	5	40
Acenaphthylene	0.043	J	115	106		ug/L		92	50 - 150	4	40
Anthracene	ND		115	109		ug/L		95	50 - 150	6	40
Benzo[a]anthracene	ND		115	107		ug/L		94	50 - 150	5	40
Benzo[a]pyrene	ND		115	101		ug/L		88	50 - 150	5	40
Benzo[b]fluoranthene	0.063	J	115	96.9		ug/L		85	50 - 150	6	40
Benzo[g,h,i]perylene	ND		115	98.7		ug/L		86	50 - 150	1	40
Benzo[k]fluoranthene	0.060	J	115	94.3		ug/L		82	50 - 150	6	40
Chrysene	0.061	J	115	99.8		ug/L		87	50 - 150	4	40
Dibenz(a,h)anthracene	0.10	J	115	104		ug/L		90	50 - 150	0	40
Fluoranthene	0.10	J	115	124		ug/L		108	50 - 150	4	40
Fluorene	ND		115	113		ug/L		98	50 - 150	5	40
Indeno[1,2,3-cd]pyrene	0.10	J	115	103		ug/L		90	50 - 150	1	40
Phenanthrene	ND		115	105		ug/L		91	50 - 150	7	40
Pyrene	ND		115	87.2		ug/L		76	50 - 150	6	40
1-Methylnaphthalene	ND		115	89.7		ug/L		78	50 - 150	10	40
2-Methylnaphthalene	ND		115	88.4		ug/L		77	50 - 150	9	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*68*		*18 - 147*
2-Fluorobiphenyl	*72*		*15 - 128*
Nitrobenzene-d5	*89*		*10 - 144*

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/12/23 10:32	09/15/23 16:40	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/12/23 10:32	09/15/23 16:40	1
Anthracene	ND		0.20	0.047	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/12/23 10:32	09/15/23 16:40	1
Chrysene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/15/23 16:40	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/12/23 10:32	09/15/23 16:40	1
Fluoranthene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Fluorene	ND		0.20	0.089	ug/L		09/12/23 10:32	09/15/23 16:40	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Phenanthrene	ND		0.20	0.090	ug/L		09/12/23 10:32	09/15/23 16:40	1
Pyrene	ND		0.20	0.039	ug/L		09/12/23 10:32	09/15/23 16:40	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/12/23 10:32	09/15/23 16:40	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/12/23 10:32	09/15/23 16:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*94*		*18 - 147*	*09/12/23 10:32*	*09/15/23 16:40*	*1*
2-Fluorobiphenyl	*75*		*15 - 128*	*09/12/23 10:32*	*09/15/23 16:40*	*1*
Nitrobenzene-d5	*69*		*10 - 144*	*09/12/23 10:32*	*09/15/23 16:40*	*1*

Lab Sample ID: LCS 400-640651/19-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.64		ug/L		82	40 - 140
Acenaphthylene	2.00	1.79		ug/L		89	40 - 140
Anthracene	2.00	1.55		ug/L		77	40 - 140
Benzo[a]anthracene	2.00	1.74		ug/L		87	40 - 140
Benzo[a]pyrene	2.00	1.41		ug/L		71	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		78	40 - 140
Benzo[g,h,i]perylene	2.00	1.54		ug/L		77	40 - 140
Benzo[k]fluoranthene	2.00	1.60		ug/L		80	40 - 140
Chrysene	2.00	1.73		ug/L		87	40 - 140
Dibenz(a,h)anthracene	2.00	1.37		ug/L		69	40 - 140
Fluoranthene	2.00	1.78		ug/L		89	40 - 140
Fluorene	2.00	1.67		ug/L		83	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.45		ug/L		73	40 - 140
Phenanthrene	2.00	1.52		ug/L		76	40 - 140
Pyrene	2.00	1.72		ug/L		86	40 - 140
1-Methylnaphthalene	2.00	1.74		ug/L		87	40 - 140
2-Methylnaphthalene	2.00	1.78		ug/L		89	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*112*		*18 - 147*
2-Fluorobiphenyl	*91*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-640651/20-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.63		ug/L		81	40 - 140	1	40
Acenaphthylene			2.00	1.75		ug/L		87	40 - 140	2	40
Anthracene			2.00	1.57		ug/L		79	40 - 140	1	40
Benzo[a]anthracene			2.00	1.82		ug/L		91	40 - 140	4	40
Benzo[a]pyrene			2.00	1.43		ug/L		72	40 - 140	2	40
Benzo[b]fluoranthene			2.00	1.46		ug/L		73	40 - 140	6	40
Benzo[g,h,i]perylene			2.00	1.47		ug/L		74	40 - 140	4	40
Benzo[k]fluoranthene			2.00	1.54		ug/L		77	40 - 140	4	40
Chrysene			2.00	1.72		ug/L		86	40 - 140	1	40
Dibenz(a,h)anthracene			2.00	1.34		ug/L		67	40 - 140	2	40
Fluoranthene			2.00	1.82		ug/L		91	40 - 140	3	40
Fluorene			2.00	1.63		ug/L		82	40 - 140	2	40
Indeno[1,2,3-cd]pyrene			2.00	1.44		ug/L		72	40 - 140	1	40
Phenanthrene			2.00	1.54		ug/L		77	40 - 140	1	40
Pyrene			2.00	1.71		ug/L		85	40 - 140	1	40
1-Methylnaphthalene			2.00	1.83		ug/L		91	40 - 140	5	40
2-Methylnaphthalene			2.00	1.86		ug/L		93	40 - 140	4	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*112*		*18 - 147*
2-Fluorobiphenyl	*94*		*15 - 128*
Nitrobenzene-d5	*67*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-639897/1-A
Matrix: Water
Analysis Batch: 639945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639897

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/06/23 15:55	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 15:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*70*		*51 - 149*	*09/06/23 12:59*	*09/06/23 15:55*	*1*

Lab Sample ID: LCS 400-639897/2-A
Matrix: Water
Analysis Batch: 639945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639897

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.0933		ug/L		93	60 - 140		
1,2-Dibromoethane			0.101	0.0725		ug/L		72	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*47*	*S1-*	*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-639897/3-A
Matrix: Water
Analysis Batch: 639945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639897

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.0970		ug/L		97	60 - 140	4	30
1,2-Dibromoethane			0.101	0.0748		ug/L		74	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*55*		*51 - 149*

Lab Sample ID: 400-242794-10 MS
Matrix: Water
Analysis Batch: 639945

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639897

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane	ND		0.0999	0.113		ug/L		114	10 - 150		
1,2-Dibromoethane	ND		0.100	0.0932		ug/L		93	39 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*70*		*51 - 149*

Lab Sample ID: 400-242794-10 MSD
Matrix: Water
Analysis Batch: 639945

Client Sample ID: P93D-ROX-083023
Prep Type: Total/NA
Prep Batch: 639897

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND		0.0983	0.107		ug/L		109	10 - 150	6	20
1,2-Dibromoethane	ND		0.0985	0.0875		ug/L		89	39 - 150	6	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*66*		*51 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____) 400-242794 COC

☐ CALSCIENCE (_____)

☑ TESTAMERICA (TestAmerica Pensacola; 3355 [illegible] 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: 8/30/2023
PO #	**GSAP Project ID**	PAGE: 1 of 3
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2

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.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.3.2

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 8270 SIMS
00 6 10	TB-ROX-083023-8260-A	8/30/2023	0000	Water	2					2	X			
	TB-ROX-083023-8011-A	8/30/2023	0000	Water	2					2		X		
	MW6B-ROX-083023	8/30/2023	0920	Water	6			2		8	X	X	X	X
	MW6B-ROX-083023	8/30/2023	0920	Water	6			2		8	X	X	X	X
	MW11-ROX-083023	8/30/2023	1030	Water	6			2		8	X	X	X	X
	MW28-ROX-083023	8/30/2023	1145	Water	6			2		8	X	X	X	X
	P54-ROX-083023	8/30/2023	1335	Water	6			2		8	X	X	X	X

8/30/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
JOE MAYER	FEDEX: 5293 4337 5397, 5293 4337 5401	8/30/2023	1600
Relinquished by: (Signature)	Received by: (Signature) BP	Date: 8/31/23	Time: 919
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 1599772, 1599773, 1599774, 159975

3.3°C IR 8 10
5.3 IR10 BP

Version: 13Oct22

9/18/2023

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: 8/30/2023
PO #	**GSAP Project ID**	PAGE: 2 of 3
60697537 – 3.3.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM	LOG CODE.	SITE ADDRESS. Street and City: 900 South Central Ave; ROXANA	State: IL
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
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell		E-MAIL: melissa.remiger@aecom.com	AECOM Other ID:
TELEPHONE: 314-429-0100	FAX: 314-429-0462	Bill To Contact E-MAIL: melissa.remiger@aecom.com	
SAMPLER NAME(S) (Print): M. Massa, S. Beadle			LAB USE ONLY

AECOM Project / Task Number: Roxana Monthly GW 60697537 – 3.3.2

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 – 3.3.2

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 8270 SIMS
	TB-ROX-083023-8260-B	8/30/2023	0000	Water	2					2	X			
	TB-ROX-083023-8011-B	8/30/2023	0000	Water	2					2		X		
	P93D-ROX-083023	8/30/2023	0950	Water	6			2		8	X	X	X	X
	P93D-ROX-083023-MS	8/30/2023	0950	Water	6			2		8	X	X	X	X
	P93D-ROX-083023-MSD	8/30/2023	0950	Water	6			2		8	X	X	X	X
	ROST4PZC-ROX-083023	8/30/2023	1015	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-083023	8/30/2023	1100	Water	6			2		8	X	X	X	X
	MW12-ROX-083023-EB	8/30/2023	1150	Water	6			2		8	X	X	X	X
	MW12-ROX-083023	8/30/2023	1220	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
MARY MASSA	FEDEX: See page 1	8/30/2023	1600
Relinquished by: (Signature)	Received by: (Signature) BP	Date. 8/31/23	Time. 919
Relinquished by: (Signature)	Received by: (Signature)	Date.	Time

Version: 12July23

CUSTODY SEALS: See page 1

3.3°C IR10

Page 101 of 110

9/18/2023

LAB (LOCATION)

☐ ACCUTEST (_____

☐ CALSCIENCE (_____

☑ TESTAMERICA (TestAmerica Pensacola; 3355 I Pensacola, FL 32514 (850-474-1001))

☐ Other (_____)

400-242795 COC

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. 8/30/2023
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES	PO #	GSAP Project ID	PAGE: 2 of 3
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES		60697537 – 3.3.2	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 – 3.3.2

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, S. Beadle

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 – 3.3.2

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 8270 SIMS
	MW22-083023	8/30/2023	1320	Water	6			2		8	X	X	X	X

8/30/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
MARY MASSA	FEDEX: See page 1	8/30/2023	1600
	BP	8/31/23	919

Version: 13Oct22

CUSTODY SEALS: See page 1

3.3°C IR10
5.3 IR10

9/18/2023

Leah Klingensmith

From: Massa, Mary <Mary.Massa@aecom.com>
Sent: Wednesday, August 30, 2023 2:48 PM
To: Leah Klingensmith; Lisa Monroe; Trina Perez
Cc: Pennington, Wendy; Remiger, Melissa
Subject: #60697537-3.3.2 Roxana (Aug) Monthly Groundwater - samples arriving tomorrow (Thursday) in Pensacola
Attachments: Aug23 Roxana GW COC_083023.pdf

EXTERNAL EMAIL*

Hi Leah,

Please see the attached COC for #60697537-3.3.2 Roxana (August) Monthly Groundwater - samples arriving tomorrow (Thursday) in Pensacola and let the group know of any questions or concerns.

Please note:

- There is an expedited 5 day TAT requested for monthly sampling
- The in-cooler COC is incorrect in two places: on page 1 MW-6B DUP sample is lacking the -DUP in its sample ID, on page 3 MW-22 sample is lacking the -ROX- in its sample ID, the attached PDF is the corrected version.

Thank you,

Mary Massa *(D'Angelo)*, RG *(MO)*

Geologist, US West Environment
M +1 (314) 795-7580
mary.massa@aecom.com

AECOM
100 N. Broadway
20th Floor
St. Louis, MO, 63102, US
T +1 (314) 429-0100
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* WARNING - EXTERNAL: This email originated from outside of Eurofins Environment Testing America. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!

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: 8/30/2023
PO #	**GSAP Project ID**	PAGE: 1 of 3
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2
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

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☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☐ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.3.2

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 8270 SIMS
1110	TB-ROX-083023-8260-A	8/30/2023	0000	Water	2					2	X			
	TB-ROX-083023-8011-A	8/30/2023	0000	Water	2					2		X		
	MW6B-ROX-083023	8/30/2023	0920	Water	6			2		8	X	X	X	X
	MW6B-ROX-083023-DUP	8/30/2023	0920	Water	6			2		8	X	X	X	X
	MW11-ROX-083023	8/30/2023	1030	Water	6			2		8	X	X	X	X
	MW28-ROX-083023	8/30/2023	1145	Water	6			2		8	X	X	X	X
	P54-ROX-083023	8/30/2023	1335	Water	6			2		8	X	X	X	X

8/30/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
JOE MAYER	FEDEX: 5293 4337 5397, 5293 4337 5401	8/30/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 1599772, 1599773, 1599774, 159975

Version: 13Oct22

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9/18/2023

LAB (LOCATION)

Shell Oil Products US Chain Of Custody Record

AECOM

☐ 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: 8/30/2023
PO #	**GSAP Project ID**	PAGE: 2 of 3
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2
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, S. Beadle
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
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TEMPERATURE ON RECEIPT C° | Cooler #1 | Cooler #2 | Cooler #3

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☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.3.2

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 8270 SIMS
	TB-ROX-083023-8260-B	8/30/2023	0000	Water	2					2	X			
	TB-ROX-083023-8011-B	8/30/2023	0000	Water	2					2		X		
	P93D-ROX-083023	8/30/2023	0950	Water	6			2		8	X	X	X	X
	P93D-ROX-083023-MS	8/30/2023	0950	Water	6			2		8	X	X	X	X
	P93D-ROX-083023-MSD	8/30/2023	0950	Water	6			2		8	X	X	X	X
	ROST4PZC-ROX-083023	8/30/2023	1015	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-083023	8/30/2023	1100	Water	6			2		8	X	X	X	X
	MW12-ROX-083023-EB	8/30/2023	1150	Water	6			2		8	X	X	X	X
	MW12-ROX-083023	8/30/2023	1220	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: See page 1	8/30/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 12July23

CUSTODY SEALS: See page 1

Page 106 of 110

9/18/2023

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))
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☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID
Melissa Remiger	25278
PO #	**GSAP Project ID**
60697537 – 3.3.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 8/30/2023

PAGE: 2 of 3

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project / Task Number: Roxana Monthly GW 60697537 – 3.3.2

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, S. Beadle

LAB USE ONLY

TELEPHONE: 314-429-0100

FAX: 314-429-0462

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TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

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- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☑ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60697537 – 3.3.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

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10	MW22-ROX-083023	8/30/2023	1320	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: See page 1	8/30/2023	1600

CUSTODY SEALS: See page 1

Version 13Oct22

Page 107 of 110

9/18/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-242794-1
SDG Number:

Login Number: 242794
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	3.3°C, 5.3°C IR10
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	

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-242794-1
SDG Number:

Login Number: 242795
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	3.3°C, 5.3°C IR10
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: 400-242794-1
Project/Site: ROXANA MONTHLY 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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Monthly August/September 2023 Data Review

Laboratory SDG: 400-242836-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 10/11/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-083123-8260-A	TB-ROX-083123-8011-B
TB-ROX-083123-8011-A	P93C-ROX-083123
MW5-ROX-083123	P93C-ROX-083123-DUP
P114R-ROX-083123	P57-ROX-083123
MW13-ROX-083123	T12-ROX-083123
TB-ROX-083123-8260-B	--

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 dimethyl phthalate was detected in method blank MB 400-640140/1-A. LCS/LCSD recoveries for benzenethiol were outside evaluation criteria. The surrogate recovery for 4-bromofluorobenzene was outside criteria in the VOC by 8011 LCS. The initial calibration verifications (ICV) for 4,6-dinitro-ortho-cresol and 3,3'-dichlorobenzidine, and the continuing calibration verifications (CCV) for several analytes, 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 400-640140/1-A	SVOCs	Dimethyl phthalate	0.550 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
MW5-ROX-083123	SVOCs	Dimethyl phthalate	-	**U**
MW13-ROX-083123	SVOCs	Dimethyl phthalate	-	**U**
P93C-ROX-083123	SVOCs	Dimethyl phthalate	-	**U**
P93C-ROX-083123-DUP	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 400-640140/18-A/19-A	SVOCs	Benzenethiol	**2/3**	22	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
MW5-ROX-083123	SVOCs	Benzenethiol	**UJ**
P114R-ROX-083123	SVOCs	Benzenethiol	**UJ**
MW13-ROX-083123	SVOCs	Benzenethiol	**UJ**
P93C-ROX-083123	SVOCs	Benzenethiol	**UJ**
P93C-ROX-083123-DUP	SVOCs	Benzenethiol	**UJ**
P57-ROX-083123	SVOCs	Benzenethiol	**UJ**
T12-ROX-083123	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
LCS 400-639897/2-A	VOCs by 8011	4-Bromofluorobenzene	**47**	51-149

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. 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
P93C-ROX-083123	P93C-ROX-083123-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 initial calibration verification for several analytes was outside evaluation criteria, biased low. The continuing calibration verification for several analytes was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-083123	VOCs	Dichlorodifluoromethane	**UJ**
P114R-ROX-083123	VOCs	Dichlorodifluoromethane	**UJ**
MW13-ROX-083123	VOCs	Dichlorodifluoromethane	**UJ**
P93C-ROX-083123	VOCs	Dichlorodifluoromethane	**UJ**
P93C-ROX-083123-DUP	VOCs	Dichlorodifluoromethane	**UJ**
P57-ROX-083123	VOCs	Dichlorodifluoromethane	**UJ**
T12-ROX-083123	VOCs	Dichlorodifluoromethane	**UJ**
MW5-ROX-083123	VOCs	2-Chloroethyl vinyl ether	**UJ**
P114R-ROX-083123	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW13-ROX-083123	VOCs	2-Chloroethyl vinyl ether	**UJ**
P93C-ROX-083123	VOCs	2-Chloroethyl vinyl ether	**UJ**
P93C-ROX-083123-DUP	VOCs	2-Chloroethyl vinyl ether	**UJ**

Sample ID	Parameter	Analyte	Qualification
P57-ROX-083123	VOCs	2-Chloroethyl vinyl ether	UJ
T12-ROX-083123	VOCs	2-Chloroethyl vinyl ether	UJ
MW5-ROX-083123	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P114R-ROX-083123	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW13-ROX-083123	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P93C-ROX-083123	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P93C-ROX-083123-DUP	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P57-ROX-083123	SVOCs	4,6-Dinitro-ortho-cresol	UJ
T12-ROX-083123	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW5-ROX-083123	SVOCs	3,3'-Dichlorobenzidine	UJ
P114R-ROX-083123	SVOCs	3,3'-Dichlorobenzidine	UJ
MW13-ROX-083123	SVOCs	3,3'-Dichlorobenzidine	UJ
P93C-ROX-083123	SVOCs	3,3'-Dichlorobenzidine	UJ
P93C-ROX-083123-DUP	SVOCs	3,3'-Dichlorobenzidine	UJ
P57-ROX-083123	SVOCs	3,3'-Dichlorobenzidine	UJ
T12-ROX-083123	SVOCs	3,3'-Dichlorobenzidine	UJ
MW5-ROX-083123	SVOCs	Hexachlorocyclopentadiene	UJ
P114R-ROX-083123	SVOCs	Hexachlorocyclopentadiene	UJ
MW13-ROX-083123	SVOCs	Hexachlorocyclopentadiene	UJ
P93C-ROX-083123	SVOCs	Hexachlorocyclopentadiene	UJ
P93C-ROX-083123-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
P57-ROX-083123	SVOCs	Hexachlorocyclopentadiene	UJ
T12-ROX-083123	SVOCs	Hexachlorocyclopentadiene	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 9/18/2023 7:40:23 AM

JOB DESCRIPTION

ROXANA MONTHLY GW

JOB NUMBER

400-242836-1

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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Authorized for release by
Leah Klingensmith, Senior Project Manager
Leah.Klingensmith@et.eurofinsus.com
(615)301-5038

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Job ID: 400-242836-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-242836-1

Receipt
The samples were received on 9/1/2023 9:18 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 3.5°C and 5.1°C

GC/MS VOA
Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-633903 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 8260D: 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-083123-8260-A (400-242836-1), MW5-ROX-083123 (400-242836-3), P114R-ROX-083123 (400-242836-4), MW13-ROX-083123 (400-242836-5), TB-ROX-083123-8260-B (400-242836-6), P93C-ROX-083123 (400-242836-8), P93C-ROX-083123-DUP (400-242836-9), P57-ROX-083123 (400-242836-10) and T12-ROX-083123 (400-242836-11). 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 8260D: The continuing calibration verification (CCV) associated with batch 400-640405 recovered above the upper control limit for 1-Chlorohexane, Hexachlorobutadiene and n-Butylbenzene. The samples associated with this CCV were non-detects or not reported for the affected analytes; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640405 recovered outside acceptance criteria, low biased, for 2-Chloroethyl vinyl ether and Dichlorodifluoromethane. 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.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640672 recovered above the upper control limit for 2,4,5-Trichlorophenol, 2,4-Dinitrotoluene, 2-Nitrophenol, 4-Bromophenyl phenyl ether, 4-Chlorophenyl phenyl ether, 4-Nitrophenol, Dibenzofuran, Diethyl phthalate and Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640672 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 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-640140 and analytical batch 400-640672 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 8270E: The method blank for preparation batch 400-640140 and analytical batch 400-640672 contained Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E: The initial calibration verification (ICV) analyzed in batch 400-637784 was outside method criteria for the following analyte(s): 3,3'-Dichlorobenzidine and 4,6-Dinitro-ortho-cresol. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E_SIM: The continuing calibration verification (CCV) associated with batch 400-640637 recovered above the upper control

Job ID: 400-242836-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

limit for Fluoranthene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E_SIM: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: P114R-ROX-083123 (400-242836-4).

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 400-639945 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: Surrogate recovery for (LCS 400-639897/2-A) was outside control limits. The spiked target analytes recovered within limits; therefore, the data has been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-640148 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 MONTHLY GW

Job ID: 400-242836-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242836-1	TB-ROX-083123-8260-A	Water	08/31/23 12:00	09/01/23 09:18
400-242836-2	TB-ROX-083123-8011-A	Water	08/31/23 12:00	09/01/23 09:18
400-242836-3	MW5-ROX-083123	Water	08/31/23 10:20	09/01/23 09:18
400-242836-4	P114R-ROX-083123	Water	08/31/23 12:35	09/01/23 09:18
400-242836-5	MW13-ROX-083123	Water	08/31/23 13:30	09/01/23 09:18
400-242836-6	TB-ROX-083123-8260-B	Water	08/31/23 12:00	09/01/23 09:18
400-242836-7	TB-ROX-083123-8011-B	Water	08/31/23 12:00	09/01/23 09:18
400-242836-8	P93C-ROX-083123	Water	08/31/23 09:40	09/01/23 09:18
400-242836-9	P93C-ROX-083123-DUP	Water	08/31/23 09:40	09/01/23 09:18
400-242836-10	P57-ROX-083123	Water	08/31/23 12:00	09/01/23 09:18
400-242836-11	T12-ROX-083123	Water	08/31/23 13:10	09/01/23 09:18

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: TB-ROX-083123-8260-A — Lab Sample ID: 400-242836-1

No Detections.

Client Sample ID: TB-ROX-083123-8011-A — Lab Sample ID: 400-242836-2

No Detections.

Client Sample ID: MW5-ROX-083123 — Lab Sample ID: 400-242836-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.6		1.0	0.22	ug/L	1		8260D	Total/NA
tert-Butylbenzene	2.1		1.0	0.63	ug/L	1		8260D	Total/NA
Dimethyl phthalate	0.40	J B	9.7	0.16	ug/L	1		8270E	Total/NA
Di-n-butyl phthalate	4.2	J	9.7	2.6	ug/L	1		8270E	Total/NA

Client Sample ID: P114R-ROX-083123 — Lab Sample ID: 400-242836-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.2		1.0	0.22	ug/L	1		8260D	Total/NA
Acenaphthene	0.85		0.20	0.097	ug/L	1		8270E SIM	Total/NA
Acenaphthylene	0.18	J	0.20	0.043	ug/L	1		8270E SIM	Total/NA

Client Sample ID: MW13-ROX-083123 — Lab Sample ID: 400-242836-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.4		1.0	0.22	ug/L	1		8260D	Total/NA
Benzoic acid	18	J	29	7.2	ug/L	1		8270E	Total/NA
Dimethyl phthalate	0.81	J B	9.8	0.17	ug/L	1		8270E	Total/NA
Di-n-butyl phthalate	7.5	J	9.8	2.6	ug/L	1		8270E	Total/NA

Client Sample ID: TB-ROX-083123-8260-B — Lab Sample ID: 400-242836-6

No Detections.

Client Sample ID: TB-ROX-083123-8011-B — Lab Sample ID: 400-242836-7

No Detections.

Client Sample ID: P93C-ROX-083123 — Lab Sample ID: 400-242836-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	47		1.0	0.50	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	3.0		1.0	0.22	ug/L	1		8260D	Total/NA
Diethyl phthalate	0.41	J	9.6	0.23	ug/L	1		8270E	Total/NA
Dimethyl phthalate	0.66	J B	9.6	0.16	ug/L	1		8270E	Total/NA
Di-n-butyl phthalate	7.5	J	9.6	2.6	ug/L	1		8270E	Total/NA

Client Sample ID: P93C-ROX-083123-DUP — Lab Sample ID: 400-242836-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	42		1.0	0.50	ug/L	1		8260D	Total/NA
Methyl tert-butyl ether	2.7		1.0	0.22	ug/L	1		8260D	Total/NA
Dimethyl phthalate	0.41	J B	9.5	0.16	ug/L	1		8270E	Total/NA
Di-n-butyl phthalate	3.9	J	9.5	2.6	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P57-ROX-083123 — Lab Sample ID: 400-242836-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	25	10	ug/L	1		8260D	Total/NA
Benzene	10		1.0	0.50	ug/L	1		8260D	Total/NA
2-Butanone (MEK)	4.4	J	25	2.6	ug/L	1		8260D	Total/NA
Ethylbenzene	0.79	J	1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	25		1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	0.79	J	5.0	0.63	ug/L	1		8260D	Total/NA
N-Propylbenzene	28		1.0	0.69	ug/L	1		8260D	Total/NA
sec-Butylbenzene	5.4		1.0	0.70	ug/L	1		8260D	Total/NA
tert-Butylbenzene	6.9		1.0	0.63	ug/L	1		8260D	Total/NA
Toluene	3.5		1.0	0.90	ug/L	1		8260D	Total/NA
n-Butylbenzene - RA	2.8		1.0	0.76	ug/L	1		8260D	Total/NA
Acenaphthene	0.16	J	0.19	0.095	ug/L	1		8270E SIM	Total/NA
Anthracene	0.061	J	0.19	0.045	ug/L	1		8270E SIM	Total/NA
Fluorene	0.30		0.19	0.085	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.22		0.19	0.086	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	13		0.19	0.077	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	13		0.19	0.063	ug/L	1		8270E SIM	Total/NA

Client Sample ID: T12-ROX-083123 — Lab Sample ID: 400-242836-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	11		5.0	2.5	ug/L	5		8260D	Total/NA
Isopropylbenzene	22		5.0	2.7	ug/L	5		8260D	Total/NA
Methyl tert-butyl ether	1.5	J	5.0	1.1	ug/L	5		8260D	Total/NA
m-Xylene & p-Xylene	47		25	3.2	ug/L	5		8260D	Total/NA
Naphthalene	17	J	25	15	ug/L	5		8260D	Total/NA
N-Propylbenzene	30		5.0	3.5	ug/L	5		8260D	Total/NA
o-Xylene	3.2	J	25	3.0	ug/L	5		8260D	Total/NA
Toluene	41		5.0	4.5	ug/L	5		8260D	Total/NA
1,3,5-Trimethylbenzene	8.8		5.0	2.8	ug/L	5		8260D	Total/NA
Xylenes, Total	50		50	8.0	ug/L	5		8260D	Total/NA
Benzene - DL	1900		10	5.0	ug/L	10		8260D	Total/NA
Acenaphthene	0.39		0.19	0.095	ug/L	1		8270E SIM	Total/NA
Anthracene	0.15	J	0.19	0.045	ug/L	1		8270E SIM	Total/NA
Fluorene	0.42		0.19	0.085	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.50		0.19	0.086	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	18		0.19	0.076	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	26		0.19	0.063	ug/L	1		8270E SIM	Total/NA
Phenol	100		9.6	2.5	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: TB-ROX-083123-8260-A
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 16:06	1
Acrolein	ND		20	3.3	ug/L			09/10/23 16:06	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 16:06	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 16:06	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 16:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 16:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 16:06	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 16:06	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 16:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 16:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 16:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 16:06	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 16:06	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 16:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 16:06	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 16:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 16:06	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 16:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 16:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 16:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 16:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 16:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 16:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 16:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 16:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 16:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 16:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 16:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 16:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 16:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 16:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 16:06	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 16:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 16:06	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 16:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 16:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 16:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/10/23 16:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 16:06	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 16:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 16:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 16:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 16:06	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 16:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 16:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 16:06	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: TB-ROX-083123-8260-A
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 16:06	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 16:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 16:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 16:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 16:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 16:06	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 16:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 16:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 16:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 16:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 16:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 16:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 16:06	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 16:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 16:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 16:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 16:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 16:06	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 16:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 16:06	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*09/10/23 16:06*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*09/10/23 16:06*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 16:06*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: TB-ROX-083123-8011-A
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-2
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-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/06/23 12:59	09/06/23 22:21	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		09/06/23 12:59	09/06/23 22:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*71*		*51 - 149*	*09/06/23 12:59*	*09/06/23 22:21*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: MW5-ROX-083123
Date Collected: 08/31/23 10:20
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 16:30	1
Acrolein	ND		20	3.3	ug/L			09/10/23 16:30	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 16:30	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 16:30	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 16:30	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 16:30	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 16:30	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 16:30	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 16:30	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 16:30	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 16:30	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 16:30	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 16:30	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 16:30	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 16:30	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 16:30	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 16:30	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 16:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 16:30	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 16:30	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 16:30	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 16:30	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 16:30	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 16:30	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 16:30	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 16:30	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 16:30	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 16:30	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:30	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:30	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:30	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 16:30	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 16:30	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 16:30	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 16:30	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 16:30	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 16:30	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 16:30	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 16:30	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 16:30	1
Methyl tert-butyl ether	**3.6**		1.0	0.22	ug/L			09/10/23 16:30	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 16:30	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 16:30	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 16:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 16:30	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 16:30	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 16:30	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 16:30	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 16:30	1

Client Sample ID: MW5-ROX-083123
Date Collected: 08/31/23 10:20
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 16:30	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 16:30	1
tert-Butylbenzene	**2.1**		1.0	0.63	ug/L			09/10/23 16:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 16:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 16:30	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 16:30	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 16:30	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 16:30	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 16:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 16:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 16:30	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 16:30	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 16:30	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 16:30	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 16:30	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 16:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 16:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 16:30	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 16:30	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 16:30	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/10/23 16:30*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*09/10/23 16:30*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 16:30*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.096	ug/L		09/07/23 15:48	09/12/23 17:04	1
Acenaphthylene	ND		0.19	0.043	ug/L		09/07/23 15:48	09/12/23 17:04	1
Anthracene	ND		0.19	0.046	ug/L		09/07/23 15:48	09/12/23 17:04	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 17:04	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/07/23 15:48	09/12/23 17:04	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/07/23 15:48	09/12/23 17:04	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/07/23 15:48	09/12/23 17:04	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/07/23 15:48	09/12/23 17:04	1
Chrysene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 17:04	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		09/07/23 15:48	09/12/23 17:04	1
Fluoranthene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 17:04	1
Fluorene	ND		0.19	0.086	ug/L		09/07/23 15:48	09/12/23 17:04	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 17:04	1
Phenanthrene	ND		0.19	0.087	ug/L		09/07/23 15:48	09/12/23 17:04	1
Pyrene	ND		0.19	0.038	ug/L		09/07/23 15:48	09/12/23 17:04	1
1-Methylnaphthalene	ND		0.19	0.078	ug/L		09/07/23 15:48	09/12/23 17:04	1
2-Methylnaphthalene	ND		0.19	0.064	ug/L		09/07/23 15:48	09/12/23 17:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*58*		*18 - 147*	*09/07/23 15:48*	*09/12/23 17:04*	*1*
2-Fluorobiphenyl	*60*		*15 - 128*	*09/07/23 15:48*	*09/12/23 17:04*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: MW5-ROX-083123
Date Collected: 08/31/23 10:20
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-3
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*77*		*10 - 144*	*09/07/23 15:48*	*09/12/23 17:04*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		09/07/23 15:48	09/12/23 18:47	1
Benzenethiol	ND	*-	9.7	1.6	ug/L		09/07/23 15:48	09/12/23 18:47	1
Benzoic acid	ND		29	7.1	ug/L		09/07/23 15:48	09/12/23 18:47	1
Benzyl alcohol	ND		9.7	1.9	ug/L		09/07/23 15:48	09/12/23 18:47	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		09/07/23 15:48	09/12/23 18:47	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		09/07/23 15:48	09/12/23 18:47	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		09/07/23 15:48	09/12/23 18:47	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		09/07/23 15:48	09/12/23 18:47	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		09/07/23 15:48	09/12/23 18:47	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		09/07/23 15:48	09/12/23 18:47	1
4-Chloroaniline	ND		9.7	3.3	ug/L		09/07/23 15:48	09/12/23 18:47	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		09/07/23 15:48	09/12/23 18:47	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		09/07/23 15:48	09/12/23 18:47	1
2-Chlorophenol	ND		9.7	2.1	ug/L		09/07/23 15:48	09/12/23 18:47	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		09/07/23 15:48	09/12/23 18:47	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		09/07/23 15:48	09/12/23 18:47	1
Dibenzofuran	ND		9.7	0.16	ug/L		09/07/23 15:48	09/12/23 18:47	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		09/07/23 15:48	09/12/23 18:47	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		09/07/23 15:48	09/12/23 18:47	1
Diethyl phthalate	ND		9.7	0.23	ug/L		09/07/23 15:48	09/12/23 18:47	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		09/07/23 15:48	09/12/23 18:47	1
Dimethyl phthalate	**0.40**	**J B**	9.7	0.16	ug/L		09/07/23 15:48	09/13/23 22:52	1
Di-n-butyl phthalate	**4.2**	**J**	9.7	2.6	ug/L		09/07/23 15:48	09/12/23 18:47	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		09/07/23 15:48	09/12/23 18:47	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/07/23 15:48	09/12/23 18:47	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		09/07/23 15:48	09/12/23 18:47	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		09/07/23 15:48	09/12/23 18:47	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		09/07/23 15:48	09/12/23 18:47	1
1,4-Dioxane	ND		9.7	0.97	ug/L		09/07/23 15:48	09/12/23 18:47	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		09/07/23 15:48	09/12/23 18:47	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		09/07/23 15:48	09/12/23 18:47	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/07/23 15:48	09/12/23 18:47	1
Hexachloroethane	ND		9.7	4.1	ug/L		09/07/23 15:48	09/12/23 18:47	1
Indene	ND		9.7	0.97	ug/L		09/07/23 15:48	09/12/23 18:47	1
Isophorone	ND		9.7	0.14	ug/L		09/07/23 15:48	09/12/23 18:47	1
2-Methylphenol	ND		9.7	1.7	ug/L		09/07/23 15:48	09/12/23 18:47	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/07/23 15:48	09/12/23 18:47	1
2-Nitroaniline	ND		9.7	2.1	ug/L		09/07/23 15:48	09/12/23 18:47	1
3-Nitroaniline	ND		9.7	1.7	ug/L		09/07/23 15:48	09/12/23 18:47	1
4-Nitroaniline	ND		9.7	1.5	ug/L		09/07/23 15:48	09/12/23 18:47	1
Nitrobenzene	ND		9.7	0.13	ug/L		09/07/23 15:48	09/12/23 18:47	1
2-Nitrophenol	ND		9.7	5.0	ug/L		09/07/23 15:48	09/12/23 18:47	1
4-Nitrophenol	ND		9.7	2.0	ug/L		09/07/23 15:48	09/12/23 18:47	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		09/07/23 15:48	09/12/23 18:47	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: MW5-ROX-083123

Date Collected: 08/31/23 10:20
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-3

Matrix: Water

Method: SW846 8270E - 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		09/07/23 15:48	09/12/23 18:47	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		09/07/23 15:48	09/12/23 18:47	1
Pentachlorophenol	ND		19	1.4	ug/L		09/07/23 15:48	09/12/23 18:47	1
Phenol	ND		9.7	2.5	ug/L		09/07/23 15:48	09/12/23 18:47	1
Pyridine	ND		9.7	3.1	ug/L		09/07/23 15:48	09/12/23 18:47	1
Quinoline	ND		9.7	4.4	ug/L		09/07/23 15:48	09/12/23 18:47	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		09/07/23 15:48	09/12/23 18:47	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		09/07/23 15:48	09/12/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*09/07/23 15:48*	*09/12/23 18:47*	*1*
2-Fluorophenol	*54*		*13 - 113*	*09/07/23 15:48*	*09/12/23 18:47*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*09/07/23 15:48*	*09/12/23 18:47*	*1*
Phenol-d5	*63*		*17 - 127*	*09/07/23 15:48*	*09/12/23 18:47*	*1*
Terphenyl-d14	*86*		*44 - 149*	*09/07/23 15:48*	*09/12/23 18:47*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*09/07/23 15:48*	*09/12/23 18:47*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.032	0.018	ug/L		09/06/23 12:59	09/06/23 22:41	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		09/06/23 12:59	09/06/23 22:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*09/06/23 12:59*	*09/06/23 22:41*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P114R-ROX-083123
Date Collected: 08/31/23 12:35
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 16:55	1
Acrolein	ND		20	3.3	ug/L			09/10/23 16:55	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 16:55	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 16:55	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 16:55	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 16:55	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 16:55	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 16:55	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 16:55	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 16:55	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 16:55	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 16:55	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 16:55	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 16:55	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 16:55	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 16:55	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 16:55	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 16:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 16:55	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 16:55	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 16:55	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 16:55	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 16:55	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 16:55	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 16:55	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 16:55	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 16:55	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 16:55	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:55	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:55	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 16:55	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 16:55	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 16:55	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 16:55	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 16:55	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 16:55	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 16:55	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 16:55	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 16:55	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 16:55	1
Methyl tert-butyl ether	**2.2**		1.0	0.22	ug/L			09/10/23 16:55	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 16:55	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 16:55	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 16:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 16:55	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 16:55	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 16:55	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 16:55	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 16:55	1

Client Sample ID: P114R-ROX-083123
Date Collected: 08/31/23 12:35
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 16:55	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 16:55	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 16:55	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 16:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 16:55	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 16:55	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 16:55	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 16:55	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 16:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 16:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 16:55	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 16:55	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 16:55	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 16:55	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 16:55	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 16:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 16:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 16:55	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 16:55	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 16:55	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/10/23 16:55*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/10/23 16:55*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*09/10/23 16:55*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.85**		0.20	0.097	ug/L		09/07/23 15:48	09/12/23 17:24	1
Acenaphthylene	**0.18**	**J**	0.20	0.043	ug/L		09/07/23 15:48	09/12/23 17:24	1
Anthracene	ND		0.20	0.046	ug/L		09/07/23 15:48	09/12/23 17:24	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 17:24	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/07/23 15:48	09/12/23 17:24	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/07/23 15:48	09/12/23 17:24	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		09/07/23 15:48	09/12/23 17:24	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/07/23 15:48	09/12/23 17:24	1
Chrysene	ND		0.20	0.032	ug/L		09/07/23 15:48	09/12/23 17:24	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		09/07/23 15:48	09/12/23 17:24	1
Fluoranthene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 17:24	1
Fluorene	ND		0.20	0.087	ug/L		09/07/23 15:48	09/12/23 17:24	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 17:24	1
Phenanthrene	ND		0.20	0.088	ug/L		09/07/23 15:48	09/12/23 17:24	1
Pyrene	ND		0.20	0.038	ug/L		09/07/23 15:48	09/12/23 17:24	1
1-Methylnaphthalene	ND		0.98	0.39	ug/L		09/07/23 15:48	09/15/23 12:19	5
2-Methylnaphthalene	ND		0.98	0.32	ug/L		09/07/23 15:48	09/15/23 12:19	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*57*		*18 - 147*	*09/07/23 15:48*	*09/12/23 17:24*	*1*
2-Fluorobiphenyl	*53*		*15 - 128*	*09/07/23 15:48*	*09/12/23 17:24*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P114R-ROX-083123
Date Collected: 08/31/23 12:35
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-4
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*53*		*10 - 144*	*09/07/23 15:48*	*09/15/23 12:19*	*5*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		09/07/23 15:48	09/12/23 19:08	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		09/07/23 15:48	09/12/23 19:08	1
Benzoic acid	ND		29	7.1	ug/L		09/07/23 15:48	09/12/23 19:08	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/07/23 15:48	09/12/23 19:08	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/07/23 15:48	09/12/23 19:08	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		09/07/23 15:48	09/12/23 19:08	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/07/23 15:48	09/12/23 19:08	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/07/23 15:48	09/12/23 19:08	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/07/23 15:48	09/12/23 19:08	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/07/23 15:48	09/12/23 19:08	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/07/23 15:48	09/12/23 19:08	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/07/23 15:48	09/12/23 19:08	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/07/23 15:48	09/12/23 19:08	1
2-Chlorophenol	ND		9.8	2.1	ug/L		09/07/23 15:48	09/12/23 19:08	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/07/23 15:48	09/12/23 19:08	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/07/23 15:48	09/12/23 19:08	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/07/23 15:48	09/12/23 19:08	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		09/07/23 15:48	09/12/23 19:08	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		09/07/23 15:48	09/12/23 19:08	1
Diethyl phthalate	ND		9.8	0.23	ug/L		09/07/23 15:48	09/12/23 19:08	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/07/23 15:48	09/12/23 19:08	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		09/07/23 15:48	09/13/23 23:17	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		09/07/23 15:48	09/12/23 19:08	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		09/07/23 15:48	09/12/23 19:08	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/07/23 15:48	09/12/23 19:08	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/07/23 15:48	09/12/23 19:08	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/07/23 15:48	09/12/23 19:08	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/07/23 15:48	09/12/23 19:08	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/07/23 15:48	09/12/23 19:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/07/23 15:48	09/12/23 19:08	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/07/23 15:48	09/12/23 19:08	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		09/07/23 15:48	09/12/23 19:08	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/07/23 15:48	09/12/23 19:08	1
Indene	ND		9.8	0.98	ug/L		09/07/23 15:48	09/12/23 19:08	1
Isophorone	ND		9.8	0.14	ug/L		09/07/23 15:48	09/12/23 19:08	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/07/23 15:48	09/12/23 19:08	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/07/23 15:48	09/12/23 19:08	1
2-Nitroaniline	ND		9.8	2.1	ug/L		09/07/23 15:48	09/12/23 19:08	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/07/23 15:48	09/12/23 19:08	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/07/23 15:48	09/12/23 19:08	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/07/23 15:48	09/12/23 19:08	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/07/23 15:48	09/12/23 19:08	1
4-Nitrophenol	ND		9.8	2.1	ug/L		09/07/23 15:48	09/12/23 19:08	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/07/23 15:48	09/12/23 19:08	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P114R-ROX-083123
Date Collected: 08/31/23 12:35
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-4
Matrix: Water

Method: SW846 8270E - 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		09/07/23 15:48	09/12/23 19:08	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/07/23 15:48	09/12/23 19:08	1
Pentachlorophenol	ND		20	1.4	ug/L		09/07/23 15:48	09/12/23 19:08	1
Phenol	ND		9.8	2.5	ug/L		09/07/23 15:48	09/12/23 19:08	1
Pyridine	ND		9.8	3.1	ug/L		09/07/23 15:48	09/12/23 19:08	1
Quinoline	ND		9.8	4.4	ug/L		09/07/23 15:48	09/12/23 19:08	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/07/23 15:48	09/12/23 19:08	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/07/23 15:48	09/12/23 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*09/07/23 15:48*	*09/12/23 19:08*	*1*
2-Fluorophenol	*52*		*13 - 113*	*09/07/23 15:48*	*09/12/23 19:08*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*09/07/23 15:48*	*09/12/23 19:08*	*1*
Phenol-d5	*60*		*17 - 127*	*09/07/23 15:48*	*09/12/23 19:08*	*1*
Terphenyl-d14	*86*		*44 - 149*	*09/07/23 15:48*	*09/12/23 19:08*	*1*
2,4,6-Tribromophenol	*80*		*26 - 150*	*09/07/23 15:48*	*09/12/23 19:08*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/06/23 23:21	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*87*		*51 - 149*	*09/06/23 12:59*	*09/06/23 23:21*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: MW13-ROX-083123
Date Collected: 08/31/23 13:30
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 17:20	1
Acrolein	ND		20	3.3	ug/L			09/10/23 17:20	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 17:20	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 17:20	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 17:20	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 17:20	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 17:20	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 17:20	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 17:20	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 17:20	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 17:20	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 17:20	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 17:20	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 17:20	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 17:20	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 17:20	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 17:20	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 17:20	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 17:20	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 17:20	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 17:20	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 17:20	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 17:20	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 17:20	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 17:20	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 17:20	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 17:20	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 17:20	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 17:20	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 17:20	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 17:20	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 17:20	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 17:20	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 17:20	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 17:20	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 17:20	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 17:20	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 17:20	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 17:20	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 17:20	1
Methyl tert-butyl ether	**1.4**		1.0	0.22	ug/L			09/10/23 17:20	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 17:20	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 17:20	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 17:20	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 17:20	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 17:20	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 17:20	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 17:20	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 17:20	1

Client Sample ID: MW13-ROX-083123
Date Collected: 08/31/23 13:30
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 17:20	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 17:20	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 17:20	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 17:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 17:20	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 17:20	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 17:20	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 17:20	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 17:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 17:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 17:20	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 17:20	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 17:20	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 17:20	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 17:20	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 17:20	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 17:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 17:20	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 17:20	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 17:20	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 130*		*09/10/23 17:20*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/10/23 17:20*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 17:20*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		09/07/23 15:48	09/12/23 17:45	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/07/23 15:48	09/12/23 17:45	1
Anthracene	ND		0.20	0.046	ug/L		09/07/23 15:48	09/12/23 17:45	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 17:45	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/07/23 15:48	09/12/23 17:45	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/07/23 15:48	09/12/23 17:45	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		09/07/23 15:48	09/12/23 17:45	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/07/23 15:48	09/12/23 17:45	1
Chrysene	ND		0.20	0.032	ug/L		09/07/23 15:48	09/12/23 17:45	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		09/07/23 15:48	09/12/23 17:45	1
Fluoranthene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 17:45	1
Fluorene	ND		0.20	0.087	ug/L		09/07/23 15:48	09/12/23 17:45	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 17:45	1
Phenanthrene	ND		0.20	0.088	ug/L		09/07/23 15:48	09/12/23 17:45	1
Pyrene	ND		0.20	0.038	ug/L		09/07/23 15:48	09/12/23 17:45	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		09/07/23 15:48	09/12/23 17:45	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		09/07/23 15:48	09/12/23 17:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*75*		*18 - 147*	*09/07/23 15:48*	*09/12/23 17:45*	*1*
2-Fluorobiphenyl	*44*		*15 - 128*	*09/07/23 15:48*	*09/12/23 17:45*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: MW13-ROX-083123
Date Collected: 08/31/23 13:30
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-5
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	87		10 - 144	09/07/23 15:48	09/12/23 17:45	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		09/07/23 15:48	09/12/23 19:29	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		09/07/23 15:48	09/12/23 19:29	1
Benzoic acid	**18**	**J**	29	7.2	ug/L		09/07/23 15:48	09/12/23 19:29	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/07/23 15:48	09/12/23 19:29	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/07/23 15:48	09/12/23 19:29	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		09/07/23 15:48	09/12/23 19:29	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/07/23 15:48	09/12/23 19:29	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/07/23 15:48	09/12/23 19:29	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/07/23 15:48	09/12/23 19:29	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/07/23 15:48	09/12/23 19:29	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/07/23 15:48	09/12/23 19:29	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/07/23 15:48	09/12/23 19:29	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/07/23 15:48	09/12/23 19:29	1
2-Chlorophenol	ND		9.8	2.2	ug/L		09/07/23 15:48	09/12/23 19:29	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/07/23 15:48	09/12/23 19:29	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/07/23 15:48	09/12/23 19:29	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/07/23 15:48	09/12/23 19:29	1
3,3'-Dichlorobenzidine	ND		9.8	2.6	ug/L		09/07/23 15:48	09/12/23 19:29	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		09/07/23 15:48	09/12/23 19:29	1
Diethyl phthalate	ND		9.8	0.24	ug/L		09/07/23 15:48	09/12/23 19:29	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/07/23 15:48	09/12/23 19:29	1
Dimethyl phthalate	**0.81**	**J B**	9.8	0.17	ug/L		09/07/23 15:48	09/12/23 19:29	1
Di-n-butyl phthalate	**7.5**	**J**	9.8	2.6	ug/L		09/07/23 15:48	09/12/23 19:29	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		09/07/23 15:48	09/12/23 19:29	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/07/23 15:48	09/12/23 19:29	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/07/23 15:48	09/12/23 19:29	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/07/23 15:48	09/12/23 19:29	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/07/23 15:48	09/12/23 19:29	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/07/23 15:48	09/12/23 19:29	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/07/23 15:48	09/12/23 19:29	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/07/23 15:48	09/12/23 19:29	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/07/23 15:48	09/12/23 19:29	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/07/23 15:48	09/12/23 19:29	1
Indene	ND		9.8	0.98	ug/L		09/07/23 15:48	09/12/23 19:29	1
Isophorone	ND		9.8	0.14	ug/L		09/07/23 15:48	09/12/23 19:29	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/07/23 15:48	09/12/23 19:29	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/07/23 15:48	09/12/23 19:29	1
2-Nitroaniline	ND		9.8	2.2	ug/L		09/07/23 15:48	09/12/23 19:29	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/07/23 15:48	09/12/23 19:29	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/07/23 15:48	09/12/23 19:29	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/07/23 15:48	09/12/23 19:29	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/07/23 15:48	09/12/23 19:29	1
4-Nitrophenol	ND		9.8	2.1	ug/L		09/07/23 15:48	09/12/23 19:29	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/07/23 15:48	09/12/23 19:29	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: MW13-ROX-083123

Lab Sample ID: 400-242836-5

Date Collected: 08/31/23 13:30

Matrix: Water

Date Received: 09/01/23 09:18

Method: SW846 8270E - 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		09/07/23 15:48	09/12/23 19:29	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/07/23 15:48	09/12/23 19:29	1
Pentachlorophenol	ND		20	1.4	ug/L		09/07/23 15:48	09/12/23 19:29	1
Phenol	ND		9.8	2.6	ug/L		09/07/23 15:48	09/12/23 19:29	1
Pyridine	ND		9.8	3.1	ug/L		09/07/23 15:48	09/12/23 19:29	1
Quinoline	ND		9.8	4.4	ug/L		09/07/23 15:48	09/12/23 19:29	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/07/23 15:48	09/12/23 19:29	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/07/23 15:48	09/12/23 19:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*46 - 124*	*09/07/23 15:48*	*09/12/23 19:29*	*1*
2-Fluorophenol	*56*		*13 - 113*	*09/07/23 15:48*	*09/12/23 19:29*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*09/07/23 15:48*	*09/12/23 19:29*	*1*
Phenol-d5	*73*		*17 - 127*	*09/07/23 15:48*	*09/12/23 19:29*	*1*
Terphenyl-d14	*109*		*44 - 149*	*09/07/23 15:48*	*09/12/23 19:29*	*1*
2,4,6-Tribromophenol	*95*		*26 - 150*	*09/07/23 15:48*	*09/12/23 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-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		09/06/23 12:59	09/06/23 23:42	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 23:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*09/06/23 12:59*	*09/06/23 23:42*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: TB-ROX-083123-8260-B
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 17:44	1
Acrolein	ND		20	3.3	ug/L			09/10/23 17:44	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 17:44	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 17:44	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 17:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 17:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 17:44	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 17:44	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 17:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 17:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 17:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 17:44	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 17:44	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 17:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 17:44	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 17:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 17:44	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 17:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 17:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 17:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 17:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 17:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 17:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 17:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 17:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 17:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 17:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 17:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 17:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 17:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 17:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 17:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 17:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 17:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 17:44	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 17:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 17:44	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 17:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 17:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 17:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/10/23 17:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 17:44	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 17:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 17:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 17:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 17:44	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 17:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 17:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 17:44	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: TB-ROX-083123-8260-B
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 17:44	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 17:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 17:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 17:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 17:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 17:44	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 17:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 17:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 17:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 17:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 17:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 17:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 17:44	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 17:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 17:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 17:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 17:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 17:44	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 17:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 17:44	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/10/23 17:44*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/10/23 17:44*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 17:44*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: TB-ROX-083123-8011-B
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-7
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-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		09/06/23 12:59	09/07/23 00:02	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/07/23 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*79*		*51 - 149*	*09/06/23 12:59*	*09/07/23 00:02*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P93C-ROX-083123
Date Collected: 08/31/23 09:40
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 18:09	1
Acrolein	ND		20	3.3	ug/L			09/10/23 18:09	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 18:09	1
Benzene	**47**		1.0	0.50	ug/L			09/10/23 18:09	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 18:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 18:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 18:09	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 18:09	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 18:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 18:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 18:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 18:09	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 18:09	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 18:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 18:09	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 18:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 18:09	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 18:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 18:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 18:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 18:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 18:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 18:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 18:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 18:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 18:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 18:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 18:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 18:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 18:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 18:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 18:09	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 18:09	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 18:09	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 18:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 18:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 18:09	1
Methyl tert-butyl ether	**3.0**		1.0	0.22	ug/L			09/10/23 18:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 18:09	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 18:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 18:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 18:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 18:09	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 18:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 18:09	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 18:09	1

Client Sample ID: P93C-ROX-083123
Date Collected: 08/31/23 09:40
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 18:09	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 18:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 18:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 18:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 18:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 18:09	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 18:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 18:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 18:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 18:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 18:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 18:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 18:09	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 18:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 18:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 18:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 18:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 18:09	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 18:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 18:09	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 18:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/10/23 18:09*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*09/10/23 18:09*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 18:09*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.095	ug/L		09/07/23 15:48	09/12/23 18:06	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/07/23 15:48	09/12/23 18:06	1
Anthracene	ND		0.19	0.045	ug/L		09/07/23 15:48	09/12/23 18:06	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 18:06	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/07/23 15:48	09/12/23 18:06	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/07/23 15:48	09/12/23 18:06	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/07/23 15:48	09/12/23 18:06	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/07/23 15:48	09/12/23 18:06	1
Chrysene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 18:06	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/07/23 15:48	09/12/23 18:06	1
Fluoranthene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 18:06	1
Fluorene	ND		0.19	0.085	ug/L		09/07/23 15:48	09/12/23 18:06	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 18:06	1
Phenanthrene	ND		0.19	0.086	ug/L		09/07/23 15:48	09/12/23 18:06	1
Pyrene	ND		0.19	0.037	ug/L		09/07/23 15:48	09/12/23 18:06	1
1-Methylnaphthalene	ND		0.19	0.077	ug/L		09/07/23 15:48	09/12/23 18:06	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		09/07/23 15:48	09/12/23 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*66*		*18 - 147*	*09/07/23 15:48*	*09/12/23 18:06*	*1*
2-Fluorobiphenyl	*57*		*15 - 128*	*09/07/23 15:48*	*09/12/23 18:06*	*1*

Client Sample ID: P93C-ROX-083123
Date Collected: 08/31/23 09:40
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-8
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*76*		*10 - 144*	*09/07/23 15:48*	*09/12/23 18:06*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		09/07/23 15:48	09/12/23 19:50	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		09/07/23 15:48	09/12/23 19:50	1
Benzoic acid	ND		29	7.0	ug/L		09/07/23 15:48	09/12/23 19:50	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/07/23 15:48	09/12/23 19:50	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/07/23 15:48	09/12/23 19:50	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		09/07/23 15:48	09/12/23 19:50	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/07/23 15:48	09/12/23 19:50	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/07/23 15:48	09/12/23 19:50	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/07/23 15:48	09/12/23 19:50	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/07/23 15:48	09/12/23 19:50	1
4-Chloroaniline	ND		9.6	3.3	ug/L		09/07/23 15:48	09/12/23 19:50	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		09/07/23 15:48	09/12/23 19:50	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/07/23 15:48	09/12/23 19:50	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/07/23 15:48	09/12/23 19:50	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/07/23 15:48	09/12/23 19:50	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 19:50	1
Dibenzofuran	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 19:50	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/07/23 15:48	09/12/23 19:50	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/07/23 15:48	09/12/23 19:50	1
Diethyl phthalate	**0.41**	**J**	9.6	0.23	ug/L		09/07/23 15:48	09/12/23 19:50	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		09/07/23 15:48	09/12/23 19:50	1
Dimethyl phthalate	**0.66**	**J B**	9.6	0.16	ug/L		09/07/23 15:48	09/13/23 23:41	1
Di-n-butyl phthalate	**7.5**	**J**	9.6	2.6	ug/L		09/07/23 15:48	09/12/23 19:50	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/07/23 15:48	09/12/23 19:50	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/07/23 15:48	09/12/23 19:50	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/07/23 15:48	09/12/23 19:50	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/07/23 15:48	09/12/23 19:50	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 19:50	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 19:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 19:50	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 19:50	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/07/23 15:48	09/12/23 19:50	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/07/23 15:48	09/12/23 19:50	1
Indene	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 19:50	1
Isophorone	ND		9.6	0.13	ug/L		09/07/23 15:48	09/12/23 19:50	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/07/23 15:48	09/12/23 19:50	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/07/23 15:48	09/12/23 19:50	1
2-Nitroaniline	ND		9.6	2.1	ug/L		09/07/23 15:48	09/12/23 19:50	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/07/23 15:48	09/12/23 19:50	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/07/23 15:48	09/12/23 19:50	1
Nitrobenzene	ND		9.6	0.12	ug/L		09/07/23 15:48	09/12/23 19:50	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/07/23 15:48	09/12/23 19:50	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/07/23 15:48	09/12/23 19:50	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		09/07/23 15:48	09/12/23 19:50	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P93C-ROX-083123
Date Collected: 08/31/23 09:40
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-8
Matrix: Water

Method: SW846 8270E - 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		09/07/23 15:48	09/12/23 19:50	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/07/23 15:48	09/12/23 19:50	1
Pentachlorophenol	ND		19	1.3	ug/L		09/07/23 15:48	09/12/23 19:50	1
Phenol	ND		9.6	2.5	ug/L		09/07/23 15:48	09/12/23 19:50	1
Pyridine	ND		9.6	3.1	ug/L		09/07/23 15:48	09/12/23 19:50	1
Quinoline	ND		9.6	4.3	ug/L		09/07/23 15:48	09/12/23 19:50	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		09/07/23 15:48	09/12/23 19:50	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		09/07/23 15:48	09/12/23 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*09/07/23 15:48*	*09/12/23 19:50*	*1*
2-Fluorophenol	*49*		*13 - 113*	*09/07/23 15:48*	*09/12/23 19:50*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*09/07/23 15:48*	*09/12/23 19:50*	*1*
Phenol-d5	*63*		*17 - 127*	*09/07/23 15:48*	*09/12/23 19:50*	*1*
Terphenyl-d14	*89*		*44 - 149*	*09/07/23 15:48*	*09/12/23 19:50*	*1*
2,4,6-Tribromophenol	*73*		*26 - 150*	*09/07/23 15:48*	*09/12/23 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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/07/23 00:22	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/07/23 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*72*		*51 - 149*	*09/06/23 12:59*	*09/07/23 00:22*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P93C-ROX-083123-DUP

Date Collected: 08/31/23 09:40
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-9

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 18:33	1
Acrolein	ND		20	3.3	ug/L			09/10/23 18:33	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 18:33	1
Benzene	**42**		1.0	0.50	ug/L			09/10/23 18:33	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 18:33	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 18:33	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 18:33	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 18:33	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 18:33	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 18:33	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 18:33	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 18:33	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 18:33	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 18:33	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 18:33	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 18:33	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 18:33	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 18:33	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 18:33	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 18:33	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 18:33	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 18:33	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 18:33	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 18:33	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 18:33	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 18:33	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 18:33	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 18:33	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:33	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:33	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:33	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 18:33	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 18:33	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 18:33	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 18:33	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 18:33	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 18:33	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 18:33	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 18:33	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 18:33	1
Methyl tert-butyl ether	**2.7**		1.0	0.22	ug/L			09/10/23 18:33	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 18:33	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 18:33	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 18:33	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 18:33	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 18:33	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 18:33	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 18:33	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 18:33	1

Client Sample ID: P93C-ROX-083123-DUP

Lab Sample ID: 400-242836-9

Date Collected: 08/31/23 09:40

Matrix: Water

Date Received: 09/01/23 09:18

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 18:33	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 18:33	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 18:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 18:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 18:33	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 18:33	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 18:33	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 18:33	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 18:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 18:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 18:33	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 18:33	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 18:33	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 18:33	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 18:33	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 18:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 18:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 18:33	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 18:33	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 18:33	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/10/23 18:33*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/10/23 18:33*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/10/23 18:33*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		09/07/23 15:48	09/12/23 18:27	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/07/23 15:48	09/12/23 18:27	1
Anthracene	ND		0.19	0.045	ug/L		09/07/23 15:48	09/12/23 18:27	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 18:27	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/07/23 15:48	09/12/23 18:27	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/07/23 15:48	09/12/23 18:27	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/07/23 15:48	09/12/23 18:27	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/07/23 15:48	09/12/23 18:27	1
Chrysene	ND		0.19	0.031	ug/L		09/07/23 15:48	09/12/23 18:27	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/07/23 15:48	09/12/23 18:27	1
Fluoranthene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 18:27	1
Fluorene	ND		0.19	0.085	ug/L		09/07/23 15:48	09/12/23 18:27	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 18:27	1
Phenanthrene	ND		0.19	0.085	ug/L		09/07/23 15:48	09/12/23 18:27	1
Pyrene	ND		0.19	0.037	ug/L		09/07/23 15:48	09/12/23 18:27	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		09/07/23 15:48	09/12/23 18:27	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		09/07/23 15:48	09/12/23 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*68*		*18 - 147*	*09/07/23 15:48*	*09/12/23 18:27*	*1*
2-Fluorobiphenyl	*55*		*15 - 128*	*09/07/23 15:48*	*09/12/23 18:27*	*1*

Client Sample ID: P93C-ROX-083123-DUP
Date Collected: 08/31/23 09:40
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-9
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*80*		*10 - 144*	*09/07/23 15:48*	*09/12/23 18:27*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		09/07/23 15:48	09/12/23 20:11	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		09/07/23 15:48	09/12/23 20:11	1
Benzoic acid	ND		28	6.9	ug/L		09/07/23 15:48	09/12/23 20:11	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/07/23 15:48	09/12/23 20:11	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/07/23 15:48	09/12/23 20:11	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		09/07/23 15:48	09/12/23 20:11	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/07/23 15:48	09/12/23 20:11	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		09/07/23 15:48	09/12/23 20:11	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/07/23 15:48	09/12/23 20:11	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/07/23 15:48	09/12/23 20:11	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/07/23 15:48	09/12/23 20:11	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/07/23 15:48	09/12/23 20:11	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/07/23 15:48	09/12/23 20:11	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/07/23 15:48	09/12/23 20:11	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/07/23 15:48	09/12/23 20:11	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/07/23 15:48	09/12/23 20:11	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/07/23 15:48	09/12/23 20:11	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/07/23 15:48	09/12/23 20:11	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		09/07/23 15:48	09/12/23 20:11	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/07/23 15:48	09/12/23 20:11	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/07/23 15:48	09/12/23 20:11	1
Dimethyl phthalate	**0.41**	**J B**	9.5	0.16	ug/L		09/07/23 15:48	09/14/23 00:06	1
Di-n-butyl phthalate	**3.9**	**J**	9.5	2.6	ug/L		09/07/23 15:48	09/12/23 20:11	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/07/23 15:48	09/12/23 20:11	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/07/23 15:48	09/12/23 20:11	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/07/23 15:48	09/12/23 20:11	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/07/23 15:48	09/12/23 20:11	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/07/23 15:48	09/12/23 20:11	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/07/23 15:48	09/12/23 20:11	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/07/23 15:48	09/12/23 20:11	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/07/23 15:48	09/12/23 20:11	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/07/23 15:48	09/12/23 20:11	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/07/23 15:48	09/12/23 20:11	1
Indene	ND		9.5	0.95	ug/L		09/07/23 15:48	09/12/23 20:11	1
Isophorone	ND		9.5	0.13	ug/L		09/07/23 15:48	09/12/23 20:11	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/07/23 15:48	09/12/23 20:11	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/07/23 15:48	09/12/23 20:11	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/07/23 15:48	09/12/23 20:11	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/07/23 15:48	09/12/23 20:11	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/07/23 15:48	09/12/23 20:11	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/07/23 15:48	09/12/23 20:11	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/07/23 15:48	09/12/23 20:11	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/07/23 15:48	09/12/23 20:11	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/07/23 15:48	09/12/23 20:11	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P93C-ROX-083123-DUP

Date Collected: 08/31/23 09:40
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-9

Matrix: Water

Method: SW846 8270E - 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		09/07/23 15:48	09/12/23 20:11	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/07/23 15:48	09/12/23 20:11	1
Pentachlorophenol	ND		19	1.3	ug/L		09/07/23 15:48	09/12/23 20:11	1
Phenol	ND		9.5	2.5	ug/L		09/07/23 15:48	09/12/23 20:11	1
Pyridine	ND		9.5	3.0	ug/L		09/07/23 15:48	09/12/23 20:11	1
Quinoline	ND		9.5	4.3	ug/L		09/07/23 15:48	09/12/23 20:11	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/07/23 15:48	09/12/23 20:11	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/07/23 15:48	09/12/23 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*09/07/23 15:48*	*09/12/23 20:11*	*1*
2-Fluorophenol	*52*		*13 - 113*	*09/07/23 15:48*	*09/12/23 20:11*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*09/07/23 15:48*	*09/12/23 20:11*	*1*
Phenol-d5	*64*		*17 - 127*	*09/07/23 15:48*	*09/12/23 20:11*	*1*
Terphenyl-d14	*89*		*44 - 149*	*09/07/23 15:48*	*09/12/23 20:11*	*1*
2,4,6-Tribromophenol	*85*		*26 - 150*	*09/07/23 15:48*	*09/12/23 20:11*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/07/23 00:42	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/07/23 00:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*76*		*51 - 149*	*09/06/23 12:59*	*09/07/23 00:42*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P57-ROX-083123
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**13**	**J**	25	10	ug/L			09/10/23 18:58	1
Acrolein	ND		20	3.3	ug/L			09/10/23 18:58	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 18:58	1
Benzene	**10**		1.0	0.50	ug/L			09/10/23 18:58	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 18:58	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 18:58	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 18:58	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 18:58	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 18:58	1
2-Butanone (MEK)	**4.4**	**J**	25	2.6	ug/L			09/10/23 18:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 18:58	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 18:58	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 18:58	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 18:58	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 18:58	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 18:58	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 18:58	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 18:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 18:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 18:58	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 18:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 18:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 18:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 18:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 18:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 18:58	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 18:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 18:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 18:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 18:58	1
Ethylbenzene	**0.79**	**J**	1.0	0.50	ug/L			09/10/23 18:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 18:58	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 18:58	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 18:58	1
Isopropylbenzene	**25**		1.0	0.53	ug/L			09/10/23 18:58	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 18:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 18:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 18:58	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/10/23 18:58	1
m-Xylene & p-Xylene	**0.79**	**J**	5.0	0.63	ug/L			09/10/23 18:58	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 18:58	1
N-Propylbenzene	**28**		1.0	0.69	ug/L			09/10/23 18:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 18:58	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 18:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 18:58	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 18:58	1
sec-Butylbenzene	**5.4**		1.0	0.70	ug/L			09/10/23 18:58	1

Client Sample ID: P57-ROX-083123
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			09/10/23 18:58	1
tert-Butylbenzene	**6.9**		1.0	0.63	ug/L			09/10/23 18:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 18:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 18:58	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 18:58	1
Toluene	**3.5**		1.0	0.90	ug/L			09/10/23 18:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 18:58	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 18:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 18:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 18:58	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 18:58	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 18:58	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 18:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 18:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 18:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 18:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 18:58	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 18:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 18:58	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/10/23 18:58*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/10/23 18:58*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 18:58*	*1*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	**2.8**		1.0	0.76	ug/L			09/11/23 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*72 - 130*		*09/11/23 17:56*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*09/11/23 17:56*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*09/11/23 17:56*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.16**	**J**	0.19	0.095	ug/L		09/07/23 15:48	09/12/23 18:48	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/07/23 15:48	09/12/23 18:48	1
Anthracene	**0.061**	**J**	0.19	0.045	ug/L		09/07/23 15:48	09/12/23 18:48	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 18:48	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/07/23 15:48	09/12/23 18:48	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/07/23 15:48	09/12/23 18:48	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/07/23 15:48	09/12/23 18:48	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/07/23 15:48	09/12/23 18:48	1
Chrysene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 18:48	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/07/23 15:48	09/12/23 18:48	1
Fluoranthene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 18:48	1
Fluorene	**0.30**		0.19	0.085	ug/L		09/07/23 15:48	09/12/23 18:48	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 18:48	1

Client Sample ID: P57-ROX-083123
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-10
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	**0.22**		0.19	0.086	ug/L		09/07/23 15:48	09/12/23 18:48	1
Pyrene	ND		0.19	0.037	ug/L		09/07/23 15:48	09/12/23 18:48	1
1-Methylnaphthalene	**13**		0.19	0.077	ug/L		09/07/23 15:48	09/12/23 18:48	1
2-Methylnaphthalene	**13**		0.19	0.063	ug/L		09/07/23 15:48	09/12/23 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*64*		*18 - 147*	*09/07/23 15:48*	*09/12/23 18:48*	*1*
2-Fluorobiphenyl	*40*		*15 - 128*	*09/07/23 15:48*	*09/12/23 18:48*	*1*
Nitrobenzene-d5	*76*		*10 - 144*	*09/07/23 15:48*	*09/12/23 18:48*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		09/07/23 15:48	09/12/23 20:33	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		09/07/23 15:48	09/12/23 20:33	1
Benzoic acid	ND		29	7.0	ug/L		09/07/23 15:48	09/12/23 20:33	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/07/23 15:48	09/12/23 20:33	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/07/23 15:48	09/12/23 20:33	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		09/07/23 15:48	09/12/23 20:33	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/07/23 15:48	09/12/23 20:33	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/07/23 15:48	09/12/23 20:33	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/07/23 15:48	09/12/23 20:33	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/07/23 15:48	09/12/23 20:33	1
4-Chloroaniline	ND		9.6	3.3	ug/L		09/07/23 15:48	09/12/23 20:33	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		09/07/23 15:48	09/12/23 20:33	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/07/23 15:48	09/12/23 20:33	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/07/23 15:48	09/12/23 20:33	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/07/23 15:48	09/12/23 20:33	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 20:33	1
Dibenzofuran	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 20:33	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/07/23 15:48	09/12/23 20:33	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/07/23 15:48	09/12/23 20:33	1
Diethyl phthalate	ND		9.6	0.23	ug/L		09/07/23 15:48	09/12/23 20:33	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		09/07/23 15:48	09/12/23 20:33	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 20:33	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		09/07/23 15:48	09/12/23 20:33	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/07/23 15:48	09/12/23 20:33	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/07/23 15:48	09/12/23 20:33	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/07/23 15:48	09/12/23 20:33	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/07/23 15:48	09/12/23 20:33	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 20:33	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 20:33	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 20:33	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 20:33	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/07/23 15:48	09/12/23 20:33	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/07/23 15:48	09/12/23 20:33	1
Indene	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 20:33	1
Isophorone	ND		9.6	0.13	ug/L		09/07/23 15:48	09/12/23 20:33	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/07/23 15:48	09/12/23 20:33	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/07/23 15:48	09/12/23 20:33	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: P57-ROX-083123
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-10
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.6	2.1	ug/L		09/07/23 15:48	09/12/23 20:33	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/07/23 15:48	09/12/23 20:33	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/07/23 15:48	09/12/23 20:33	1
Nitrobenzene	ND		9.6	0.12	ug/L		09/07/23 15:48	09/12/23 20:33	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/07/23 15:48	09/12/23 20:33	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/07/23 15:48	09/12/23 20:33	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		09/07/23 15:48	09/12/23 20:33	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		09/07/23 15:48	09/12/23 20:33	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/07/23 15:48	09/12/23 20:33	1
Pentachlorophenol	ND		19	1.3	ug/L		09/07/23 15:48	09/12/23 20:33	1
Phenol	ND		9.6	2.5	ug/L		09/07/23 15:48	09/12/23 20:33	1
Pyridine	ND		9.6	3.1	ug/L		09/07/23 15:48	09/12/23 20:33	1
Quinoline	ND		9.6	4.3	ug/L		09/07/23 15:48	09/12/23 20:33	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		09/07/23 15:48	09/12/23 20:33	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		09/07/23 15:48	09/12/23 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*09/07/23 15:48*	*09/12/23 20:33*	*1*
2-Fluorophenol	*38*		*13 - 113*	*09/07/23 15:48*	*09/12/23 20:33*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*09/07/23 15:48*	*09/12/23 20:33*	*1*
Phenol-d5	*55*		*17 - 127*	*09/07/23 15:48*	*09/12/23 20:33*	*1*
Terphenyl-d14	*89*		*44 - 149*	*09/07/23 15:48*	*09/12/23 20:33*	*1*
2,4,6-Tribromophenol	*74*		*26 - 150*	*09/07/23 15:48*	*09/12/23 20:33*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 18:18	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*76*		*51 - 149*	*09/07/23 13:27*	*09/07/23 18:18*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: T12-ROX-083123
Date Collected: 08/31/23 13:10
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130	50	ug/L			09/10/23 22:40	5
Acrolein	ND		100	17	ug/L			09/10/23 22:40	5
Acrylonitrile	ND		50	14	ug/L			09/10/23 22:40	5
Bromobenzene	ND		5.0	2.7	ug/L			09/10/23 22:40	5
Bromochloromethane	ND		5.0	1.1	ug/L			09/10/23 22:40	5
Bromodichloromethane	ND		5.0	2.5	ug/L			09/10/23 22:40	5
Bromoform	ND		25	1.3	ug/L			09/10/23 22:40	5
Bromomethane	ND		5.0	4.9	ug/L			09/10/23 22:40	5
2-Butanone (MEK)	ND		130	13	ug/L			09/10/23 22:40	5
Carbon disulfide	ND		5.0	2.5	ug/L			09/10/23 22:40	5
Carbon tetrachloride	ND		5.0	0.95	ug/L			09/10/23 22:40	5
Chlorobenzene	ND		5.0	4.5	ug/L			09/10/23 22:40	5
Chloroethane	ND		5.0	3.8	ug/L			09/10/23 22:40	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			09/10/23 22:40	5
Chloroform	ND		5.0	4.5	ug/L			09/10/23 22:40	5
1-Chlorohexane	ND		5.0	1.6	ug/L			09/10/23 22:40	5
Chloromethane	ND		5.0	4.5	ug/L			09/10/23 22:40	5
cis-1,2-Dichloroethene	ND		5.0	1.0	ug/L			09/10/23 22:40	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			09/10/23 22:40	5
Dibromochloromethane	ND		5.0	1.2	ug/L			09/10/23 22:40	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			09/10/23 22:40	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			09/10/23 22:40	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			09/10/23 22:40	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			09/10/23 22:40	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			09/10/23 22:40	5
1,2-Dichloroethane	ND		5.0	0.95	ug/L			09/10/23 22:40	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			09/10/23 22:40	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			09/10/23 22:40	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			09/10/23 22:40	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			09/10/23 22:40	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			09/10/23 22:40	5
Ethylbenzene	**11**		5.0	2.5	ug/L			09/10/23 22:40	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			09/10/23 22:40	5
Hexachlorobutadiene	ND		25	4.5	ug/L			09/10/23 22:40	5
2-Hexanone	ND		130	7.0	ug/L			09/10/23 22:40	5
Isopropylbenzene	**22**		5.0	2.7	ug/L			09/10/23 22:40	5
Methylene bromide	ND		25	1.1	ug/L			09/10/23 22:40	5
Methylene Chloride	ND		25	15	ug/L			09/10/23 22:40	5
4-Methyl-2-pentanone (MIBK)	ND		130	9.0	ug/L			09/10/23 22:40	5
Methyl tert-butyl ether	**1.5**	**J**	5.0	1.1	ug/L			09/10/23 22:40	5
m-Xylene & p-Xylene	**47**		25	3.2	ug/L			09/10/23 22:40	5
Naphthalene	**17**	**J**	25	15	ug/L			09/10/23 22:40	5
n-Butylbenzene	ND		5.0	3.8	ug/L			09/10/23 22:40	5
N-Propylbenzene	**30**		5.0	3.5	ug/L			09/10/23 22:40	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			09/10/23 22:40	5
o-Xylene	**3.2**	**J**	25	3.0	ug/L			09/10/23 22:40	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			09/10/23 22:40	5
p-Isopropyltoluene	ND		5.0	3.6	ug/L			09/10/23 22:40	5
sec-Butylbenzene	ND		5.0	3.5	ug/L			09/10/23 22:40	5

Client Sample ID: T12-ROX-083123
Date Collected: 08/31/23 13:10
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		5.0	5.0	ug/L			09/10/23 22:40	5
tert-Butylbenzene	ND		5.0	3.2	ug/L			09/10/23 22:40	5
1,1,1,2-Tetrachloroethane	ND		5.0	0.80	ug/L			09/10/23 22:40	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			09/10/23 22:40	5
Tetrachloroethene	ND		5.0	4.5	ug/L			09/10/23 22:40	5
Toluene	**41**		5.0	4.5	ug/L			09/10/23 22:40	5
trans-1,2-Dichloroethene	ND		5.0	2.5	ug/L			09/10/23 22:40	5
trans-1,3-Dichloropropene	ND		25	1.0	ug/L			09/10/23 22:40	5
1,2,3-Trichlorobenzene	ND		5.0	4.5	ug/L			09/10/23 22:40	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			09/10/23 22:40	5
1,1,1-Trichloroethane	ND		5.0	0.90	ug/L			09/10/23 22:40	5
1,1,2-Trichloroethane	ND		25	1.1	ug/L			09/10/23 22:40	5
Trichloroethene	ND		5.0	0.75	ug/L			09/10/23 22:40	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			09/10/23 22:40	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			09/10/23 22:40	5
1,2,4-Trimethylbenzene	ND		5.0	4.1	ug/L			09/10/23 22:40	5
1,3,5-Trimethylbenzene	**8.8**		5.0	2.8	ug/L			09/10/23 22:40	5
Vinyl acetate	ND		130	4.7	ug/L			09/10/23 22:40	5
Vinyl chloride	ND		5.0	2.5	ug/L			09/10/23 22:40	5
Xylenes, Total	**50**		50	8.0	ug/L			09/10/23 22:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*72 - 130*		*09/10/23 22:40*	*5*
Dibromofluoromethane	*95*		*75 - 126*		*09/10/23 22:40*	*5*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 22:40*	*5*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1900**		10	5.0	ug/L			09/11/23 14:21	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/11/23 14:21*	*10*
Dibromofluoromethane	*93*		*75 - 126*		*09/11/23 14:21*	*10*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/11/23 14:21*	*10*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.39**		0.19	0.095	ug/L		09/07/23 15:48	09/12/23 19:09	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/07/23 15:48	09/12/23 19:09	1
Anthracene	**0.15**	**J**	0.19	0.045	ug/L		09/07/23 15:48	09/12/23 19:09	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 19:09	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/07/23 15:48	09/12/23 19:09	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/07/23 15:48	09/12/23 19:09	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/07/23 15:48	09/12/23 19:09	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/07/23 15:48	09/12/23 19:09	1
Chrysene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 19:09	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/07/23 15:48	09/12/23 19:09	1
Fluoranthene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 19:09	1
Fluorene	**0.42**		0.19	0.085	ug/L		09/07/23 15:48	09/12/23 19:09	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 19:09	1

Client Sample ID: T12-ROX-083123
Date Collected: 08/31/23 13:10
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-11
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	**0.50**		0.19	0.086	ug/L		09/07/23 15:48	09/12/23 19:09	1
Pyrene	ND		0.19	0.037	ug/L		09/07/23 15:48	09/12/23 19:09	1
1-Methylnaphthalene	**18**		0.19	0.076	ug/L		09/07/23 15:48	09/12/23 19:09	1
2-Methylnaphthalene	**26**		0.19	0.063	ug/L		09/07/23 15:48	09/12/23 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*100*		*18 - 147*	*09/07/23 15:48*	*09/12/23 19:09*	*1*
2-Fluorobiphenyl	*85*		*15 - 128*	*09/07/23 15:48*	*09/12/23 19:09*	*1*
Nitrobenzene-d5	*105*		*10 - 144*	*09/07/23 15:48*	*09/12/23 19:09*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		09/07/23 15:48	09/12/23 20:54	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		09/07/23 15:48	09/12/23 20:54	1
Benzoic acid	ND		29	7.0	ug/L		09/07/23 15:48	09/12/23 20:54	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/07/23 15:48	09/12/23 20:54	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/07/23 15:48	09/12/23 20:54	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		09/07/23 15:48	09/12/23 20:54	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/07/23 15:48	09/12/23 20:54	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/07/23 15:48	09/12/23 20:54	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/07/23 15:48	09/12/23 20:54	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/07/23 15:48	09/12/23 20:54	1
4-Chloroaniline	ND		9.6	3.2	ug/L		09/07/23 15:48	09/12/23 20:54	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		09/07/23 15:48	09/12/23 20:54	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/07/23 15:48	09/12/23 20:54	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/07/23 15:48	09/12/23 20:54	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/07/23 15:48	09/12/23 20:54	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 20:54	1
Dibenzofuran	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 20:54	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/07/23 15:48	09/12/23 20:54	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/07/23 15:48	09/12/23 20:54	1
Diethyl phthalate	ND		9.6	0.23	ug/L		09/07/23 15:48	09/12/23 20:54	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		09/07/23 15:48	09/12/23 20:54	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 20:54	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		09/07/23 15:48	09/12/23 20:54	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/07/23 15:48	09/12/23 20:54	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		09/07/23 15:48	09/12/23 20:54	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/07/23 15:48	09/12/23 20:54	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/07/23 15:48	09/12/23 20:54	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 20:54	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 20:54	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 20:54	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/07/23 15:48	09/12/23 20:54	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/07/23 15:48	09/12/23 20:54	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/07/23 15:48	09/12/23 20:54	1
Indene	ND		9.6	0.96	ug/L		09/07/23 15:48	09/12/23 20:54	1
Isophorone	ND		9.6	0.13	ug/L		09/07/23 15:48	09/12/23 20:54	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/07/23 15:48	09/12/23 20:54	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/07/23 15:48	09/12/23 20:54	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: T12-ROX-083123
Date Collected: 08/31/23 13:10
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242836-11
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.6	2.1	ug/L		09/07/23 15:48	09/12/23 20:54	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/07/23 15:48	09/12/23 20:54	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/07/23 15:48	09/12/23 20:54	1
Nitrobenzene	ND		9.6	0.12	ug/L		09/07/23 15:48	09/12/23 20:54	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/07/23 15:48	09/12/23 20:54	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/07/23 15:48	09/12/23 20:54	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		09/07/23 15:48	09/12/23 20:54	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		09/07/23 15:48	09/12/23 20:54	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/07/23 15:48	09/12/23 20:54	1
Pentachlorophenol	ND		19	1.3	ug/L		09/07/23 15:48	09/12/23 20:54	1
Phenol	**100**		9.6	2.5	ug/L		09/07/23 15:48	09/12/23 20:54	1
Pyridine	ND		9.6	3.1	ug/L		09/07/23 15:48	09/12/23 20:54	1
Quinoline	ND		9.6	4.3	ug/L		09/07/23 15:48	09/12/23 20:54	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		09/07/23 15:48	09/12/23 20:54	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		09/07/23 15:48	09/12/23 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*120*		*46 - 124*	*09/07/23 15:48*	*09/12/23 20:54*	*1*
2-Fluorophenol	*74*		*13 - 113*	*09/07/23 15:48*	*09/12/23 20:54*	*1*
Nitrobenzene-d5	*105*		*36 - 126*	*09/07/23 15:48*	*09/12/23 20:54*	*1*
Phenol-d5	*99*		*17 - 127*	*09/07/23 15:48*	*09/12/23 20:54*	*1*
Terphenyl-d14	*146*		*44 - 149*	*09/07/23 15:48*	*09/12/23 20:54*	*1*
2,4,6-Tribromophenol	*114*		*26 - 150*	*09/07/23 15:48*	*09/12/23 20:54*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 18:38	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*77*		*51 - 149*	*09/07/23 13:27*	*09/07/23 18:38*	*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.
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.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low 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 MONTHLY GW

Job ID: 400-242836-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-242836-1	TB-ROX-083123-8260-A	109	93	101
400-242836-3	MW5-ROX-083123	110	96	101
400-242836-4	P114R-ROX-083123	110	94	102
400-242836-5	MW13-ROX-083123	108	94	101
400-242836-6	TB-ROX-083123-8260-B	110	95	101
400-242836-8	P93C-ROX-083123	110	96	101
400-242836-9	P93C-ROX-083123-DUP	110	94	100
400-242836-10	P57-ROX-083123	110	95	101
400-242836-10 - RA	P57-ROX-083123	113	96	103
400-242836-11	T12-ROX-083123	111	95	101
400-242836-11 - DL	T12-ROX-083123	110	93	100
LCS 400-640405/1002	Lab Control Sample	105	90	100
LCS 400-640415/1002	Lab Control Sample	107	92	101
MB 400-640405/4	Method Blank	111	94	101
MB 400-640415/4	Method Blank	108	94	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-242836-3	MW5-ROX-083123	75	54	65	63	86	72
400-242836-4	P114R-ROX-083123	72	52	61	60	86	80
400-242836-5	MW13-ROX-083123	91	56	80	73	109	95
400-242836-8	P93C-ROX-083123	74	49	65	63	89	73
400-242836-9	P93C-ROX-083123-DUP	77	52	66	64	89	85
400-242836-10	P57-ROX-083123	75	38	63	55	89	74
400-242836-11	T12-ROX-083123	120	74	105	99	146	114
LCS 400-640140/18-A	Lab Control Sample	78	59	69	66	87	66
LCS 400-640140/2-A	Lab Control Sample	80	60	64	68	87	79
LCSD 400-640140/19-A	Lab Control Sample Dup	89	65	76	74	100	70
LCSD 400-640140/3-A	Lab Control Sample Dup	77	53	65	64	81	80
MB 400-640140/1-A	Method Blank	72	33	63	50	82	61

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 MONTHLY GW

Job ID: 400-242836-1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TPHL (18-147)	FBP (15-128)	NBZ (10-144)
400-242836-3	MW5-ROX-083123	58	60	77
400-242836-4	P114R-ROX-083123	57	53	
400-242836-4	P114R-ROX-083123			53
400-242836-5	MW13-ROX-083123	75	44	87
400-242836-8	P93C-ROX-083123	66	57	76
400-242836-9	P93C-ROX-083123-DUP	68	55	80
400-242836-10	P57-ROX-083123	64	40	76
400-242836-11	T12-ROX-083123	100	85	105
LCS 400-640140/22-A	Lab Control Sample	50	50	63
LCSD 400-640140/23-A	Lab Control Sample Dup	67	67	85
MB 400-640140/1-A	Method Blank	54	50	62

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-242836-2	TB-ROX-083123-8011-A	71
400-242836-3	MW5-ROX-083123	81
400-242836-4	P114R-ROX-083123	87
400-242836-5	MW13-ROX-083123	86
400-242836-7	TB-ROX-083123-8011-B	79
400-242836-8	P93C-ROX-083123	72
400-242836-9	P93C-ROX-083123-DUP	76
400-242836-10	P57-ROX-083123	76
400-242836-11	T12-ROX-083123	77
LCS 400-639897/2-A	Lab Control Sample	47 S1-
LCS 400-640109/2-A	Lab Control Sample	77
LCSD 400-639897/3-A	Lab Control Sample Dup	55
LCSD 400-640109/3-A	Lab Control Sample Dup	87
MB 400-639897/1-A	Method Blank	70
MB 400-640109/1-A	Method Blank	80

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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 MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: TB-ROX-083123-8260-A
Lab Sample ID: 400-242836-1
Date Collected: 08/31/23 12:00
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 16:06	CAR	EET PEN

Client Sample ID: TB-ROX-083123-8011-A
Lab Sample ID: 400-242836-2
Date Collected: 08/31/23 12:00
Matrix: Water
Date Received: 09/01/23 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			33.8 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 22:21	PG	EET PEN

Client Sample ID: MW5-ROX-083123
Lab Sample ID: 400-242836-3
Date Collected: 08/31/23 10:20
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 16:30	CAR	EET PEN
Total/NA	Prep	3520C			257.8 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640898	09/13/23 22:52	VC1	EET PEN
Total/NA	Prep	3520C			257.8 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 18:47	S1B	EET PEN
Total/NA	Prep	3520C			257.8 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 17:04	TH	EET PEN
Total/NA	Prep	8011			33.2 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 22:41	PG	EET PEN

Client Sample ID: P114R-ROX-083123
Lab Sample ID: 400-242836-4
Date Collected: 08/31/23 12:35
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 16:55	CAR	EET PEN
Total/NA	Prep	3520C			256 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640898	09/13/23 23:17	VC1	EET PEN
Total/NA	Prep	3520C			256 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 19:08	S1B	EET PEN
Total/NA	Prep	3520C			256 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 17:24	TH	EET PEN
Total/NA	Prep	3520C			256 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		5	0.4 mL	0.4 mL	641154	09/15/23 12:19	KJA	EET PEN
Total/NA	Prep	8011			35.5 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 23:21	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: MW13-ROX-083123
Lab Sample ID: 400-242836-5
Date Collected: 08/31/23 13:30
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 17:20	CAR	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 19:29	S1B	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 17:45	TH	EET PEN
Total/NA	Prep	8011			35.6 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 23:42	PG	EET PEN

Client Sample ID: TB-ROX-083123-8260-B
Lab Sample ID: 400-242836-6
Date Collected: 08/31/23 12:00
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 17:44	CAR	EET PEN

Client Sample ID: TB-ROX-083123-8011-B
Lab Sample ID: 400-242836-7
Date Collected: 08/31/23 12:00
Matrix: Water
Date Received: 09/01/23 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			35.6 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/07/23 00:02	PG	EET PEN

Client Sample ID: P93C-ROX-083123
Lab Sample ID: 400-242836-8
Date Collected: 08/31/23 09:40
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 18:09	CAR	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640898	09/13/23 23:41	VC1	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 19:50	S1B	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 18:06	TH	EET PEN
Total/NA	Prep	8011			35.2 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/07/23 00:22	PG	EET PEN

Client Sample ID: P93C-ROX-083123-DUP
Lab Sample ID: 400-242836-9
Date Collected: 08/31/23 09:40
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 18:33	CAR	EET PEN

Client Sample ID: P93C-ROX-083123-DUP

Lab Sample ID: 400-242836-9

Date Collected: 08/31/23 09:40

Matrix: Water

Date Received: 09/01/23 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			263.2 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640898	09/14/23 00:06	VC1	EET PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 20:11	S1B	EET PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 18:27	TH	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/07/23 00:42	PG	EET PEN

Client Sample ID: P57-ROX-083123

Lab Sample ID: 400-242836-10

Date Collected: 08/31/23 12:00

Matrix: Water

Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 18:58	CAR	EET PEN
Total/NA	Analysis	8260D	RA	1	5 mL	5 mL	640415	09/11/23 17:56	WPD	EET PEN
Total/NA	Prep	3520C			260.6 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 20:33	S1B	EET PEN
Total/NA	Prep	3520C			260.6 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 18:48	TH	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 18:18	PG	EET PEN

Client Sample ID: T12-ROX-083123

Lab Sample ID: 400-242836-11

Date Collected: 08/31/23 13:10

Matrix: Water

Date Received: 09/01/23 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	8260D		5	5 mL	5 mL	640405	09/10/23 22:40	CAR	EET PEN
Total/NA	Analysis	8260D	DL	10	5 mL	5 mL	640415	09/11/23 14:21	WPD	EET PEN
Total/NA	Prep	3520C			261.6 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 20:54	S1B	EET PEN
Total/NA	Prep	3520C			261.6 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 19:09	TH	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 18:38	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-639897/1-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	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 15:55	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640109/1-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 16:36	PG	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640140/1-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:01	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 14:41	TH	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640405/4
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	8260D		1	5 mL	5 mL	640405	09/10/23 13:14	CAR	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640415/4
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	8260D		1	5 mL	5 mL	640415	09/11/23 10:45	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-639897/2-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	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 16:16	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640109/2-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 16:56	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/18-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 18:05	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/22-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 15:02	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/2-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:23	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640405/1002
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	8260D		1	5 mL	5 mL	640405	09/10/23 12:13	CAR	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640415/1002
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	8260D		1	5 mL	5 mL	640415	09/11/23 09:58	WPD	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-639897/3-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	639897	09/06/23 12:59	PG	EET PEN
Total/NA	Analysis	8011		1			639945	09/06/23 16:36	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640109/3-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 17:17	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/19-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 18:26	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/23-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 16:43	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/3-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:44	S1B	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 640405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-1	TB-ROX-083123-8260-A	Total/NA	Water	8260D	
400-242836-3	MW5-ROX-083123	Total/NA	Water	8260D	
400-242836-4	P114R-ROX-083123	Total/NA	Water	8260D	
400-242836-5	MW13-ROX-083123	Total/NA	Water	8260D	
400-242836-6	TB-ROX-083123-8260-B	Total/NA	Water	8260D	
400-242836-8	P93C-ROX-083123	Total/NA	Water	8260D	
400-242836-9	P93C-ROX-083123-DUP	Total/NA	Water	8260D	
400-242836-10	P57-ROX-083123	Total/NA	Water	8260D	
400-242836-11	T12-ROX-083123	Total/NA	Water	8260D	
MB 400-640405/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640405/1002	Lab Control Sample	Total/NA	Water	8260D	

Analysis Batch: 640415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-10 - RA	P57-ROX-083123	Total/NA	Water	8260D	
400-242836-11 - DL	T12-ROX-083123	Total/NA	Water	8260D	
MB 400-640415/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640415/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 640140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-3	MW5-ROX-083123	Total/NA	Water	3520C	
400-242836-4	P114R-ROX-083123	Total/NA	Water	3520C	
400-242836-5	MW13-ROX-083123	Total/NA	Water	3520C	
400-242836-8	P93C-ROX-083123	Total/NA	Water	3520C	
400-242836-9	P93C-ROX-083123-DUP	Total/NA	Water	3520C	
400-242836-10	P57-ROX-083123	Total/NA	Water	3520C	
400-242836-11	T12-ROX-083123	Total/NA	Water	3520C	
MB 400-640140/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-640140/18-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640140/22-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640140/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-640140/19-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640140/23-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640140/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 640637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-3	MW5-ROX-083123	Total/NA	Water	8270E SIM	640140
400-242836-4	P114R-ROX-083123	Total/NA	Water	8270E SIM	640140
400-242836-5	MW13-ROX-083123	Total/NA	Water	8270E SIM	640140
400-242836-8	P93C-ROX-083123	Total/NA	Water	8270E SIM	640140
400-242836-9	P93C-ROX-083123-DUP	Total/NA	Water	8270E SIM	640140
400-242836-10	P57-ROX-083123	Total/NA	Water	8270E SIM	640140
400-242836-11	T12-ROX-083123	Total/NA	Water	8270E SIM	640140
MB 400-640140/1-A	Method Blank	Total/NA	Water	8270E SIM	640140
LCS 400-640140/22-A	Lab Control Sample	Total/NA	Water	8270E SIM	640140
LCSD 400-640140/23-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	640140

GC/MS Semi VOA

Analysis Batch: 640672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-3	MW5-ROX-083123	Total/NA	Water	8270E	640140
400-242836-4	P114R-ROX-083123	Total/NA	Water	8270E	640140
400-242836-5	MW13-ROX-083123	Total/NA	Water	8270E	640140
400-242836-8	P93C-ROX-083123	Total/NA	Water	8270E	640140
400-242836-9	P93C-ROX-083123-DUP	Total/NA	Water	8270E	640140
400-242836-10	P57-ROX-083123	Total/NA	Water	8270E	640140
400-242836-11	T12-ROX-083123	Total/NA	Water	8270E	640140
MB 400-640140/1-A	Method Blank	Total/NA	Water	8270E	640140
LCS 400-640140/18-A	Lab Control Sample	Total/NA	Water	8270E	640140
LCS 400-640140/2-A	Lab Control Sample	Total/NA	Water	8270E	640140
LCSD 400-640140/19-A	Lab Control Sample Dup	Total/NA	Water	8270E	640140
LCSD 400-640140/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	640140

Analysis Batch: 640898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-3	MW5-ROX-083123	Total/NA	Water	8270E	640140
400-242836-4	P114R-ROX-083123	Total/NA	Water	8270E	640140
400-242836-8	P93C-ROX-083123	Total/NA	Water	8270E	640140
400-242836-9	P93C-ROX-083123-DUP	Total/NA	Water	8270E	640140

Analysis Batch: 641154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-4	P114R-ROX-083123	Total/NA	Water	8270E SIM	640140

GC Semi VOA

Prep Batch: 639897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-2	TB-ROX-083123-8011-A	Total/NA	Water	8011	
400-242836-3	MW5-ROX-083123	Total/NA	Water	8011	
400-242836-4	P114R-ROX-083123	Total/NA	Water	8011	
400-242836-5	MW13-ROX-083123	Total/NA	Water	8011	
400-242836-7	TB-ROX-083123-8011-B	Total/NA	Water	8011	
400-242836-8	P93C-ROX-083123	Total/NA	Water	8011	
400-242836-9	P93C-ROX-083123-DUP	Total/NA	Water	8011	
MB 400-639897/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-639897/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-639897/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 639945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-2	TB-ROX-083123-8011-A	Total/NA	Water	8011	639897
400-242836-3	MW5-ROX-083123	Total/NA	Water	8011	639897
400-242836-4	P114R-ROX-083123	Total/NA	Water	8011	639897
400-242836-5	MW13-ROX-083123	Total/NA	Water	8011	639897
400-242836-7	TB-ROX-083123-8011-B	Total/NA	Water	8011	639897
400-242836-8	P93C-ROX-083123	Total/NA	Water	8011	639897
400-242836-9	P93C-ROX-083123-DUP	Total/NA	Water	8011	639897
MB 400-639897/1-A	Method Blank	Total/NA	Water	8011	639897
LCS 400-639897/2-A	Lab Control Sample	Total/NA	Water	8011	639897
LCSD 400-639897/3-A	Lab Control Sample Dup	Total/NA	Water	8011	639897

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242836-1

GC Semi VOA

Prep Batch: 640109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-10	P57-ROX-083123	Total/NA	Water	8011	
400-242836-11	T12-ROX-083123	Total/NA	Water	8011	
MB 400-640109/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-640109/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-640109/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 640148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242836-10	P57-ROX-083123	Total/NA	Water	8011	640109
400-242836-11	T12-ROX-083123	Total/NA	Water	8011	640109
MB 400-640109/1-A	Method Blank	Total/NA	Water	8011	640109
LCS 400-640109/2-A	Lab Control Sample	Total/NA	Water	8011	640109
LCSD 400-640109/3-A	Lab Control Sample Dup	Total/NA	Water	8011	640109

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-640405/4
Matrix: Water
Analysis Batch: 640405

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			09/10/23 13:14	1
Acrolein	ND		20	3.3	ug/L			09/10/23 13:14	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 13:14	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 13:14	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 13:14	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 13:14	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 13:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 13:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 13:14	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 13:14	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 13:14	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 13:14	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 13:14	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 13:14	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 13:14	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 13:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 13:14	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 13:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 13:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 13:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 13:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 13:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 13:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 13:14	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 13:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 13:14	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 13:14	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 13:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 13:14	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/10/23 13:14	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 13:14	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 13:14	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 13:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 13:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 13:14	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 13:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 13:14	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640405/4
Matrix: Water
Analysis Batch: 640405

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			09/10/23 13:14	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 13:14	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 13:14	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 13:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 13:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 13:14	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 13:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 13:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 13:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 13:14	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 13:14	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 13:14	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 13:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 13:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 13:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 13:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 13:14	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 13:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*72 - 130*		*09/10/23 13:14*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/10/23 13:14*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 13:14*	*1*

Lab Sample ID: LCS 400-640405/1002
Matrix: Water
Analysis Batch: 640405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	242		ug/L		121	43 - 160
Acrolein	250	298		ug/L		119	38 - 160
Acrylonitrile	500	488		ug/L		98	64 - 142
Benzene	50.0	51.9		ug/L		104	70 - 130
Bromobenzene	50.0	52.0		ug/L		104	70 - 132
Bromochloromethane	50.0	44.6		ug/L		89	70 - 130
Bromodichloromethane	50.0	50.7		ug/L		101	67 - 133
Bromoform	50.0	51.6		ug/L		103	57 - 140
Bromomethane	25.0	23.1		ug/L		92	10 - 160
2-Butanone (MEK)	200	224		ug/L		112	61 - 145
Carbon disulfide	50.0	45.0		ug/L		90	61 - 137
Carbon tetrachloride	50.0	50.7		ug/L		101	61 - 137
Chlorobenzene	50.0	51.9		ug/L		104	70 - 130
Chloroethane	25.0	26.3		ug/L		105	55 - 141
2-Chloroethyl vinyl ether	25.0	17.6		ug/L		70	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640405/1002
Matrix: Water
Analysis Batch: 640405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	48.8		ug/L		98	69 - 130
1-Chlorohexane	50.0	63.4		ug/L		127	69 - 130
Chloromethane	25.0	26.7		ug/L		107	58 - 137
cis-1,2-Dichloroethene	50.0	53.7		ug/L		107	68 - 130
cis-1,3-Dichloropropene	50.0	52.6		ug/L		105	69 - 132
Dibromochloromethane	50.0	49.3		ug/L		99	67 - 135
1,2-Dichlorobenzene	50.0	51.4		ug/L		103	67 - 130
1,3-Dichlorobenzene	50.0	53.9		ug/L		108	70 - 130
1,4-Dichlorobenzene	50.0	54.0		ug/L		108	70 - 130
Dichlorodifluoromethane	25.0	16.7		ug/L		67	41 - 146
1,1-Dichloroethane	50.0	51.9		ug/L		104	70 - 130
1,2-Dichloroethane	50.0	47.5		ug/L		95	69 - 130
1,1-Dichloroethene	50.0	48.3		ug/L		97	63 - 134
1,2-Dichloropropane	50.0	55.7		ug/L		111	70 - 130
1,3-Dichloropropane	50.0	51.8		ug/L		104	70 - 130
2,2-Dichloropropane	50.0	50.6		ug/L		101	52 - 135
1,1-Dichloropropene	50.0	52.8		ug/L		106	70 - 130
Ethylbenzene	50.0	54.6		ug/L		109	70 - 130
Ethyl methacrylate	50.0	50.6		ug/L		101	68 - 130
Hexachlorobutadiene	50.0	62.6		ug/L		125	53 - 140
2-Hexanone	200	256		ug/L		128	65 - 137
Isopropylbenzene	50.0	53.5		ug/L		107	70 - 130
Methylene bromide	50.0	47.2		ug/L		94	70 - 130
Methylene Chloride	50.0	47.1		ug/L		94	66 - 135
4-Methyl-2-pentanone (MIBK)	200	211		ug/L		105	69 - 138
Methyl tert-butyl ether	50.0	46.3		ug/L		93	66 - 130
m-Xylene & p-Xylene	50.0	54.8		ug/L		110	70 - 130
Naphthalene	50.0	47.4		ug/L		95	47 - 149
n-Butylbenzene	50.0	60.1		ug/L		120	67 - 130
N-Propylbenzene	50.0	55.1		ug/L		110	70 - 130
o-Chlorotoluene	50.0	55.9		ug/L		112	70 - 130
o-Xylene	50.0	53.8		ug/L		108	70 - 130
p-Chlorotoluene	50.0	55.1		ug/L		110	70 - 130
p-Isopropyltoluene	50.0	56.2		ug/L		112	65 - 130
sec-Butylbenzene	50.0	56.4		ug/L		113	66 - 130
Styrene	50.0	51.0		ug/L		102	70 - 130
tert-Butylbenzene	50.0	54.7		ug/L		109	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.7		ug/L		103	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.6		ug/L		97	70 - 131
Tetrachloroethene	50.0	55.6		ug/L		111	65 - 130
Toluene	50.0	53.1		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	49.1		ug/L		98	70 - 130
trans-1,3-Dichloropropene	50.0	52.0		ug/L		104	63 - 130
1,2,3-Trichlorobenzene	50.0	55.0		ug/L		110	60 - 138
1,2,4-Trichlorobenzene	50.0	55.2		ug/L		110	60 - 140
1,1,1-Trichloroethane	50.0	48.9		ug/L		98	68 - 130
1,1,2-Trichloroethane	50.0	51.4		ug/L		103	70 - 130
Trichloroethene	50.0	49.6		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	22.7		ug/L		91	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640405/1002
Matrix: Water
Analysis Batch: 640405

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	45.8		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	50.0	54.7		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	50.0	54.3		ug/L		109	69 - 130
Vinyl acetate	50.0	48.1		ug/L		96	26 - 160
Vinyl chloride	25.0	25.3		ug/L		101	59 - 136
Xylenes, Total	100	109		ug/L		109	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 130*
Dibromofluoromethane	*90*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: MB 400-640415/4
Matrix: Water
Analysis Batch: 640415

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	0.50	ug/L			09/11/23 10:45	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/11/23 10:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 130*		*09/11/23 10:45*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/11/23 10:45*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*09/11/23 10:45*	*1*

Lab Sample ID: LCS 400-640415/1002
Matrix: Water
Analysis Batch: 640415

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	53.5		ug/L		107	70 - 130
n-Butylbenzene	50.0	59.6		ug/L		119	67 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*72 - 130*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
Benzenethiol	ND		10	1.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
Benzoic acid	ND		30	7.3	ug/L		09/07/23 15:48	09/12/23 17:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl alcohol	ND		10	2.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/07/23 15:48	09/12/23 17:01	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Chloroaniline	ND		10	3.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Chlorophenol	ND		10	2.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dibenzofuran	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Diethyl phthalate	ND		10	0.24	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dimethyl phthalate	0.550	J	10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/07/23 15:48	09/12/23 17:01	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
1,4-Dioxane	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachloroethane	ND		10	4.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
Indene	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Isophorone	ND		10	0.14	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Methylphenol	ND		10	1.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Nitroaniline	ND		10	2.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
3-Nitroaniline	ND		10	1.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Nitroaniline	ND		10	1.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
Nitrobenzene	ND		10	0.13	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Nitrophenol	ND		10	5.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Nitrophenol	ND		10	2.1	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/07/23 15:48	09/12/23 17:01	1
Pentachlorophenol	ND		20	1.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
Phenol	ND		10	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
Pyridine	ND		10	3.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
Quinoline	ND		10	4.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/07/23 15:48	09/12/23 17:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
2-Fluorophenol	*33*		*13 - 113*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Phenol-d5	*50*		*17 - 127*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Terphenyl-d14	*82*		*44 - 149*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*09/07/23 15:48*	*09/12/23 17:01*	*1*

Lab Sample ID: LCS 400-640140/18-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	2.78	J *-	ug/L		2	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*46 - 124*
2-Fluorophenol	*59*		*13 - 113*
Nitrobenzene-d5	*69*		*36 - 126*
Phenol-d5	*66*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*66*		*26 - 150*

Lab Sample ID: LCS 400-640140/2-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	83.9		ug/L		70	21 - 120
Benzoic acid	522	203		ug/L		39	10 - 144
Benzyl alcohol	120	92.4		ug/L		77	28 - 120
Bis(2-chloroethoxy)methane	120	79.0		ug/L		66	47 - 120
Bis(2-chloroethyl)ether	120	80.1		ug/L		67	44 - 120
bis (2-chloroisopropyl) ether	120	80.7		ug/L		67	33 - 121
Bis(2-ethylhexyl) phthalate	120	87.1		ug/L		73	52 - 147
4-Bromophenyl phenyl ether	120	107		ug/L		89	54 - 122
Butyl benzyl phthalate	120	90.0		ug/L		75	54 - 133
4-Chloroaniline	120	55.0		ug/L		46	26 - 120
4-Chloro-3-methylphenol	120	95.2		ug/L		79	48 - 131
2-Chloronaphthalene	120	96.3		ug/L		80	52 - 121
2-Chlorophenol	120	88.8		ug/L		74	40 - 120
4-Chlorophenyl phenyl ether	120	116		ug/L		97	56 - 125
Dibenz[a,h]acridine	120	101		ug/L		84	31 - 150
Dibenzofuran	120	103		ug/L		86	56 - 122
3,3'-Dichlorobenzidine	160	141		ug/L		88	36 - 132
2,4-Dichlorophenol	120	95.5		ug/L		80	49 - 120

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-640140/2-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diethyl phthalate	120	101		ug/L		84	50 - 137
2,4-Dimethylphenol	120	88.9		ug/L		74	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	102		ug/L		85	58 - 126
4,6-Dinitro-ortho-cresol	240	125		ug/L		52	23 - 148
2,4-Dinitrophenol	240	116		ug/L		48	10 - 150
2,4-Dinitrotoluene	120	107		ug/L		89	54 - 142
2,6-Dinitrotoluene	120	98.2		ug/L		82	55 - 130
Di-n-octyl phthalate	120	86.9		ug/L		72	57 - 138
1,4-Dioxane	120	62.5		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	80.9		ug/L		67	45 - 124
Hexachlorobenzene	120	111		ug/L		92	52 - 129
Hexachlorocyclopentadiene	120	33.6		ug/L		28	10 - 134
Hexachloroethane	120	71.7		ug/L		60	20 - 120
Indene	120	87.1		ug/L		73	49 - 120
Isophorone	120	84.7		ug/L		71	48 - 120
2-Methylphenol	120	93.6		ug/L		78	46 - 124
3 & 4 Methylphenol	120	95.2		ug/L		79	45 - 120
2-Nitroaniline	120	91.4		ug/L		76	51 - 145
3-Nitroaniline	120	91.6		ug/L		76	37 - 127
4-Nitroaniline	120	96.8		ug/L		81	36 - 137
Nitrobenzene	120	83.4		ug/L		70	45 - 120
2-Nitrophenol	120	94.7		ug/L		79	40 - 124
4-Nitrophenol	240	200		ug/L		83	23 - 146
N-Nitrosodimethylamine	120	96.9		ug/L		81	29 - 137
N-Nitrosodi-n-propylamine	120	93.7		ug/L		78	45 - 120
N-Nitrosodiphenylamine	119	90.5		ug/L		76	54 - 120
Pentachlorophenol	240	174		ug/L		73	31 - 130
Phenol	120	96.5		ug/L		80	11 - 120
Pyridine	240	125		ug/L		52	16 - 120
Quinoline	120	108		ug/L		90	49 - 130
2,4,5-Trichlorophenol	120	111		ug/L		92	51 - 136
2,4,6-Trichlorophenol	120	100		ug/L		83	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*60*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*79*		*26 - 150*

Lab Sample ID: LCSD 400-640140/19-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	3.48	J *-	ug/L		3	10 - 120	22	30

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	89		46 - 124
2-Fluorophenol	65		13 - 113
Nitrobenzene-d5	76		36 - 126
Phenol-d5	74		17 - 127
Terphenyl-d14	100		44 - 149
2,4,6-Tribromophenol	70		26 - 150

Lab Sample ID: LCSD 400-640140/3-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	70.2		ug/L		59	21 - 120	18	30
Benzoic acid			522	239		ug/L		46	10 - 144	16	30
Benzyl alcohol			120	86.9		ug/L		72	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	75.9		ug/L		63	47 - 120	4	30
Bis(2-chloroethyl)ether			120	81.8		ug/L		68	44 - 120	2	30
bis (2-chloroisopropyl) ether			120	75.5		ug/L		63	33 - 121	7	30
Bis(2-ethylhexyl) phthalate			120	85.3		ug/L		71	52 - 147	2	30
4-Bromophenyl phenyl ether			120	102		ug/L		85	54 - 122	5	30
Butyl benzyl phthalate			120	84.5		ug/L		70	54 - 133	6	30
4-Chloroaniline			120	53.6		ug/L		45	26 - 120	3	30
4-Chloro-3-methylphenol			120	90.7		ug/L		76	48 - 131	5	30
2-Chloronaphthalene			120	92.5		ug/L		77	52 - 121	4	30
2-Chlorophenol			120	82.2		ug/L		69	40 - 120	8	30
4-Chlorophenyl phenyl ether			120	113		ug/L		94	56 - 125	3	30
Dibenz[a,h]acridine			120	103		ug/L		86	31 - 150	2	30
Dibenzofuran			120	99.4		ug/L		83	56 - 122	4	30
3,3'-Dichlorobenzidine			160	134		ug/L		84	36 - 132	5	30
2,4-Dichlorophenol			120	90.1		ug/L		75	49 - 120	6	30
Diethyl phthalate			120	98.0		ug/L		82	50 - 137	3	30
2,4-Dimethylphenol			120	87.3		ug/L		73	48 - 120	2	30
Dimethyl phthalate			120	100		ug/L		84	57 - 124	3	30
Di-n-butyl phthalate			120	94.0		ug/L		78	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	129		ug/L		54	23 - 148	3	30
2,4-Dinitrophenol			240	121		ug/L		51	10 - 150	5	30
2,4-Dinitrotoluene			120	104		ug/L		87	54 - 142	3	30
2,6-Dinitrotoluene			120	95.2		ug/L		79	55 - 130	3	30
Di-n-octyl phthalate			120	84.6		ug/L		70	57 - 138	3	30
1,4-Dioxane			120	59.4		ug/L		50	31 - 120	5	30
1,2-Diphenylhydrazine (as Azobenzene)			120	75.1		ug/L		63	45 - 124	7	30
Hexachlorobenzene			120	106		ug/L		88	52 - 129	5	30
Hexachlorocyclopentadiene			120	34.5		ug/L		29	10 - 134	3	30
Hexachloroethane			120	65.7		ug/L		55	20 - 120	9	30
Indene			120	82.1		ug/L		68	49 - 120	6	30
Isophorone			120	81.0		ug/L		68	48 - 120	4	30
2-Methylphenol			120	88.0		ug/L		73	46 - 124	6	30
3 & 4 Methylphenol			120	88.8		ug/L		74	45 - 120	7	30
2-Nitroaniline			120	88.7		ug/L		74	51 - 145	3	30
3-Nitroaniline			120	86.4		ug/L		72	37 - 127	6	30
4-Nitroaniline			120	99.3		ug/L		83	36 - 137	3	30

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-640140/3-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Nitrobenzene			120	78.2		ug/L		65	45 - 120	6	30
2-Nitrophenol			120	87.3		ug/L		73	40 - 124	8	30
4-Nitrophenol			240	177		ug/L		74	23 - 146	12	30
N-Nitrosodimethylamine			120	90.8		ug/L		76	29 - 137	7	30
N-Nitrosodi-n-propylamine			120	86.0		ug/L		72	45 - 120	9	30
N-Nitrosodiphenylamine			119	86.8		ug/L		73	54 - 120	4	30
Pentachlorophenol			240	160		ug/L		67	31 - 130	9	30
Phenol			120	88.7		ug/L		74	11 - 120	8	30
Pyridine			240	127		ug/L		53	16 - 120	1	30
Quinoline			120	104		ug/L		86	49 - 130	4	30
2,4,5-Trichlorophenol			120	107		ug/L		89	51 - 136	4	30
2,4,6-Trichlorophenol			120	97.4		ug/L		81	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*53*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*81*		*44 - 149*
2,4,6-Tribromophenol	*80*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/07/23 15:48	09/12/23 14:41	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/07/23 15:48	09/12/23 14:41	1
Anthracene	ND		0.20	0.047	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/07/23 15:48	09/12/23 14:41	1
Chrysene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 14:41	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/07/23 15:48	09/12/23 14:41	1
Fluoranthene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Fluorene	ND		0.20	0.089	ug/L		09/07/23 15:48	09/12/23 14:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Phenanthrene	ND		0.20	0.090	ug/L		09/07/23 15:48	09/12/23 14:41	1
Pyrene	ND		0.20	0.039	ug/L		09/07/23 15:48	09/12/23 14:41	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/07/23 15:48	09/12/23 14:41	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/07/23 15:48	09/12/23 14:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*54*		*18 - 147*	*09/07/23 15:48*	*09/12/23 14:41*	*1*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	50		15 - 128	09/07/23 15:48	09/12/23 14:41	1
Nitrobenzene-d5	62		10 - 144	09/07/23 15:48	09/12/23 14:41	1

Lab Sample ID: LCS 400-640140/22-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.17		ug/L		58	40 - 140
Acenaphthylene	2.00	1.24		ug/L		62	40 - 140
Anthracene	2.00	1.22		ug/L		61	40 - 140
Benzo[a]anthracene	2.00	1.06		ug/L		53	40 - 140
Benzo[a]pyrene	2.00	0.900		ug/L		45	40 - 140
Benzo[b]fluoranthene	2.00	0.871		ug/L		44	40 - 140
Benzo[g,h,i]perylene	2.00	0.896		ug/L		45	40 - 140
Benzo[k]fluoranthene	2.00	0.802		ug/L		40	40 - 140
Chrysene	2.00	1.06		ug/L		53	40 - 140
Dibenz(a,h)anthracene	2.00	0.965		ug/L		48	40 - 140
Fluoranthene	2.00	1.32		ug/L		66	40 - 140
Fluorene	2.00	1.28		ug/L		64	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	0.952		ug/L		48	40 - 140
Phenanthrene	2.00	1.13		ug/L		57	40 - 140
Pyrene	2.00	0.903		ug/L		45	40 - 140
1-Methylnaphthalene	2.00	1.27		ug/L		63	40 - 140
2-Methylnaphthalene	2.00	1.25		ug/L		62	40 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14	50		18 - 147
2-Fluorobiphenyl	50		15 - 128
Nitrobenzene-d5	63		10 - 144

Lab Sample ID: LCSD 400-640140/23-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.59		ug/L		79	40 - 140	31	40
Acenaphthylene	2.00	1.67		ug/L		84	40 - 140	30	40
Anthracene	2.00	1.58		ug/L		79	40 - 140	26	40
Benzo[a]anthracene	2.00	1.47		ug/L		74	40 - 140	32	40
Benzo[a]pyrene	2.00	1.12		ug/L		56	40 - 140	22	40
Benzo[b]fluoranthene	2.00	1.20		ug/L		60	40 - 140	32	40
Benzo[g,h,i]perylene	2.00	1.25		ug/L		62	40 - 140	33	40
Benzo[k]fluoranthene	2.00	1.18		ug/L		59	40 - 140	38	40
Chrysene	2.00	1.43		ug/L		72	40 - 140	30	40
Dibenz(a,h)anthracene	2.00	1.34		ug/L		67	40 - 140	33	40
Fluoranthene	2.00	1.80		ug/L		90	40 - 140	31	40
Fluorene	2.00	1.73		ug/L		87	40 - 140	30	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-640140/23-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene			2.00	1.33		ug/L		66	40 - 140	33	40
Phenanthrene			2.00	1.58		ug/L		79	40 - 140	33	40
Pyrene			2.00	1.30		ug/L		65	40 - 140	36	40
1-Methylnaphthalene			2.00	1.74		ug/L		87	40 - 140	32	40
2-Methylnaphthalene			2.00	1.70		ug/L		85	40 - 140	30	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*67*		*18 - 147*
2-Fluorobiphenyl	*67*		*15 - 128*
Nitrobenzene-d5	*85*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-639897/1-A
Matrix: Water
Analysis Batch: 639945

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639897

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/06/23 12:59	09/06/23 15:55	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/06/23 12:59	09/06/23 15:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*70*		*51 - 149*	*09/06/23 12:59*	*09/06/23 15:55*	*1*

Lab Sample ID: LCS 400-639897/2-A
Matrix: Water
Analysis Batch: 639945

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639897

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane			0.101	0.0933		ug/L		93	60 - 140
1,2-Dibromoethane			0.101	0.0725		ug/L		72	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*47*	*S1-*	*51 - 149*

Lab Sample ID: LCSD 400-639897/3-A
Matrix: Water
Analysis Batch: 639945

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 639897

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.0970		ug/L		97	60 - 140	4	30
1,2-Dibromoethane			0.101	0.0748		ug/L		74	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*55*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-640109/1-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 16:36	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 16:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*09/07/23 13:27*	*09/07/23 16:36*	*1*

Lab Sample ID: LCS 400-640109/2-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.107		ug/L		106	60 - 140		
1,2-Dibromoethane			0.101	0.0993		ug/L		99	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*77*		*51 - 149*

Lab Sample ID: LCSD 400-640109/3-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.112		ug/L		111	60 - 140	5	30
1,2-Dibromoethane			0.101	0.102		ug/L		101	60 - 140	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*87*		*51 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____ 400-242836 COC

☐ 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: 8/31/2023
PO #	**GSAP Project ID**	PAGE: 1 of 2
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2

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 – 3.3.2

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 8270 SIMS
	TB-ROX-083123-8260-A	8/31/2023	0000	Water	2					2	X			
	TB-ROX-083123-8011-A	8/31/2023	0000	Water	2					2		X		
	MW5-ROX-083123	8/31/2023	1020	Water	6			2		8	X	X	X	X
	P114R-ROX-083123	8/31/2023	1235	Water	6			2		8	X	X	X	X
	MW13-ROX-083123	8/31/2023	1330	Water	6			2		8	X	X	X	X

Joe Mayer 8-31-23

Relinquished by: (Signature) JOE MAYER	Received by: (Signature) FEDEX: 5293 4337 5412, 5293 4337 5423	Date: 8/31/2023	Time: 1600
Relinquished by: (Signature)	Received by: (Signature) BP	Date: 9/1/23	Time: 918
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

1599776, 1599777, 1599778, 1599779

5.1°C IR10 3.5°C

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: 8/31/2023
PO #	**GSAP Project ID**	PAGE: 2 of 2
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO	E-MAIL:	AECOM Other ID:
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, S. Beadle

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, 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 – 3.3.2

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 8270 SIMS
	TB-ROX-083123-8260-B	8/31/2023	0000	Water	2					2	X			
	TB-ROX-083123-8011-B	8/31/2023	0000	Water	2					2		X		
	P93C-ROX-083123	8/31/2023	0940	Water	6			2		8	X	X	X	X
	P93C-ROX-083123-DUP	8/31/2023	0940	Water	6			2		8	X	X	X	X
	P57-ROX-083123	8/31/2023	1200	Water	6			2		8	X	X	X	X
	T12-ROX-083123	8/31/2023	1310	Water	6			2		8	X	X	X	X

S. Beadle 8/31/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
MARY MASSA	FEDEX: See page 1	8/31/2023	1600
Relinquished by: (Signature)	Received by: (Signature) BP	Date: 9/1/23	Time 918
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

Version: 12July23

CUSTODY SEALS: See page 1

5.1°C IR10 3.5°C

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-242836-1
SDG Number:

Login Number: 242836
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	5.1°C, 3.5°C IR10
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: 400-242836-1
Project/Site: ROXANA MONTHLY 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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

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Roxana Groundwater Monthly – August/September 2023 Data Review

Laboratory SDG: 400-242838-1

Data Reviewer: Adelina Gita

Peer Reviewer: Cheyana Cokley

Date Reviewed: 10/04/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-083123-8260-BP	TB-ROX-083123-8011-BP
MW23-ROX-083123	--

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 dimethyl phthalate was detected in the method blank. Benzenethiol LCS/LCSD recoveries were outside evaluation criteria. Several VOC MS/MSD recoveries were outside evaluation criteria in sample MW23-ROX-083123. The continuing calibration verification (CCV) for dichlorodifluoromethane, hexachlorocyclopentadiene, and 2-chloroethyl vinyl ether 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 400-640140/1-A	SVOCs	Dimethyl phthalate	0.550 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
MW23-ROX-083123	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 400-640140/18-A/19-A	SVOCs	Benzenethiol	**2/3**	22	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-083123	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?

Yes, although not requested, sample MW23-ROX-083123 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
MW23-ROX-083123 MS/MSD	VOCs	1-Chlorohexane	**150/148**	1	56-136/30
MW23-ROX-083123 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW23-ROX-083123 MS /MSD	VOCs	Hexachlorobutadiene	**163/160**	2	31-149/36

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
MW23-ROX-083123	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 dichlorodifluoromethane, hexachlorocyclopentadiene, and 2-chloroethyl vinyl ether was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table. 2-Chloroethyl vinyl ether in sample MW23-ROX-083123 was qualified in Section 7.0 of this data review due to MS/MSD recoveries outside evaluation criteria; no further qualification is required.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-083123	VOCs	Dichlorodifluoromethane	**UJ**
MW23-ROX-083123	SVOCs	Hexachlorocyclopentadiene	**UJ**

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eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 9/14/2023 4:09:36 PM

JOB DESCRIPTION

ROXANA MONTHLY GW

JOB NUMBER

400-242838-1

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

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Certification Summary 40

Job ID: 400-242838-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-242838-1

Receipt
The samples were received on 9/1/2023 9:18 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 3.5°C and 5.1°C

GC/MS VOA
Method 8260D: The initial calibration verification (ICV) analyzed in batch 400-633903 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-640405 were outside control limits for 1-Chlorohexane and Hexachlorobutadiene due to high bias on this day of analysis.

Method 8260D: 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-083123-8260-BP (400-242838-1) and MW23-ROX-083123 (400-242838-3). 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-640405 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the matrix spike / matrix spike duplicate (MS/MSD) for 2-Chloroethyl vinyl ether was not calculable for analytical batch 400-640405 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640405 recovered above the upper control limit for 1-Chlorohexane, Hexachlorobutadiene and n-Butylbenzene. The samples associated with this CCV were non-detects or not reported for the affected analytes; therefore, the data have been reported.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640405 recovered outside acceptance criteria, low biased, for 2-Chloroethyl vinyl ether and Dichlorodifluoromethane. 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.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC/MS Semi VOA
Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640672 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 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-640140 and analytical batch 400-640672 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 8270E: The method blank for preparation batch 400-640140 and analytical batch 400-640672 contained Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E_SIM: The continuing calibration verification (CCV) associated with batch 400-640637 recovered above the upper control limit for Fluoranthene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-242838-1 (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 400-640148 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 MONTHLY GW

Job ID: 400-242838-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242838-1	TB-ROX-083123-8260-BP	Water	08/31/23 12:00	09/01/23 09:18
400-242838-2	TB-ROX-083123-8011-BP	Water	08/31/23 12:00	09/01/23 09:18
400-242838-3	MW23-ROX-083123	Water	08/31/23 09:15	09/01/23 09:18

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Client Sample ID: TB-ROX-083123-8260-BP — Lab Sample ID: 400-242838-1

No Detections.

Client Sample ID: TB-ROX-083123-8011-BP — Lab Sample ID: 400-242838-2

No Detections.

Client Sample ID: MW23-ROX-083123 — Lab Sample ID: 400-242838-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.89	J	1.0	0.22	ug/L	1		8260D	Total/NA
Dimethyl phthalate	0.50	J B	9.7	0.17	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Client Sample ID: TB-ROX-083123-8260-BP
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242838-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 15:41	1
Acrolein	ND		20	3.3	ug/L			09/10/23 15:41	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 15:41	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 15:41	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 15:41	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 15:41	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 15:41	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 15:41	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 15:41	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 15:41	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 15:41	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 15:41	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 15:41	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 15:41	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 15:41	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 15:41	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 15:41	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 15:41	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 15:41	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 15:41	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 15:41	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 15:41	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 15:41	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 15:41	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 15:41	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 15:41	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 15:41	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 15:41	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 15:41	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 15:41	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 15:41	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 15:41	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 15:41	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 15:41	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 15:41	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 15:41	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 15:41	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 15:41	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 15:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 15:41	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/10/23 15:41	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 15:41	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 15:41	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 15:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 15:41	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 15:41	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 15:41	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 15:41	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 15:41	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Client Sample ID: TB-ROX-083123-8260-BP
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242838-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 15:41	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 15:41	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 15:41	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 15:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 15:41	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 15:41	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 15:41	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 15:41	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 15:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 15:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 15:41	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 15:41	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 15:41	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 15:41	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 15:41	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 15:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 15:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 15:41	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 15:41	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 15:41	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 15:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*09/10/23 15:41*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/10/23 15:41*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*09/10/23 15:41*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Client Sample ID: TB-ROX-083123-8011-BP
Date Collected: 08/31/23 12:00
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242838-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 18:59	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*	*p*	*51 - 149*	*09/07/23 13:27*	*09/07/23 18:59*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Client Sample ID: MW23-ROX-083123
Date Collected: 08/31/23 09:15
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242838-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/10/23 14:03	1
Acrolein	ND		20	3.3	ug/L			09/10/23 14:03	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 14:03	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 14:03	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 14:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 14:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 14:03	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 14:03	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 14:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 14:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 14:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 14:03	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 14:03	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 14:03	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			09/10/23 14:03	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 14:03	1
1-Chlorohexane	ND	F1	1.0	0.32	ug/L			09/10/23 14:03	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 14:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 14:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 14:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 14:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 14:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 14:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 14:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 14:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 14:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 14:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 14:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 14:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 14:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 14:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 14:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 14:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 14:03	1
Hexachlorobutadiene	ND	F1	5.0	0.90	ug/L			09/10/23 14:03	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 14:03	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 14:03	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 14:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 14:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 14:03	1
Methyl tert-butyl ether	**0.89**	**J**	1.0	0.22	ug/L			09/10/23 14:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 14:03	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 14:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 14:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 14:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 14:03	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 14:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 14:03	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/10/23 14:03	1

Client Sample ID: MW23-ROX-083123

Date Collected: 08/31/23 09:15
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242838-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 14:03	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 14:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 14:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 14:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 14:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 14:03	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 14:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 14:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 14:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 14:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 14:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 14:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 14:03	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 14:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 14:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 14:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 14:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 14:03	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 14:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 14:03	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*72 - 130*		*09/10/23 14:03*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/10/23 14:03*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*09/10/23 14:03*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.096	ug/L		09/07/23 15:48	09/12/23 19:30	1
Acenaphthylene	ND		0.19	0.043	ug/L		09/07/23 15:48	09/12/23 19:30	1
Anthracene	ND		0.19	0.046	ug/L		09/07/23 15:48	09/12/23 19:30	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 19:30	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/07/23 15:48	09/12/23 19:30	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/07/23 15:48	09/12/23 19:30	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/07/23 15:48	09/12/23 19:30	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/07/23 15:48	09/12/23 19:30	1
Chrysene	ND		0.19	0.032	ug/L		09/07/23 15:48	09/12/23 19:30	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		09/07/23 15:48	09/12/23 19:30	1
Fluoranthene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 19:30	1
Fluorene	ND		0.19	0.087	ug/L		09/07/23 15:48	09/12/23 19:30	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/07/23 15:48	09/12/23 19:30	1
Phenanthrene	ND		0.19	0.088	ug/L		09/07/23 15:48	09/12/23 19:30	1
Pyrene	ND		0.19	0.038	ug/L		09/07/23 15:48	09/12/23 19:30	1
1-Methylnaphthalene	ND		0.19	0.078	ug/L		09/07/23 15:48	09/12/23 19:30	1
2-Methylnaphthalene	ND		0.19	0.064	ug/L		09/07/23 15:48	09/12/23 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*18 - 147*	*09/07/23 15:48*	*09/12/23 19:30*	*1*
2-Fluorobiphenyl	*62*		*15 - 128*	*09/07/23 15:48*	*09/12/23 19:30*	*1*

Client Sample ID: MW23-ROX-083123
Date Collected: 08/31/23 09:15
Date Received: 09/01/23 09:18

Lab Sample ID: 400-242838-3
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*77*		*10 - 144*	*09/07/23 15:48*	*09/12/23 19:30*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		09/07/23 15:48	09/12/23 21:15	1
Benzenethiol	ND	*-	9.7	1.7	ug/L		09/07/23 15:48	09/12/23 21:15	1
Benzoic acid	ND		29	7.1	ug/L		09/07/23 15:48	09/12/23 21:15	1
Benzyl alcohol	ND		9.7	1.9	ug/L		09/07/23 15:48	09/12/23 21:15	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		09/07/23 15:48	09/12/23 21:15	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		09/07/23 15:48	09/12/23 21:15	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		09/07/23 15:48	09/12/23 21:15	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		09/07/23 15:48	09/12/23 21:15	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		09/07/23 15:48	09/12/23 21:15	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		09/07/23 15:48	09/12/23 21:15	1
4-Chloroaniline	ND		9.7	3.3	ug/L		09/07/23 15:48	09/12/23 21:15	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		09/07/23 15:48	09/12/23 21:15	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		09/07/23 15:48	09/12/23 21:15	1
2-Chlorophenol	ND		9.7	2.1	ug/L		09/07/23 15:48	09/12/23 21:15	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		09/07/23 15:48	09/12/23 21:15	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		09/07/23 15:48	09/12/23 21:15	1
Dibenzofuran	ND		9.7	0.17	ug/L		09/07/23 15:48	09/12/23 21:15	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		09/07/23 15:48	09/12/23 21:15	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		09/07/23 15:48	09/12/23 21:15	1
Diethyl phthalate	ND		9.7	0.23	ug/L		09/07/23 15:48	09/12/23 21:15	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		09/07/23 15:48	09/12/23 21:15	1
Dimethyl phthalate	**0.50**	**J B**	9.7	0.17	ug/L		09/07/23 15:48	09/14/23 00:30	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		09/07/23 15:48	09/12/23 21:15	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		09/07/23 15:48	09/12/23 21:15	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/07/23 15:48	09/12/23 21:15	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		09/07/23 15:48	09/12/23 21:15	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		09/07/23 15:48	09/12/23 21:15	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		09/07/23 15:48	09/12/23 21:15	1
1,4-Dioxane	ND		9.7	0.97	ug/L		09/07/23 15:48	09/12/23 21:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		09/07/23 15:48	09/12/23 21:15	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		09/07/23 15:48	09/12/23 21:15	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/07/23 15:48	09/12/23 21:15	1
Hexachloroethane	ND		9.7	4.1	ug/L		09/07/23 15:48	09/12/23 21:15	1
Indene	ND		9.7	0.97	ug/L		09/07/23 15:48	09/12/23 21:15	1
Isophorone	ND		9.7	0.14	ug/L		09/07/23 15:48	09/12/23 21:15	1
2-Methylphenol	ND		9.7	1.8	ug/L		09/07/23 15:48	09/12/23 21:15	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/07/23 15:48	09/12/23 21:15	1
2-Nitroaniline	ND		9.7	2.1	ug/L		09/07/23 15:48	09/12/23 21:15	1
3-Nitroaniline	ND		9.7	1.8	ug/L		09/07/23 15:48	09/12/23 21:15	1
4-Nitroaniline	ND		9.7	1.5	ug/L		09/07/23 15:48	09/12/23 21:15	1
Nitrobenzene	ND		9.7	0.13	ug/L		09/07/23 15:48	09/12/23 21:15	1
2-Nitrophenol	ND		9.7	5.1	ug/L		09/07/23 15:48	09/12/23 21:15	1
4-Nitrophenol	ND		9.7	2.0	ug/L		09/07/23 15:48	09/12/23 21:15	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		09/07/23 15:48	09/12/23 21:15	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Client Sample ID: MW23-ROX-083123

Lab Sample ID: 400-242838-3

Date Collected: 08/31/23 09:15

Matrix: Water

Date Received: 09/01/23 09:18

Method: SW846 8270E - 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		09/07/23 15:48	09/12/23 21:15	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		09/07/23 15:48	09/12/23 21:15	1
Pentachlorophenol	ND		19	1.4	ug/L		09/07/23 15:48	09/12/23 21:15	1
Phenol	ND		9.7	2.5	ug/L		09/07/23 15:48	09/12/23 21:15	1
Pyridine	ND		9.7	3.1	ug/L		09/07/23 15:48	09/12/23 21:15	1
Quinoline	ND		9.7	4.4	ug/L		09/07/23 15:48	09/12/23 21:15	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		09/07/23 15:48	09/12/23 21:15	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		09/07/23 15:48	09/12/23 21:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*46 - 124*	*09/07/23 15:48*	*09/12/23 21:15*	*1*
2-Fluorophenol	*26*		*13 - 113*	*09/07/23 15:48*	*09/12/23 21:15*	*1*
Nitrobenzene-d5	*62*		*36 - 126*	*09/07/23 15:48*	*09/12/23 21:15*	*1*
Phenol-d5	*43*		*17 - 127*	*09/07/23 15:48*	*09/12/23 21:15*	*1*
Terphenyl-d14	*93*		*44 - 149*	*09/07/23 15:48*	*09/12/23 21:15*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*09/07/23 15:48*	*09/12/23 21:15*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 19:19	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*09/07/23 13:27*	*09/07/23 19:19*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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.
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.

GC Semi VOA

Qualifier	Qualifier Description
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 MONTHLY GW

Job ID: 400-242838-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-242838-1	TB-ROX-083123-8260-BP	109	94	102
400-242838-3	MW23-ROX-083123	110	95	100
400-242838-3 MS	MW23-ROX-083123	105	92	101
400-242838-3 MSD	MW23-ROX-083123	105	92	101
LCS 400-640405/1002	Lab Control Sample	105	90	100
MB 400-640405/4	Method Blank	111	94	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-242838-3	MW23-ROX-083123	71	26	62	43	93	69
LCS 400-640140/18-A	Lab Control Sample	78	59	69	66	87	66
LCS 400-640140/2-A	Lab Control Sample	80	60	64	68	87	79
LCSD 400-640140/19-A	Lab Control Sample Dup	89	65	76	74	100	70
LCSD 400-640140/3-A	Lab Control Sample Dup	77	53	65	64	81	80
MB 400-640140/1-A	Method Blank	72	33	63	50	82	61

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-242838-3	MW23-ROX-083123	69	62	77
LCS 400-640140/22-A	Lab Control Sample	50	50	63
LCSD 400-640140/23-A	Lab Control Sample Dup	67	67	85
MB 400-640140/1-A	Method Blank	54	50	62

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

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)
400-242838-2	TB-ROX-083123-8011-BP	84 p
400-242838-3	MW23-ROX-083123	81
LCS 400-640109/2-A	Lab Control Sample	77
LCSD 400-640109/3-A	Lab Control Sample Dup	87
MB 400-640109/1-A	Method Blank	80

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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-083123-8260-BP

Lab Sample ID: 400-242838-1

Date Collected: 08/31/23 12:00

Matrix: Water

Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 15:41	CAR	EET PEN

Client Sample ID: TB-ROX-083123-8011-BP

Lab Sample ID: 400-242838-2

Date Collected: 08/31/23 12:00

Matrix: Water

Date Received: 09/01/23 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			34.9 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 18:59	PG	EET PEN

Client Sample ID: MW23-ROX-083123

Lab Sample ID: 400-242838-3

Date Collected: 08/31/23 09:15

Matrix: Water

Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 14:03	CAR	EET PEN
Total/NA	Prep	3520C			256.8 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640898	09/14/23 00:30	VC1	EET PEN
Total/NA	Prep	3520C			256.8 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 21:15	S1B	EET PEN
Total/NA	Prep	3520C			256.8 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 19:30	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 19:19	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-640109/1-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 16:36	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-640140/1-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:01	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 14:41	TH	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640405/4
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	8260D		1	5 mL	5 mL	640405	09/10/23 13:14	CAR	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640109/2-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 16:56	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/18-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 18:05	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/22-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 15:02	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/2-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:23	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640405/1002
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	8260D		1	5 mL	5 mL	640405	09/10/23 12:13	CAR	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640109/3-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 17:17	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/19-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 18:26	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/23-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 16:43	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/3-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:44	S1B	EET PEN

Client Sample ID: MW23-ROX-083123
Lab Sample ID: 400-242838-3 MS
Date Collected: 08/31/23 09:15
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 14:27	CAR	EET PEN

Client Sample ID: MW23-ROX-083123
Lab Sample ID: 400-242838-3 MSD
Date Collected: 08/31/23 09:15
Matrix: Water
Date Received: 09/01/23 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	8260D		1	5 mL	5 mL	640405	09/10/23 14:52	CAR	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 640405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242838-1	TB-ROX-083123-8260-BP	Total/NA	Water	8260D	
400-242838-3	MW23-ROX-083123	Total/NA	Water	8260D	
MB 400-640405/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640405/1002	Lab Control Sample	Total/NA	Water	8260D	
400-242838-3 MS	MW23-ROX-083123	Total/NA	Water	8260D	
400-242838-3 MSD	MW23-ROX-083123	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 640140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242838-3	MW23-ROX-083123	Total/NA	Water	3520C	
MB 400-640140/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-640140/18-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640140/22-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640140/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-640140/19-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640140/23-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640140/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 640637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242838-3	MW23-ROX-083123	Total/NA	Water	8270E SIM	640140
MB 400-640140/1-A	Method Blank	Total/NA	Water	8270E SIM	640140
LCS 400-640140/22-A	Lab Control Sample	Total/NA	Water	8270E SIM	640140
LCSD 400-640140/23-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	640140

Analysis Batch: 640672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242838-3	MW23-ROX-083123	Total/NA	Water	8270E	640140
MB 400-640140/1-A	Method Blank	Total/NA	Water	8270E	640140
LCS 400-640140/18-A	Lab Control Sample	Total/NA	Water	8270E	640140
LCS 400-640140/2-A	Lab Control Sample	Total/NA	Water	8270E	640140
LCSD 400-640140/19-A	Lab Control Sample Dup	Total/NA	Water	8270E	640140
LCSD 400-640140/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	640140

Analysis Batch: 640898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242838-3	MW23-ROX-083123	Total/NA	Water	8270E	640140

GC Semi VOA

Prep Batch: 640109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242838-2	TB-ROX-083123-8011-BP	Total/NA	Water	8011	
400-242838-3	MW23-ROX-083123	Total/NA	Water	8011	
MB 400-640109/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-640109/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-640109/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242838-1

GC Semi VOA

Analysis Batch: 640148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242838-2	TB-ROX-083123-8011-BP	Total/NA	Water	8011	640109
400-242838-3	MW23-ROX-083123	Total/NA	Water	8011	640109
MB 400-640109/1-A	Method Blank	Total/NA	Water	8011	640109
LCS 400-640109/2-A	Lab Control Sample	Total/NA	Water	8011	640109
LCSD 400-640109/3-A	Lab Control Sample Dup	Total/NA	Water	8011	640109

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-640405/4
Matrix: Water
Analysis Batch: 640405

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			09/10/23 13:14	1
Acrolein	ND		20	3.3	ug/L			09/10/23 13:14	1
Acrylonitrile	ND		10	2.8	ug/L			09/10/23 13:14	1
Benzene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Bromobenzene	ND		1.0	0.54	ug/L			09/10/23 13:14	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/10/23 13:14	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Bromoform	ND		5.0	0.25	ug/L			09/10/23 13:14	1
Bromomethane	ND		1.0	0.98	ug/L			09/10/23 13:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/10/23 13:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/10/23 13:14	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/10/23 13:14	1
Chloroethane	ND		1.0	0.76	ug/L			09/10/23 13:14	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/10/23 13:14	1
Chloroform	ND		1.0	0.90	ug/L			09/10/23 13:14	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/10/23 13:14	1
Chloromethane	ND		1.0	0.90	ug/L			09/10/23 13:14	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/10/23 13:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/10/23 13:14	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/10/23 13:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/10/23 13:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/10/23 13:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/10/23 13:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/10/23 13:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/10/23 13:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/10/23 13:14	1
2-Hexanone	ND		25	1.4	ug/L			09/10/23 13:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/10/23 13:14	1
Methylene bromide	ND		5.0	0.22	ug/L			09/10/23 13:14	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/10/23 13:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/10/23 13:14	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/10/23 13:14	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/10/23 13:14	1
Naphthalene	ND		5.0	3.0	ug/L			09/10/23 13:14	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/10/23 13:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/10/23 13:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/10/23 13:14	1
o-Xylene	ND		5.0	0.60	ug/L			09/10/23 13:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/10/23 13:14	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640405/4
Matrix: Water
Analysis Batch: 640405

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			09/10/23 13:14	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/10/23 13:14	1
Styrene	ND		1.0	1.0	ug/L			09/10/23 13:14	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/10/23 13:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/10/23 13:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/10/23 13:14	1
Toluene	ND		1.0	0.90	ug/L			09/10/23 13:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/10/23 13:14	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/10/23 13:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/10/23 13:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/10/23 13:14	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/10/23 13:14	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/10/23 13:14	1
Trichloroethene	ND		1.0	0.15	ug/L			09/10/23 13:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/10/23 13:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/10/23 13:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/10/23 13:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/10/23 13:14	1
Vinyl acetate	ND		25	0.93	ug/L			09/10/23 13:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/10/23 13:14	1
Xylenes, Total	ND		10	1.6	ug/L			09/10/23 13:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*72 - 130*		*09/10/23 13:14*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/10/23 13:14*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/10/23 13:14*	*1*

Lab Sample ID: LCS 400-640405/1002
Matrix: Water
Analysis Batch: 640405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	242		ug/L		121	43 - 160
Acrolein	250	298		ug/L		119	38 - 160
Acrylonitrile	500	488		ug/L		98	64 - 142
Benzene	50.0	51.9		ug/L		104	70 - 130
Bromobenzene	50.0	52.0		ug/L		104	70 - 132
Bromochloromethane	50.0	44.6		ug/L		89	70 - 130
Bromodichloromethane	50.0	50.7		ug/L		101	67 - 133
Bromoform	50.0	51.6		ug/L		103	57 - 140
Bromomethane	25.0	23.1		ug/L		92	10 - 160
2-Butanone (MEK)	200	224		ug/L		112	61 - 145
Carbon disulfide	50.0	45.0		ug/L		90	61 - 137
Carbon tetrachloride	50.0	50.7		ug/L		101	61 - 137
Chlorobenzene	50.0	51.9		ug/L		104	70 - 130
Chloroethane	25.0	26.3		ug/L		105	55 - 141
2-Chloroethyl vinyl ether	25.0	17.6		ug/L		70	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640405/1002
Matrix: Water
Analysis Batch: 640405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	48.8		ug/L		98	69 - 130
1-Chlorohexane	50.0	63.4		ug/L		127	69 - 130
Chloromethane	25.0	26.7		ug/L		107	58 - 137
cis-1,2-Dichloroethene	50.0	53.7		ug/L		107	68 - 130
cis-1,3-Dichloropropene	50.0	52.6		ug/L		105	69 - 132
Dibromochloromethane	50.0	49.3		ug/L		99	67 - 135
1,2-Dichlorobenzene	50.0	51.4		ug/L		103	67 - 130
1,3-Dichlorobenzene	50.0	53.9		ug/L		108	70 - 130
1,4-Dichlorobenzene	50.0	54.0		ug/L		108	70 - 130
Dichlorodifluoromethane	25.0	16.7		ug/L		67	41 - 146
1,1-Dichloroethane	50.0	51.9		ug/L		104	70 - 130
1,2-Dichloroethane	50.0	47.5		ug/L		95	69 - 130
1,1-Dichloroethene	50.0	48.3		ug/L		97	63 - 134
1,2-Dichloropropane	50.0	55.7		ug/L		111	70 - 130
1,3-Dichloropropane	50.0	51.8		ug/L		104	70 - 130
2,2-Dichloropropane	50.0	50.6		ug/L		101	52 - 135
1,1-Dichloropropene	50.0	52.8		ug/L		106	70 - 130
Ethylbenzene	50.0	54.6		ug/L		109	70 - 130
Ethyl methacrylate	50.0	50.6		ug/L		101	68 - 130
Hexachlorobutadiene	50.0	62.6		ug/L		125	53 - 140
2-Hexanone	200	256		ug/L		128	65 - 137
Isopropylbenzene	50.0	53.5		ug/L		107	70 - 130
Methylene bromide	50.0	47.2		ug/L		94	70 - 130
Methylene Chloride	50.0	47.1		ug/L		94	66 - 135
4-Methyl-2-pentanone (MIBK)	200	211		ug/L		105	69 - 138
Methyl tert-butyl ether	50.0	46.3		ug/L		93	66 - 130
m-Xylene & p-Xylene	50.0	54.8		ug/L		110	70 - 130
Naphthalene	50.0	47.4		ug/L		95	47 - 149
n-Butylbenzene	50.0	60.1		ug/L		120	67 - 130
N-Propylbenzene	50.0	55.1		ug/L		110	70 - 130
o-Chlorotoluene	50.0	55.9		ug/L		112	70 - 130
o-Xylene	50.0	53.8		ug/L		108	70 - 130
p-Chlorotoluene	50.0	55.1		ug/L		110	70 - 130
p-Isopropyltoluene	50.0	56.2		ug/L		112	65 - 130
sec-Butylbenzene	50.0	56.4		ug/L		113	66 - 130
Styrene	50.0	51.0		ug/L		102	70 - 130
tert-Butylbenzene	50.0	54.7		ug/L		109	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.7		ug/L		103	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.6		ug/L		97	70 - 131
Tetrachloroethene	50.0	55.6		ug/L		111	65 - 130
Toluene	50.0	53.1		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	49.1		ug/L		98	70 - 130
trans-1,3-Dichloropropene	50.0	52.0		ug/L		104	63 - 130
1,2,3-Trichlorobenzene	50.0	55.0		ug/L		110	60 - 138
1,2,4-Trichlorobenzene	50.0	55.2		ug/L		110	60 - 140
1,1,1-Trichloroethane	50.0	48.9		ug/L		98	68 - 130
1,1,2-Trichloroethane	50.0	51.4		ug/L		103	70 - 130
Trichloroethene	50.0	49.6		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	22.7		ug/L		91	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640405/1002
Matrix: Water
Analysis Batch: 640405

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	45.8		ug/L		92	70 - 130
1,2,4-Trimethylbenzene	50.0	54.7		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	50.0	54.3		ug/L		109	69 - 130
Vinyl acetate	50.0	48.1		ug/L		96	26 - 160
Vinyl chloride	25.0	25.3		ug/L		101	59 - 136
Xylenes, Total	100	109		ug/L		109	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 130*
Dibromofluoromethane	*90*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: 400-242838-3 MS
Matrix: Water
Analysis Batch: 640405

Client Sample ID: MW23-ROX-083123
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	115		ug/L		57	43 - 150
Acrolein	ND		250	367		ug/L		147	38 - 150
Acrylonitrile	ND		500	625		ug/L		125	62 - 149
Benzene	ND		50.0	63.4		ug/L		127	56 - 142
Bromobenzene	ND		50.0	60.7		ug/L		121	59 - 136
Bromochloromethane	ND		50.0	55.5		ug/L		111	64 - 140
Bromodichloromethane	ND		50.0	61.5		ug/L		123	59 - 143
Bromoform	ND		50.0	60.1		ug/L		120	50 - 140
Bromomethane	ND		25.0	29.4		ug/L		118	10 - 150
2-Butanone (MEK)	ND		200	157		ug/L		79	55 - 150
Carbon disulfide	ND		50.0	66.2		ug/L		132	48 - 150
Carbon tetrachloride	ND		50.0	61.7		ug/L		123	55 - 145
Chlorobenzene	ND		50.0	61.9		ug/L		124	64 - 130
Chloroethane	ND		25.0	31.1		ug/L		124	50 - 150
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	58.5		ug/L		117	60 - 141
1-Chlorohexane	ND	F1	50.0	74.8	F1	ug/L		150	56 - 136
Chloromethane	ND		25.0	35.5		ug/L		142	49 - 148
cis-1,2-Dichloroethene	ND		50.0	65.3		ug/L		131	59 - 143
cis-1,3-Dichloropropene	ND		50.0	63.4		ug/L		127	57 - 140
Dibromochloromethane	ND		50.0	59.8		ug/L		120	56 - 143
1,2-Dichlorobenzene	ND		50.0	62.1		ug/L		124	52 - 137
1,3-Dichlorobenzene	ND		50.0	64.1		ug/L		128	54 - 135
1,4-Dichlorobenzene	ND		50.0	64.5		ug/L		129	53 - 135
Dichlorodifluoromethane	ND		25.0	28.8		ug/L		115	16 - 150
1,1-Dichloroethane	ND		50.0	66.3		ug/L		133	61 - 144
1,2-Dichloroethane	ND		50.0	58.8		ug/L		118	60 - 141
1,1-Dichloroethene	ND		50.0	61.9		ug/L		124	54 - 147
1,2-Dichloropropane	ND		50.0	66.8		ug/L		134	66 - 137
1,3-Dichloropropane	ND		50.0	62.3		ug/L		125	66 - 133
2,2-Dichloropropane	ND		50.0	61.3		ug/L		123	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242838-3 MS
Matrix: Water
Analysis Batch: 640405

Client Sample ID: MW23-ROX-083123
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	64.3		ug/L		129	65 - 136
Ethylbenzene	ND		50.0	65.7		ug/L		131	58 - 131
Ethyl methacrylate	ND		50.0	60.3		ug/L		121	64 - 130
Hexachlorobutadiene	ND	F1	50.0	81.3	F1	ug/L		163	31 - 149
2-Hexanone	ND		200	198		ug/L		99	65 - 140
Isopropylbenzene	ND		50.0	63.8		ug/L		128	56 - 133
Methylene bromide	ND		50.0	57.0		ug/L		114	63 - 138
Methylene Chloride	ND		50.0	59.6		ug/L		119	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	240		ug/L		120	63 - 146
Methyl tert-butyl ether	0.89	J	50.0	57.4		ug/L		113	59 - 137
m-Xylene & p-Xylene	ND		50.0	65.2		ug/L		130	57 - 130
Naphthalene	ND		50.0	60.1		ug/L		120	25 - 150
n-Butylbenzene	ND		50.0	70.8		ug/L		142	41 - 142
N-Propylbenzene	ND		50.0	64.2		ug/L		128	51 - 138
o-Chlorotoluene	ND		50.0	64.8		ug/L		130	53 - 134
o-Xylene	ND		50.0	64.2		ug/L		128	61 - 130
p-Chlorotoluene	ND		50.0	64.8		ug/L		130	54 - 133
p-Isopropyltoluene	ND		50.0	66.9		ug/L		134	48 - 139
sec-Butylbenzene	ND		50.0	66.2		ug/L		132	50 - 138
Styrene	ND		50.0	60.9		ug/L		122	58 - 131
tert-Butylbenzene	ND		50.0	72.4		ug/L		145	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	61.7		ug/L		123	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	57.9		ug/L		116	66 - 135
Tetrachloroethene	ND		50.0	60.0		ug/L		120	52 - 133
Toluene	ND		50.0	63.9		ug/L		128	65 - 130
trans-1,2-Dichloroethene	ND		50.0	60.9		ug/L		122	61 - 143
trans-1,3-Dichloropropene	ND		50.0	62.1		ug/L		124	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	69.4		ug/L		139	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	69.7		ug/L		139	39 - 148
1,1,1-Trichloroethane	ND		50.0	59.9		ug/L		120	57 - 142
1,1,2-Trichloroethane	ND		50.0	61.1		ug/L		122	66 - 131
Trichloroethene	ND		50.0	59.2		ug/L		118	64 - 136
Trichlorofluoromethane	ND		25.0	30.1		ug/L		120	54 - 150
1,2,3-Trichloropropane	ND		50.0	53.7		ug/L		107	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	64.3		ug/L		129	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	63.6		ug/L		127	52 - 135
Vinyl acetate	ND		50.0	58.1		ug/L		116	26 - 150
Vinyl chloride	ND		25.0	31.9		ug/L		128	46 - 150
Xylenes, Total	ND		100	129		ug/L		129	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 130*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242838-3 MSD
Matrix: Water
Analysis Batch: 640405

Client Sample ID: MW23-ROX-083123
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	116		ug/L		58	43 - 150	2	30
Acrolein	ND		250	354		ug/L		142	38 - 150	4	31
Acrylonitrile	ND		500	658		ug/L		132	62 - 149	5	30
Benzene	ND		50.0	63.8		ug/L		128	56 - 142	1	30
Bromobenzene	ND		50.0	60.3		ug/L		121	59 - 136	1	30
Bromochloromethane	ND		50.0	56.7		ug/L		113	64 - 140	2	30
Bromodichloromethane	ND		50.0	61.4		ug/L		123	59 - 143	0	30
Bromoform	ND		50.0	60.6		ug/L		121	50 - 140	1	30
Bromomethane	ND		25.0	26.8		ug/L		107	10 - 150	9	50
2-Butanone (MEK)	ND		200	170		ug/L		85	55 - 150	8	30
Carbon disulfide	ND		50.0	67.8		ug/L		136	48 - 150	2	30
Carbon tetrachloride	ND		50.0	60.9		ug/L		122	55 - 145	1	30
Chlorobenzene	ND		50.0	61.2		ug/L		122	64 - 130	1	30
Chloroethane	ND		25.0	29.1		ug/L		116	50 - 150	7	30
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	59.2		ug/L		118	60 - 141	1	30
1-Chlorohexane	ND	F1	50.0	74.0	F1	ug/L		148	56 - 136	1	30
Chloromethane	ND		25.0	33.6		ug/L		134	49 - 148	5	31
cis-1,2-Dichloroethene	ND		50.0	65.2		ug/L		130	59 - 143	0	30
cis-1,3-Dichloropropene	ND		50.0	63.3		ug/L		127	57 - 140	0	30
Dibromochloromethane	ND		50.0	59.3		ug/L		119	56 - 143	1	30
1,2-Dichlorobenzene	ND		50.0	61.5		ug/L		123	52 - 137	1	30
1,3-Dichlorobenzene	ND		50.0	63.2		ug/L		126	54 - 135	1	30
1,4-Dichlorobenzene	ND		50.0	63.1		ug/L		126	53 - 135	2	30
Dichlorodifluoromethane	ND		25.0	26.3		ug/L		105	16 - 150	9	31
1,1-Dichloroethane	ND		50.0	63.8		ug/L		128	61 - 144	4	30
1,2-Dichloroethane	ND		50.0	58.2		ug/L		116	60 - 141	1	30
1,1-Dichloroethene	ND		50.0	63.4		ug/L		127	54 - 147	2	30
1,2-Dichloropropane	ND		50.0	66.6		ug/L		133	66 - 137	0	30
1,3-Dichloropropane	ND		50.0	63.1		ug/L		126	66 - 133	1	30
2,2-Dichloropropane	ND		50.0	60.7		ug/L		121	42 - 144	1	31
1,1-Dichloropropene	ND		50.0	65.1		ug/L		130	65 - 136	1	30
Ethylbenzene	ND		50.0	64.7		ug/L		129	58 - 131	1	30
Ethyl methacrylate	ND		50.0	62.0		ug/L		124	64 - 130	3	30
Hexachlorobutadiene	ND	F1	50.0	80.1	F1	ug/L		160	31 - 149	2	36
2-Hexanone	ND		200	208		ug/L		104	65 - 140	5	30
Isopropylbenzene	ND		50.0	62.7		ug/L		125	56 - 133	2	30
Methylene bromide	ND		50.0	58.1		ug/L		116	63 - 138	2	30
Methylene Chloride	ND		50.0	56.8		ug/L		114	60 - 146	5	32
4-Methyl-2-pentanone (MIBK)	ND		200	253		ug/L		126	63 - 146	5	30
Methyl tert-butyl ether	0.89	J	50.0	59.1		ug/L		116	59 - 137	3	30
m-Xylene & p-Xylene	ND		50.0	63.9		ug/L		128	57 - 130	2	30
Naphthalene	ND		50.0	61.3		ug/L		123	25 - 150	2	30
n-Butylbenzene	ND		50.0	70.2		ug/L		140	41 - 142	1	31
N-Propylbenzene	ND		50.0	63.6		ug/L		127	51 - 138	1	30
o-Chlorotoluene	ND		50.0	66.1		ug/L		132	53 - 134	2	30
o-Xylene	ND		50.0	63.9		ug/L		128	61 - 130	0	30
p-Chlorotoluene	ND		50.0	63.8		ug/L		128	54 - 133	2	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-242838-3 MSD
Matrix: Water
Analysis Batch: 640405

Client Sample ID: MW23-ROX-083123
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	66.0		ug/L		132	48 - 139	1	30
sec-Butylbenzene	ND		50.0	65.8		ug/L		132	50 - 138	1	30
Styrene	ND		50.0	60.2		ug/L		120	58 - 131	1	30
tert-Butylbenzene	ND		50.0	72.6		ug/L		145	54 - 146	0	30
1,1,1,2-Tetrachloroethane	ND		50.0	61.2		ug/L		122	59 - 137	1	30
1,1,2,2-Tetrachloroethane	ND		50.0	59.4		ug/L		119	66 - 135	3	30
Tetrachloroethene	ND		50.0	59.8		ug/L		120	52 - 133	0	30
Toluene	ND		50.0	63.0		ug/L		126	65 - 130	1	30
trans-1,2-Dichloroethene	ND		50.0	61.9		ug/L		124	61 - 143	2	30
trans-1,3-Dichloropropene	ND		50.0	61.2		ug/L		122	53 - 133	2	30
1,2,3-Trichlorobenzene	ND		50.0	68.3		ug/L		137	43 - 145	2	30
1,2,4-Trichlorobenzene	ND		50.0	67.4		ug/L		135	39 - 148	3	30
1,1,1-Trichloroethane	ND		50.0	60.3		ug/L		121	57 - 142	1	30
1,1,2-Trichloroethane	ND		50.0	61.7		ug/L		123	66 - 131	1	30
Trichloroethene	ND		50.0	59.3		ug/L		119	64 - 136	0	30
Trichlorofluoromethane	ND		25.0	27.6		ug/L		111	54 - 150	9	30
1,2,3-Trichloropropane	ND		50.0	55.3		ug/L		111	65 - 133	3	30
1,2,4-Trimethylbenzene	ND		50.0	63.6		ug/L		127	50 - 139	1	30
1,3,5-Trimethylbenzene	ND		50.0	63.6		ug/L		127	52 - 135	0	30
Vinyl acetate	ND		50.0	59.7		ug/L		119	26 - 150	3	33
Vinyl chloride	ND		25.0	30.4		ug/L		121	46 - 150	5	30
Xylenes, Total	ND		100	128		ug/L		128	59 - 130	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 130*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
Benzenethiol	ND		10	1.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
Benzoic acid	ND		30	7.3	ug/L		09/07/23 15:48	09/12/23 17:01	1
Benzyl alcohol	ND		10	2.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/07/23 15:48	09/12/23 17:01	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Chloroaniline	ND		10	3.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Chlorophenol	ND		10	2.2	ug/L		09/07/23 15:48	09/12/23 17:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dibenzofuran	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Diethyl phthalate	ND		10	0.24	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dimethyl phthalate	0.550	J	10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/07/23 15:48	09/12/23 17:01	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
1,4-Dioxane	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachloroethane	ND		10	4.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
Indene	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Isophorone	ND		10	0.14	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Methylphenol	ND		10	1.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Nitroaniline	ND		10	2.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
3-Nitroaniline	ND		10	1.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Nitroaniline	ND		10	1.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
Nitrobenzene	ND		10	0.13	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Nitrophenol	ND		10	5.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Nitrophenol	ND		10	2.1	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/07/23 15:48	09/12/23 17:01	1
Pentachlorophenol	ND		20	1.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
Phenol	ND		10	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
Pyridine	ND		10	3.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
Quinoline	ND		10	4.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
2-Fluorophenol	*33*		*13 - 113*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Phenol-d5	*50*		*17 - 127*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Terphenyl-d14	*82*		*44 - 149*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*09/07/23 15:48*	*09/12/23 17:01*	*1*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-640140/18-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	2.78	J *-	ug/L		2	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*46 - 124*
2-Fluorophenol	*59*		*13 - 113*
Nitrobenzene-d5	*69*		*36 - 126*
Phenol-d5	*66*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*66*		*26 - 150*

Lab Sample ID: LCS 400-640140/2-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Aniline			120	83.9		ug/L		70	21 - 120		
Benzoic acid			522	203		ug/L		39	10 - 144		
Benzyl alcohol			120	92.4		ug/L		77	28 - 120		
Bis(2-chloroethoxy)methane			120	79.0		ug/L		66	47 - 120		
Bis(2-chloroethyl)ether			120	80.1		ug/L		67	44 - 120		
bis (2-chloroisopropyl) ether			120	80.7		ug/L		67	33 - 121		
Bis(2-ethylhexyl) phthalate			120	87.1		ug/L		73	52 - 147		
4-Bromophenyl phenyl ether			120	107		ug/L		89	54 - 122		
Butyl benzyl phthalate			120	90.0		ug/L		75	54 - 133		
4-Chloroaniline			120	55.0		ug/L		46	26 - 120		
4-Chloro-3-methylphenol			120	95.2		ug/L		79	48 - 131		
2-Chloronaphthalene			120	96.3		ug/L		80	52 - 121		
2-Chlorophenol			120	88.8		ug/L		74	40 - 120		
4-Chlorophenyl phenyl ether			120	116		ug/L		97	56 - 125		
Dibenz[a,h]acridine			120	101		ug/L		84	31 - 150		
Dibenzofuran			120	103		ug/L		86	56 - 122		
3,3'-Dichlorobenzidine			160	141		ug/L		88	36 - 132		
2,4-Dichlorophenol			120	95.5		ug/L		80	49 - 120		
Diethyl phthalate			120	101		ug/L		84	50 - 137		
2,4-Dimethylphenol			120	88.9		ug/L		74	48 - 120		
Dimethyl phthalate			120	103		ug/L		86	57 - 124		
Di-n-butyl phthalate			120	102		ug/L		85	58 - 126		
4,6-Dinitro-ortho-cresol			240	125		ug/L		52	23 - 148		
2,4-Dinitrophenol			240	116		ug/L		48	10 - 150		
2,4-Dinitrotoluene			120	107		ug/L		89	54 - 142		
2,6-Dinitrotoluene			120	98.2		ug/L		82	55 - 130		
Di-n-octyl phthalate			120	86.9		ug/L		72	57 - 138		
1,4-Dioxane			120	62.5		ug/L		52	31 - 120		
1,2-Diphenylhydrazine (as Azobenzene)			120	80.9		ug/L		67	45 - 124		
Hexachlorobenzene			120	111		ug/L		92	52 - 129		
Hexachlorocyclopentadiene			120	33.6		ug/L		28	10 - 134		
Hexachloroethane			120	71.7		ug/L		60	20 - 120		

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-640140/2-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Indene			120	87.1		ug/L		73	49 - 120		
Isophorone			120	84.7		ug/L		71	48 - 120		
2-Methylphenol			120	93.6		ug/L		78	46 - 124		
3 & 4 Methylphenol			120	95.2		ug/L		79	45 - 120		
2-Nitroaniline			120	91.4		ug/L		76	51 - 145		
3-Nitroaniline			120	91.6		ug/L		76	37 - 127		
4-Nitroaniline			120	96.8		ug/L		81	36 - 137		
Nitrobenzene			120	83.4		ug/L		70	45 - 120		
2-Nitrophenol			120	94.7		ug/L		79	40 - 124		
4-Nitrophenol			240	200		ug/L		83	23 - 146		
N-Nitrosodimethylamine			120	96.9		ug/L		81	29 - 137		
N-Nitrosodi-n-propylamine			120	93.7		ug/L		78	45 - 120		
N-Nitrosodiphenylamine			119	90.5		ug/L		76	54 - 120		
Pentachlorophenol			240	174		ug/L		73	31 - 130		
Phenol			120	96.5		ug/L		80	11 - 120		
Pyridine			240	125		ug/L		52	16 - 120		
Quinoline			120	108		ug/L		90	49 - 130		
2,4,5-Trichlorophenol			120	111		ug/L		92	51 - 136		
2,4,6-Trichlorophenol			120	100		ug/L		83	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*60*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*79*		*26 - 150*

Lab Sample ID: LCSD 400-640140/19-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.48	J *-	ug/L		3	10 - 120	22	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*46 - 124*
2-Fluorophenol	*65*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*100*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-640140/3-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	70.2		ug/L		59	21 - 120	18	30
Benzoic acid			522	239		ug/L		46	10 - 144	16	30
Benzyl alcohol			120	86.9		ug/L		72	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	75.9		ug/L		63	47 - 120	4	30
Bis(2-chloroethyl)ether			120	81.8		ug/L		68	44 - 120	2	30
bis (2-chloroisopropyl) ether			120	75.5		ug/L		63	33 - 121	7	30
Bis(2-ethylhexyl) phthalate			120	85.3		ug/L		71	52 - 147	2	30
4-Bromophenyl phenyl ether			120	102		ug/L		85	54 - 122	5	30
Butyl benzyl phthalate			120	84.5		ug/L		70	54 - 133	6	30
4-Chloroaniline			120	53.6		ug/L		45	26 - 120	3	30
4-Chloro-3-methylphenol			120	90.7		ug/L		76	48 - 131	5	30
2-Chloronaphthalene			120	92.5		ug/L		77	52 - 121	4	30
2-Chlorophenol			120	82.2		ug/L		69	40 - 120	8	30
4-Chlorophenyl phenyl ether			120	113		ug/L		94	56 - 125	3	30
Dibenz[a,h]acridine			120	103		ug/L		86	31 - 150	2	30
Dibenzofuran			120	99.4		ug/L		83	56 - 122	4	30
3,3'-Dichlorobenzidine			160	134		ug/L		84	36 - 132	5	30
2,4-Dichlorophenol			120	90.1		ug/L		75	49 - 120	6	30
Diethyl phthalate			120	98.0		ug/L		82	50 - 137	3	30
2,4-Dimethylphenol			120	87.3		ug/L		73	48 - 120	2	30
Dimethyl phthalate			120	100		ug/L		84	57 - 124	3	30
Di-n-butyl phthalate			120	94.0		ug/L		78	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	129		ug/L		54	23 - 148	3	30
2,4-Dinitrophenol			240	121		ug/L		51	10 - 150	5	30
2,4-Dinitrotoluene			120	104		ug/L		87	54 - 142	3	30
2,6-Dinitrotoluene			120	95.2		ug/L		79	55 - 130	3	30
Di-n-octyl phthalate			120	84.6		ug/L		70	57 - 138	3	30
1,4-Dioxane			120	59.4		ug/L		50	31 - 120	5	30
1,2-Diphenylhydrazine (as Azobenzene)			120	75.1		ug/L		63	45 - 124	7	30
Hexachlorobenzene			120	106		ug/L		88	52 - 129	5	30
Hexachlorocyclopentadiene			120	34.5		ug/L		29	10 - 134	3	30
Hexachloroethane			120	65.7		ug/L		55	20 - 120	9	30
Indene			120	82.1		ug/L		68	49 - 120	6	30
Isophorone			120	81.0		ug/L		68	48 - 120	4	30
2-Methylphenol			120	88.0		ug/L		73	46 - 124	6	30
3 & 4 Methylphenol			120	88.8		ug/L		74	45 - 120	7	30
2-Nitroaniline			120	88.7		ug/L		74	51 - 145	3	30
3-Nitroaniline			120	86.4		ug/L		72	37 - 127	6	30
4-Nitroaniline			120	99.3		ug/L		83	36 - 137	3	30
Nitrobenzene			120	78.2		ug/L		65	45 - 120	6	30
2-Nitrophenol			120	87.3		ug/L		73	40 - 124	8	30
4-Nitrophenol			240	177		ug/L		74	23 - 146	12	30
N-Nitrosodimethylamine			120	90.8		ug/L		76	29 - 137	7	30
N-Nitrosodi-n-propylamine			120	86.0		ug/L		72	45 - 120	9	30
N-Nitrosodiphenylamine			119	86.8		ug/L		73	54 - 120	4	30
Pentachlorophenol			240	160		ug/L		67	31 - 130	9	30
Phenol			120	88.7		ug/L		74	11 - 120	8	30
Pyridine			240	127		ug/L		53	16 - 120	1	30

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-640140/3-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Quinoline			120	104		ug/L		86	49 - 130	4	30
2,4,5-Trichlorophenol			120	107		ug/L		89	51 - 136	4	30
2,4,6-Trichlorophenol			120	97.4		ug/L		81	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*53*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*81*		*44 - 149*
2,4,6-Tribromophenol	*80*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/07/23 15:48	09/12/23 14:41	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/07/23 15:48	09/12/23 14:41	1
Anthracene	ND		0.20	0.047	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/07/23 15:48	09/12/23 14:41	1
Chrysene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 14:41	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/07/23 15:48	09/12/23 14:41	1
Fluoranthene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Fluorene	ND		0.20	0.089	ug/L		09/07/23 15:48	09/12/23 14:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Phenanthrene	ND		0.20	0.090	ug/L		09/07/23 15:48	09/12/23 14:41	1
Pyrene	ND		0.20	0.039	ug/L		09/07/23 15:48	09/12/23 14:41	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/07/23 15:48	09/12/23 14:41	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/07/23 15:48	09/12/23 14:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*54*		*18 - 147*	*09/07/23 15:48*	*09/12/23 14:41*	*1*
2-Fluorobiphenyl	*50*		*15 - 128*	*09/07/23 15:48*	*09/12/23 14:41*	*1*
Nitrobenzene-d5	*62*		*10 - 144*	*09/07/23 15:48*	*09/12/23 14:41*	*1*

Lab Sample ID: LCS 400-640140/22-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			2.00	1.17		ug/L		58	40 - 140		

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-640140/22-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthylene			2.00	1.24		ug/L		62	40 - 140		
Anthracene			2.00	1.22		ug/L		61	40 - 140		
Benzo[a]anthracene			2.00	1.06		ug/L		53	40 - 140		
Benzo[a]pyrene			2.00	0.900		ug/L		45	40 - 140		
Benzo[b]fluoranthene			2.00	0.871		ug/L		44	40 - 140		
Benzo[g,h,i]perylene			2.00	0.896		ug/L		45	40 - 140		
Benzo[k]fluoranthene			2.00	0.802		ug/L		40	40 - 140		
Chrysene			2.00	1.06		ug/L		53	40 - 140		
Dibenz(a,h)anthracene			2.00	0.965		ug/L		48	40 - 140		
Fluoranthene			2.00	1.32		ug/L		66	40 - 140		
Fluorene			2.00	1.28		ug/L		64	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	0.952		ug/L		48	40 - 140		
Phenanthrene			2.00	1.13		ug/L		57	40 - 140		
Pyrene			2.00	0.903		ug/L		45	40 - 140		
1-Methylnaphthalene			2.00	1.27		ug/L		63	40 - 140		
2-Methylnaphthalene			2.00	1.25		ug/L		62	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*50*		*18 - 147*
2-Fluorobiphenyl	*50*		*15 - 128*
Nitrobenzene-d5	*63*		*10 - 144*

Lab Sample ID: LCSD 400-640140/23-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.59		ug/L		79	40 - 140	31	40
Acenaphthylene			2.00	1.67		ug/L		84	40 - 140	30	40
Anthracene			2.00	1.58		ug/L		79	40 - 140	26	40
Benzo[a]anthracene			2.00	1.47		ug/L		74	40 - 140	32	40
Benzo[a]pyrene			2.00	1.12		ug/L		56	40 - 140	22	40
Benzo[b]fluoranthene			2.00	1.20		ug/L		60	40 - 140	32	40
Benzo[g,h,i]perylene			2.00	1.25		ug/L		62	40 - 140	33	40
Benzo[k]fluoranthene			2.00	1.18		ug/L		59	40 - 140	38	40
Chrysene			2.00	1.43		ug/L		72	40 - 140	30	40
Dibenz(a,h)anthracene			2.00	1.34		ug/L		67	40 - 140	33	40
Fluoranthene			2.00	1.80		ug/L		90	40 - 140	31	40
Fluorene			2.00	1.73		ug/L		87	40 - 140	30	40
Indeno[1,2,3-cd]pyrene			2.00	1.33		ug/L		66	40 - 140	33	40
Phenanthrene			2.00	1.58		ug/L		79	40 - 140	33	40
Pyrene			2.00	1.30		ug/L		65	40 - 140	36	40
1-Methylnaphthalene			2.00	1.74		ug/L		87	40 - 140	32	40
2-Methylnaphthalene			2.00	1.70		ug/L		85	40 - 140	30	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*67*		*18 - 147*
2-Fluorobiphenyl	*67*		*15 - 128*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-640140/23-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	85		10 - 144

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-640109/1-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 16:36	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 16:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		51 - 149	09/07/23 13:27	09/07/23 16:36	1

Lab Sample ID: LCS 400-640109/2-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.107		ug/L		106	60 - 140		
1,2-Dibromoethane			0.101	0.0993		ug/L		99	60 - 140		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	77		51 - 149

Lab Sample ID: LCSD 400-640109/3-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.112		ug/L		111	60 - 140	5	30
1,2-Dibromoethane			0.101	0.102		ug/L		101	60 - 140	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	87		51 - 149

Shell Oil Products US Chain Of Custody Record

AECOM

400-242838 COC

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 335- [illegible] 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: 8/31/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2

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

TELEPHONE:	FAX:	Bill To Contact E-MAIL.
314-429-0100	314-429-0462	melissa.remiger@aecom.com

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, 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 – 3.3.2

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-083123-8260-BP	8/31/2023	0000	Water	2					2	X			
	TB-ROX-083123-8011-BP	8/31/2023	0000	Water	2					2		X		
	MW23-ROX-083123	8/31/2023	0915	Water	6			2		8	X	X	X	X

Joe Mayer 8-31-23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
JOE MAYER	FEDEX: 5293 4337 5412, 5293 4337 5423	8/31/2023	1600
Relinquished by: (Signature)	Received by: (Signature) BP	Date 9/1/23	Time 910
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

Version: 13Oct22

CUSTODY SEALS: 1599776, 1599777, 1599778, 1599779

5.1°C IR10
3 <°/

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-242838-1

Login Number: 242838 **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	5.1°C, 3.5°C IR10
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").	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: 400-242838-1
Project/Site: ROXANA MONTHLY 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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Roxana Monthly Groundwater – August/September 2023 Data Review

Laboratory SDG: 400-242903-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 10/4/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-090123-8260	MW14-ROX-090123
TB-ROX-090123-8011	ROST3MW-ROX-090123
MW14-ROX-090123-EB	ROST3MW-ROX-090123-DUP

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 dimethyl phthalate was detected in the method blank. Dimethyl phthalate and di-n-butyl phthalate were detected in the equipment blank. bis(2-Ethylhexyl) phthalate in sample MW14-ROX-090123 was re-extracted outside extraction time criteria. LCS/LCSD recoveries for benzenethiol were outside evaluation criteria. The SVOC surrogate recovery for 2-fluorophenol was outside criteria in sample MW14-ROX-090123 (RERA). The continuing calibration verification (CCV) for several analytes were outside evaluation criteria, biased low. The initial calibration verification (ICV) for 4,6-dinitro-ortho-cresol and 3,3'-dichlorobenzidine 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?

No, bis(2-ethylhexyl) phthalate in sample MW14-ROX-090123 was re-extracted 5 days outside of extraction time criteria (7 days) and then re-analyzed for confirmation; the sample was re-extracted out of hold time and the results were non-detect. bis(2-Ethylhexyl) phthalate in sample MW14-ROX-090123 was reported from the confirmation run due to deemed laboratory contamination in the initial run. Data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-090123 RERA	SVOCs	Bis(2-ethylhexyl) phthalate	**UJ**

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 400-640140/1-A	SVOCs	Dimethyl phthalate	0.550 µg/L
MW14-ROX-090123-EB	SVOCs	Dimethyl phthalate	0.48 µg/L
MW14-ROX-090123-EB	SVOCs	Di-n-butyl phthalate	4.0 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
ROST3MW-ROX-090123	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 400-640140/18-A/19-A	SVOCs	Benzenethiol	**2/3**	22	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
MW14-ROX-090123	SVOCs	Benzenethiol	**UJ**
ROST3MW-ROX-090123	SVOCs	Benzenethiol	**UJ**
ROST3MW-ROX-090123-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW14-ROX-090123 RERA	SVOCs	2-Fluorophenol	**39**	46-124

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid SVOC 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?

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
ROST3MW-ROX-090123	ROST3MW-ROX-090123-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 4,6-dinitro-ortho-cresol and 3,3'-dichlorobenzidine was outside evaluation criteria, biased low. The continuing calibration verification (CCV) for several analytes was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-090123	VOCs	Bromomethane	**UJ**
MW14-ROX-090123	VOCs	Chloroethane	**UJ**
MW14-ROX-090123	VOCs	Trichlorofluoromethane	**UJ**
MW14-ROX-090123	VOCs	1,1-Dichloroethene	**UJ**
ROST3MW-ROX-090123	VOCs	Bromomethane	**UJ**
ROST3MW-ROX-090123	VOCs	Chloroethane	**UJ**
ROST3MW-ROX-090123	VOCs	Trichlorofluoromethane	**UJ**
ROST3MW-ROX-090123	VOCs	1,1-Dichloroethene	**UJ**
ROST3MW-ROX-090123-DUP	VOCs	Bromomethane	**UJ**
ROST3MW-ROX-090123-DUP	VOCs	Chloroethane	**UJ**
ROST3MW-ROX-090123-DUP	VOCs	Trichlorofluoromethane	**UJ**
ROST3MW-ROX-090123-DUP	VOCs	1,1-Dichloroethene	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-090123	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
ROST3MW-ROX-090123	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
ROST3MW-ROX-090123-DUP	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
MW14-ROX-090123	SVOCs	3,3'-Dichlorobenzidine	**UJ**
ROST3MW-ROX-090123	SVOCs	3,3'-Dichlorobenzidine	**UJ**
ROST3MW-ROX-090123-DUP	SVOCs	3,3'-Dichlorobenzidine	**UJ**
MW14-ROX-090123	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST3MW-ROX-090123	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST3MW-ROX-090123-DUP	SVOCs	Hexachlorocyclopentadiene	**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 9/19/2023 9:35:00 AM

JOB DESCRIPTION

ROXANA MONTHLY GW

JOB NUMBER

400-242903-1

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

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Job ID: 400-242903-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-242903-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/2/2023 7:54 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 1.5°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640996 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene, Bromomethane, Chloroethane and Trichlorofluoromethane. 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 8260D: 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-090123-8260 (400-242903-1), MW14-ROX-090123-EB (400-242903-3), MW14-ROX-090123 (400-242903-4), ROST3MW-ROX-090123 (400-242903-5) and ROST3MW-ROX-090123-DUP (400-242903-6). 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 8260D: The continuing calibration verification (CCV) associated with batch 400-640996 recovered above the upper control limit for Acrylonitrile. The samples associated with this CCV were non-detects for the affected analyte; 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.

GC/MS Semi VOA
Method 8270E: The continuing calibration verification (CCV) associated with batch 400-640672 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 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-640140 and analytical batch 400-640672 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 8270E: The method blank for preparation batch 400-640140 and analytical batch 400-640672 contained Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270E: Two of six surrogates for the blank associated with preparation batch 400-640651 and analytical batch 400-641239 were outside of the lower control limit. There was no evidence of lab contamination for any target analyte, therefore the data have been reported.

Method 8270E: 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

Job ID: 400-242903-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

compounds outside limits: MW14-ROX-090123 (400-242903-4). These results have been reported and qualified.

Method 8270E: Sample MW14-ROX-090123 (400-242903-4) was re-analyzed to confirm a detection of Bis(2-ethylhexyl) phthalate. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. Both sets of data have been

Method 8270E: The initial calibration verification (ICV) analyzed in batch 400-637784 was outside method criteria for the following analyte(s): 3,3'-Dichlorobenzidine and 4,6-Dinitro-ortho-cresol. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270E_SIM: The continuing calibration verification (CCV) associated with batch 400-640637 recovered above the upper control limit for Fluoranthene. 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.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-640148 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 MONTHLY GW

Job ID: 400-242903-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242903-1	TB-ROX-090123-8260	Water	09/01/23 12:00	09/02/23 07:54
400-242903-2	TB-ROX-090123-8011	Water	09/01/23 12:00	09/02/23 07:54
400-242903-3	MW14-ROX-090123-EB	Water	09/01/23 08:00	09/02/23 07:54
400-242903-4	MW14-ROX-090123	Water	09/01/23 08:00	09/02/23 07:54
400-242903-5	ROST3MW-ROX-090123	Water	09/01/23 12:10	09/02/23 07:54
400-242903-6	ROST3MW-ROX-090123-DUP	Water	09/01/23 12:10	09/02/23 07:54

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: TB-ROX-090123-8260 — Lab Sample ID: 400-242903-1

No Detections.

Client Sample ID: TB-ROX-090123-8011 — Lab Sample ID: 400-242903-2

No Detections.

Client Sample ID: MW14-ROX-090123-EB — Lab Sample ID: 400-242903-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dimethyl phthalate	0.48	J B	9.6	0.16	ug/L	1		8270E	Total/NA
Di-n-butyl phthalate	4.0	J	9.6	2.6	ug/L	1		8270E	Total/NA

Client Sample ID: MW14-ROX-090123 — Lab Sample ID: 400-242903-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	8.8	J	9.7	4.9	ug/L	1		8270E	Total/NA

Client Sample ID: ROST3MW-ROX-090123 — Lab Sample ID: 400-242903-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10	J	25	10	ug/L	1		8260D	Total/NA
Phenanthrene	0.13	J	0.20	0.089	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.15	J	0.20	0.079	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.20		0.20	0.065	ug/L	1		8270E SIM	Total/NA
Bis(2-ethylhexyl) phthalate	5.6	J	9.9	4.9	ug/L	1		8270E	Total/NA
Diethyl phthalate	0.27	J	9.9	0.24	ug/L	1		8270E	Total/NA
Dimethyl phthalate	0.76	J B	9.9	0.17	ug/L	1		8270E	Total/NA

Client Sample ID: ROST3MW-ROX-090123-DUP — Lab Sample ID: 400-242903-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.090	J	0.20	0.088	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	0.11	J	0.20	0.065	ug/L	1		8270E SIM	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: TB-ROX-090123-8260
Date Collected: 09/01/23 12:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/14/23 18:33	1
Acrolein	ND		20	3.3	ug/L			09/14/23 18:33	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 18:33	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 18:33	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 18:33	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 18:33	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 18:33	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 18:33	1
Bromomethane	ND		1.0	0.98	ug/L			09/14/23 18:33	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 18:33	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 18:33	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 18:33	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 18:33	1
Chloroethane	ND		1.0	0.76	ug/L			09/14/23 18:33	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 18:33	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 18:33	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 18:33	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 18:33	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 18:33	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 18:33	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 18:33	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 18:33	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 18:33	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 18:33	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 18:33	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 18:33	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 18:33	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 18:33	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 18:33	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 18:33	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 18:33	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 18:33	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 18:33	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 18:33	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 18:33	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 18:33	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 18:33	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 18:33	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 18:33	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 18:33	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 18:33	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 18:33	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 18:33	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 18:33	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 18:33	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 18:33	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 18:33	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 18:33	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 18:33	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: TB-ROX-090123-8260
Date Collected: 09/01/23 12:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 18:33	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 18:33	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 18:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 18:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 18:33	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 18:33	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 18:33	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 18:33	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 18:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 18:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 18:33	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 18:33	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 18:33	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 18:33	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/14/23 18:33	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 18:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 18:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 18:33	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 18:33	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 18:33	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 18:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 130*		*09/14/23 18:33*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*09/14/23 18:33*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*09/14/23 18:33*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: TB-ROX-090123-8011
Date Collected: 09/01/23 12:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-2
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-Dibromo-3-Chloropropane	ND		0.031	0.017	ug/L		09/07/23 13:27	09/07/23 21:41	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*	*p*	*51 - 149*	*09/07/23 13:27*	*09/07/23 21:41*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: MW14-ROX-090123-EB
Date Collected: 09/01/23 08:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/14/23 19:00	1
Acrolein	ND		20	3.3	ug/L			09/14/23 19:00	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 19:00	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 19:00	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 19:00	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 19:00	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 19:00	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 19:00	1
Bromomethane	ND		1.0	0.98	ug/L			09/14/23 19:00	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 19:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 19:00	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 19:00	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 19:00	1
Chloroethane	ND		1.0	0.76	ug/L			09/14/23 19:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 19:00	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 19:00	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 19:00	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 19:00	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 19:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 19:00	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 19:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 19:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 19:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 19:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 19:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 19:00	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 19:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 19:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 19:00	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 19:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 19:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 19:00	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 19:00	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 19:00	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 19:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 19:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 19:00	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 19:00	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 19:00	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 19:00	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 19:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 19:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 19:00	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 19:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 19:00	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 19:00	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: MW14-ROX-090123-EB

Date Collected: 09/01/23 08:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-3

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 19:00	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 19:00	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 19:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 19:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 19:00	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 19:00	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 19:00	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 19:00	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 19:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 19:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 19:00	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 19:00	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 19:00	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 19:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/14/23 19:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 19:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 19:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 19:00	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 19:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 19:00	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 130*		*09/14/23 19:00*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*09/14/23 19:00*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*09/14/23 19:00*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.095	ug/L		09/08/23 11:20	09/12/23 20:33	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/08/23 11:20	09/12/23 20:33	1
Anthracene	ND		0.19	0.045	ug/L		09/08/23 11:20	09/12/23 20:33	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/08/23 11:20	09/12/23 20:33	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/08/23 11:20	09/12/23 20:33	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/08/23 11:20	09/12/23 20:33	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/08/23 11:20	09/12/23 20:33	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/08/23 11:20	09/12/23 20:33	1
Chrysene	ND		0.19	0.032	ug/L		09/08/23 11:20	09/12/23 20:33	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/08/23 11:20	09/12/23 20:33	1
Fluoranthene	ND		0.19	0.033	ug/L		09/08/23 11:20	09/12/23 20:33	1
Fluorene	ND		0.19	0.086	ug/L		09/08/23 11:20	09/12/23 20:33	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/08/23 11:20	09/12/23 20:33	1
Phenanthrene	ND		0.19	0.087	ug/L		09/08/23 11:20	09/12/23 20:33	1
Pyrene	ND		0.19	0.038	ug/L		09/08/23 11:20	09/12/23 20:33	1
1-Methylnaphthalene	ND		0.19	0.077	ug/L		09/08/23 11:20	09/12/23 20:33	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		09/08/23 11:20	09/12/23 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*84*		*18 - 147*	*09/08/23 11:20*	*09/12/23 20:33*	*1*
2-Fluorobiphenyl	*70*		*15 - 128*	*09/08/23 11:20*	*09/12/23 20:33*	*1*

Client Sample ID: MW14-ROX-090123-EB
Date Collected: 09/01/23 08:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-3
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*83*		*10 - 144*	*09/08/23 11:20*	*09/12/23 20:33*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.7	ug/L		09/08/23 11:20	09/12/23 21:36	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		09/08/23 11:20	09/12/23 21:36	1
Benzoic acid	ND		29	7.0	ug/L		09/08/23 11:20	09/12/23 21:36	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/08/23 11:20	09/12/23 21:36	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/08/23 11:20	09/12/23 21:36	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		09/08/23 11:20	09/12/23 21:36	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/08/23 11:20	09/12/23 21:36	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/08/23 11:20	09/12/23 21:36	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/08/23 11:20	09/12/23 21:36	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/08/23 11:20	09/12/23 21:36	1
4-Chloroaniline	ND		9.6	3.3	ug/L		09/08/23 11:20	09/12/23 21:36	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		09/08/23 11:20	09/12/23 21:36	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/08/23 11:20	09/12/23 21:36	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/08/23 11:20	09/12/23 21:36	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/08/23 11:20	09/12/23 21:36	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		09/08/23 11:20	09/12/23 21:36	1
Dibenzofuran	ND		9.6	0.16	ug/L		09/08/23 11:20	09/12/23 21:36	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/08/23 11:20	09/12/23 21:36	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/08/23 11:20	09/12/23 21:36	1
Diethyl phthalate	ND		9.6	0.23	ug/L		09/08/23 11:20	09/12/23 21:36	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		09/08/23 11:20	09/12/23 21:36	1
Dimethyl phthalate	**0.48**	**J B**	9.6	0.16	ug/L		09/08/23 11:20	09/14/23 00:54	1
Di-n-butyl phthalate	**4.0**	**J**	9.6	2.6	ug/L		09/08/23 11:20	09/12/23 21:36	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/08/23 11:20	09/12/23 21:36	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/08/23 11:20	09/12/23 21:36	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/08/23 11:20	09/12/23 21:36	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/08/23 11:20	09/12/23 21:36	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/08/23 11:20	09/12/23 21:36	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/08/23 11:20	09/12/23 21:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/08/23 11:20	09/12/23 21:36	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/08/23 11:20	09/12/23 21:36	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/08/23 11:20	09/12/23 21:36	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/08/23 11:20	09/12/23 21:36	1
Indene	ND		9.6	0.96	ug/L		09/08/23 11:20	09/12/23 21:36	1
Isophorone	ND		9.6	0.13	ug/L		09/08/23 11:20	09/12/23 21:36	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/08/23 11:20	09/12/23 21:36	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/08/23 11:20	09/12/23 21:36	1
2-Nitroaniline	ND		9.6	2.1	ug/L		09/08/23 11:20	09/12/23 21:36	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/08/23 11:20	09/12/23 21:36	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/08/23 11:20	09/12/23 21:36	1
Nitrobenzene	ND		9.6	0.13	ug/L		09/08/23 11:20	09/12/23 21:36	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/08/23 11:20	09/12/23 21:36	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/08/23 11:20	09/12/23 21:36	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		09/08/23 11:20	09/12/23 21:36	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: MW14-ROX-090123-EB
Date Collected: 09/01/23 08:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-3
Matrix: Water

Method: SW846 8270E - 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		09/08/23 11:20	09/12/23 21:36	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/08/23 11:20	09/12/23 21:36	1
Pentachlorophenol	ND		19	1.3	ug/L		09/08/23 11:20	09/12/23 21:36	1
Phenol	ND		9.6	2.5	ug/L		09/08/23 11:20	09/12/23 21:36	1
Pyridine	ND		9.6	3.1	ug/L		09/08/23 11:20	09/12/23 21:36	1
Quinoline	ND		9.6	4.3	ug/L		09/08/23 11:20	09/12/23 21:36	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		09/08/23 11:20	09/12/23 21:36	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		09/08/23 11:20	09/12/23 21:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*09/08/23 11:20*	*09/12/23 21:36*	*1*
2-Fluorophenol	*55*		*13 - 113*	*09/08/23 11:20*	*09/12/23 21:36*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*09/08/23 11:20*	*09/12/23 21:36*	*1*
Phenol-d5	*63*		*17 - 127*	*09/08/23 11:20*	*09/12/23 21:36*	*1*
Terphenyl-d14	*96*		*44 - 149*	*09/08/23 11:20*	*09/12/23 21:36*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*09/08/23 11:20*	*09/12/23 21:36*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 22:02	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 22:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*	*p*	*51 - 149*	*09/07/23 13:27*	*09/07/23 22:02*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: MW14-ROX-090123
Date Collected: 09/01/23 08:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/14/23 19:27	1
Acrolein	ND		20	3.3	ug/L			09/14/23 19:27	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 19:27	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 19:27	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 19:27	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 19:27	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 19:27	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 19:27	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			09/14/23 19:27	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 19:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 19:27	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 19:27	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 19:27	1
Chloroethane	ND	UJ	1.0	0.76	ug/L			09/14/23 19:27	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 19:27	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 19:27	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 19:27	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 19:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 19:27	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 19:27	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 19:27	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 19:27	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 19:27	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 19:27	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 19:27	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 19:27	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 19:27	1
1,1-Dichloroethene	ND	UJ	1.0	0.50	ug/L			09/14/23 19:27	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:27	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:27	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:27	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 19:27	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 19:27	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 19:27	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 19:27	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 19:27	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 19:27	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 19:27	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 19:27	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 19:27	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 19:27	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 19:27	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 19:27	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 19:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 19:27	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 19:27	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 19:27	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 19:27	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 19:27	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: MW14-ROX-090123

Lab Sample ID: 400-242903-4

Date Collected: 09/01/23 08:00

Matrix: Water

Date Received: 09/02/23 07:54

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 19:27	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 19:27	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 19:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 19:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 19:27	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 19:27	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 19:27	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 19:27	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 19:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 19:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 19:27	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 19:27	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 19:27	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 19:27	1
Trichlorofluoromethane	ND	UJ	1.0	0.52	ug/L			09/14/23 19:27	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 19:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 19:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 19:27	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 19:27	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 19:27	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 130*		*09/14/23 19:27*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*09/14/23 19:27*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*09/14/23 19:27*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.096	ug/L		09/08/23 11:20	09/12/23 20:54	1
Acenaphthylene	ND		0.19	0.043	ug/L		09/08/23 11:20	09/12/23 20:54	1
Anthracene	ND		0.19	0.046	ug/L		09/08/23 11:20	09/12/23 20:54	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/08/23 11:20	09/12/23 20:54	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/08/23 11:20	09/12/23 20:54	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/08/23 11:20	09/12/23 20:54	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/08/23 11:20	09/12/23 20:54	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/08/23 11:20	09/12/23 20:54	1
Chrysene	ND		0.19	0.032	ug/L		09/08/23 11:20	09/12/23 20:54	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		09/08/23 11:20	09/12/23 20:54	1
Fluoranthene	ND		0.19	0.033	ug/L		09/08/23 11:20	09/12/23 20:54	1
Fluorene	ND		0.19	0.086	ug/L		09/08/23 11:20	09/12/23 20:54	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/08/23 11:20	09/12/23 20:54	1
Phenanthrene	ND		0.19	0.087	ug/L		09/08/23 11:20	09/12/23 20:54	1
Pyrene	ND		0.19	0.038	ug/L		09/08/23 11:20	09/12/23 20:54	1
1-Methylnaphthalene	ND		0.19	0.078	ug/L		09/08/23 11:20	09/12/23 20:54	1
2-Methylnaphthalene	ND		0.19	0.064	ug/L		09/08/23 11:20	09/12/23 20:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*76*		*18 - 147*	*09/08/23 11:20*	*09/12/23 20:54*	*1*
2-Fluorobiphenyl	*63*		*15 - 128*	*09/08/23 11:20*	*09/12/23 20:54*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: MW14-ROX-090123
Date Collected: 09/01/23 08:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-4
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	82		10 - 144	09/08/23 11:20	09/12/23 20:54	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		09/08/23 11:20	09/12/23 21:57	1
Benzenethiol	ND	*- UJ	9.7	1.7	ug/L		09/08/23 11:20	09/12/23 21:57	1
Benzoic acid	ND		29	7.1	ug/L		09/08/23 11:20	09/12/23 21:57	1
Benzyl alcohol	ND		9.7	1.9	ug/L		09/08/23 11:20	09/12/23 21:57	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		09/08/23 11:20	09/12/23 21:57	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		09/08/23 11:20	09/12/23 21:57	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		09/08/23 11:20	09/12/23 21:57	1
Bis(2-ethylhexyl) phthalate	**8.8**	**J**	9.7	4.9	ug/L		09/08/23 11:20	09/12/23 21:57	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		09/08/23 11:20	09/12/23 21:57	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		09/08/23 11:20	09/12/23 21:57	1
4-Chloroaniline	ND		9.7	3.3	ug/L		09/08/23 11:20	09/12/23 21:57	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		09/08/23 11:20	09/12/23 21:57	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		09/08/23 11:20	09/12/23 21:57	1
2-Chlorophenol	ND		9.7	2.1	ug/L		09/08/23 11:20	09/12/23 21:57	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		09/08/23 11:20	09/12/23 21:57	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		09/08/23 11:20	09/12/23 21:57	1
Dibenzofuran	ND		9.7	0.17	ug/L		09/08/23 11:20	09/12/23 21:57	1
3,3'-Dichlorobenzidine	ND	UJ	9.7	2.5	ug/L		09/08/23 11:20	09/12/23 21:57	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		09/08/23 11:20	09/12/23 21:57	1
Diethyl phthalate	ND		9.7	0.23	ug/L		09/08/23 11:20	09/12/23 21:57	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		09/08/23 11:20	09/12/23 21:57	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		09/08/23 11:20	09/12/23 21:57	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		09/08/23 11:20	09/12/23 21:57	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.7	1.6	ug/L		09/08/23 11:20	09/12/23 21:57	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/08/23 11:20	09/12/23 21:57	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		09/08/23 11:20	09/12/23 21:57	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		09/08/23 11:20	09/12/23 21:57	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		09/08/23 11:20	09/12/23 21:57	1
1,4-Dioxane	ND		9.7	0.97	ug/L		09/08/23 11:20	09/12/23 21:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		09/08/23 11:20	09/12/23 21:57	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		09/08/23 11:20	09/12/23 21:57	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/08/23 11:20	09/12/23 21:57	1
Hexachloroethane	ND		9.7	4.1	ug/L		09/08/23 11:20	09/12/23 21:57	1
Indene	ND		9.7	0.97	ug/L		09/08/23 11:20	09/12/23 21:57	1
Isophorone	ND		9.7	0.14	ug/L		09/08/23 11:20	09/12/23 21:57	1
2-Methylphenol	ND		9.7	1.7	ug/L		09/08/23 11:20	09/12/23 21:57	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/08/23 11:20	09/12/23 21:57	1
2-Nitroaniline	ND		9.7	2.1	ug/L		09/08/23 11:20	09/12/23 21:57	1
3-Nitroaniline	ND		9.7	1.7	ug/L		09/08/23 11:20	09/12/23 21:57	1
4-Nitroaniline	ND		9.7	1.5	ug/L		09/08/23 11:20	09/12/23 21:57	1
Nitrobenzene	ND		9.7	0.13	ug/L		09/08/23 11:20	09/12/23 21:57	1
2-Nitrophenol	ND		9.7	5.1	ug/L		09/08/23 11:20	09/12/23 21:57	1
4-Nitrophenol	ND		9.7	2.0	ug/L		09/08/23 11:20	09/12/23 21:57	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		09/08/23 11:20	09/12/23 21:57	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: MW14-ROX-090123

Date Collected: 09/01/23 08:00
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-4

Matrix: Water

Method: SW846 8270E - 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		09/08/23 11:20	09/12/23 21:57	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		09/08/23 11:20	09/12/23 21:57	1
Pentachlorophenol	ND		19	1.4	ug/L		09/08/23 11:20	09/12/23 21:57	1
Phenol	ND		9.7	2.5	ug/L		09/08/23 11:20	09/12/23 21:57	1
Pyridine	ND		9.7	3.1	ug/L		09/08/23 11:20	09/12/23 21:57	1
Quinoline	ND		9.7	4.4	ug/L		09/08/23 11:20	09/12/23 21:57	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		09/08/23 11:20	09/12/23 21:57	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		09/08/23 11:20	09/12/23 21:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*09/08/23 11:20*	*09/12/23 21:57*	*1*
2-Fluorophenol	*41*		*13 - 113*	*09/08/23 11:20*	*09/12/23 21:57*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*09/08/23 11:20*	*09/12/23 21:57*	*1*
Phenol-d5	*60*		*17 - 127*	*09/08/23 11:20*	*09/12/23 21:57*	*1*
Terphenyl-d14	*88*		*44 - 149*	*09/08/23 11:20*	*09/12/23 21:57*	*1*
2,4,6-Tribromophenol	*68*		*26 - 150*	*09/08/23 11:20*	*09/12/23 21:57*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.8	4.9	ug/L		09/13/23 10:04	09/15/23 20:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*39*	*S1-*	*46 - 124*	*09/13/23 10:04*	*09/15/23 20:06*	*1*
Nitrobenzene-d5	*43*		*36 - 126*	*09/13/23 10:04*	*09/15/23 20:06*	*1*
Terphenyl-d14	*56*		*44 - 149*	*09/13/23 10:04*	*09/15/23 20:06*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 22:22	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*51 - 149*	*09/07/23 13:27*	*09/07/23 22:22*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: ROST3MW-ROX-090123

Date Collected: 09/01/23 12:10
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-5

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**10**	**J**	25	10	ug/L			09/14/23 19:53	1
Acrolein	ND		20	3.3	ug/L			09/14/23 19:53	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 19:53	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 19:53	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 19:53	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 19:53	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 19:53	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 19:53	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			09/14/23 19:53	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 19:53	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 19:53	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 19:53	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 19:53	1
Chloroethane	ND	UJ	1.0	0.76	ug/L			09/14/23 19:53	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 19:53	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 19:53	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 19:53	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 19:53	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 19:53	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 19:53	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 19:53	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 19:53	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 19:53	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 19:53	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 19:53	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 19:53	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 19:53	1
1,1-Dichloroethene	ND	UJ	1.0	0.50	ug/L			09/14/23 19:53	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:53	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:53	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 19:53	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 19:53	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 19:53	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 19:53	1
Hexachlorobutadiene	ND	UJ	5.0	0.90	ug/L			09/14/23 19:53	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 19:53	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 19:53	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 19:53	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 19:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 19:53	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 19:53	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 19:53	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 19:53	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 19:53	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 19:53	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 19:53	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 19:53	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 19:53	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 19:53	1

Client Sample ID: ROST3MW-ROX-090123
Date Collected: 09/01/23 12:10
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 19:53	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 19:53	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 19:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 19:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 19:53	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 19:53	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 19:53	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 19:53	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 19:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 19:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 19:53	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 19:53	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 19:53	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 19:53	1
Trichlorofluoromethane	ND	UJ	1.0	0.52	ug/L			09/14/23 19:53	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 19:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 19:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 19:53	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 19:53	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 19:53	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 19:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*09/14/23 19:53*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*09/14/23 19:53*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*09/14/23 19:53*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.098	ug/L		09/08/23 11:20	09/15/23 12:39	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/08/23 11:20	09/15/23 12:39	1
Anthracene	ND		0.20	0.046	ug/L		09/08/23 11:20	09/15/23 12:39	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/08/23 11:20	09/15/23 12:39	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/08/23 11:20	09/15/23 12:39	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/08/23 11:20	09/15/23 12:39	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/08/23 11:20	09/15/23 12:39	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/08/23 11:20	09/15/23 12:39	1
Chrysene	ND		0.20	0.033	ug/L		09/08/23 11:20	09/15/23 12:39	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		09/08/23 11:20	09/15/23 12:39	1
Fluoranthene	ND		0.20	0.034	ug/L		09/08/23 11:20	09/15/23 12:39	1
Fluorene	ND		0.20	0.088	ug/L		09/08/23 11:20	09/15/23 12:39	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/08/23 11:20	09/15/23 12:39	1
Phenanthrene	**0.13**	**J**	0.20	0.089	ug/L		09/08/23 11:20	09/15/23 12:39	1
Pyrene	ND		0.20	0.039	ug/L		09/08/23 11:20	09/15/23 12:39	1
1-Methylnaphthalene	**0.15**	**J**	0.20	0.079	ug/L		09/08/23 11:20	09/15/23 12:39	1
2-Methylnaphthalene	**0.20**		0.20	0.065	ug/L		09/08/23 11:20	09/15/23 12:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*127*		*18 - 147*	*09/08/23 11:20*	*09/15/23 12:39*	*1*
2-Fluorobiphenyl	*107*		*15 - 128*	*09/08/23 11:20*	*09/15/23 12:39*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: ROST3MW-ROX-090123
Date Collected: 09/01/23 12:10
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-5
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	109		10 - 144	09/08/23 11:20	09/15/23 12:39	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		09/08/23 11:20	09/12/23 22:18	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		09/08/23 11:20	09/12/23 22:18	1
Benzoic acid	ND		30	7.2	ug/L		09/08/23 11:20	09/12/23 22:18	1
Benzyl alcohol	ND		9.9	2.0	ug/L		09/08/23 11:20	09/12/23 22:18	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		09/08/23 11:20	09/12/23 22:18	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		09/08/23 11:20	09/12/23 22:18	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		09/08/23 11:20	09/12/23 22:18	1
Bis(2-ethylhexyl) phthalate	**5.6**	**J**	9.9	4.9	ug/L		09/08/23 11:20	09/12/23 22:18	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		09/08/23 11:20	09/12/23 22:18	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		09/08/23 11:20	09/12/23 22:18	1
4-Chloroaniline	ND		9.9	3.4	ug/L		09/08/23 11:20	09/12/23 22:18	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		09/08/23 11:20	09/12/23 22:18	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		09/08/23 11:20	09/12/23 22:18	1
2-Chlorophenol	ND		9.9	2.2	ug/L		09/08/23 11:20	09/12/23 22:18	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		09/08/23 11:20	09/12/23 22:18	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		09/08/23 11:20	09/12/23 22:18	1
Dibenzofuran	ND		9.9	0.17	ug/L		09/08/23 11:20	09/12/23 22:18	1
3,3'-Dichlorobenzidine	ND	UJ	9.9	2.6	ug/L		09/08/23 11:20	09/12/23 22:18	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		09/08/23 11:20	09/12/23 22:18	1
Diethyl phthalate	**0.27**	**J**	9.9	0.24	ug/L		09/08/23 11:20	09/12/23 22:18	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		09/08/23 11:20	09/12/23 22:18	1
Dimethyl phthalate	**0.76**	**J B** U	9.9	0.17	ug/L		09/08/23 11:20	09/14/23 01:19	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		09/08/23 11:20	09/12/23 22:18	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.9	1.6	ug/L		09/08/23 11:20	09/12/23 22:18	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/08/23 11:20	09/12/23 22:18	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		09/08/23 11:20	09/12/23 22:18	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		09/08/23 11:20	09/12/23 22:18	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		09/08/23 11:20	09/12/23 22:18	1
1,4-Dioxane	ND		9.9	0.99	ug/L		09/08/23 11:20	09/12/23 22:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		09/08/23 11:20	09/12/23 22:18	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		09/08/23 11:20	09/12/23 22:18	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/08/23 11:20	09/12/23 22:18	1
Hexachloroethane	ND		9.9	4.2	ug/L		09/08/23 11:20	09/12/23 22:18	1
Indene	ND		9.9	0.99	ug/L		09/08/23 11:20	09/12/23 22:18	1
Isophorone	ND		9.9	0.14	ug/L		09/08/23 11:20	09/12/23 22:18	1
2-Methylphenol	ND		9.9	1.8	ug/L		09/08/23 11:20	09/12/23 22:18	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/08/23 11:20	09/12/23 22:18	1
2-Nitroaniline	ND		9.9	2.2	ug/L		09/08/23 11:20	09/12/23 22:18	1
3-Nitroaniline	ND		9.9	1.8	ug/L		09/08/23 11:20	09/12/23 22:18	1
4-Nitroaniline	ND		9.9	1.5	ug/L		09/08/23 11:20	09/12/23 22:18	1
Nitrobenzene	ND		9.9	0.13	ug/L		09/08/23 11:20	09/12/23 22:18	1
2-Nitrophenol	ND		9.9	5.1	ug/L		09/08/23 11:20	09/12/23 22:18	1
4-Nitrophenol	ND		9.9	2.1	ug/L		09/08/23 11:20	09/12/23 22:18	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		09/08/23 11:20	09/12/23 22:18	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: ROST3MW-ROX-090123

Date Collected: 09/01/23 12:10
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-5

Matrix: Water

Method: SW846 8270E - 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		09/08/23 11:20	09/12/23 22:18	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		09/08/23 11:20	09/12/23 22:18	1
Pentachlorophenol	ND		20	1.4	ug/L		09/08/23 11:20	09/12/23 22:18	1
Phenol	ND		9.9	2.6	ug/L		09/08/23 11:20	09/12/23 22:18	1
Pyridine	ND		9.9	3.2	ug/L		09/08/23 11:20	09/12/23 22:18	1
Quinoline	ND		9.9	4.5	ug/L		09/08/23 11:20	09/12/23 22:18	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		09/08/23 11:20	09/12/23 22:18	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		09/08/23 11:20	09/12/23 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*107*		*46 - 124*	*09/08/23 11:20*	*09/12/23 22:18*	*1*
2-Fluorophenol	*58*		*13 - 113*	*09/08/23 11:20*	*09/12/23 22:18*	*1*
Nitrobenzene-d5	*91*		*36 - 126*	*09/08/23 11:20*	*09/12/23 22:18*	*1*
Phenol-d5	*82*		*17 - 127*	*09/08/23 11:20*	*09/12/23 22:18*	*1*
Terphenyl-d14	*129*		*44 - 149*	*09/08/23 11:20*	*09/12/23 22:18*	*1*
2,4,6-Tribromophenol	*86*		*26 - 150*	*09/08/23 11:20*	*09/12/23 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-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		09/07/23 13:27	09/07/23 22:42	1
1,2-Dibromoethane	ND		0.019	0.015	ug/L		09/07/23 13:27	09/07/23 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*09/07/23 13:27*	*09/07/23 22:42*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: ROST3MW-ROX-090123-DUP
Date Collected: 09/01/23 12:10
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/14/23 20:20	1
Acrolein	ND		20	3.3	ug/L			09/14/23 20:20	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 20:20	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 20:20	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 20:20	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 20:20	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 20:20	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 20:20	1
Bromomethane	ND	UJ	1.0	0.98	ug/L			09/14/23 20:20	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 20:20	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 20:20	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 20:20	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 20:20	1
Chloroethane	ND	UJ	1.0	0.76	ug/L			09/14/23 20:20	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 20:20	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 20:20	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 20:20	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 20:20	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 20:20	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 20:20	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 20:20	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 20:20	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 20:20	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 20:20	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 20:20	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 20:20	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 20:20	1
1,1-Dichloroethene	ND	UJ	1.0	0.50	ug/L			09/14/23 20:20	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 20:20	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 20:20	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 20:20	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 20:20	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 20:20	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 20:20	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 20:20	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 20:20	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 20:20	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 20:20	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 20:20	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 20:20	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 20:20	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 20:20	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 20:20	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 20:20	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 20:20	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 20:20	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 20:20	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 20:20	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 20:20	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: ROST3MW-ROX-090123-DUP

Date Collected: 09/01/23 12:10
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-6

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 20:20	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 20:20	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 20:20	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 20:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 20:20	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 20:20	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 20:20	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 20:20	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 20:20	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 20:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 20:20	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 20:20	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 20:20	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 20:20	1
Trichlorofluoromethane	ND	UJ	1.0	0.52	ug/L			09/14/23 20:20	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 20:20	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 20:20	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 20:20	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 20:20	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 20:20	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*09/14/23 20:20*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*09/14/23 20:20*	*1*
Toluene-d8 (Surr)	*107*		*64 - 132*		*09/14/23 20:20*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		09/08/23 11:20	09/15/23 13:00	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/08/23 11:20	09/15/23 13:00	1
Anthracene	ND		0.20	0.046	ug/L		09/08/23 11:20	09/15/23 13:00	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/08/23 11:20	09/15/23 13:00	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/08/23 11:20	09/15/23 13:00	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/08/23 11:20	09/15/23 13:00	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		09/08/23 11:20	09/15/23 13:00	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/08/23 11:20	09/15/23 13:00	1
Chrysene	ND		0.20	0.032	ug/L		09/08/23 11:20	09/15/23 13:00	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		09/08/23 11:20	09/15/23 13:00	1
Fluoranthene	ND		0.20	0.033	ug/L		09/08/23 11:20	09/15/23 13:00	1
Fluorene	ND		0.20	0.087	ug/L		09/08/23 11:20	09/15/23 13:00	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		09/08/23 11:20	09/15/23 13:00	1
Phenanthrene	**0.090**	**J**	0.20	0.088	ug/L		09/08/23 11:20	09/15/23 13:00	1
Pyrene	ND		0.20	0.038	ug/L		09/08/23 11:20	09/15/23 13:00	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		09/08/23 11:20	09/15/23 13:00	1
2-Methylnaphthalene	**0.11**	**J**	0.20	0.065	ug/L		09/08/23 11:20	09/15/23 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*81*		*18 - 147*	*09/08/23 11:20*	*09/15/23 13:00*	*1*
2-Fluorobiphenyl	*77*		*15 - 128*	*09/08/23 11:20*	*09/15/23 13:00*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: ROST3MW-ROX-090123-DUP
Date Collected: 09/01/23 12:10
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-6
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*74*		*10 - 144*	*09/08/23 11:20*	*09/15/23 13:00*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		09/08/23 11:20	09/12/23 22:39	1
Benzenethiol	ND	*- UJ	9.8	1.7	ug/L		09/08/23 11:20	09/12/23 22:39	1
Benzoic acid	ND		29	7.2	ug/L		09/08/23 11:20	09/12/23 22:39	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/08/23 11:20	09/12/23 22:39	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/08/23 11:20	09/12/23 22:39	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		09/08/23 11:20	09/12/23 22:39	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/08/23 11:20	09/12/23 22:39	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/08/23 11:20	09/12/23 22:39	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/08/23 11:20	09/12/23 22:39	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/08/23 11:20	09/12/23 22:39	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/08/23 11:20	09/12/23 22:39	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/08/23 11:20	09/12/23 22:39	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/08/23 11:20	09/12/23 22:39	1
2-Chlorophenol	ND		9.8	2.2	ug/L		09/08/23 11:20	09/12/23 22:39	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/08/23 11:20	09/12/23 22:39	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/08/23 11:20	09/12/23 22:39	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/08/23 11:20	09/12/23 22:39	1
3,3'-Dichlorobenzidine	ND	UJ	9.8	2.6	ug/L		09/08/23 11:20	09/12/23 22:39	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		09/08/23 11:20	09/12/23 22:39	1
Diethyl phthalate	ND		9.8	0.24	ug/L		09/08/23 11:20	09/12/23 22:39	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/08/23 11:20	09/12/23 22:39	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		09/08/23 11:20	09/12/23 22:39	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		09/08/23 11:20	09/12/23 22:39	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.8	1.6	ug/L		09/08/23 11:20	09/12/23 22:39	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/08/23 11:20	09/12/23 22:39	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/08/23 11:20	09/12/23 22:39	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/08/23 11:20	09/12/23 22:39	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/08/23 11:20	09/12/23 22:39	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/08/23 11:20	09/12/23 22:39	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/08/23 11:20	09/12/23 22:39	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/08/23 11:20	09/12/23 22:39	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/08/23 11:20	09/12/23 22:39	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/08/23 11:20	09/12/23 22:39	1
Indene	ND		9.8	0.98	ug/L		09/08/23 11:20	09/12/23 22:39	1
Isophorone	ND		9.8	0.14	ug/L		09/08/23 11:20	09/12/23 22:39	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/08/23 11:20	09/12/23 22:39	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/08/23 11:20	09/12/23 22:39	1
2-Nitroaniline	ND		9.8	2.2	ug/L		09/08/23 11:20	09/12/23 22:39	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/08/23 11:20	09/12/23 22:39	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/08/23 11:20	09/12/23 22:39	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/08/23 11:20	09/12/23 22:39	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/08/23 11:20	09/12/23 22:39	1
4-Nitrophenol	ND		9.8	2.1	ug/L		09/08/23 11:20	09/12/23 22:39	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/08/23 11:20	09/12/23 22:39	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: ROST3MW-ROX-090123-DUP
Date Collected: 09/01/23 12:10
Date Received: 09/02/23 07:54

Lab Sample ID: 400-242903-6
Matrix: Water

Method: SW846 8270E - 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		09/08/23 11:20	09/12/23 22:39	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/08/23 11:20	09/12/23 22:39	1
Pentachlorophenol	ND		20	1.4	ug/L		09/08/23 11:20	09/12/23 22:39	1
Phenol	ND		9.8	2.6	ug/L		09/08/23 11:20	09/12/23 22:39	1
Pyridine	ND		9.8	3.1	ug/L		09/08/23 11:20	09/12/23 22:39	1
Quinoline	ND		9.8	4.4	ug/L		09/08/23 11:20	09/12/23 22:39	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/08/23 11:20	09/12/23 22:39	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/08/23 11:20	09/12/23 22:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*09/08/23 11:20*	*09/12/23 22:39*	*1*
2-Fluorophenol	*52*		*13 - 113*	*09/08/23 11:20*	*09/12/23 22:39*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*09/08/23 11:20*	*09/12/23 22:39*	*1*
Phenol-d5	*61*		*17 - 127*	*09/08/23 11:20*	*09/12/23 22:39*	*1*
Terphenyl-d14	*90*		*44 - 149*	*09/08/23 11:20*	*09/12/23 22:39*	*1*
2,4,6-Tribromophenol	*65*		*26 - 150*	*09/08/23 11:20*	*09/12/23 22:39*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 23:02	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 23:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*09/07/23 13:27*	*09/07/23 23:02*	*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.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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
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 MONTHLY GW

Job ID: 400-242903-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-242903-1	TB-ROX-090123-8260	104	107	104
400-242903-3	MW14-ROX-090123-EB	105	108	104
400-242903-4	MW14-ROX-090123	105	105	105
400-242903-5	ROST3MW-ROX-090123	107	102	105
400-242903-6	ROST3MW-ROX-090123-DUP	109	104	107
LCS 400-640996/1002	Lab Control Sample	108	103	104
MB 400-640996/4	Method Blank	107	107	103

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-242903-3	MW14-ROX-090123-EB	77	55	67	63	96	61
400-242903-4	MW14-ROX-090123	74	41	65	60	88	68
400-242903-4 - RERA	MW14-ROX-090123	39 S1-		43		56	
400-242903-5	ROST3MW-ROX-090123	107	58	91	82	129	86
400-242903-6	ROST3MW-ROX-090123-DUP	74	52	64	61	90	65
LCS 400-640140/18-A	Lab Control Sample	78	59	69	66	87	66
LCS 400-640140/2-A	Lab Control Sample	80	60	64	68	87	79
LCS 400-640651/2-A	Lab Control Sample	66		64		69	
LCSD 400-640140/19-A	Lab Control Sample Dup	89	65	76	74	100	70
LCSD 400-640140/3-A	Lab Control Sample Dup	77	53	65	64	81	80
LCSD 400-640651/3-A	Lab Control Sample Dup	70		57		73	
MB 400-640140/1-A	Method Blank	72	33	63	50	82	61
MB 400-640651/1-A	Method Blank	64		54		68	

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-242903-3	MW14-ROX-090123-EB	84	70	83
400-242903-4	MW14-ROX-090123	76	63	82
400-242903-5	ROST3MW-ROX-090123	127	107	109
400-242903-6	ROST3MW-ROX-090123-DUP	81	77	74

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
LCS 400-640140/22-A	Lab Control Sample	50	50	63
LCSD 400-640140/23-A	Lab Control Sample Dup	67	67	85
MB 400-640140/1-A	Method Blank	54	50	62

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-242903-2	TB-ROX-090123-8011	80 p
400-242903-3	MW14-ROX-090123-EB	86 p
400-242903-4	MW14-ROX-090123	88
400-242903-5	ROST3MW-ROX-090123	81
400-242903-6	ROST3MW-ROX-090123-DUP	81
LCS 400-640109/2-A	Lab Control Sample	77
LCSD 400-640109/3-A	Lab Control Sample Dup	87
MB 400-640109/1-A	Method Blank	80

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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 MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: TB-ROX-090123-8260

Lab Sample ID: 400-242903-1
Date Collected: 09/01/23 12:00
Matrix: Water
Date Received: 09/02/23 07:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 18:33	CAR	EET PEN

Client Sample ID: TB-ROX-090123-8011

Lab Sample ID: 400-242903-2
Date Collected: 09/01/23 12:00
Matrix: Water
Date Received: 09/02/23 07:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.4 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 21:41	PG	EET PEN

Client Sample ID: MW14-ROX-090123-EB

Lab Sample ID: 400-242903-3
Date Collected: 09/01/23 08:00
Matrix: Water
Date Received: 09/02/23 07:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 19:00	CAR	EET PEN
Total/NA	Prep	3520C			260 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640898	09/14/23 00:54	VC1	EET PEN
Total/NA	Prep	3520C			260 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 21:36	S1B	EET PEN
Total/NA	Prep	3520C			260 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 20:33	TH	EET PEN
Total/NA	Prep	8011			34.6 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 22:02	PG	EET PEN

Client Sample ID: MW14-ROX-090123

Lab Sample ID: 400-242903-4
Date Collected: 09/01/23 08:00
Matrix: Water
Date Received: 09/02/23 07:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 19:27	CAR	EET PEN
Total/NA	Prep	3520C	RERA		256 mL	1 mL	640651	09/13/23 10:04	BKL	EET PEN
Total/NA	Analysis	8270E	RERA	1	0.4 mL	0.4 mL	641241	09/15/23 20:06	S1B	EET PEN
Total/NA	Prep	3520C			257.4 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 21:57	S1B	EET PEN
Total/NA	Prep	3520C			257.4 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 20:54	TH	EET PEN
Total/NA	Prep	8011			34.6 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 22:22	PG	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: ROST3MW-ROX-090123

Lab Sample ID: 400-242903-5

Date Collected: 09/01/23 12:10

Matrix: Water

Date Received: 09/02/23 07:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 19:53	CAR	EET PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640898	09/14/23 01:19	VC1	EET PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 22:18	S1B	EET PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641154	09/15/23 12:39	KJA	EET PEN
Total/NA	Prep	8011			35.9 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 22:42	PG	EET PEN

Client Sample ID: ROST3MW-ROX-090123-DUP

Lab Sample ID: 400-242903-6

Date Collected: 09/01/23 12:10

Matrix: Water

Date Received: 09/02/23 07:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 20:20	CAR	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 22:39	S1B	EET PEN
Total/NA	Prep	3520C			254.8 mL	1 mL	640140	09/08/23 11:20	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641154	09/15/23 13:00	KJA	EET PEN
Total/NA	Prep	8011			35.2 mL	35 mL	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 23:02	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-640109/1-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 16:36	PG	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-640140/1-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:01	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 14:41	TH	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640651/1-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 17:33	VC1	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-640996/4

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	8260D		1	5 mL	5 mL	640996	09/14/23 11:50	CAR	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640109/2-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 16:56	PG	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/18-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 18:05	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/22-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 15:02	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640140/2-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:23	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/2-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 17:59	VC1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640996/1002
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	8260D		1	5 mL	5 mL	640996	09/14/23 10:36	CAR	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640109/3-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	640109	09/07/23 13:27	PG	EET PEN
Total/NA	Analysis	8011		1			640148	09/07/23 17:17	PG	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/19-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 18:26	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/23-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	640140	09/08/23 12:54	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	640637	09/12/23 16:43	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640140/3-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	640140	09/07/23 15:48	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	640672	09/12/23 17:44	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242903-1

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-640651/3-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	3520C			250 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 18:25	VC1	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 640996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-1	TB-ROX-090123-8260	Total/NA	Water	8260D	
400-242903-3	MW14-ROX-090123-EB	Total/NA	Water	8260D	
400-242903-4	MW14-ROX-090123	Total/NA	Water	8260D	
400-242903-5	ROST3MW-ROX-090123	Total/NA	Water	8260D	
400-242903-6	ROST3MW-ROX-090123-DUP	Total/NA	Water	8260D	
MB 400-640996/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640996/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 640140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-3	MW14-ROX-090123-EB	Total/NA	Water	3520C	
400-242903-4	MW14-ROX-090123	Total/NA	Water	3520C	
400-242903-5	ROST3MW-ROX-090123	Total/NA	Water	3520C	
400-242903-6	ROST3MW-ROX-090123-DUP	Total/NA	Water	3520C	
MB 400-640140/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-640140/18-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640140/22-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640140/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-640140/19-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640140/23-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640140/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 640637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-3	MW14-ROX-090123-EB	Total/NA	Water	8270E SIM	640140
400-242903-4	MW14-ROX-090123	Total/NA	Water	8270E SIM	640140
MB 400-640140/1-A	Method Blank	Total/NA	Water	8270E SIM	640140
LCS 400-640140/22-A	Lab Control Sample	Total/NA	Water	8270E SIM	640140
LCSD 400-640140/23-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	640140

Prep Batch: 640651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-4 - RERA	MW14-ROX-090123	Total/NA	Water	3520C	
MB 400-640651/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-640651/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-640651/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 640672

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-3	MW14-ROX-090123-EB	Total/NA	Water	8270E	640140
400-242903-4	MW14-ROX-090123	Total/NA	Water	8270E	640140
400-242903-5	ROST3MW-ROX-090123	Total/NA	Water	8270E	640140
400-242903-6	ROST3MW-ROX-090123-DUP	Total/NA	Water	8270E	640140
MB 400-640140/1-A	Method Blank	Total/NA	Water	8270E	640140
LCS 400-640140/18-A	Lab Control Sample	Total/NA	Water	8270E	640140
LCS 400-640140/2-A	Lab Control Sample	Total/NA	Water	8270E	640140
LCSD 400-640140/19-A	Lab Control Sample Dup	Total/NA	Water	8270E	640140
LCSD 400-640140/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	640140

GC/MS Semi VOA

Analysis Batch: 640898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-3	MW14-ROX-090123-EB	Total/NA	Water	8270E	640140
400-242903-5	ROST3MW-ROX-090123	Total/NA	Water	8270E	640140

Analysis Batch: 641154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-5	ROST3MW-ROX-090123	Total/NA	Water	8270E SIM	640140
400-242903-6	ROST3MW-ROX-090123-DUP	Total/NA	Water	8270E SIM	640140

Analysis Batch: 641239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-640651/1-A	Method Blank	Total/NA	Water	8270E	640651
LCS 400-640651/2-A	Lab Control Sample	Total/NA	Water	8270E	640651
LCSD 400-640651/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	640651

Analysis Batch: 641241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-4 - RERA	MW14-ROX-090123	Total/NA	Water	8270E	640651

GC Semi VOA

Prep Batch: 640109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-2	TB-ROX-090123-8011	Total/NA	Water	8011	
400-242903-3	MW14-ROX-090123-EB	Total/NA	Water	8011	
400-242903-4	MW14-ROX-090123	Total/NA	Water	8011	
400-242903-5	ROST3MW-ROX-090123	Total/NA	Water	8011	
400-242903-6	ROST3MW-ROX-090123-DUP	Total/NA	Water	8011	
MB 400-640109/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-640109/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-640109/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 640148

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242903-2	TB-ROX-090123-8011	Total/NA	Water	8011	640109
400-242903-3	MW14-ROX-090123-EB	Total/NA	Water	8011	640109
400-242903-4	MW14-ROX-090123	Total/NA	Water	8011	640109
400-242903-5	ROST3MW-ROX-090123	Total/NA	Water	8011	640109
400-242903-6	ROST3MW-ROX-090123-DUP	Total/NA	Water	8011	640109
MB 400-640109/1-A	Method Blank	Total/NA	Water	8011	640109
LCS 400-640109/2-A	Lab Control Sample	Total/NA	Water	8011	640109
LCSD 400-640109/3-A	Lab Control Sample Dup	Total/NA	Water	8011	640109

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-640996/4
Matrix: Water
Analysis Batch: 640996

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			09/14/23 11:50	1
Acrolein	ND		20	3.3	ug/L			09/14/23 11:50	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 11:50	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 11:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 11:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 11:50	1
Bromomethane	ND		1.0	0.98	ug/L			09/14/23 11:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 11:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 11:50	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 11:50	1
Chloroethane	ND		1.0	0.76	ug/L			09/14/23 11:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 11:50	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 11:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 11:50	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 11:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 11:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 11:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 11:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 11:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 11:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 11:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 11:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 11:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 11:50	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 11:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 11:50	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 11:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 11:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 11:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 11:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 11:50	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 11:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 11:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 11:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 11:50	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 11:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 11:50	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640996/4
Matrix: Water
Analysis Batch: 640996

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			09/14/23 11:50	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 11:50	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 11:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 11:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 11:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 11:50	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 11:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 11:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 11:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 11:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 11:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 11:50	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 11:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/14/23 11:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 11:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 11:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 11:50	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 11:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 11:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*09/14/23 11:50*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*09/14/23 11:50*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*09/14/23 11:50*	*1*

Lab Sample ID: LCS 400-640996/1002
Matrix: Water
Analysis Batch: 640996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	218		ug/L		109	43 - 160
Acrolein	500	536		ug/L		107	38 - 160
Acrylonitrile	500	705		ug/L		141	64 - 142
Benzene	50.0	45.1		ug/L		90	70 - 130
Bromobenzene	50.0	47.0		ug/L		94	70 - 132
Bromochloromethane	50.0	42.3		ug/L		85	70 - 130
Bromodichloromethane	50.0	46.9		ug/L		94	67 - 133
Bromoform	50.0	48.5		ug/L		97	57 - 140
Bromomethane	50.0	17.7		ug/L		35	10 - 160
2-Butanone (MEK)	200	233		ug/L		116	61 - 145
Carbon disulfide	50.0	35.8		ug/L		72	61 - 137
Carbon tetrachloride	50.0	43.7		ug/L		87	61 - 137
Chlorobenzene	50.0	46.1		ug/L		92	70 - 130
Chloroethane	50.0	39.2		ug/L		78	55 - 141
2-Chloroethyl vinyl ether	50.0	49.9		ug/L		100	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640996/1002
Matrix: Water
Analysis Batch: 640996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	46.3		ug/L		93	69 - 130
1-Chlorohexane	50.0	51.6		ug/L		103	69 - 130
Chloromethane	50.0	43.3		ug/L		87	58 - 137
cis-1,2-Dichloroethene	50.0	49.8		ug/L		100	68 - 130
cis-1,3-Dichloropropene	50.0	42.8		ug/L		86	69 - 132
Dibromochloromethane	50.0	46.1		ug/L		92	67 - 135
1,2-Dichlorobenzene	50.0	47.2		ug/L		94	67 - 130
1,3-Dichlorobenzene	50.0	47.1		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	46.7		ug/L		93	70 - 130
Dichlorodifluoromethane	50.0	44.1		ug/L		88	41 - 146
1,1-Dichloroethane	50.0	59.2		ug/L		118	70 - 130
1,2-Dichloroethane	50.0	50.1		ug/L		100	69 - 130
1,1-Dichloroethene	50.0	36.2		ug/L		72	63 - 134
1,2-Dichloropropane	50.0	48.4		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	51.1		ug/L		102	70 - 130
2,2-Dichloropropane	50.0	45.8		ug/L		92	52 - 135
1,1-Dichloropropene	50.0	44.6		ug/L		89	70 - 130
Ethylbenzene	50.0	46.8		ug/L		94	70 - 130
Ethyl methacrylate	50.0	51.7		ug/L		103	68 - 130
Hexachlorobutadiene	50.0	49.4		ug/L		99	53 - 140
2-Hexanone	200	254		ug/L		127	65 - 137
Isopropylbenzene	50.0	45.6		ug/L		91	70 - 130
Methylene bromide	50.0	46.8		ug/L		94	70 - 130
Methylene Chloride	50.0	51.5		ug/L		103	66 - 135
4-Methyl-2-pentanone (MIBK)	200	222		ug/L		111	69 - 138
Methyl tert-butyl ether	50.0	54.1		ug/L		108	66 - 130
m-Xylene & p-Xylene	50.0	45.9		ug/L		92	70 - 130
Naphthalene	50.0	49.1		ug/L		98	47 - 149
n-Butylbenzene	50.0	47.9		ug/L		96	67 - 130
N-Propylbenzene	50.0	48.2		ug/L		96	70 - 130
o-Chlorotoluene	50.0	47.6		ug/L		95	70 - 130
o-Xylene	50.0	44.7		ug/L		89	70 - 130
p-Chlorotoluene	50.0	49.7		ug/L		99	70 - 130
p-Isopropyltoluene	50.0	47.0		ug/L		94	65 - 130
sec-Butylbenzene	50.0	48.9		ug/L		98	66 - 130
Styrene	50.0	44.5		ug/L		89	70 - 130
tert-Butylbenzene	50.0	48.4		ug/L		97	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.1		ug/L		92	67 - 131
1,1,2,2-Tetrachloroethane	50.0	54.0		ug/L		108	70 - 131
Tetrachloroethene	50.0	43.2		ug/L		86	65 - 130
Toluene	50.0	45.2		ug/L		90	70 - 130
trans-1,2-Dichloroethene	50.0	53.6		ug/L		107	70 - 130
trans-1,3-Dichloropropene	50.0	50.1		ug/L		100	63 - 130
1,2,3-Trichlorobenzene	50.0	47.3		ug/L		95	60 - 138
1,2,4-Trichlorobenzene	50.0	47.3		ug/L		95	60 - 140
1,1,1-Trichloroethane	50.0	45.2		ug/L		90	68 - 130
1,1,2-Trichloroethane	50.0	50.3		ug/L		101	70 - 130
Trichloroethene	50.0	42.3		ug/L		85	70 - 130
Trichlorofluoromethane	50.0	39.7		ug/L		79	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640996/1002
Matrix: Water
Analysis Batch: 640996

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	54.8		ug/L		110	70 - 130
1,2,4-Trimethylbenzene	50.0	46.4		ug/L		93	70 - 130
1,3,5-Trimethylbenzene	50.0	47.3		ug/L		95	69 - 130
Vinyl acetate	100	120		ug/L		120	26 - 160
Vinyl chloride	50.0	41.9		ug/L		84	59 - 136
Xylenes, Total	100	90.6		ug/L		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*72 - 130*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*104*		*64 - 132*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
Benzenethiol	ND		10	1.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
Benzoic acid	ND		30	7.3	ug/L		09/07/23 15:48	09/12/23 17:01	1
Benzyl alcohol	ND		10	2.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/07/23 15:48	09/12/23 17:01	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/07/23 15:48	09/12/23 17:01	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Chloroaniline	ND		10	3.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Chlorophenol	ND		10	2.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dibenzofuran	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Diethyl phthalate	ND		10	0.24	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
Dimethyl phthalate	0.550	J	10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/07/23 15:48	09/12/23 17:01	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
1,4-Dioxane	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
Hexachloroethane	ND		10	4.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
Indene	ND		10	1.0	ug/L		09/07/23 15:48	09/12/23 17:01	1
Isophorone	ND		10	0.14	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Methylphenol	ND		10	1.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Nitroaniline	ND		10	2.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
3-Nitroaniline	ND		10	1.8	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Nitroaniline	ND		10	1.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
Nitrobenzene	ND		10	0.13	ug/L		09/07/23 15:48	09/12/23 17:01	1
2-Nitrophenol	ND		10	5.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
4-Nitrophenol	ND		10	2.1	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/07/23 15:48	09/12/23 17:01	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/07/23 15:48	09/12/23 17:01	1
Pentachlorophenol	ND		20	1.4	ug/L		09/07/23 15:48	09/12/23 17:01	1
Phenol	ND		10	2.6	ug/L		09/07/23 15:48	09/12/23 17:01	1
Pyridine	ND		10	3.2	ug/L		09/07/23 15:48	09/12/23 17:01	1
Quinoline	ND		10	4.5	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/07/23 15:48	09/12/23 17:01	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/07/23 15:48	09/12/23 17:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
2-Fluorophenol	*33*		*13 - 113*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Phenol-d5	*50*		*17 - 127*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
Terphenyl-d14	*82*		*44 - 149*	*09/07/23 15:48*	*09/12/23 17:01*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*09/07/23 15:48*	*09/12/23 17:01*	*1*

Lab Sample ID: LCS 400-640140/18-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	2.78	J *-	ug/L		2	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*46 - 124*
2-Fluorophenol	*59*		*13 - 113*
Nitrobenzene-d5	*69*		*36 - 126*
Phenol-d5	*66*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*66*		*26 - 150*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-640140/2-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	83.9		ug/L		70	21 - 120
Benzoic acid	522	203		ug/L		39	10 - 144
Benzyl alcohol	120	92.4		ug/L		77	28 - 120
Bis(2-chloroethoxy)methane	120	79.0		ug/L		66	47 - 120
Bis(2-chloroethyl)ether	120	80.1		ug/L		67	44 - 120
bis (2-chloroisopropyl) ether	120	80.7		ug/L		67	33 - 121
Bis(2-ethylhexyl) phthalate	120	87.1		ug/L		73	52 - 147
4-Bromophenyl phenyl ether	120	107		ug/L		89	54 - 122
Butyl benzyl phthalate	120	90.0		ug/L		75	54 - 133
4-Chloroaniline	120	55.0		ug/L		46	26 - 120
4-Chloro-3-methylphenol	120	95.2		ug/L		79	48 - 131
2-Chloronaphthalene	120	96.3		ug/L		80	52 - 121
2-Chlorophenol	120	88.8		ug/L		74	40 - 120
4-Chlorophenyl phenyl ether	120	116		ug/L		97	56 - 125
Dibenz[a,h]acridine	120	101		ug/L		84	31 - 150
Dibenzofuran	120	103		ug/L		86	56 - 122
3,3'-Dichlorobenzidine	160	141		ug/L		88	36 - 132
2,4-Dichlorophenol	120	95.5		ug/L		80	49 - 120
Diethyl phthalate	120	101		ug/L		84	50 - 137
2,4-Dimethylphenol	120	88.9		ug/L		74	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	102		ug/L		85	58 - 126
4,6-Dinitro-ortho-cresol	240	125		ug/L		52	23 - 148
2,4-Dinitrophenol	240	116		ug/L		48	10 - 150
2,4-Dinitrotoluene	120	107		ug/L		89	54 - 142
2,6-Dinitrotoluene	120	98.2		ug/L		82	55 - 130
Di-n-octyl phthalate	120	86.9		ug/L		72	57 - 138
1,4-Dioxane	120	62.5		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	80.9		ug/L		67	45 - 124
Hexachlorobenzene	120	111		ug/L		92	52 - 129
Hexachlorocyclopentadiene	120	33.6		ug/L		28	10 - 134
Hexachloroethane	120	71.7		ug/L		60	20 - 120
Indene	120	87.1		ug/L		73	49 - 120
Isophorone	120	84.7		ug/L		71	48 - 120
2-Methylphenol	120	93.6		ug/L		78	46 - 124
3 & 4 Methylphenol	120	95.2		ug/L		79	45 - 120
2-Nitroaniline	120	91.4		ug/L		76	51 - 145
3-Nitroaniline	120	91.6		ug/L		76	37 - 127
4-Nitroaniline	120	96.8		ug/L		81	36 - 137
Nitrobenzene	120	83.4		ug/L		70	45 - 120
2-Nitrophenol	120	94.7		ug/L		79	40 - 124
4-Nitrophenol	240	200		ug/L		83	23 - 146
N-Nitrosodimethylamine	120	96.9		ug/L		81	29 - 137
N-Nitrosodi-n-propylamine	120	93.7		ug/L		78	45 - 120
N-Nitrosodiphenylamine	119	90.5		ug/L		76	54 - 120
Pentachlorophenol	240	174		ug/L		73	31 - 130
Phenol	120	96.5		ug/L		80	11 - 120
Pyridine	240	125		ug/L		52	16 - 120

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-640140/2-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	108		ug/L		90	49 - 130		
2,4,5-Trichlorophenol			120	111		ug/L		92	51 - 136		
2,4,6-Trichlorophenol			120	100		ug/L		83	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*60*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*79*		*26 - 150*

Lab Sample ID: LCSD 400-640140/19-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.48	J *-	ug/L		3	10 - 120	22	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*46 - 124*
2-Fluorophenol	*65*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*100*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-640140/3-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	70.2		ug/L		59	21 - 120	18	30
Benzoic acid			522	239		ug/L		46	10 - 144	16	30
Benzyl alcohol			120	86.9		ug/L		72	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	75.9		ug/L		63	47 - 120	4	30
Bis(2-chloroethyl)ether			120	81.8		ug/L		68	44 - 120	2	30
bis (2-chloroisopropyl) ether			120	75.5		ug/L		63	33 - 121	7	30
Bis(2-ethylhexyl) phthalate			120	85.3		ug/L		71	52 - 147	2	30
4-Bromophenyl phenyl ether			120	102		ug/L		85	54 - 122	5	30
Butyl benzyl phthalate			120	84.5		ug/L		70	54 - 133	6	30
4-Chloroaniline			120	53.6		ug/L		45	26 - 120	3	30
4-Chloro-3-methylphenol			120	90.7		ug/L		76	48 - 131	5	30
2-Chloronaphthalene			120	92.5		ug/L		77	52 - 121	4	30
2-Chlorophenol			120	82.2		ug/L		69	40 - 120	8	30
4-Chlorophenyl phenyl ether			120	113		ug/L		94	56 - 125	3	30
Dibenz[a,h]acridine			120	103		ug/L		86	31 - 150	2	30
Dibenzofuran			120	99.4		ug/L		83	56 - 122	4	30

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-640140/3-A
Matrix: Water
Analysis Batch: 640672

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine			160	134		ug/L		84	36 - 132	5	30
2,4-Dichlorophenol			120	90.1		ug/L		75	49 - 120	6	30
Diethyl phthalate			120	98.0		ug/L		82	50 - 137	3	30
2,4-Dimethylphenol			120	87.3		ug/L		73	48 - 120	2	30
Dimethyl phthalate			120	100		ug/L		84	57 - 124	3	30
Di-n-butyl phthalate			120	94.0		ug/L		78	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	129		ug/L		54	23 - 148	3	30
2,4-Dinitrophenol			240	121		ug/L		51	10 - 150	5	30
2,4-Dinitrotoluene			120	104		ug/L		87	54 - 142	3	30
2,6-Dinitrotoluene			120	95.2		ug/L		79	55 - 130	3	30
Di-n-octyl phthalate			120	84.6		ug/L		70	57 - 138	3	30
1,4-Dioxane			120	59.4		ug/L		50	31 - 120	5	30
1,2-Diphenylhydrazine (as Azobenzene)			120	75.1		ug/L		63	45 - 124	7	30
Hexachlorobenzene			120	106		ug/L		88	52 - 129	5	30
Hexachlorocyclopentadiene			120	34.5		ug/L		29	10 - 134	3	30
Hexachloroethane			120	65.7		ug/L		55	20 - 120	9	30
Indene			120	82.1		ug/L		68	49 - 120	6	30
Isophorone			120	81.0		ug/L		68	48 - 120	4	30
2-Methylphenol			120	88.0		ug/L		73	46 - 124	6	30
3 & 4 Methylphenol			120	88.8		ug/L		74	45 - 120	7	30
2-Nitroaniline			120	88.7		ug/L		74	51 - 145	3	30
3-Nitroaniline			120	86.4		ug/L		72	37 - 127	6	30
4-Nitroaniline			120	99.3		ug/L		83	36 - 137	3	30
Nitrobenzene			120	78.2		ug/L		65	45 - 120	6	30
2-Nitrophenol			120	87.3		ug/L		73	40 - 124	8	30
4-Nitrophenol			240	177		ug/L		74	23 - 146	12	30
N-Nitrosodimethylamine			120	90.8		ug/L		76	29 - 137	7	30
N-Nitrosodi-n-propylamine			120	86.0		ug/L		72	45 - 120	9	30
N-Nitrosodiphenylamine			119	86.8		ug/L		73	54 - 120	4	30
Pentachlorophenol			240	160		ug/L		67	31 - 130	9	30
Phenol			120	88.7		ug/L		74	11 - 120	8	30
Pyridine			240	127		ug/L		53	16 - 120	1	30
Quinoline			120	104		ug/L		86	49 - 130	4	30
2,4,5-Trichlorophenol			120	107		ug/L		89	51 - 136	4	30
2,4,6-Trichlorophenol			120	97.4		ug/L		81	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*53*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*81*		*44 - 149*
2,4,6-Tribromophenol	*80*		*26 - 150*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/12/23 10:32	09/15/23 17:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*46 - 124*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
Nitrobenzene-d5	*54*		*36 - 126*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
Terphenyl-d14	*68*		*44 - 149*	*09/12/23 10:32*	*09/15/23 17:33*	*1*

Lab Sample ID: LCS 400-640651/2-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bis(2-ethylhexyl) phthalate			120	93.0		ug/L		78	52 - 147		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*66*		*46 - 124*
Nitrobenzene-d5	*64*		*36 - 126*
Terphenyl-d14	*69*		*44 - 149*

Lab Sample ID: LCSD 400-640651/3-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			120	100		ug/L		83	52 - 147	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
Nitrobenzene-d5	*57*		*36 - 126*
Terphenyl-d14	*73*		*44 - 149*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/07/23 15:48	09/12/23 14:41	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/07/23 15:48	09/12/23 14:41	1
Anthracene	ND		0.20	0.047	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/07/23 15:48	09/12/23 14:41	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/07/23 15:48	09/12/23 14:41	1
Chrysene	ND		0.20	0.033	ug/L		09/07/23 15:48	09/12/23 14:41	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/07/23 15:48	09/12/23 14:41	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-640140/1-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640140

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Fluorene	ND		0.20	0.089	ug/L		09/07/23 15:48	09/12/23 14:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/07/23 15:48	09/12/23 14:41	1
Phenanthrene	ND		0.20	0.090	ug/L		09/07/23 15:48	09/12/23 14:41	1
Pyrene	ND		0.20	0.039	ug/L		09/07/23 15:48	09/12/23 14:41	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/07/23 15:48	09/12/23 14:41	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/07/23 15:48	09/12/23 14:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*54*		*18 - 147*	*09/07/23 15:48*	*09/12/23 14:41*	*1*
2-Fluorobiphenyl	*50*		*15 - 128*	*09/07/23 15:48*	*09/12/23 14:41*	*1*
Nitrobenzene-d5	*62*		*10 - 144*	*09/07/23 15:48*	*09/12/23 14:41*	*1*

Lab Sample ID: LCS 400-640140/22-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Acenaphthene			2.00	1.17		ug/L		58	40 - 140		
Acenaphthylene			2.00	1.24		ug/L		62	40 - 140		
Anthracene			2.00	1.22		ug/L		61	40 - 140		
Benzo[a]anthracene			2.00	1.06		ug/L		53	40 - 140		
Benzo[a]pyrene			2.00	0.900		ug/L		45	40 - 140		
Benzo[b]fluoranthene			2.00	0.871		ug/L		44	40 - 140		
Benzo[g,h,i]perylene			2.00	0.896		ug/L		45	40 - 140		
Benzo[k]fluoranthene			2.00	0.802		ug/L		40	40 - 140		
Chrysene			2.00	1.06		ug/L		53	40 - 140		
Dibenz(a,h)anthracene			2.00	0.965		ug/L		48	40 - 140		
Fluoranthene			2.00	1.32		ug/L		66	40 - 140		
Fluorene			2.00	1.28		ug/L		64	40 - 140		
Indeno[1,2,3-cd]pyrene			2.00	0.952		ug/L		48	40 - 140		
Phenanthrene			2.00	1.13		ug/L		57	40 - 140		
Pyrene			2.00	0.903		ug/L		45	40 - 140		
1-Methylnaphthalene			2.00	1.27		ug/L		63	40 - 140		
2-Methylnaphthalene			2.00	1.25		ug/L		62	40 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*50*		*18 - 147*
2-Fluorobiphenyl	*50*		*15 - 128*
Nitrobenzene-d5	*63*		*10 - 144*

Lab Sample ID: LCSD 400-640140/23-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.59		ug/L		79	40 - 140	31	40
Acenaphthylene			2.00	1.67		ug/L		84	40 - 140	30	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-640140/23-A
Matrix: Water
Analysis Batch: 640637

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640140

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene			2.00	1.58		ug/L		79	40 - 140	26	40
Benzo[a]anthracene			2.00	1.47		ug/L		74	40 - 140	32	40
Benzo[a]pyrene			2.00	1.12		ug/L		56	40 - 140	22	40
Benzo[b]fluoranthene			2.00	1.20		ug/L		60	40 - 140	32	40
Benzo[g,h,i]perylene			2.00	1.25		ug/L		62	40 - 140	33	40
Benzo[k]fluoranthene			2.00	1.18		ug/L		59	40 - 140	38	40
Chrysene			2.00	1.43		ug/L		72	40 - 140	30	40
Dibenz(a,h)anthracene			2.00	1.34		ug/L		67	40 - 140	33	40
Fluoranthene			2.00	1.80		ug/L		90	40 - 140	31	40
Fluorene			2.00	1.73		ug/L		87	40 - 140	30	40
Indeno[1,2,3-cd]pyrene			2.00	1.33		ug/L		66	40 - 140	33	40
Phenanthrene			2.00	1.58		ug/L		79	40 - 140	33	40
Pyrene			2.00	1.30		ug/L		65	40 - 140	36	40
1-Methylnaphthalene			2.00	1.74		ug/L		87	40 - 140	32	40
2-Methylnaphthalene			2.00	1.70		ug/L		85	40 - 140	30	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*67*		*18 - 147*
2-Fluorobiphenyl	*67*		*15 - 128*
Nitrobenzene-d5	*85*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-640109/1-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640109

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/07/23 13:27	09/07/23 16:36	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/07/23 13:27	09/07/23 16:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*09/07/23 13:27*	*09/07/23 16:36*	*1*

Lab Sample ID: LCS 400-640109/2-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640109

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane			0.101	0.107		ug/L		106	60 - 140
1,2-Dibromoethane			0.101	0.0993		ug/L		99	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*77*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-640109/3-A
Matrix: Water
Analysis Batch: 640148

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640109

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.112		ug/L		111	60 - 140	5	30
1,2-Dibromoethane			0.101	0.102		ug/L		101	60 - 140	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*87*		*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
Melissa Remiger	25278
PO #	**GSAP Project ID**
60697537 – 3.3 2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 9/1/2023

PAGE: 1 of 1

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project / Task Number: Roxana Monthly GW 60697537 – 3.3.2

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): S. Beadle, 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.fillmon@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS 60697537 – 3.3.2

400-242903 COC

FIELD NOTES: 1.5°C 1/28

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 8270 SIMS
	TB-ROX-090123-8260	9/1/2023	0000	Water	2					2	X			
	TB-ROX-090123-8011	9/1/2023	0000	Water	2					2		X		
	MW14-ROX-090123-EB	9/1/2023	0800	Water	6			2		8	X	X	X	X
	MW14-ROX-090123	9/1/2023	1000	Water	6			2		8	X	X	X	X
	ROST3MW-ROX-090123	9/1/2023	1210	Water	6			2		8	X	X	X	X
	ROST3MW-ROX-090123-DUP	9/1/2023	1210	Water	6			2		8	X	X	X	X

9/1/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
SAM BEADLE	FEDEX: 5293 4337 5434	9/1/2023	1600
	EEIS	9/2/23	754

Version: 12July23

CUSTODY SEALS: 1599780, 1599781

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-242903-1

Login Number: 242903 **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	1.5°C IR-8
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: 400-242903-1
Project/Site: ROXANA MONTHLY 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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Monthly August/September 2023 Data Review

Laboratory SDG: 400-242975-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 10/11/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-090523-8260	TB-ROX-090523-8011
MW27-ROX-090523	MW9-ROX-090523
MW10-ROX-090523	MW2-ROX-090523

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 SVOCs were re-extracted outside extraction time criteria in sample MW2-ROX-090523. Several SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. VOCs in sample MW2-ROX-090523 were diluted due to the abundance of non-target analytes. The initial calibration verifications (ICV) for 4,6-dinitro-ortho-cresol, and 3,3'-dichlorobenzidine and the continuing calibration verifications (CCV) for several analytes 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?

No, SVOCs in sample MW2-ROX-090523 were re-extracted 6 days outside of extraction time criteria (7 days) due to initial failing acid surrogate recoveries. Holding time exceedances were not greater than two times (2X) criteria; both sets of data are reported. Therefore, using professional judgement, acid SVOCs in sample MW2-ROX-090523 were reported from the secondary run due to failing acid surrogate recoveries in the initial run. Qualifications due to surrogate recovery are reported in Section 6.0 of this data review. Basic SVOCs compounds in sample MW2-ROX-090523 were reported from the initial run due to extraction time exceedance in the re-extracted secondary run.

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-090523-RERA	SVOCs	Benzoic acid	**UJ**
MW2-ROX-090523-RERA	SVOCs	Benzyl alcohol	**UJ**
MW2-ROX-090523-RERA	SVOCs	4-Chloro-3-methylphenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	2-Chlorophenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	2,4-Dichlorophenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	2,4-Dimethylphenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
MW2-ROX-090523-RERA	SVOCs	2,4-Dinitrophenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	2-Methylphenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	3 & 4 Methylphenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	2-Nitrophenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	4-Nitrophenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	Pentachlorophenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	Phenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	2,4,5-Trichlorophenol	**UJ**
MW2-ROX-090523-RERA	SVOCs	2,4,6-Trichlorophenol	**UJ**

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 400-640651/17-A/18-A	SVOCs	Benzenethiol	**2/3**	28	10-120/30
LCS/LCSD 400-640651/2-A/3-A	SVOCs	Aniline	**2/2**	4	21-120/30
LCS/LCSD 400-640651/2-A/3-A	SVOCs	Benzoic acid	**9/4**	**91**	10-144/30
LCS/LCSD 400-641408/4-A/5-A	SVOCs	Benzenethiol	**2/8**	**122**	10-120/30
LCS/LCSD 400-640651/2-A/3-A	SVOCs	Bis(2-chloroethyl)ether	115/**127**	10	44-120/30

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/LCSD 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, aniline, and benzoic acid below evaluation criteria; benzenethiol, aniline, and benzoic acid have been identified as poor performing analytes under Method 8270. Benzoic acid in sample MW2-ROX-090523 has been qualified due to hold time exceedances in Section 3.0 of this data review; no further qualification is needed.

Sample ID	Parameter	Analyte	Qualification
MW27-ROX-090523	SVOCs	Benzenethiol	UJ
MW9-ROX-090523	SVOCs	Benzenethiol	UJ
MW10-ROX-090523	SVOCs	Benzenethiol	UJ
MW2-ROX-090523	SVOCs	Benzenethiol	UJ
MW27-ROX-090523	SVOCs	Aniline	UJ
MW9-ROX-090523	SVOCs	Aniline	UJ
MW10-ROX-090523	SVOCs	Aniline	UJ
MW2-ROX-090523	SVOCs	Aniline	UJ
MW27-ROX-090523	SVOCs	Benzoic acid	UJ
MW9-ROX-090523	SVOCs	Benzoic acid	UJ
MW10-ROX-090523	SVOCs	Benzoic acid	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW27-ROX-090523	SVOCs	2-Fluorobiphenyl	**41**	46-124
MW27-ROX-090523	SVOCs	2-Fluorophenol	**11**	13-113
MW9-ROX-090523	SVOCs	2-Fluorobiphenyl	**45**	46-124
MW9-ROX-090523	SVOCs	2-Fluorophenol	**7**	13-113
MW2-ROX-090523	SVOCs	2-Fluorophenol	**0**	13-113
MW2-ROX-090523	SVOCs	Phenol-d5	**0.7**	17-127
MW2-ROX-090523	SVOCs	2,4,6-Tribromophenol	**0**	26-150
MB 400-640651/1-A	SVOCs	2-Fluorophenol	**3**	13-113
MB 400-640651/1-A	SVOCs	Phenol-d5	**8**	17-127
MB 400-641408/1-A	SVOCs	2-Fluorophenol	**9**	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. Method blanks are quality control samples and do not require qualification. Acid SVOCs in sample MW2-ROX-090523 were reported from the secondary run due to failing acid surrogate recoveries in the initial run. Analytical data from the initial run of sample MW2-ROX-090523 that required qualification based on surrogate data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-090523	SVOCs	Benzoic acid	R
MW2-ROX-090523	SVOCs	Benzyl alcohol	R
MW2-ROX-090523	SVOCs	4-Chloro-3-methylphenol	R
MW2-ROX-090523	SVOCs	2-Chlorophenol	R
MW2-ROX-090523	SVOCs	2,4-Dichlorophenol	R
MW2-ROX-090523	SVOCs	2,4-Dimethylphenol	R
MW2-ROX-090523	SVOCs	4,6-Dinitro-ortho-cresol	R
MW2-ROX-090523	SVOCs	2,4-Dinitrophenol	R
MW2-ROX-090523	SVOCs	2-Methylphenol	R

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-090523	SVOCs	3 & 4 Methylphenol	**R**
MW2-ROX-090523	SVOCs	2-Nitrophenol	**R**
MW2-ROX-090523	SVOCs	4-Nitrophenol	**R**
MW2-ROX-090523	SVOCs	Pentachlorophenol	**R**
MW2-ROX-090523	SVOCs	Phenol	**R**
MW2-ROX-090523	SVOCs	2,4,5-Trichlorophenol	**R**
MW2-ROX-090523	SVOCs	2,4,6-Trichlorophenol	**R**

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, initial calibration verifications (ICV) for 4,6-dinitro-ortho-cresol, and 3,3'-dichlorobenzidine and the continuing calibration verifications (CCV) for bromomethane, carbon disulfide, chloroethane, trichlorofluoromethane, 1,1-dichloroethene, hexachlorocyclopentadiene, and 1,4-dioxane were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW27-ROX-090523	VOCs	Bromomethane	**UJ**
MW27-ROX-090523	VOCs	Chloroethane	**UJ**
MW27-ROX-090523	VOCs	Trichlorofluoromethane	**UJ**
MW27-ROX-090523	VOCs	1,1-Dichloroethene	**UJ**
MW9-ROX-090523	VOCs	Bromomethane	**UJ**
MW9-ROX-090523	VOCs	Chloroethane	**UJ**
MW9-ROX-090523	VOCs	Trichlorofluoromethane	**UJ**
MW9-ROX-090523	VOCs	1,1-Dichloroethene	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW10-ROX-090523	VOCs	Bromomethane	UJ
MW10-ROX-090523	VOCs	Chloroethane	UJ
MW10-ROX-090523	VOCs	Trichlorofluoromethane	UJ
MW10-ROX-090523	VOCs	1,1-Dichloroethene	UJ
MW2-ROX-090523	VOCs	Bromomethane	UJ
MW2-ROX-090523	VOCs	Chloroethane	UJ
MW2-ROX-090523	VOCs	Trichlorofluoromethane	UJ
MW2-ROX-090523	VOCs	1,1-Dichloroethene	UJ
MW27-ROX-090523	VOCs	Carbon Disulfide	UJ
MW9-ROX-090523	VOCs	Carbon Disulfide	UJ
MW10-ROX-090523	VOCs	Carbon Disulfide	UJ
MW2-ROX-090523	VOCs	Carbon Disulfide	UJ
MW27-ROX-090523	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW27-ROX-090523	SVOCs	3,3'-Dichlorobenzidine	UJ
MW9-ROX-090523	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW9-ROX-090523	SVOCs	3,3'-Dichlorobenzidine	UJ
MW10-ROX-090523	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW10-ROX-090523	SVOCs	3,3'-Dichlorobenzidine	UJ
MW27-ROX-090523	SVOCs	Hexachlorocyclopentadiene	UJ
MW9-ROX-090523	SVOCs	Hexachlorocyclopentadiene	UJ
MW10-ROX-090523	SVOCs	Hexachlorocyclopentadiene	UJ
MW2-ROX-090523	SVOCs	1,4-Dioxane	UJ
MW2-ROX-090523	SVOCs	Hexachlorocyclopentadiene	UJ

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eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 9/21/2023 2:48:11 PM

JOB DESCRIPTION

ROXANA MONTHLY GW

JOB NUMBER

400-242975-1

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

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Job ID: 400-242975-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-242975-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/6/2023 9:09 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 3.3°C

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 400-640996 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene, Bromomethane, Chloroethane and Trichlorofluoromethane. 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 8260D: 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-090523-8260 (400-242975-1), MW27-ROX-090523 (400-242975-3), MW9-ROX-090523 (400-242975-4), MW10-ROX-090523 (400-242975-5) and MW2-ROX-090523 (400-242975-6). 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 8260D: The continuing calibration verification (CCV) associated with batch 400-640996 recovered above the upper control limit for Acrylonitrile. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method 8260D: The following sample was diluted due to the abundance of non-target analytes: MW2-ROX-090523 (400-242975-6). 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 8270E: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-640651.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-640651 and analytical batch 400-641055 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 8270E: The continuing calibration verification (CCV) associated with batch 400-641055 recovered above the upper control limit for 2,4-Dinitrotoluene, 2,4,5-Trichlorophenol, 4-Nitrophenol, 4-Chlorophenyl phenyl ether, 4-Bromophenyl phenyl ether, 2-Nitrophenol and Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-641055 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the

Job ID: 400-242975-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

associated samples were non-detect for the analyte(s), the data are reported.

Method 8270E: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base 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: MW27-ROX-090523 (400-242975-3) and MW9-ROX-090523 (400-242975-4). These results have been reported and qualified.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-640651 and analytical batch 400-641239 recovered outside control limits for the following analyte(s): Benzoic acid. Benzoic acid 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-640651 and analytical batch 400-641239 recovered outside control limits for the following analytes: Benzoic acid.

Method 8270E: The following analyte(s) recovered outside control limits for the LCS and LCSD associated with preparation batch 400-640651 and analytical batch 400-641239: Aniline and Bis(2-chloroethyl)ether. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270E: Two of six surrogates for the blank associated with preparation batch 400-640651 and analytical batch 400-641239 were outside of the lower control limit. There was no evidence of lab contamination for any target analyte, therefore the data have been reported.

Method 8270E: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-641408.

Method 8270E: 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 400-641408/1-A). These results have been reported and qualified.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-641408 and analytical batch 400-641903 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-641408 and analytical batch 400-641903 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-641903 recovered above the upper control limit for 2,4,5-Trichlorophenol, 4-Chlorophenyl phenyl ether, Hexachlorobenzene, 2,4-Dinitrotoluene, Dibenzofuran, 4-Bromophenyl phenyl ether and 2-Nitrophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-641903 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 8270E: The continuing calibration verification (CCV) associated with batch 400-641239 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 8270E: The continuing calibration verification (CCV) associated with batch 400-641239 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.

Job ID: 400-242975-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-641239 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 8270E: Surrogate recovery for the following sample was outside control limits: MW2-ROX-090523 (400-242975-6). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. Both sets of data have been reported.

Method 8270E_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-640651.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

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 MONTHLY GW

Job ID: 400-242975-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-242975-1	TB-ROX-090523-8260	Water	09/05/23 12:00	09/06/23 09:09
400-242975-2	TB-ROX-090523-8011	Water	09/05/23 12:00	09/06/23 09:09
400-242975-3	MW27-ROX-090523	Water	09/05/23 08:50	09/06/23 09:09
400-242975-4	MW9-ROX-090523	Water	09/05/23 09:50	09/06/23 09:09
400-242975-5	MW10-ROX-090523	Water	09/05/23 10:45	09/06/23 09:09
400-242975-6	MW2-ROX-090523	Water	09/05/23 12:15	09/06/23 09:09

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: TB-ROX-090523-8260 — Lab Sample ID: 400-242975-1

No Detections.

Client Sample ID: TB-ROX-090523-8011 — Lab Sample ID: 400-242975-2

No Detections.

Client Sample ID: MW27-ROX-090523 — Lab Sample ID: 400-242975-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz[a,h]acridine	2.2	J	9.6	0.96	ug/L	1		8270E	Total/NA

Client Sample ID: MW9-ROX-090523 — Lab Sample ID: 400-242975-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dibenz[a,h]acridine	2.0	J	9.7	0.97	ug/L	1		8270E	Total/NA

Client Sample ID: MW10-ROX-090523 — Lab Sample ID: 400-242975-5

No Detections.

Client Sample ID: MW2-ROX-090523 — Lab Sample ID: 400-242975-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	18	J	130	13	ug/L	5		8260D	Total/NA
Ethylbenzene	320		5.0	2.5	ug/L	5		8260D	Total/NA
Isopropylbenzene	12		5.0	2.7	ug/L	5		8260D	Total/NA
m-Xylene & p-Xylene	170		25	3.2	ug/L	5		8260D	Total/NA
Naphthalene	25		25	15	ug/L	5		8260D	Total/NA
N-Propylbenzene	12		5.0	3.5	ug/L	5		8260D	Total/NA
o-Xylene	12	J	25	3.0	ug/L	5		8260D	Total/NA
1,2,4-Trimethylbenzene	43		5.0	4.1	ug/L	5		8260D	Total/NA
1,3,5-Trimethylbenzene	13		5.0	2.8	ug/L	5		8260D	Total/NA
Xylenes, Total	190		50	8.0	ug/L	5		8260D	Total/NA
1-Methylnaphthalene	9.9		0.19	0.077	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	21		0.19	0.063	ug/L	1		8270E SIM	Total/NA
Diethyl phthalate	0.52	J	9.6	0.23	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: TB-ROX-090523-8260
Date Collected: 09/05/23 12:00
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/14/23 20:47	1
Acrolein	ND		20	3.3	ug/L			09/14/23 20:47	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 20:47	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 20:47	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 20:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 20:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 20:47	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 20:47	1
Bromomethane	ND		1.0	0.98	ug/L			09/14/23 20:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 20:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 20:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 20:47	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 20:47	1
Chloroethane	ND		1.0	0.76	ug/L			09/14/23 20:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 20:47	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 20:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 20:47	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 20:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 20:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 20:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 20:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 20:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 20:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 20:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 20:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 20:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 20:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 20:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 20:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 20:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 20:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 20:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 20:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 20:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 20:47	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 20:47	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 20:47	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 20:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 20:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 20:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 20:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 20:47	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 20:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 20:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 20:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 20:47	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 20:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 20:47	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 20:47	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: TB-ROX-090523-8260
Date Collected: 09/05/23 12:00
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 20:47	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 20:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 20:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 20:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 20:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 20:47	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 20:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 20:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 20:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 20:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 20:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 20:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 20:47	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 20:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/14/23 20:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 20:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 20:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 20:47	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 20:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 20:47	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 20:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 130*		*09/14/23 20:47*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*09/14/23 20:47*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*09/14/23 20:47*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: TB-ROX-090523-8011
Date Collected: 09/05/23 12:00
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-2
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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 19:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*51 - 149*	*09/12/23 08:25*	*09/12/23 19:58*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW27-ROX-090523
Date Collected: 09/05/23 08:50
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/14/23 21:13	1
Acrolein	ND		20	3.3	ug/L			09/14/23 21:13	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 21:13	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 21:13	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 21:13	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 21:13	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 21:13	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 21:13	1
Bromomethane	ND		1.0	0.98	ug/L			09/14/23 21:13	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 21:13	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 21:13	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 21:13	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 21:13	1
Chloroethane	ND		1.0	0.76	ug/L			09/14/23 21:13	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 21:13	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 21:13	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 21:13	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 21:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 21:13	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 21:13	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 21:13	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 21:13	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 21:13	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 21:13	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 21:13	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 21:13	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 21:13	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 21:13	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 21:13	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 21:13	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 21:13	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 21:13	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 21:13	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 21:13	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 21:13	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 21:13	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 21:13	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 21:13	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 21:13	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 21:13	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 21:13	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 21:13	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 21:13	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 21:13	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 21:13	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 21:13	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 21:13	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 21:13	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 21:13	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW27-ROX-090523
Date Collected: 09/05/23 08:50
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 21:13	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 21:13	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 21:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 21:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 21:13	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 21:13	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 21:13	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 21:13	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 21:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 21:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 21:13	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 21:13	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 21:13	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 21:13	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/14/23 21:13	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 21:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 21:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 21:13	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 21:13	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 21:13	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 130*		*09/14/23 21:13*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*09/14/23 21:13*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*09/14/23 21:13*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.095	ug/L		09/12/23 10:32	09/14/23 20:46	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/23 10:32	09/14/23 20:46	1
Anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/14/23 20:46	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 20:46	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/12/23 10:32	09/14/23 20:46	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/12/23 10:32	09/14/23 20:46	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/12/23 10:32	09/14/23 20:46	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/12/23 10:32	09/14/23 20:46	1
Chrysene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 20:46	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/12/23 10:32	09/14/23 20:46	1
Fluoranthene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 20:46	1
Fluorene	ND		0.19	0.086	ug/L		09/12/23 10:32	09/14/23 20:46	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 20:46	1
Phenanthrene	ND		0.19	0.087	ug/L		09/12/23 10:32	09/14/23 20:46	1
Pyrene	ND		0.19	0.038	ug/L		09/12/23 10:32	09/14/23 20:46	1
1-Methylnaphthalene	ND		0.19	0.077	ug/L		09/12/23 10:32	09/14/23 20:46	1
2-Methylnaphthalene	ND		0.19	0.064	ug/L		09/12/23 10:32	09/14/23 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*122*		*18 - 147*	*09/12/23 10:32*	*09/14/23 20:46*	*1*
2-Fluorobiphenyl	*92*		*15 - 128*	*09/12/23 10:32*	*09/14/23 20:46*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW27-ROX-090523

Date Collected: 09/05/23 08:50
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-3

Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*67*		*10 - 144*	*09/12/23 10:32*	*09/14/23 20:46*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.6	3.7	ug/L		09/12/23 10:32	09/14/23 17:35	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		09/12/23 10:32	09/14/23 17:35	1
Benzoic acid	ND	*- *1	29	7.0	ug/L		09/12/23 10:32	09/14/23 17:35	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/12/23 10:32	09/14/23 17:35	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/12/23 10:32	09/14/23 17:35	1
Bis(2-chloroethyl)ether	ND	*+	9.6	2.6	ug/L		09/12/23 10:32	09/14/23 17:35	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/12/23 10:32	09/14/23 17:35	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/12/23 10:32	09/14/23 17:35	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/12/23 10:32	09/14/23 17:35	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/12/23 10:32	09/14/23 17:35	1
4-Chloroaniline	ND		9.6	3.3	ug/L		09/12/23 10:32	09/14/23 17:35	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		09/12/23 10:32	09/14/23 17:35	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 17:35	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/12/23 10:32	09/14/23 17:35	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/12/23 10:32	09/14/23 17:35	1
Dibenz[a,h]acridine	**2.2**	**J**	9.6	0.96	ug/L		09/12/23 10:32	09/14/23 17:35	1
Dibenzofuran	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 17:35	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/12/23 10:32	09/14/23 17:35	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/12/23 10:32	09/14/23 17:35	1
Diethyl phthalate	ND		9.6	0.23	ug/L		09/12/23 10:32	09/14/23 17:35	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 17:35	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 17:35	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		09/12/23 10:32	09/14/23 17:35	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/12/23 10:32	09/14/23 17:35	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/14/23 17:35	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/14/23 17:35	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/14/23 17:35	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 17:35	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 17:35	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 17:35	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 17:35	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/14/23 17:35	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/12/23 10:32	09/14/23 17:35	1
Indene	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 17:35	1
Isophorone	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 17:35	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/12/23 10:32	09/14/23 17:35	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/12/23 10:32	09/14/23 17:35	1
2-Nitroaniline	ND		9.6	2.1	ug/L		09/12/23 10:32	09/14/23 17:35	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/12/23 10:32	09/14/23 17:35	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/12/23 10:32	09/14/23 17:35	1
Nitrobenzene	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 17:35	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/12/23 10:32	09/14/23 17:35	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/12/23 10:32	09/14/23 17:35	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 17:35	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW27-ROX-090523
Date Collected: 09/05/23 08:50
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-3
Matrix: Water

Method: SW846 8270E - 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		09/12/23 10:32	09/14/23 17:35	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/12/23 10:32	09/14/23 17:35	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/14/23 17:35	1
Phenol	ND		9.6	2.5	ug/L		09/12/23 10:32	09/14/23 17:35	1
Pyridine	ND		9.6	3.1	ug/L		09/12/23 10:32	09/14/23 17:35	1
Quinoline	ND		9.6	4.3	ug/L		09/12/23 10:32	09/14/23 17:35	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		09/12/23 10:32	09/14/23 17:35	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*41*	*S1-*	*46 - 124*	*09/12/23 10:32*	*09/14/23 17:35*	*1*
2-Fluorophenol	*11*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/14/23 17:35*	*1*
Nitrobenzene-d5	*37*		*36 - 126*	*09/12/23 10:32*	*09/14/23 17:35*	*1*
Phenol-d5	*27*		*17 - 127*	*09/12/23 10:32*	*09/14/23 17:35*	*1*
Terphenyl-d14	*47*		*44 - 149*	*09/12/23 10:32*	*09/14/23 17:35*	*1*
2,4,6-Tribromophenol	*43*		*26 - 150*	*09/12/23 10:32*	*09/14/23 17:35*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.017	ug/L		09/12/23 08:25	09/12/23 20:20	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 20:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*51 - 149*	*09/12/23 08:25*	*09/12/23 20:20*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW9-ROX-090523
Date Collected: 09/05/23 09:50
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/14/23 21:40	1
Acrolein	ND		20	3.3	ug/L			09/14/23 21:40	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 21:40	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 21:40	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 21:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 21:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 21:40	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 21:40	1
Bromomethane	ND		1.0	0.98	ug/L			09/14/23 21:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 21:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 21:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 21:40	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 21:40	1
Chloroethane	ND		1.0	0.76	ug/L			09/14/23 21:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 21:40	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 21:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 21:40	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 21:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 21:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 21:40	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 21:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 21:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 21:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 21:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 21:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 21:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 21:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 21:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 21:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 21:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 21:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 21:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 21:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 21:40	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 21:40	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 21:40	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 21:40	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 21:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 21:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 21:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 21:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 21:40	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 21:40	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 21:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 21:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 21:40	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 21:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 21:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 21:40	1

Client Sample ID: MW9-ROX-090523
Date Collected: 09/05/23 09:50
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 21:40	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 21:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 21:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 21:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 21:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 21:40	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 21:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 21:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 21:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 21:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 21:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 21:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 21:40	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 21:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/14/23 21:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 21:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 21:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 21:40	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 21:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 21:40	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 21:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 130*		*09/14/23 21:40*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*09/14/23 21:40*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*09/14/23 21:40*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.096	ug/L		09/12/23 10:32	09/14/23 21:07	1
Acenaphthylene	ND		0.19	0.043	ug/L		09/12/23 10:32	09/14/23 21:07	1
Anthracene	ND		0.19	0.046	ug/L		09/12/23 10:32	09/14/23 21:07	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 21:07	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/12/23 10:32	09/14/23 21:07	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/12/23 10:32	09/14/23 21:07	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/12/23 10:32	09/14/23 21:07	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/12/23 10:32	09/14/23 21:07	1
Chrysene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 21:07	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		09/12/23 10:32	09/14/23 21:07	1
Fluoranthene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 21:07	1
Fluorene	ND		0.19	0.086	ug/L		09/12/23 10:32	09/14/23 21:07	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 21:07	1
Phenanthrene	ND		0.19	0.087	ug/L		09/12/23 10:32	09/14/23 21:07	1
Pyrene	ND		0.19	0.038	ug/L		09/12/23 10:32	09/14/23 21:07	1
1-Methylnaphthalene	ND		0.19	0.078	ug/L		09/12/23 10:32	09/14/23 21:07	1
2-Methylnaphthalene	ND		0.19	0.064	ug/L		09/12/23 10:32	09/14/23 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*107*		*18 - 147*	*09/12/23 10:32*	*09/14/23 21:07*	*1*
2-Fluorobiphenyl	*91*		*15 - 128*	*09/12/23 10:32*	*09/14/23 21:07*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW9-ROX-090523
Date Collected: 09/05/23 09:50
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-4
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*67*		*10 - 144*	*09/12/23 10:32*	*09/14/23 21:07*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.7	3.7	ug/L		09/12/23 10:32	09/14/23 17:57	1
Benzenethiol	ND	*-	9.7	1.6	ug/L		09/12/23 10:32	09/14/23 17:57	1
Benzoic acid	ND	*- *1	29	7.1	ug/L		09/12/23 10:32	09/14/23 17:57	1
Benzyl alcohol	ND		9.7	1.9	ug/L		09/12/23 10:32	09/14/23 17:57	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		09/12/23 10:32	09/14/23 17:57	1
Bis(2-chloroethyl)ether	ND	*+	9.7	2.6	ug/L		09/12/23 10:32	09/14/23 17:57	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		09/12/23 10:32	09/14/23 17:57	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		09/12/23 10:32	09/14/23 17:57	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		09/12/23 10:32	09/14/23 17:57	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		09/12/23 10:32	09/14/23 17:57	1
4-Chloroaniline	ND		9.7	3.3	ug/L		09/12/23 10:32	09/14/23 17:57	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		09/12/23 10:32	09/14/23 17:57	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		09/12/23 10:32	09/14/23 17:57	1
2-Chlorophenol	ND		9.7	2.1	ug/L		09/12/23 10:32	09/14/23 17:57	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		09/12/23 10:32	09/14/23 17:57	1
Dibenz[a,h]acridine	**2.0**	**J**	9.7	0.97	ug/L		09/12/23 10:32	09/14/23 17:57	1
Dibenzofuran	ND		9.7	0.16	ug/L		09/12/23 10:32	09/14/23 17:57	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		09/12/23 10:32	09/14/23 17:57	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		09/12/23 10:32	09/14/23 17:57	1
Diethyl phthalate	ND		9.7	0.23	ug/L		09/12/23 10:32	09/14/23 17:57	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		09/12/23 10:32	09/14/23 17:57	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		09/12/23 10:32	09/14/23 17:57	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		09/12/23 10:32	09/14/23 17:57	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		09/12/23 10:32	09/14/23 17:57	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/14/23 17:57	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		09/12/23 10:32	09/14/23 17:57	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		09/12/23 10:32	09/14/23 17:57	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		09/12/23 10:32	09/14/23 17:57	1
1,4-Dioxane	ND		9.7	0.97	ug/L		09/12/23 10:32	09/14/23 17:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		09/12/23 10:32	09/14/23 17:57	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		09/12/23 10:32	09/14/23 17:57	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/14/23 17:57	1
Hexachloroethane	ND		9.7	4.1	ug/L		09/12/23 10:32	09/14/23 17:57	1
Indene	ND		9.7	0.97	ug/L		09/12/23 10:32	09/14/23 17:57	1
Isophorone	ND		9.7	0.14	ug/L		09/12/23 10:32	09/14/23 17:57	1
2-Methylphenol	ND		9.7	1.7	ug/L		09/12/23 10:32	09/14/23 17:57	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/12/23 10:32	09/14/23 17:57	1
2-Nitroaniline	ND		9.7	2.1	ug/L		09/12/23 10:32	09/14/23 17:57	1
3-Nitroaniline	ND		9.7	1.7	ug/L		09/12/23 10:32	09/14/23 17:57	1
4-Nitroaniline	ND		9.7	1.5	ug/L		09/12/23 10:32	09/14/23 17:57	1
Nitrobenzene	ND		9.7	0.13	ug/L		09/12/23 10:32	09/14/23 17:57	1
2-Nitrophenol	ND		9.7	5.0	ug/L		09/12/23 10:32	09/14/23 17:57	1
4-Nitrophenol	ND		9.7	2.0	ug/L		09/12/23 10:32	09/14/23 17:57	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		09/12/23 10:32	09/14/23 17:57	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW9-ROX-090523
Date Collected: 09/05/23 09:50
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-4
Matrix: Water

Method: SW846 8270E - 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		09/12/23 10:32	09/14/23 17:57	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		09/12/23 10:32	09/14/23 17:57	1
Pentachlorophenol	ND		19	1.4	ug/L		09/12/23 10:32	09/14/23 17:57	1
Phenol	ND		9.7	2.5	ug/L		09/12/23 10:32	09/14/23 17:57	1
Pyridine	ND		9.7	3.1	ug/L		09/12/23 10:32	09/14/23 17:57	1
Quinoline	ND		9.7	4.4	ug/L		09/12/23 10:32	09/14/23 17:57	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		09/12/23 10:32	09/14/23 17:57	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		09/12/23 10:32	09/14/23 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*45*	*S1-*	*46 - 124*	*09/12/23 10:32*	*09/14/23 17:57*	*1*
2-Fluorophenol	*7*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/14/23 17:57*	*1*
Nitrobenzene-d5	*42*		*36 - 126*	*09/12/23 10:32*	*09/14/23 17:57*	*1*
Phenol-d5	*20*		*17 - 127*	*09/12/23 10:32*	*09/14/23 17:57*	*1*
Terphenyl-d14	*51*		*44 - 149*	*09/12/23 10:32*	*09/14/23 17:57*	*1*
2,4,6-Tribromophenol	*43*		*26 - 150*	*09/12/23 10:32*	*09/14/23 17:57*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 20:41	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*51 - 149*	*09/12/23 08:25*	*09/12/23 20:41*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW10-ROX-090523
Date Collected: 09/05/23 10:45
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/14/23 22:07	1
Acrolein	ND		20	3.3	ug/L			09/14/23 22:07	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 22:07	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 22:07	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 22:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 22:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 22:07	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 22:07	1
Bromomethane	ND		1.0	0.98	ug/L			09/14/23 22:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 22:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 22:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 22:07	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 22:07	1
Chloroethane	ND		1.0	0.76	ug/L			09/14/23 22:07	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 22:07	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 22:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 22:07	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 22:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 22:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 22:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 22:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 22:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 22:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 22:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 22:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 22:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 22:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 22:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 22:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 22:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 22:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 22:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 22:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 22:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 22:07	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 22:07	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 22:07	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 22:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 22:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 22:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 22:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 22:07	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 22:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 22:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 22:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 22:07	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 22:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 22:07	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/14/23 22:07	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW10-ROX-090523
Date Collected: 09/05/23 10:45
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 22:07	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 22:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 22:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 22:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 22:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 22:07	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 22:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 22:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 22:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 22:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 22:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 22:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 22:07	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 22:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/14/23 22:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 22:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 22:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 22:07	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 22:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 22:07	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*09/14/23 22:07*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*09/14/23 22:07*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*09/14/23 22:07*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.094	ug/L		09/12/23 10:32	09/14/23 21:27	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/23 10:32	09/14/23 21:27	1
Anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/14/23 21:27	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 21:27	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/12/23 10:32	09/14/23 21:27	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/12/23 10:32	09/14/23 21:27	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/12/23 10:32	09/14/23 21:27	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/12/23 10:32	09/14/23 21:27	1
Chrysene	ND		0.19	0.031	ug/L		09/12/23 10:32	09/14/23 21:27	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/14/23 21:27	1
Fluoranthene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 21:27	1
Fluorene	ND		0.19	0.084	ug/L		09/12/23 10:32	09/14/23 21:27	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 21:27	1
Phenanthrene	ND		0.19	0.085	ug/L		09/12/23 10:32	09/14/23 21:27	1
Pyrene	ND		0.19	0.037	ug/L		09/12/23 10:32	09/14/23 21:27	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		09/12/23 10:32	09/14/23 21:27	1
2-Methylnaphthalene	ND		0.19	0.063	ug/L		09/12/23 10:32	09/14/23 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*120*		*18 - 147*	*09/12/23 10:32*	*09/14/23 21:27*	*1*
2-Fluorobiphenyl	*88*		*15 - 128*	*09/12/23 10:32*	*09/14/23 21:27*	*1*

Client Sample ID: MW10-ROX-090523
Date Collected: 09/05/23 10:45
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-5
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*66*		*10 - 144*	*09/12/23 10:32*	*09/14/23 21:27*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.5	3.6	ug/L		09/12/23 10:32	09/14/23 18:18	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		09/12/23 10:32	09/14/23 18:18	1
Benzoic acid	ND	*- *1	28	6.9	ug/L		09/12/23 10:32	09/14/23 18:18	1
Benzyl alcohol	ND		9.5	1.9	ug/L		09/12/23 10:32	09/14/23 18:18	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		09/12/23 10:32	09/14/23 18:18	1
Bis(2-chloroethyl)ether	ND	*+	9.5	2.6	ug/L		09/12/23 10:32	09/14/23 18:18	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		09/12/23 10:32	09/14/23 18:18	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		09/12/23 10:32	09/14/23 18:18	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		09/12/23 10:32	09/14/23 18:18	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		09/12/23 10:32	09/14/23 18:18	1
4-Chloroaniline	ND		9.5	3.2	ug/L		09/12/23 10:32	09/14/23 18:18	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		09/12/23 10:32	09/14/23 18:18	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		09/12/23 10:32	09/14/23 18:18	1
2-Chlorophenol	ND		9.5	2.1	ug/L		09/12/23 10:32	09/14/23 18:18	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		09/12/23 10:32	09/14/23 18:18	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		09/12/23 10:32	09/14/23 18:18	1
Dibenzofuran	ND		9.5	0.16	ug/L		09/12/23 10:32	09/14/23 18:18	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		09/12/23 10:32	09/14/23 18:18	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		09/12/23 10:32	09/14/23 18:18	1
Diethyl phthalate	ND		9.5	0.23	ug/L		09/12/23 10:32	09/14/23 18:18	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		09/12/23 10:32	09/14/23 18:18	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		09/12/23 10:32	09/14/23 18:18	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		09/12/23 10:32	09/14/23 18:18	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		09/12/23 10:32	09/14/23 18:18	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/12/23 10:32	09/14/23 18:18	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		09/12/23 10:32	09/14/23 18:18	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		09/12/23 10:32	09/14/23 18:18	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		09/12/23 10:32	09/14/23 18:18	1
1,4-Dioxane	ND		9.5	0.95	ug/L		09/12/23 10:32	09/14/23 18:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		09/12/23 10:32	09/14/23 18:18	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		09/12/23 10:32	09/14/23 18:18	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/14/23 18:18	1
Hexachloroethane	ND		9.5	4.0	ug/L		09/12/23 10:32	09/14/23 18:18	1
Indene	ND		9.5	0.95	ug/L		09/12/23 10:32	09/14/23 18:18	1
Isophorone	ND		9.5	0.13	ug/L		09/12/23 10:32	09/14/23 18:18	1
2-Methylphenol	ND		9.5	1.7	ug/L		09/12/23 10:32	09/14/23 18:18	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/12/23 10:32	09/14/23 18:18	1
2-Nitroaniline	ND		9.5	2.1	ug/L		09/12/23 10:32	09/14/23 18:18	1
3-Nitroaniline	ND		9.5	1.7	ug/L		09/12/23 10:32	09/14/23 18:18	1
4-Nitroaniline	ND		9.5	1.4	ug/L		09/12/23 10:32	09/14/23 18:18	1
Nitrobenzene	ND		9.5	0.12	ug/L		09/12/23 10:32	09/14/23 18:18	1
2-Nitrophenol	ND		9.5	4.9	ug/L		09/12/23 10:32	09/14/23 18:18	1
4-Nitrophenol	ND		9.5	2.0	ug/L		09/12/23 10:32	09/14/23 18:18	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		09/12/23 10:32	09/14/23 18:18	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW10-ROX-090523

Lab Sample ID: 400-242975-5

Date Collected: 09/05/23 10:45

Matrix: Water

Date Received: 09/06/23 09:09

Method: SW846 8270E - 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		09/12/23 10:32	09/14/23 18:18	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		09/12/23 10:32	09/14/23 18:18	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/14/23 18:18	1
Phenol	ND		9.5	2.5	ug/L		09/12/23 10:32	09/14/23 18:18	1
Pyridine	ND		9.5	3.0	ug/L		09/12/23 10:32	09/14/23 18:18	1
Quinoline	ND		9.5	4.3	ug/L		09/12/23 10:32	09/14/23 18:18	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		09/12/23 10:32	09/14/23 18:18	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		09/12/23 10:32	09/14/23 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*46 - 124*	*09/12/23 10:32*	*09/14/23 18:18*	*1*
2-Fluorophenol	*19*		*13 - 113*	*09/12/23 10:32*	*09/14/23 18:18*	*1*
Nitrobenzene-d5	*54*		*36 - 126*	*09/12/23 10:32*	*09/14/23 18:18*	*1*
Phenol-d5	*41*		*17 - 127*	*09/12/23 10:32*	*09/14/23 18:18*	*1*
Terphenyl-d14	*84*		*44 - 149*	*09/12/23 10:32*	*09/14/23 18:18*	*1*
2,4,6-Tribromophenol	*53*		*26 - 150*	*09/12/23 10:32*	*09/14/23 18:18*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/12/23 08:25	09/12/23 21:24	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		09/12/23 08:25	09/12/23 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*09/12/23 08:25*	*09/12/23 21:24*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW2-ROX-090523
Date Collected: 09/05/23 12:15
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130	50	ug/L			09/14/23 22:34	5
Acrolein	ND		100	17	ug/L			09/14/23 22:34	5
Acrylonitrile	ND		50	14	ug/L			09/14/23 22:34	5
Benzene	ND		5.0	2.5	ug/L			09/14/23 22:34	5
Bromobenzene	ND		5.0	2.7	ug/L			09/14/23 22:34	5
Bromochloromethane	ND		5.0	1.1	ug/L			09/14/23 22:34	5
Bromodichloromethane	ND		5.0	2.5	ug/L			09/14/23 22:34	5
Bromoform	ND		25	1.3	ug/L			09/14/23 22:34	5
Bromomethane	ND		5.0	4.9	ug/L			09/14/23 22:34	5
2-Butanone (MEK)	**18**	**J**	130	13	ug/L			09/14/23 22:34	5
Carbon disulfide	ND		5.0	2.5	ug/L			09/14/23 22:34	5
Carbon tetrachloride	ND		5.0	0.95	ug/L			09/14/23 22:34	5
Chlorobenzene	ND		5.0	4.5	ug/L			09/14/23 22:34	5
Chloroethane	ND		5.0	3.8	ug/L			09/14/23 22:34	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			09/14/23 22:34	5
Chloroform	ND		5.0	4.5	ug/L			09/14/23 22:34	5
1-Chlorohexane	ND		5.0	1.6	ug/L			09/14/23 22:34	5
Chloromethane	ND		5.0	4.5	ug/L			09/14/23 22:34	5
cis-1,2-Dichloroethene	ND		5.0	1.0	ug/L			09/14/23 22:34	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			09/14/23 22:34	5
Dibromochloromethane	ND		5.0	1.2	ug/L			09/14/23 22:34	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			09/14/23 22:34	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			09/14/23 22:34	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			09/14/23 22:34	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			09/14/23 22:34	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			09/14/23 22:34	5
1,2-Dichloroethane	ND		5.0	0.95	ug/L			09/14/23 22:34	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			09/14/23 22:34	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			09/14/23 22:34	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			09/14/23 22:34	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			09/14/23 22:34	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			09/14/23 22:34	5
Ethylbenzene	**320**		5.0	2.5	ug/L			09/14/23 22:34	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			09/14/23 22:34	5
Hexachlorobutadiene	ND		25	4.5	ug/L			09/14/23 22:34	5
2-Hexanone	ND		130	7.0	ug/L			09/14/23 22:34	5
Isopropylbenzene	**12**		5.0	2.7	ug/L			09/14/23 22:34	5
Methylene bromide	ND		25	1.1	ug/L			09/14/23 22:34	5
Methylene Chloride	ND		25	15	ug/L			09/14/23 22:34	5
4-Methyl-2-pentanone (MIBK)	ND		130	9.0	ug/L			09/14/23 22:34	5
Methyl tert-butyl ether	ND		5.0	1.1	ug/L			09/14/23 22:34	5
m-Xylene & p-Xylene	**170**		25	3.2	ug/L			09/14/23 22:34	5
Naphthalene	**25**		25	15	ug/L			09/14/23 22:34	5
n-Butylbenzene	ND		5.0	3.8	ug/L			09/14/23 22:34	5
N-Propylbenzene	**12**		5.0	3.5	ug/L			09/14/23 22:34	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			09/14/23 22:34	5
o-Xylene	**12**	**J**	25	3.0	ug/L			09/14/23 22:34	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			09/14/23 22:34	5
p-Isopropyltoluene	ND		5.0	3.6	ug/L			09/14/23 22:34	5

Client Sample ID: MW2-ROX-090523
Date Collected: 09/05/23 12:15
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5.0	3.5	ug/L			09/14/23 22:34	5
Styrene	ND		5.0	5.0	ug/L			09/14/23 22:34	5
tert-Butylbenzene	ND		5.0	3.2	ug/L			09/14/23 22:34	5
1,1,1,2-Tetrachloroethane	ND		5.0	0.80	ug/L			09/14/23 22:34	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			09/14/23 22:34	5
Tetrachloroethene	ND		5.0	4.5	ug/L			09/14/23 22:34	5
Toluene	ND		5.0	4.5	ug/L			09/14/23 22:34	5
trans-1,2-Dichloroethene	ND		5.0	2.5	ug/L			09/14/23 22:34	5
trans-1,3-Dichloropropene	ND		25	1.0	ug/L			09/14/23 22:34	5
1,2,3-Trichlorobenzene	ND		5.0	4.5	ug/L			09/14/23 22:34	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			09/14/23 22:34	5
1,1,1-Trichloroethane	ND		5.0	0.90	ug/L			09/14/23 22:34	5
1,1,2-Trichloroethane	ND		25	1.1	ug/L			09/14/23 22:34	5
Trichloroethene	ND		5.0	0.75	ug/L			09/14/23 22:34	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			09/14/23 22:34	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			09/14/23 22:34	5
1,2,4-Trimethylbenzene	**43**		5.0	4.1	ug/L			09/14/23 22:34	5
1,3,5-Trimethylbenzene	**13**		5.0	2.8	ug/L			09/14/23 22:34	5
Vinyl acetate	ND		130	4.7	ug/L			09/14/23 22:34	5
Vinyl chloride	ND		5.0	2.5	ug/L			09/14/23 22:34	5
Xylenes, Total	**190**		50	8.0	ug/L			09/14/23 22:34	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*09/14/23 22:34*	*5*
Dibromofluoromethane	*102*		*75 - 126*		*09/14/23 22:34*	*5*
Toluene-d8 (Surr)	*110*		*64 - 132*		*09/14/23 22:34*	*5*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.095	ug/L		09/12/23 10:32	09/14/23 21:48	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/23 10:32	09/14/23 21:48	1
Anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/14/23 21:48	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 21:48	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/12/23 10:32	09/14/23 21:48	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/12/23 10:32	09/14/23 21:48	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/12/23 10:32	09/14/23 21:48	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/12/23 10:32	09/14/23 21:48	1
Chrysene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 21:48	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/12/23 10:32	09/14/23 21:48	1
Fluoranthene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 21:48	1
Fluorene	ND		0.19	0.085	ug/L		09/12/23 10:32	09/14/23 21:48	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 21:48	1
Phenanthrene	ND		0.19	0.086	ug/L		09/12/23 10:32	09/14/23 21:48	1
Pyrene	ND		0.19	0.037	ug/L		09/12/23 10:32	09/14/23 21:48	1
1-Methylnaphthalene	**9.9**		0.19	0.077	ug/L		09/12/23 10:32	09/14/23 21:48	1
2-Methylnaphthalene	**21**		0.19	0.063	ug/L		09/12/23 10:32	09/14/23 21:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*119*		*18 - 147*	*09/12/23 10:32*	*09/14/23 21:48*	*1*
2-Fluorobiphenyl	*81*		*15 - 128*	*09/12/23 10:32*	*09/14/23 21:48*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW2-ROX-090523
Date Collected: 09/05/23 12:15
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-6
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*56*		*10 - 144*	*09/12/23 10:32*	*09/14/23 21:48*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.6	3.6	ug/L		09/12/23 10:32	09/15/23 18:52	1
Benzenethiol	ND		9.6	1.6	ug/L		09/12/23 10:32	09/15/23 18:52	1
Benzoic acid	ND	*- *1	29	7.0	ug/L		09/12/23 10:32	09/15/23 18:52	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/12/23 10:32	09/15/23 18:52	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/12/23 10:32	09/15/23 18:52	1
Bis(2-chloroethyl)ether	ND	*+	9.6	2.6	ug/L		09/12/23 10:32	09/15/23 18:52	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/12/23 10:32	09/15/23 18:52	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/12/23 10:32	09/15/23 18:52	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/12/23 10:32	09/15/23 18:52	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/12/23 10:32	09/15/23 18:52	1
4-Chloroaniline	ND		9.6	3.3	ug/L		09/12/23 10:32	09/15/23 18:52	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		09/12/23 10:32	09/15/23 18:52	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/12/23 10:32	09/15/23 18:52	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/12/23 10:32	09/15/23 18:52	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/12/23 10:32	09/15/23 18:52	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		09/12/23 10:32	09/15/23 18:52	1
Dibenzofuran	ND		9.6	0.16	ug/L		09/12/23 10:32	09/15/23 18:52	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/12/23 10:32	09/15/23 18:52	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/12/23 10:32	09/15/23 18:52	1
Diethyl phthalate	**0.52**	**J**	9.6	0.23	ug/L		09/12/23 10:32	09/15/23 18:52	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		09/12/23 10:32	09/15/23 18:52	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/15/23 18:52	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		09/12/23 10:32	09/15/23 18:52	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/12/23 10:32	09/15/23 18:52	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/15/23 18:52	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/15/23 18:52	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/15/23 18:52	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/15/23 18:52	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/12/23 10:32	09/15/23 18:52	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/12/23 10:32	09/15/23 18:52	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/12/23 10:32	09/15/23 18:52	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/15/23 18:52	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/12/23 10:32	09/15/23 18:52	1
Indene	ND		9.6	0.96	ug/L		09/12/23 10:32	09/15/23 18:52	1
Isophorone	ND		9.6	0.13	ug/L		09/12/23 10:32	09/15/23 18:52	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/12/23 10:32	09/15/23 18:52	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/12/23 10:32	09/15/23 18:52	1
2-Nitroaniline	ND		9.6	2.1	ug/L		09/12/23 10:32	09/15/23 18:52	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/12/23 10:32	09/15/23 18:52	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/12/23 10:32	09/15/23 18:52	1
Nitrobenzene	ND		9.6	0.12	ug/L		09/12/23 10:32	09/15/23 18:52	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/12/23 10:32	09/15/23 18:52	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/12/23 10:32	09/15/23 18:52	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		09/12/23 10:32	09/15/23 18:52	1

Client Sample ID: MW2-ROX-090523
Date Collected: 09/05/23 12:15
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-6
Matrix: Water

Method: SW846 8270E - 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		09/12/23 10:32	09/15/23 18:52	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/12/23 10:32	09/15/23 18:52	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/15/23 18:52	1
Phenol	ND		9.6	2.5	ug/L		09/12/23 10:32	09/15/23 18:52	1
Pyridine	ND		9.6	3.1	ug/L		09/12/23 10:32	09/15/23 18:52	1
Quinoline	ND		9.6	4.3	ug/L		09/12/23 10:32	09/15/23 18:52	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		09/12/23 10:32	09/15/23 18:52	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		09/12/23 10:32	09/15/23 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*46 - 124*	*09/12/23 10:32*	*09/15/23 18:52*	*1*
2-Fluorophenol	*0*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/15/23 18:52*	*1*
Nitrobenzene-d5	*55*		*36 - 126*	*09/12/23 10:32*	*09/15/23 18:52*	*1*
Phenol-d5	*0.7*	*S1-*	*17 - 127*	*09/12/23 10:32*	*09/15/23 18:52*	*1*
Terphenyl-d14	*69*		*44 - 149*	*09/12/23 10:32*	*09/15/23 18:52*	*1*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 150*	*09/12/23 10:32*	*09/15/23 18:52*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	H	9.6	3.7	ug/L		09/18/23 10:20	09/20/23 17:27	1
Benzenethiol	ND	H *- *1	9.6	1.6	ug/L		09/18/23 10:20	09/20/23 17:27	1
Benzoic acid	ND	H	29	7.0	ug/L		09/18/23 10:20	09/20/23 17:27	1
Benzyl alcohol	ND	H	9.6	1.9	ug/L		09/18/23 10:20	09/20/23 17:27	1
Bis(2-chloroethoxy)methane	ND	H	9.6	0.15	ug/L		09/18/23 10:20	09/20/23 17:27	1
Bis(2-chloroethyl)ether	ND	H	9.6	2.6	ug/L		09/18/23 10:20	09/20/23 17:27	1
bis (2-chloroisopropyl) ether	ND	H	9.6	0.15	ug/L		09/18/23 10:20	09/20/23 17:27	1
Bis(2-ethylhexyl) phthalate	ND	H	9.6	4.8	ug/L		09/18/23 10:20	09/20/23 17:27	1
4-Bromophenyl phenyl ether	ND	H	9.6	0.19	ug/L		09/18/23 10:20	09/20/23 17:27	1
Butyl benzyl phthalate	ND	H	9.6	0.18	ug/L		09/18/23 10:20	09/20/23 17:27	1
4-Chloroaniline	ND	H	9.6	3.3	ug/L		09/18/23 10:20	09/20/23 17:27	1
4-Chloro-3-methylphenol	ND	H	9.6	3.7	ug/L		09/18/23 10:20	09/20/23 17:27	1
2-Chloronaphthalene	ND	H	9.6	0.13	ug/L		09/18/23 10:20	09/20/23 17:27	1
2-Chlorophenol	ND	H	9.6	2.1	ug/L		09/18/23 10:20	09/20/23 17:27	1
4-Chlorophenyl phenyl ether	ND	H	9.6	1.9	ug/L		09/18/23 10:20	09/20/23 17:27	1
Dibenz[a,h]acridine	ND	H	9.6	0.96	ug/L		09/18/23 10:20	09/20/23 17:27	1
Dibenzofuran	ND	H	9.6	0.16	ug/L		09/18/23 10:20	09/20/23 17:27	1
3,3'-Dichlorobenzidine	ND	H	9.6	2.5	ug/L		09/18/23 10:20	09/20/23 17:27	1
2,4-Dichlorophenol	ND	H	9.6	2.9	ug/L		09/18/23 10:20	09/20/23 17:27	1
Diethyl phthalate	ND	H	9.6	0.23	ug/L		09/18/23 10:20	09/20/23 17:27	1
2,4-Dimethylphenol	ND	H	9.6	3.4	ug/L		09/18/23 10:20	09/20/23 17:27	1
Dimethyl phthalate	ND	H	9.6	0.16	ug/L		09/18/23 10:20	09/20/23 17:27	1
Di-n-butyl phthalate	ND	H	9.6	2.6	ug/L		09/18/23 10:20	09/20/23 17:27	1
4,6-Dinitro-ortho-cresol	ND	H	9.6	1.5	ug/L		09/18/23 10:20	09/20/23 17:27	1
2,4-Dinitrophenol	ND	H	29	3.3	ug/L		09/18/23 10:20	09/20/23 17:27	1
2,4-Dinitrotoluene	ND	H	9.6	1.8	ug/L		09/18/23 10:20	09/20/23 17:27	1
2,6-Dinitrotoluene	ND	H	9.6	1.8	ug/L		09/18/23 10:20	09/20/23 17:27	1
Di-n-octyl phthalate	ND	H	9.6	0.16	ug/L		09/18/23 10:20	09/20/23 17:27	1
1,4-Dioxane	ND	H	9.6	0.96	ug/L		09/18/23 10:20	09/20/23 17:27	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	H	9.6	0.96	ug/L		09/18/23 10:20	09/20/23 17:27	1

Client Sample ID: MW2-ROX-090523
Date Collected: 09/05/23 12:15
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-6
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - RERA (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND	H	9.6	0.16	ug/L		09/18/23 10:20	09/20/23 17:27	1
Hexachlorocyclopentadiene	ND	H	19	2.5	ug/L		09/18/23 10:20	09/20/23 17:27	1
Hexachloroethane	ND	H	9.6	4.0	ug/L		09/18/23 10:20	09/20/23 17:27	1
Indene	ND	H	9.6	0.96	ug/L		09/18/23 10:20	09/20/23 17:27	1
Isophorone	ND	H	9.6	0.13	ug/L		09/18/23 10:20	09/20/23 17:27	1
2-Methylphenol	ND	H	9.6	1.7	ug/L		09/18/23 10:20	09/20/23 17:27	1
3 & 4 Methylphenol	ND	H	19	0.38	ug/L		09/18/23 10:20	09/20/23 17:27	1
2-Nitroaniline	ND	H	9.6	2.1	ug/L		09/18/23 10:20	09/20/23 17:27	1
3-Nitroaniline	ND	H	9.6	1.7	ug/L		09/18/23 10:20	09/20/23 17:27	1
4-Nitroaniline	ND	H	9.6	1.4	ug/L		09/18/23 10:20	09/20/23 17:27	1
Nitrobenzene	ND	H	9.6	0.13	ug/L		09/18/23 10:20	09/20/23 17:27	1
2-Nitrophenol	ND	H	9.6	5.0	ug/L		09/18/23 10:20	09/20/23 17:27	1
4-Nitrophenol	ND	H	9.6	2.0	ug/L		09/18/23 10:20	09/20/23 17:27	1
N-Nitrosodimethylamine	ND	H	9.6	3.4	ug/L		09/18/23 10:20	09/20/23 17:27	1
N-Nitrosodi-n-propylamine	ND	H	9.6	3.2	ug/L		09/18/23 10:20	09/20/23 17:27	1
N-Nitrosodiphenylamine	ND	H	9.6	0.17	ug/L		09/18/23 10:20	09/20/23 17:27	1
Pentachlorophenol	ND	H	19	1.3	ug/L		09/18/23 10:20	09/20/23 17:27	1
Phenol	ND	H	9.6	2.5	ug/L		09/18/23 10:20	09/20/23 17:27	1
Pyridine	ND	H	9.6	3.1	ug/L		09/18/23 10:20	09/20/23 17:27	1
Quinoline	ND	H	9.6	4.3	ug/L		09/18/23 10:20	09/20/23 17:27	1
2,4,5-Trichlorophenol	ND	H	9.6	3.6	ug/L		09/18/23 10:20	09/20/23 17:27	1
2,4,6-Trichlorophenol	ND	H	9.6	3.4	ug/L		09/18/23 10:20	09/20/23 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*09/18/23 10:20*	*09/20/23 17:27*	*1*
2-Fluorophenol	*19*		*13 - 113*	*09/18/23 10:20*	*09/20/23 17:27*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*09/18/23 10:20*	*09/20/23 17:27*	*1*
Phenol-d5	*46*		*17 - 127*	*09/18/23 10:20*	*09/20/23 17:27*	*1*
Terphenyl-d14	*109*		*44 - 149*	*09/18/23 10:20*	*09/20/23 17:27*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*09/18/23 10:20*	*09/20/23 17:27*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 21:45	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 21:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*51 - 149*	*09/12/23 08:25*	*09/12/23 21:45*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

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.
*1	LCS/LCSD RPD exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
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.

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 MONTHLY GW

Job ID: 400-242975-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-242975-1	TB-ROX-090523-8260	106	109	103
400-242975-3	MW27-ROX-090523	105	110	104
400-242975-4	MW9-ROX-090523	106	109	104
400-242975-5	MW10-ROX-090523	107	109	103
400-242975-6	MW2-ROX-090523	109	102	110
LCS 400-640996/1002	Lab Control Sample	108	103	104
MB 400-640996/4	Method Blank	107	107	103

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-242975-3	MW27-ROX-090523	41 S1-	11 S1-	37	27	47	43
400-242975-4	MW9-ROX-090523	45 S1-	7 S1-	42	20	51	43
400-242975-5	MW10-ROX-090523	63	19	54	41	84	53
400-242975-6	MW2-ROX-090523	63	0 S1-	55	0.7 S1-	69	0 S1-
400-242975-6 - RERA	MW2-ROX-090523	72	19	63	46	109	71
LCS 400-640651/17-A	Lab Control Sample	70	24	63	49	90	55
LCS 400-640651/2-A	Lab Control Sample	66	22	64	44	69	68
LCS 400-641408/4-A	Lab Control Sample	69	15	58	36	95	41
LCSD 400-640651/18-A	Lab Control Sample Dup	69	38	61	56	81	62
LCSD 400-640651/3-A	Lab Control Sample Dup	70	13	57	42	73	75
LCSD 400-641408/5-A	Lab Control Sample Dup	61	27	54	44	87	52
MB 400-640651/1-A	Method Blank	64	3 S1-	54	8 S1-	68	37
MB 400-641408/1-A	Method Blank	69	9 S1-	58	36	93	60

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
400-242975-3	MW27-ROX-090523	122	92	67
400-242975-4	MW9-ROX-090523	107	91	67
400-242975-5	MW10-ROX-090523	120	88	66
400-242975-6	MW2-ROX-090523	119	81	56

Client: AECOM Technical Services Inc.
Job ID: 400-242975-1
Project/Site: ROXANA MONTHLY GW

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		TPHL	FBP	NBZ
Lab Sample ID	Client Sample ID	(18-147)	(15-128)	(10-144)
LCS 400-640651/19-A	Lab Control Sample	112	91	66
LCSD 400-640651/20-A	Lab Control Sample Dup	112	94	67
MB 400-640651/1-A	Method Blank	94	75	69

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-242975-2	TB-ROX-090523-8011	106
400-242975-3	MW27-ROX-090523	97
400-242975-4	MW9-ROX-090523	89
400-242975-5	MW10-ROX-090523	99
400-242975-6	MW2-ROX-090523	117
LCS 400-640625/2-A	Lab Control Sample	82
LCSD 400-640625/3-A	Lab Control Sample Dup	94
MB 400-640625/1-A	Method Blank	91

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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 MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: TB-ROX-090523-8260
Lab Sample ID: 400-242975-1
Date Collected: 09/05/23 12:00
Matrix: Water
Date Received: 09/06/23 09:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 20:47	CAR	EET PEN

Client Sample ID: TB-ROX-090523-8011
Lab Sample ID: 400-242975-2
Date Collected: 09/05/23 12:00
Matrix: Water
Date Received: 09/06/23 09:09

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	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 19:58	DS	EET PEN

Client Sample ID: MW27-ROX-090523
Lab Sample ID: 400-242975-3
Date Collected: 09/05/23 08:50
Matrix: Water
Date Received: 09/06/23 09:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 21:13	CAR	EET PEN
Total/NA	Prep	3520C			259.4 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 17:35	S1B	EET PEN
Total/NA	Prep	3520C			259.4 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:46	TH	EET PEN
Total/NA	Prep	8011			35.8 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 20:20	DS	EET PEN

Client Sample ID: MW9-ROX-090523
Lab Sample ID: 400-242975-4
Date Collected: 09/05/23 09:50
Matrix: Water
Date Received: 09/06/23 09:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 21:40	CAR	EET PEN
Total/NA	Prep	3520C			257.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 17:57	S1B	EET PEN
Total/NA	Prep	3520C			257.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 21:07	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 20:41	DS	EET PEN

Client Sample ID: MW10-ROX-090523
Lab Sample ID: 400-242975-5
Date Collected: 09/05/23 10:45
Matrix: Water
Date Received: 09/06/23 09:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	640996	09/14/23 22:07	CAR	EET PEN
Total/NA	Prep	3520C			264 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 18:18	S1B	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: MW10-ROX-090523
Date Collected: 09/05/23 10:45
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-5
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			264 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 21:27	TH	EET PEN
Total/NA	Prep	8011			33.9 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 21:24	DS	EET PEN

Client Sample ID: MW2-ROX-090523
Date Collected: 09/05/23 12:15
Date Received: 09/06/23 09:09

Lab Sample ID: 400-242975-6
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	8260D		5	5 mL	5 mL	640996	09/14/23 22:34	CAR	EET PEN
Total/NA	Prep	3520C	RERA		259.4 mL	1 mL	641408	09/18/23 10:20	BKL	EET PEN
Total/NA	Analysis	8270E	RERA	1	0.4 mL	0.4 mL	641903	09/20/23 17:27	KJA	EET PEN
Total/NA	Prep	3520C			260.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 18:52	VC1	EET PEN
Total/NA	Prep	3520C			260.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 21:48	TH	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 21:45	DS	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-640625/1-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	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 17:29	DS	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-640651/1-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 17:33	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641154	09/15/23 16:40	KJA	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-640996/4
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	8260D		1	5 mL	5 mL	640996	09/14/23 11:50	CAR	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-641408/1-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	641408	09/18/23 10:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641903	09/20/23 15:39	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640625/2-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	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 17:50	DS	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/17-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 16:10	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/19-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:05	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/2-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 17:59	VC1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640996/1002
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	8260D		1	5 mL	5 mL	640996	09/14/23 10:36	CAR	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-242975-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-641408/4-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	641408	09/18/23 10:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641903	09/20/23 16:44	KJA	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640625/3-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	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 18:12	DS	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640651/18-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 16:32	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640651/20-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	640651	09/12/23 10:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:25	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-640651/3-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 18:25	VC1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-641408/5-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	641408	09/18/23 10:20	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641903	09/20/23 17:05	KJA	EET PEN

Laboratory References:
EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 640996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-1	TB-ROX-090523-8260	Total/NA	Water	8260D	
400-242975-3	MW27-ROX-090523	Total/NA	Water	8260D	
400-242975-4	MW9-ROX-090523	Total/NA	Water	8260D	
400-242975-5	MW10-ROX-090523	Total/NA	Water	8260D	
400-242975-6	MW2-ROX-090523	Total/NA	Water	8260D	
MB 400-640996/4	Method Blank	Total/NA	Water	8260D	
LCS 400-640996/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 640651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-3	MW27-ROX-090523	Total/NA	Water	3520C	
400-242975-4	MW9-ROX-090523	Total/NA	Water	3520C	
400-242975-5	MW10-ROX-090523	Total/NA	Water	3520C	
400-242975-6	MW2-ROX-090523	Total/NA	Water	3520C	
MB 400-640651/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-640651/17-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640651/19-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640651/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-640651/18-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640651/20-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640651/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 641055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-3	MW27-ROX-090523	Total/NA	Water	8270E	640651
400-242975-4	MW9-ROX-090523	Total/NA	Water	8270E	640651
400-242975-5	MW10-ROX-090523	Total/NA	Water	8270E	640651
LCS 400-640651/17-A	Lab Control Sample	Total/NA	Water	8270E	640651
LCSD 400-640651/18-A	Lab Control Sample Dup	Total/NA	Water	8270E	640651

Analysis Batch: 641090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-3	MW27-ROX-090523	Total/NA	Water	8270E SIM	640651
400-242975-4	MW9-ROX-090523	Total/NA	Water	8270E SIM	640651
400-242975-5	MW10-ROX-090523	Total/NA	Water	8270E SIM	640651
400-242975-6	MW2-ROX-090523	Total/NA	Water	8270E SIM	640651
LCS 400-640651/19-A	Lab Control Sample	Total/NA	Water	8270E SIM	640651
LCSD 400-640651/20-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	640651

Analysis Batch: 641154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-640651/1-A	Method Blank	Total/NA	Water	8270E SIM	640651

Analysis Batch: 641239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-6	MW2-ROX-090523	Total/NA	Water	8270E	640651
MB 400-640651/1-A	Method Blank	Total/NA	Water	8270E	640651
LCS 400-640651/2-A	Lab Control Sample	Total/NA	Water	8270E	640651
LCSD 400-640651/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	640651

GC/MS Semi VOA

Prep Batch: 641408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-6 - RERA	MW2-ROX-090523	Total/NA	Water	3520C	
MB 400-641408/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-641408/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-641408/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 641903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-6 - RERA	MW2-ROX-090523	Total/NA	Water	8270E	641408
MB 400-641408/1-A	Method Blank	Total/NA	Water	8270E	641408
LCS 400-641408/4-A	Lab Control Sample	Total/NA	Water	8270E	641408
LCSD 400-641408/5-A	Lab Control Sample Dup	Total/NA	Water	8270E	641408

GC Semi VOA

Prep Batch: 640625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-2	TB-ROX-090523-8011	Total/NA	Water	8011	
400-242975-3	MW27-ROX-090523	Total/NA	Water	8011	
400-242975-4	MW9-ROX-090523	Total/NA	Water	8011	
400-242975-5	MW10-ROX-090523	Total/NA	Water	8011	
400-242975-6	MW2-ROX-090523	Total/NA	Water	8011	
MB 400-640625/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-640625/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-640625/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 640659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-242975-2	TB-ROX-090523-8011	Total/NA	Water	8011	640625
400-242975-3	MW27-ROX-090523	Total/NA	Water	8011	640625
400-242975-4	MW9-ROX-090523	Total/NA	Water	8011	640625
400-242975-5	MW10-ROX-090523	Total/NA	Water	8011	640625
400-242975-6	MW2-ROX-090523	Total/NA	Water	8011	640625
MB 400-640625/1-A	Method Blank	Total/NA	Water	8011	640625
LCS 400-640625/2-A	Lab Control Sample	Total/NA	Water	8011	640625
LCSD 400-640625/3-A	Lab Control Sample Dup	Total/NA	Water	8011	640625

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-640996/4
Matrix: Water
Analysis Batch: 640996

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			09/14/23 11:50	1
Acrolein	ND		20	3.3	ug/L			09/14/23 11:50	1
Acrylonitrile	ND		10	2.8	ug/L			09/14/23 11:50	1
Benzene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Bromobenzene	ND		1.0	0.54	ug/L			09/14/23 11:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/14/23 11:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Bromoform	ND		5.0	0.25	ug/L			09/14/23 11:50	1
Bromomethane	ND		1.0	0.98	ug/L			09/14/23 11:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/14/23 11:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/14/23 11:50	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/14/23 11:50	1
Chloroethane	ND		1.0	0.76	ug/L			09/14/23 11:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/14/23 11:50	1
Chloroform	ND		1.0	0.90	ug/L			09/14/23 11:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/14/23 11:50	1
Chloromethane	ND		1.0	0.90	ug/L			09/14/23 11:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/14/23 11:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/14/23 11:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/14/23 11:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/14/23 11:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/14/23 11:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/14/23 11:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/14/23 11:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/14/23 11:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/14/23 11:50	1
2-Hexanone	ND		25	1.4	ug/L			09/14/23 11:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/14/23 11:50	1
Methylene bromide	ND		5.0	0.22	ug/L			09/14/23 11:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/14/23 11:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/14/23 11:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/14/23 11:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/14/23 11:50	1
Naphthalene	ND		5.0	3.0	ug/L			09/14/23 11:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/14/23 11:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/14/23 11:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/14/23 11:50	1
o-Xylene	ND		5.0	0.60	ug/L			09/14/23 11:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/14/23 11:50	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-640996/4
Matrix: Water
Analysis Batch: 640996

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			09/14/23 11:50	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/14/23 11:50	1
Styrene	ND		1.0	1.0	ug/L			09/14/23 11:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/14/23 11:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/14/23 11:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/14/23 11:50	1
Toluene	ND		1.0	0.90	ug/L			09/14/23 11:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/14/23 11:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/14/23 11:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/14/23 11:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/14/23 11:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/14/23 11:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/14/23 11:50	1
Trichloroethene	ND		1.0	0.15	ug/L			09/14/23 11:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/14/23 11:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/14/23 11:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/14/23 11:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/14/23 11:50	1
Vinyl acetate	ND		25	0.93	ug/L			09/14/23 11:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/14/23 11:50	1
Xylenes, Total	ND		10	1.6	ug/L			09/14/23 11:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 130*		*09/14/23 11:50*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*09/14/23 11:50*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*09/14/23 11:50*	*1*

Lab Sample ID: LCS 400-640996/1002
Matrix: Water
Analysis Batch: 640996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	218		ug/L		109	43 - 160
Acrolein	500	536		ug/L		107	38 - 160
Acrylonitrile	500	705		ug/L		141	64 - 142
Benzene	50.0	45.1		ug/L		90	70 - 130
Bromobenzene	50.0	47.0		ug/L		94	70 - 132
Bromochloromethane	50.0	42.3		ug/L		85	70 - 130
Bromodichloromethane	50.0	46.9		ug/L		94	67 - 133
Bromoform	50.0	48.5		ug/L		97	57 - 140
Bromomethane	50.0	17.7		ug/L		35	10 - 160
2-Butanone (MEK)	200	233		ug/L		116	61 - 145
Carbon disulfide	50.0	35.8		ug/L		72	61 - 137
Carbon tetrachloride	50.0	43.7		ug/L		87	61 - 137
Chlorobenzene	50.0	46.1		ug/L		92	70 - 130
Chloroethane	50.0	39.2		ug/L		78	55 - 141
2-Chloroethyl vinyl ether	50.0	49.9		ug/L		100	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640996/1002
Matrix: Water
Analysis Batch: 640996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	46.3		ug/L		93	69 - 130
1-Chlorohexane	50.0	51.6		ug/L		103	69 - 130
Chloromethane	50.0	43.3		ug/L		87	58 - 137
cis-1,2-Dichloroethene	50.0	49.8		ug/L		100	68 - 130
cis-1,3-Dichloropropene	50.0	42.8		ug/L		86	69 - 132
Dibromochloromethane	50.0	46.1		ug/L		92	67 - 135
1,2-Dichlorobenzene	50.0	47.2		ug/L		94	67 - 130
1,3-Dichlorobenzene	50.0	47.1		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	46.7		ug/L		93	70 - 130
Dichlorodifluoromethane	50.0	44.1		ug/L		88	41 - 146
1,1-Dichloroethane	50.0	59.2		ug/L		118	70 - 130
1,2-Dichloroethane	50.0	50.1		ug/L		100	69 - 130
1,1-Dichloroethene	50.0	36.2		ug/L		72	63 - 134
1,2-Dichloropropane	50.0	48.4		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	51.1		ug/L		102	70 - 130
2,2-Dichloropropane	50.0	45.8		ug/L		92	52 - 135
1,1-Dichloropropene	50.0	44.6		ug/L		89	70 - 130
Ethylbenzene	50.0	46.8		ug/L		94	70 - 130
Ethyl methacrylate	50.0	51.7		ug/L		103	68 - 130
Hexachlorobutadiene	50.0	49.4		ug/L		99	53 - 140
2-Hexanone	200	254		ug/L		127	65 - 137
Isopropylbenzene	50.0	45.6		ug/L		91	70 - 130
Methylene bromide	50.0	46.8		ug/L		94	70 - 130
Methylene Chloride	50.0	51.5		ug/L		103	66 - 135
4-Methyl-2-pentanone (MIBK)	200	222		ug/L		111	69 - 138
Methyl tert-butyl ether	50.0	54.1		ug/L		108	66 - 130
m-Xylene & p-Xylene	50.0	45.9		ug/L		92	70 - 130
Naphthalene	50.0	49.1		ug/L		98	47 - 149
n-Butylbenzene	50.0	47.9		ug/L		96	67 - 130
N-Propylbenzene	50.0	48.2		ug/L		96	70 - 130
o-Chlorotoluene	50.0	47.6		ug/L		95	70 - 130
o-Xylene	50.0	44.7		ug/L		89	70 - 130
p-Chlorotoluene	50.0	49.7		ug/L		99	70 - 130
p-Isopropyltoluene	50.0	47.0		ug/L		94	65 - 130
sec-Butylbenzene	50.0	48.9		ug/L		98	66 - 130
Styrene	50.0	44.5		ug/L		89	70 - 130
tert-Butylbenzene	50.0	48.4		ug/L		97	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.1		ug/L		92	67 - 131
1,1,2,2-Tetrachloroethane	50.0	54.0		ug/L		108	70 - 131
Tetrachloroethene	50.0	43.2		ug/L		86	65 - 130
Toluene	50.0	45.2		ug/L		90	70 - 130
trans-1,2-Dichloroethene	50.0	53.6		ug/L		107	70 - 130
trans-1,3-Dichloropropene	50.0	50.1		ug/L		100	63 - 130
1,2,3-Trichlorobenzene	50.0	47.3		ug/L		95	60 - 138
1,2,4-Trichlorobenzene	50.0	47.3		ug/L		95	60 - 140
1,1,1-Trichloroethane	50.0	45.2		ug/L		90	68 - 130
1,1,2-Trichloroethane	50.0	50.3		ug/L		101	70 - 130
Trichloroethene	50.0	42.3		ug/L		85	70 - 130
Trichlorofluoromethane	50.0	39.7		ug/L		79	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-640996/1002
Matrix: Water
Analysis Batch: 640996

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	54.8		ug/L		110	70 - 130
1,2,4-Trimethylbenzene	50.0	46.4		ug/L		93	70 - 130
1,3,5-Trimethylbenzene	50.0	47.3		ug/L		95	69 - 130
Vinyl acetate	100	120		ug/L		120	26 - 160
Vinyl chloride	50.0	41.9		ug/L		84	59 - 136
Xylenes, Total	100	90.6		ug/L		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*72 - 130*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*104*		*64 - 132*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/12/23 10:32	09/15/23 17:33	1
Benzenethiol	ND		10	1.7	ug/L		09/12/23 10:32	09/15/23 17:33	1
Benzoic acid	ND		30	7.3	ug/L		09/12/23 10:32	09/15/23 17:33	1
Benzyl alcohol	ND		10	2.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/12/23 10:32	09/15/23 17:33	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/12/23 10:32	09/15/23 17:33	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/12/23 10:32	09/15/23 17:33	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/12/23 10:32	09/15/23 17:33	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Chloroaniline	ND		10	3.4	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Chlorophenol	ND		10	2.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Dibenzofuran	ND		10	0.17	ug/L		09/12/23 10:32	09/15/23 17:33	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Diethyl phthalate	ND		10	0.24	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/12/23 10:32	09/15/23 17:33	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/12/23 10:32	09/15/23 17:33	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/12/23 10:32	09/15/23 17:33	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/12/23 10:32	09/15/23 17:33	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/12/23 10:32	09/15/23 17:33	1
1,4-Dioxane	ND		10	1.0	ug/L		09/12/23 10:32	09/15/23 17:33	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/12/23 10:32	09/15/23 17:33	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/12/23 10:32	09/15/23 17:33	1
Hexachloroethane	ND		10	4.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
Indene	ND		10	1.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Isophorone	ND		10	0.14	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Methylphenol	ND		10	1.8	ug/L		09/12/23 10:32	09/15/23 17:33	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Nitroaniline	ND		10	2.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
3-Nitroaniline	ND		10	1.8	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Nitroaniline	ND		10	1.5	ug/L		09/12/23 10:32	09/15/23 17:33	1
Nitrobenzene	ND		10	0.13	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Nitrophenol	ND		10	5.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Nitrophenol	ND		10	2.1	ug/L		09/12/23 10:32	09/15/23 17:33	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/12/23 10:32	09/15/23 17:33	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/12/23 10:32	09/15/23 17:33	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/12/23 10:32	09/15/23 17:33	1
Pentachlorophenol	ND		20	1.4	ug/L		09/12/23 10:32	09/15/23 17:33	1
Phenol	ND		10	2.6	ug/L		09/12/23 10:32	09/15/23 17:33	1
Pyridine	ND		10	3.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
Quinoline	ND		10	4.5	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/12/23 10:32	09/15/23 17:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*46 - 124*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
2-Fluorophenol	*3*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
Nitrobenzene-d5	*54*		*36 - 126*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
Phenol-d5	*8*	*S1-*	*17 - 127*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
Terphenyl-d14	*68*		*44 - 149*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
2,4,6-Tribromophenol	*37*		*26 - 150*	*09/12/23 10:32*	*09/15/23 17:33*	*1*

Lab Sample ID: LCS 400-640651/17-A
Matrix: Water
Analysis Batch: 641055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	2.31	J *-	ug/L		2	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*24*		*13 - 113*
Nitrobenzene-d5	*63*		*36 - 126*
Phenol-d5	*49*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*
2,4,6-Tribromophenol	*55*		*26 - 150*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-640651/2-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	ND	*-	ug/L		2	21 - 120
Benzoic acid	522	49.0	*-	ug/L		9	10 - 144
Benzyl alcohol	120	72.4		ug/L		60	28 - 120
Bis(2-chloroethoxy)methane	120	70.9		ug/L		59	47 - 120
Bis(2-chloroethyl)ether	120	138		ug/L		115	44 - 120
bis (2-chloroisopropyl) ether	120	55.8		ug/L		46	33 - 121
Bis(2-ethylhexyl) phthalate	120	93.0		ug/L		78	52 - 147
4-Bromophenyl phenyl ether	120	82.1		ug/L		68	54 - 122
Butyl benzyl phthalate	120	91.8		ug/L		76	54 - 133
4-Chloroaniline	120	68.1		ug/L		57	26 - 120
4-Chloro-3-methylphenol	120	82.8		ug/L		69	48 - 131
2-Chloronaphthalene	120	81.3		ug/L		68	52 - 121
2-Chlorophenol	120	56.4		ug/L		47	40 - 120
4-Chlorophenyl phenyl ether	120	85.5		ug/L		71	56 - 125
Dibenz[a,h]acridine	120	122		ug/L		102	31 - 150
Dibenzofuran	120	86.4		ug/L		72	56 - 122
3,3'-Dichlorobenzidine	160	104		ug/L		65	36 - 132
2,4-Dichlorophenol	120	76.0		ug/L		63	49 - 120
Diethyl phthalate	120	94.4		ug/L		79	50 - 137
2,4-Dimethylphenol	120	78.4		ug/L		65	48 - 120
Dimethyl phthalate	120	85.6		ug/L		71	57 - 124
Di-n-butyl phthalate	120	96.5		ug/L		80	58 - 126
4,6-Dinitro-ortho-cresol	240	168		ug/L		70	23 - 148
2,4-Dinitrophenol	240	123		ug/L		51	10 - 150
2,4-Dinitrotoluene	120	92.3		ug/L		77	54 - 142
2,6-Dinitrotoluene	120	83.7		ug/L		70	55 - 130
Di-n-octyl phthalate	120	97.4		ug/L		81	57 - 138
1,4-Dioxane	120	46.8		ug/L		39	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	73.6		ug/L		61	45 - 124
Hexachlorobenzene	120	84.8		ug/L		71	52 - 129
Hexachlorocyclopentadiene	120	35.3		ug/L		29	10 - 134
Hexachloroethane	120	78.1		ug/L		65	20 - 120
Indene	120	81.6		ug/L		68	49 - 120
Isophorone	120	71.4		ug/L		60	48 - 120
2-Methylphenol	120	81.0		ug/L		68	46 - 124
3 & 4 Methylphenol	120	75.2		ug/L		63	45 - 120
2-Nitroaniline	120	72.7		ug/L		61	51 - 145
3-Nitroaniline	120	66.7		ug/L		56	37 - 127
4-Nitroaniline	120	85.3		ug/L		71	36 - 137
Nitrobenzene	120	71.0		ug/L		59	45 - 120
2-Nitrophenol	120	77.2		ug/L		64	40 - 124
4-Nitrophenol	240	184		ug/L		77	23 - 146
N-Nitrosodimethylamine	120	54.6		ug/L		45	29 - 137
N-Nitrosodi-n-propylamine	120	75.8		ug/L		63	45 - 120
N-Nitrosodiphenylamine	119	79.4		ug/L		67	54 - 120
Pentachlorophenol	240	169		ug/L		70	31 - 130
Phenol	120	58.2		ug/L		49	11 - 120
Pyridine	240	98.8		ug/L		41	16 - 120

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-640651/2-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	87.2		ug/L		73	49 - 130		
2,4,5-Trichlorophenol			120	81.3		ug/L		68	51 - 136		
2,4,6-Trichlorophenol			120	81.0		ug/L		67	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*66*		*46 - 124*
2-Fluorophenol	*22*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*69*		*44 - 149*
2,4,6-Tribromophenol	*68*		*26 - 150*

Lab Sample ID: LCSD 400-640651/18-A
Matrix: Water
Analysis Batch: 641055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.07	J *-	ug/L		3	10 - 120	28	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*69*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*61*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*81*		*44 - 149*
2,4,6-Tribromophenol	*62*		*26 - 150*

Lab Sample ID: LCSD 400-640651/3-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	ND	*-	ug/L		2	21 - 120	4	30
Benzoic acid			522	18.4	J *- *1	ug/L		4	10 - 144	91	30
Benzyl alcohol			120	82.4		ug/L		69	28 - 120	13	30
Bis(2-chloroethoxy)methane			120	74.7		ug/L		62	47 - 120	5	30
Bis(2-chloroethyl)ether			120	153	*+	ug/L		127	44 - 120	10	30
bis (2-chloroisopropyl) ether			120	62.0		ug/L		52	33 - 121	11	30
Bis(2-ethylhexyl) phthalate			120	100		ug/L		83	52 - 147	7	30
4-Bromophenyl phenyl ether			120	90.2		ug/L		75	54 - 122	9	30
Butyl benzyl phthalate			120	101		ug/L		84	54 - 133	10	30
4-Chloroaniline			120	76.4		ug/L		64	26 - 120	12	30
4-Chloro-3-methylphenol			120	88.1		ug/L		73	48 - 131	6	30
2-Chloronaphthalene			120	93.5		ug/L		78	52 - 121	14	30
2-Chlorophenol			120	50.6		ug/L		42	40 - 120	11	30
4-Chlorophenyl phenyl ether			120	94.9		ug/L		79	56 - 125	10	30
Dibenz[a,h]acridine			120	132		ug/L		110	31 - 150	7	30
Dibenzofuran			120	95.5		ug/L		80	56 - 122	10	30

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-640651/3-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine			160	111		ug/L		70	36 - 132	6	30
2,4-Dichlorophenol			120	77.2		ug/L		64	49 - 120	1	30
Diethyl phthalate			120	105		ug/L		87	50 - 137	10	30
2,4-Dimethylphenol			120	82.9		ug/L		69	48 - 120	6	30
Dimethyl phthalate			120	95.0		ug/L		79	57 - 124	10	30
Di-n-butyl phthalate			120	105		ug/L		87	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	188		ug/L		78	23 - 148	11	30
2,4-Dinitrophenol			240	126		ug/L		52	10 - 150	2	30
2,4-Dinitrotoluene			120	103		ug/L		86	54 - 142	11	30
2,6-Dinitrotoluene			120	93.8		ug/L		78	55 - 130	11	30
Di-n-octyl phthalate			120	107		ug/L		89	57 - 138	10	30
1,4-Dioxane			120	40.1		ug/L		33	31 - 120	15	30
1,2-Diphenylhydrazine (as Azobenzene)			120	80.9		ug/L		67	45 - 124	9	30
Hexachlorobenzene			120	93.8		ug/L		78	52 - 129	10	30
Hexachlorocyclopentadiene			120	44.1		ug/L		37	10 - 134	22	30
Hexachloroethane			120	86.3		ug/L		72	20 - 120	10	30
Indene			120	90.5		ug/L		75	49 - 120	10	30
Isophorone			120	75.5		ug/L		63	48 - 120	6	30
2-Methylphenol			120	86.9		ug/L		72	46 - 124	7	30
3 & 4 Methylphenol			120	80.9		ug/L		67	45 - 120	7	30
2-Nitroaniline			120	81.0		ug/L		67	51 - 145	11	30
3-Nitroaniline			120	73.6		ug/L		61	37 - 127	10	30
4-Nitroaniline			120	97.4		ug/L		81	36 - 137	13	30
Nitrobenzene			120	75.0		ug/L		62	45 - 120	6	30
2-Nitrophenol			120	78.8		ug/L		66	40 - 124	2	30
4-Nitrophenol			240	208		ug/L		87	23 - 146	12	30
N-Nitrosodimethylamine			120	66.0		ug/L		55	29 - 137	19	30
N-Nitrosodi-n-propylamine			120	84.9		ug/L		71	45 - 120	11	30
N-Nitrosodiphenylamine			119	87.9		ug/L		74	54 - 120	10	30
Pentachlorophenol			240	182		ug/L		76	31 - 130	7	30
Phenol			120	59.5		ug/L		50	11 - 120	2	30
Pyridine			240	112		ug/L		47	16 - 120	12	30
Quinoline			120	93.2		ug/L		78	49 - 130	7	30
2,4,5-Trichlorophenol			120	91.1		ug/L		76	51 - 136	11	30
2,4,6-Trichlorophenol			120	88.3		ug/L		74	50 - 127	9	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*13*		*13 - 113*
Nitrobenzene-d5	*57*		*36 - 126*
Phenol-d5	*42*		*17 - 127*
Terphenyl-d14	*73*		*44 - 149*
2,4,6-Tribromophenol	*75*		*26 - 150*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-641408/1-A
Matrix: Water
Analysis Batch: 641903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 641408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/18/23 10:20	09/20/23 15:39	1
Benzenethiol	ND		10	1.7	ug/L		09/18/23 10:20	09/20/23 15:39	1
Benzoic acid	ND		30	7.3	ug/L		09/18/23 10:20	09/20/23 15:39	1
Benzyl alcohol	ND		10	2.0	ug/L		09/18/23 10:20	09/20/23 15:39	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/18/23 10:20	09/20/23 15:39	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/18/23 10:20	09/20/23 15:39	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/18/23 10:20	09/20/23 15:39	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/18/23 10:20	09/20/23 15:39	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/18/23 10:20	09/20/23 15:39	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/18/23 10:20	09/20/23 15:39	1
4-Chloroaniline	ND		10	3.4	ug/L		09/18/23 10:20	09/20/23 15:39	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/18/23 10:20	09/20/23 15:39	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/18/23 10:20	09/20/23 15:39	1
2-Chlorophenol	ND		10	2.2	ug/L		09/18/23 10:20	09/20/23 15:39	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/18/23 10:20	09/20/23 15:39	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/18/23 10:20	09/20/23 15:39	1
Dibenzofuran	ND		10	0.17	ug/L		09/18/23 10:20	09/20/23 15:39	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/18/23 10:20	09/20/23 15:39	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/18/23 10:20	09/20/23 15:39	1
Diethyl phthalate	ND		10	0.24	ug/L		09/18/23 10:20	09/20/23 15:39	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/18/23 10:20	09/20/23 15:39	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/18/23 10:20	09/20/23 15:39	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/18/23 10:20	09/20/23 15:39	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/18/23 10:20	09/20/23 15:39	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/18/23 10:20	09/20/23 15:39	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/18/23 10:20	09/20/23 15:39	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/18/23 10:20	09/20/23 15:39	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/18/23 10:20	09/20/23 15:39	1
1,4-Dioxane	ND		10	1.0	ug/L		09/18/23 10:20	09/20/23 15:39	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/18/23 10:20	09/20/23 15:39	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/18/23 10:20	09/20/23 15:39	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/18/23 10:20	09/20/23 15:39	1
Hexachloroethane	ND		10	4.2	ug/L		09/18/23 10:20	09/20/23 15:39	1
Indene	ND		10	1.0	ug/L		09/18/23 10:20	09/20/23 15:39	1
Isophorone	ND		10	0.14	ug/L		09/18/23 10:20	09/20/23 15:39	1
2-Methylphenol	ND		10	1.8	ug/L		09/18/23 10:20	09/20/23 15:39	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/18/23 10:20	09/20/23 15:39	1
2-Nitroaniline	ND		10	2.2	ug/L		09/18/23 10:20	09/20/23 15:39	1
3-Nitroaniline	ND		10	1.8	ug/L		09/18/23 10:20	09/20/23 15:39	1
4-Nitroaniline	ND		10	1.5	ug/L		09/18/23 10:20	09/20/23 15:39	1
Nitrobenzene	ND		10	0.13	ug/L		09/18/23 10:20	09/20/23 15:39	1
2-Nitrophenol	ND		10	5.2	ug/L		09/18/23 10:20	09/20/23 15:39	1
4-Nitrophenol	ND		10	2.1	ug/L		09/18/23 10:20	09/20/23 15:39	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/18/23 10:20	09/20/23 15:39	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/18/23 10:20	09/20/23 15:39	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/18/23 10:20	09/20/23 15:39	1
Pentachlorophenol	ND		20	1.4	ug/L		09/18/23 10:20	09/20/23 15:39	1
Phenol	ND		10	2.6	ug/L		09/18/23 10:20	09/20/23 15:39	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-641408/1-A
Matrix: Water
Analysis Batch: 641903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 641408

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		09/18/23 10:20	09/20/23 15:39	1
Quinoline	ND		10	4.5	ug/L		09/18/23 10:20	09/20/23 15:39	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/18/23 10:20	09/20/23 15:39	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/18/23 10:20	09/20/23 15:39	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*09/18/23 10:20*	*09/20/23 15:39*	*1*
2-Fluorophenol	*9*	*S1-*	*13 - 113*	*09/18/23 10:20*	*09/20/23 15:39*	*1*
Nitrobenzene-d5	*58*		*36 - 126*	*09/18/23 10:20*	*09/20/23 15:39*	*1*
Phenol-d5	*36*		*17 - 127*	*09/18/23 10:20*	*09/20/23 15:39*	*1*
Terphenyl-d14	*93*		*44 - 149*	*09/18/23 10:20*	*09/20/23 15:39*	*1*
2,4,6-Tribromophenol	*60*		*26 - 150*	*09/18/23 10:20*	*09/20/23 15:39*	*1*

Lab Sample ID: LCS 400-641408/4-A
Matrix: Water
Analysis Batch: 641903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 641408

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	2.29	J *-	ug/L		2	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*69*		*46 - 124*
2-Fluorophenol	*15*		*13 - 113*
Nitrobenzene-d5	*58*		*36 - 126*
Phenol-d5	*36*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*41*		*26 - 150*

Lab Sample ID: LCSD 400-641408/5-A
Matrix: Water
Analysis Batch: 641903

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 641408

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	9.47	J *- *1	ug/L		8	10 - 120	122	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*61*		*46 - 124*
2-Fluorophenol	*27*		*13 - 113*
Nitrobenzene-d5	*54*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*52*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/12/23 10:32	09/15/23 16:40	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/12/23 10:32	09/15/23 16:40	1
Anthracene	ND		0.20	0.047	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/12/23 10:32	09/15/23 16:40	1
Chrysene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/15/23 16:40	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/12/23 10:32	09/15/23 16:40	1
Fluoranthene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Fluorene	ND		0.20	0.089	ug/L		09/12/23 10:32	09/15/23 16:40	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Phenanthrene	ND		0.20	0.090	ug/L		09/12/23 10:32	09/15/23 16:40	1
Pyrene	ND		0.20	0.039	ug/L		09/12/23 10:32	09/15/23 16:40	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/12/23 10:32	09/15/23 16:40	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/12/23 10:32	09/15/23 16:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*94*		*18 - 147*	*09/12/23 10:32*	*09/15/23 16:40*	*1*
2-Fluorobiphenyl	*75*		*15 - 128*	*09/12/23 10:32*	*09/15/23 16:40*	*1*
Nitrobenzene-d5	*69*		*10 - 144*	*09/12/23 10:32*	*09/15/23 16:40*	*1*

Lab Sample ID: LCS 400-640651/19-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.64		ug/L		82	40 - 140
Acenaphthylene	2.00	1.79		ug/L		89	40 - 140
Anthracene	2.00	1.55		ug/L		77	40 - 140
Benzo[a]anthracene	2.00	1.74		ug/L		87	40 - 140
Benzo[a]pyrene	2.00	1.41		ug/L		71	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		78	40 - 140
Benzo[g,h,i]perylene	2.00	1.54		ug/L		77	40 - 140
Benzo[k]fluoranthene	2.00	1.60		ug/L		80	40 - 140
Chrysene	2.00	1.73		ug/L		87	40 - 140
Dibenz(a,h)anthracene	2.00	1.37		ug/L		69	40 - 140
Fluoranthene	2.00	1.78		ug/L		89	40 - 140
Fluorene	2.00	1.67		ug/L		83	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.45		ug/L		73	40 - 140
Phenanthrene	2.00	1.52		ug/L		76	40 - 140
Pyrene	2.00	1.72		ug/L		86	40 - 140
1-Methylnaphthalene	2.00	1.74		ug/L		87	40 - 140
2-Methylnaphthalene	2.00	1.78		ug/L		89	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*112*		*18 - 147*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 400-640651/19-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	91		15 - 128
Nitrobenzene-d5	66		10 - 144

Lab Sample ID: LCSD 400-640651/20-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			2.00	1.63		ug/L		81	40 - 140	1	40
Acenaphthylene			2.00	1.75		ug/L		87	40 - 140	2	40
Anthracene			2.00	1.57		ug/L		79	40 - 140	1	40
Benzo[a]anthracene			2.00	1.82		ug/L		91	40 - 140	4	40
Benzo[a]pyrene			2.00	1.43		ug/L		72	40 - 140	2	40
Benzo[b]fluoranthene			2.00	1.46		ug/L		73	40 - 140	6	40
Benzo[g,h,i]perylene			2.00	1.47		ug/L		74	40 - 140	4	40
Benzo[k]fluoranthene			2.00	1.54		ug/L		77	40 - 140	4	40
Chrysene			2.00	1.72		ug/L		86	40 - 140	1	40
Dibenz(a,h)anthracene			2.00	1.34		ug/L		67	40 - 140	2	40
Fluoranthene			2.00	1.82		ug/L		91	40 - 140	3	40
Fluorene			2.00	1.63		ug/L		82	40 - 140	2	40
Indeno[1,2,3-cd]pyrene			2.00	1.44		ug/L		72	40 - 140	1	40
Phenanthrene			2.00	1.54		ug/L		77	40 - 140	1	40
Pyrene			2.00	1.71		ug/L		85	40 - 140	1	40
1-Methylnaphthalene			2.00	1.83		ug/L		91	40 - 140	5	40
2-Methylnaphthalene			2.00	1.86		ug/L		93	40 - 140	4	40

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Terphenyl-d14	112		18 - 147
2-Fluorobiphenyl	94		15 - 128
Nitrobenzene-d5	67		10 - 144

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-640625/1-A
Matrix: Water
Analysis Batch: 640659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640625

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 17:29	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 17:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		51 - 149	09/12/23 08:25	09/12/23 17:29	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-640625/2-A
Matrix: Water
Analysis Batch: 640659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640625

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-Dibromo-3-Chloropropane			0.101	0.0964		ug/L		96	60 - 140		
1,2-Dibromoethane			0.101	0.0962		ug/L		95	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*82*		*51 - 149*

Lab Sample ID: LCSD 400-640625/3-A
Matrix: Water
Analysis Batch: 640659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640625

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.0991		ug/L		99	60 - 140	3	30
1,2-Dibromoethane			0.101	0.101		ug/L		100	60 - 140	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*51 - 149*

LAB (LOCATION)

400-242975 COC

Shell Oil Products US Chain Of Custody Record

AECOM

☐ 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: 9/5/2023
PO #	**GSAP Project ID**	PAGE: 1 of 1
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.	E-MAIL.	AECOM Other ID:
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): S. Beadle, T. Jones

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, 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 – 3.3.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 3.3 IR/D

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 8270 SIMS
	TB-ROX-090523-8260	9/5/2023	0000	Water	2					2	X			
	TB-ROX-090523-8011	9/5/2023	0000	Water	2					2		X		
	MW27-ROX-090523	9/5/2023	0850	Water	6			2		8	X	X	X	X
	MW9-ROX-090523	9/5/2023	0950	Water	6			2		8	X	X	X	X
	MW10-ROX-090523	9/5/2023	1045	Water	6			2		8	X	X	X	X
	MW2-ROX-090523	9/5/2023	1215	Water	6			2		8	X	X	X	X

9/5/23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
SAM BEADLE	FEDEX: 5293 4337 5445	9/5/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 9.6.23	Time: 9:09
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 12July23

CUSTODY SEALS: 1599782, 1599783

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-242975-1

Login Number: 242975
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	3.3°C IR10
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: 400-242975-1
Project/Site: ROXANA MONTHLY 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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

Roxana Groundwater Monthly August/September 2023 Data Review

Laboratory SDG: 400-243066-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 10/4/2023

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-090623-8260-A	TB-ROX-090623-8011-A
MW4-ROX-090623-EB	MW4-ROX-090623
MW25-ROX-090623	MW7-ROX-090623
MW7-ROX-090623-DUP	TB-ROX-090623-8260-B
TB-ROX-090623-8011-B	P59-ROX-090623
P58-ROX-090623	P58-ROX-090623-DUP
P93B-ROX-090623	--

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 several SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. MS/MSD recoveries for bromoform, 2-chloroethyl vinyl ether, and 1,1,2,2-tetrachloroethane were outside evaluation criteria in sample MW4-ROX-090623. Several PAHs and phenol in field duplicate pair P58-ROX-090623/P58-ROX-090623-DUP were qualified as estimated (**J**) due to field duplicate RPD above evaluation criteria. VOCs, SVOCs, and PAHs in several samples were diluted to bring target analytes into the calibration range of the instrument. The initial calibration verification (ICV) for 4,6-dinitro-ortho-cresol and 3,3'-dichlorobenzidine, and the continuing calibration verifications (CCV) for several analytes, 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 400-640651/17-A/18-A	SVOCs	Benzenethiol	**2/3**	28	10-120/30
LCS/LCSD 400-640651/2-A/3-A	SVOCs	Aniline	**2/2**	4	21-120/30
LCS/LCSD 400-640651/2-A/3-A	SVOCs	Benzoic acid	**9/4**	**91**	10-144/30
LCS/LCSD 400-640651/2-A/3-A	SVOCs	Bis(2-chloroethyl)ether	115/**127**	10	44-120/30

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, aniline, and benzoic acid below evaluation criteria; benzenethiol, aniline, and benzoic acid have been identified as poor performing analytes under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-090623	SVOCs	Benzenethiol	**UJ**
MW25-ROX-090623	SVOCs	Benzenethiol	**UJ**
MW7-ROX-090623	SVOCs	Benzenethiol	**UJ**
MW7-ROX-090623-DUP	SVOCs	Benzenethiol	**UJ**
P59-ROX-090623	SVOCs	Benzenethiol	**UJ**
P58-ROX-090623	SVOCs	Benzenethiol	**UJ**
P58-ROX-090623-DUP	SVOCs	Benzenethiol	**UJ**
P93B-ROX-090623	SVOCs	Benzenethiol	**UJ**
MW4-ROX-090623	SVOCs	Aniline	**UJ**
MW25-ROX-090623	SVOCs	Aniline	**UJ**
MW7-ROX-090623	SVOCs	Aniline	**UJ**
MW7-ROX-090623-DUP	SVOCs	Aniline	**UJ**
P59-ROX-090623	SVOCs	Aniline	**UJ**
P58-ROX-090623	SVOCs	Aniline	**UJ**
P58-ROX-090623-DUP	SVOCs	Aniline	**UJ**
P93B-ROX-090623	SVOCs	Aniline	**UJ**
MW4-ROX-090623	SVOCs	Benzoic acid	**UJ**
MW25-ROX-090623	SVOCs	Benzoic acid	**UJ**
MW7-ROX-090623	SVOCs	Benzoic acid	**UJ**
MW7-ROX-090623-DUP	SVOCs	Benzoic acid	**UJ**
P59-ROX-090623	SVOCs	Benzoic acid	**UJ**

Sample ID	Parameter	Analyte	Qualification
P58-ROX-090623	SVOCs	Benzoic acid	**UJ**
P58-ROX-090623-DUP	SVOCs	Benzoic acid	**UJ**
P93B-ROX-090623	SVOCs	Benzoic acid	**J**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW4-ROX-090623-EB	SVOCs	2-Fluorophenol	**10**	13-113
MW4-ROX-090623	SVOCs	2-Fluorobiphenyl	**45**	46-124
MW4-ROX-090623	SVOCs	2-Fluorophenol	**10**	13-113
MW7-ROX-090623	SVOCs	Terphenyl-d14	**30**	44-149
P59-ROX-090623	SVOCs	2-Fluorophenol	**4**	13-113
P58-ROX-090623	SVOCs	2-Fluorophenol	**7**	13-113
P58-ROX-090623-DUP	SVOCs	Terphenyl-d14	**29**	44-149
MB 400-640651/1-A	SVOCs	2-Fluorophenol	**3**	13-113
MB 400-640651/1-A	SVOCs	Phenol-d5	**8**	17-127

Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. 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, although not requested, sample MW4-ROX-090623 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
MW4-ROX-090623 MS/MSD	VOCs	Bromoform	**146**/122	17	50-140/30
MW4-ROX-090623 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW4-ROX-090623 MS/MSD	VOCs	1,1,2,2-Tetrachloroethane	**144**/121	17	66-135/30

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
MW4-ROX-090623	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?

Yes

Field ID	Field Duplicate ID
MW7-ROX-090623	MW7-ROX-090623-DUP
P58-ROX-090623	P58-ROX-090623-DUP

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
P58-ROX-090623	P58-ROX-090623-DUP	PAHs	1-Methylnaphthalene	**31**	**J/J**
P58-ROX-090623	P58-ROX-090623-DUP	PAHs	2-Methylnaphthalene	**35**	**J/J**
P58-ROX-090623	P58-ROX-090623-DUP	SVOCs	Phenol	**43**	**J/J**

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the initial calibration verifications (ICV) for 4,6-dinitro-ortho-cresol, and 3,3'-dichlorobenzidine and the continuing calibration verifications (CCV) for dichlorodifluoromethane, bromomethane, 2-chloroethyl vinyl ether, hexachlorocyclopentadiene, and 1,4-dioxane were outside evaluation criteria, biased low. 2-Chloroethyl vinyl ether in sample MW4-ROX-090623 was qualified in Section 7.0 of this data review due to MS/MSD recoveries outside evaluation criteria; no further qualification is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-090623	VOCs	Dichlorodifluoromethane	**UJ**
MW4-ROX-090623	VOCs	Bromomethane	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW25-ROX-090623	VOCs	Dichlorodifluoromethane	UJ
MW25-ROX-090623	VOCs	Bromomethane	UJ
MW25-ROX-090623	VOCs	2-Chloroethyl vinyl ether	UJ
P59-ROX-090623	VOCs	Dichlorodifluoromethane	UJ
P59-ROX-090623	VOCs	Bromomethane	UJ
P59-ROX-090623	VOCs	2-Chloroethyl vinyl ether	UJ
P93B-ROX-090623	VOCs	Dichlorodifluoromethane	UJ
P93B-ROX-090623	VOCs	Bromomethane	UJ
P93B-ROX-090623	VOCs	2-Chloroethyl vinyl ether	UJ
MW7-ROX-090623	VOCs	Dichlorodifluoromethane	UJ
MW7-ROX-090623	VOCs	Bromomethane	UJ
MW7-ROX-090623	VOCs	2-Chloroethyl vinyl ether	UJ
MW7-ROX-090623-DUP	VOCs	Dichlorodifluoromethane	UJ
MW7-ROX-090623-DUP	VOCs	Bromomethane	UJ
MW7-ROX-090623-DUP	VOCs	2-Chloroethyl vinyl ether	UJ
P58-ROX-090623	VOCs	Dichlorodifluoromethane	UJ
P58-ROX-090623	VOCs	Bromomethane	UJ
P58-ROX-090623-DUP	VOCs	Dichlorodifluoromethane	UJ
P58-ROX-090623-DUP	VOCs	Bromomethane	UJ
MW4-ROX-090623	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW4-ROX-090623	SVOCs	3,3'-Dichlorobenzidine	UJ
MW4-ROX-090623	SVOCs	Hexachlorocyclopentadiene	UJ
MW7-ROX-090623	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW7-ROX-090623	SVOCs	3,3'-Dichlorobenzidine	UJ
MW7-ROX-090623	SVOCs	Hexachlorocyclopentadiene	UJ
MW7-ROX-090623-DUP	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW7-ROX-090623-DUP	SVOCs	3,3'-Dichlorobenzidine	UJ
MW7-ROX-090623-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
P59-ROX-090623	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P59-ROX-090623	SVOCs	3,3'-Dichlorobenzidine	UJ
P59-ROX-090623	SVOCs	Hexachlorocyclopentadiene	UJ
P58-ROX-090623	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P58-ROX-090623	SVOCs	3,3'-Dichlorobenzidine	UJ
P58-ROX-090623	SVOCs	Hexachlorocyclopentadiene	UJ
P58-ROX-090623-DUP	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P58-ROX-090623-DUP	SVOCs	3,3'-Dichlorobenzidine	UJ
P58-ROX-090623-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
P93B-ROX-090623	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P93B-ROX-090623	SVOCs	3,3'-Dichlorobenzidine	UJ
P93B-ROX-090623	SVOCs	Hexachlorocyclopentadiene	UJ
MW25-ROX-090623	SVOCs	1,4-Dioxane	UJ
MW25-ROX-090623	SVOCs	Hexachlorocyclopentadiene	UJ

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eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102
Generated 9/22/2023 10:22:33 AM

JOB DESCRIPTION

ROXANA MONTHLY GW

JOB NUMBER

400-243066-1

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

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Job ID: 400-243066-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-243066-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 9/7/2023 8:21 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 2.2°C and 2.8°C

GC/MS VOA
Method 8260D: 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-090623-8260-A (400-243066-1), MW4-ROX-090623-EB (400-243066-3), MW4-ROX-090623 (400-243066-4), MW25-ROX-090623 (400-243066-5), MW7-ROX-090623 (400-243066-6), MW7-ROX-090623-DUP (400-243066-7), TB-ROX-090623-8260-B (400-243066-8), P59-ROX-090623 (400-243066-10) and P93B-ROX-090623 (400-243066-13). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-641136 recovered outside acceptance criteria, low biased, for Bromomethane,2-Chloroethyl vinyl ether and Dichlorodifluoromethane. 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 8260D: 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-090623-8260-A (400-243066-1), MW4-ROX-090623-EB (400-243066-3), MW4-ROX-090623 (400-243066-4), MW25-ROX-090623 (400-243066-5), MW7-ROX-090623 (400-243066-6), MW7-ROX-090623-DUP (400-243066-7), TB-ROX-090623-8260-B (400-243066-8), P59-ROX-090623 (400-243066-10) and P93B-ROX-090623 (400-243066-13). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades in an acidic medium.

Method 8260D: The matrix spike (MS) recoveries for analytical batch 400-641136 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 8260D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-641136 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260D: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-641136 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260D: The continuing calibration verification (CCV) associated with batch 400-641297 recovered outside acceptance criteria, low biased, for Bromomethane and Dichlorodifluoromethane. 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 8260D: 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: P58-ROX-090623 (400-243066-11) and

Job ID: 400-243066-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

P58-ROX-090623-DUP (400-243066-12). 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 8260D: The initial calibration verification (ICV) analyzed in batch 400-633903 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 8270E: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-640651.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-640651 and analytical batch 400-641055 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 8270E: The continuing calibration verification (CCV) associated with batch 400-641055 recovered above the upper control limit for 2,4-Dinitrotoluene, 2,4,5-Trichlorophenol, 4-Nitrophenol, 4-Chlorophenyl phenyl ether, 4-Bromophenyl phenyl ether, 2-Nitrophenol and Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-641055 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 8270E: 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-090623-EB (400-243066-3), MW7-ROX-090623 (400-243066-6), P59-ROX-090623 (400-243066-10), P58-ROX-090623 (400-243066-11) and P58-ROX-090623-DUP (400-243066-12). These results have been reported and qualified.

Method 8270E: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-640651 and analytical batch 400-641239 recovered outside control limits for the following analyte(s): Benzoic acid. Benzoic acid 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 8270E: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-640651 and analytical batch 400-641239 recovered outside control limits for the following analytes: Benzoic acid.

Method 8270E: The continuing calibration verification (CCV) associated with batch 400-641239 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 8270E: The continuing calibration verification (CCV) associated with batch 400-641239 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 8270E: The continuing calibration verification (CCV) associated with batch 400-641239 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 8270E: Two of six surrogates for the blank associated with preparation batch 400-640651 and analytical batch 400-641239 were outside of the lower control limit. There was no evidence of lab contamination for any target analyte, therefore the data have been reported.

Job ID: 400-243066-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270E: The following sample was diluted to bring the concentration of target analytes within the calibration range: P58-ROX-090623-DUP (400-243066-12). Elevated reporting limits (RLs) are provided.

Method 8270E_SIM: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 400-640651.

Method 8270E_SIM: The following sample was diluted to bring the concentration of target analytes within the calibration range: P58-ROX-090623 (400-243066-11). 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

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 MONTHLY GW

Job ID: 400-243066-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-243066-1	TB-ROX-090623-8260-A	Water	09/06/23 00:00	09/07/23 08:21
400-243066-2	TB-ROX-090623-8011-A	Water	09/06/23 00:00	09/07/23 08:21
400-243066-3	MW4-ROX-090623-EB	Water	09/06/23 08:25	09/07/23 08:21
400-243066-4	MW4-ROX-090623	Water	09/06/23 09:35	09/07/23 08:21
400-243066-5	MW25-ROX-090623	Water	09/06/23 11:00	09/07/23 08:21
400-243066-6	MW7-ROX-090623	Water	09/06/23 12:10	09/07/23 08:21
400-243066-7	MW7-ROX-090623-DUP	Water	09/06/23 12:10	09/07/23 08:21
400-243066-8	TB-ROX-090623-8260-B	Water	09/06/23 00:00	09/07/23 08:21
400-243066-9	TB-ROX-090623-8011-B	Water	09/06/23 00:00	09/07/23 08:21
400-243066-10	P59-ROX-090623	Water	09/06/23 09:05	09/07/23 08:21
400-243066-11	P58-ROX-090623	Water	09/06/23 09:55	09/07/23 08:21
400-243066-12	P58-ROX-090623-DUP	Water	09/06/23 09:55	09/07/23 08:21
400-243066-13	P93B-ROX-090623	Water	09/06/23 11:15	09/07/23 08:21

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: TB-ROX-090623-8260-A — Lab Sample ID: 400-243066-1

No Detections.

Client Sample ID: TB-ROX-090623-8011-A — Lab Sample ID: 400-243066-2

No Detections.

Client Sample ID: MW4-ROX-090623-EB — Lab Sample ID: 400-243066-3

No Detections.

Client Sample ID: MW4-ROX-090623 — Lab Sample ID: 400-243066-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.33	J	1.0	0.22	ug/L	1		8260D	Total/NA

Client Sample ID: MW25-ROX-090623 — Lab Sample ID: 400-243066-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	16		1.0	0.50	ug/L	1		8260D	Total/NA
tert-Butylbenzene	0.71	J	1.0	0.63	ug/L	1		8260D	Total/NA

Client Sample ID: MW7-ROX-090623 — Lab Sample ID: 400-243066-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	560000		5000	2500	ug/L	5000		8260D	Total/NA
Acenaphthene	0.13	J	0.20	0.097	ug/L	1		8270E SIM	Total/NA
Fluorene	0.11	J	0.20	0.087	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.13	J	0.20	0.088	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	1.0		0.20	0.078	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.5		0.20	0.065	ug/L	1		8270E SIM	Total/NA
Phenol	77		9.8	2.5	ug/L	1		8270E	Total/NA

Client Sample ID: MW7-ROX-090623-DUP — Lab Sample ID: 400-243066-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	460000		5000	2500	ug/L	5000		8260D	Total/NA
Fluorene	0.12	J	0.19	0.086	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.14	J	0.19	0.087	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	0.80		0.19	0.077	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	1.2		0.19	0.064	ug/L	1		8270E SIM	Total/NA
3 & 4 Methylphenol	0.45	J	19	0.38	ug/L	1		8270E	Total/NA
Phenol	83		9.6	2.5	ug/L	1		8270E	Total/NA

Client Sample ID: TB-ROX-090623-8260-B — Lab Sample ID: 400-243066-8

No Detections.

Client Sample ID: TB-ROX-090623-8011-B — Lab Sample ID: 400-243066-9

No Detections.

Client Sample ID: P59-ROX-090623 — Lab Sample ID: 400-243066-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	99		25	10	ug/L	1		8260D	Total/NA
Ethylbenzene	35		1.0	0.50	ug/L	1		8260D	Total/NA
Isopropylbenzene	33		1.0	0.53	ug/L	1		8260D	Total/NA
m-Xylene & p-Xylene	75		5.0	0.63	ug/L	1		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: P59-ROX-090623 (Continued) — Lab Sample ID: 400-243066-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	29		5.0	3.0	ug/L	1		8260D	Total/NA
n-Butylbenzene	3.9		1.0	0.76	ug/L	1		8260D	Total/NA
N-Propylbenzene	58		1.0	0.69	ug/L	1		8260D	Total/NA
o-Xylene	2.6	J	5.0	0.60	ug/L	1		8260D	Total/NA
sec-Butylbenzene	2.1		1.0	0.70	ug/L	1		8260D	Total/NA
Toluene	48		1.0	0.90	ug/L	1		8260D	Total/NA
1,2,4-Trimethylbenzene	17		1.0	0.82	ug/L	1		8260D	Total/NA
1,3,5-Trimethylbenzene	23		1.0	0.56	ug/L	1		8260D	Total/NA
Xylenes, Total	77		10	1.6	ug/L	1		8260D	Total/NA
Benzene - DL	890		10	5.0	ug/L	10		8260D	Total/NA
Acenaphthene	0.33		0.19	0.095	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.063	J	0.19	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.13	J	0.19	0.033	ug/L	1		8270E SIM	Total/NA
Fluorene	0.27		0.19	0.086	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.49		0.19	0.087	ug/L	1		8270E SIM	Total/NA
Pyrene	0.41		0.19	0.038	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	8.3		0.19	0.077	ug/L	1		8270E SIM	Total/NA
2-Methylnaphthalene	11		0.19	0.064	ug/L	1		8270E SIM	Total/NA
Phenol	2.8	J	9.6	2.5	ug/L	1		8270E	Total/NA

Client Sample ID: P58-ROX-090623 — Lab Sample ID: 400-243066-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	320000		2000	1000	ug/L	2000		8260D	Total/NA
Acenaphthene	0.46		0.19	0.093	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.059	J	0.19	0.032	ug/L	1		8270E SIM	Total/NA
Fluorene	1.0		0.19	0.084	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.91		0.19	0.085	ug/L	1		8270E SIM	Total/NA
Pyrene	0.19		0.19	0.037	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	67		0.94	0.38	ug/L	5		8270E SIM	Total/NA
2-Methylnaphthalene	50		0.94	0.31	ug/L	5		8270E SIM	Total/NA
Dibenzofuran	1.5	J	9.4	0.16	ug/L	1		8270E	Total/NA
Phenol	270		9.4	2.4	ug/L	1		8270E	Total/NA

Client Sample ID: P58-ROX-090623-DUP — Lab Sample ID: 400-243066-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	330000		2000	1000	ug/L	2000		8260D	Total/NA
Acenaphthene	0.30		0.19	0.095	ug/L	1		8270E SIM	Total/NA
Benzo[a]anthracene	0.038	J	0.19	0.033	ug/L	1		8270E SIM	Total/NA
Fluoranthene	0.046	J	0.19	0.033	ug/L	1		8270E SIM	Total/NA
Fluorene	0.67		0.19	0.085	ug/L	1		8270E SIM	Total/NA
Phenanthrene	0.65		0.19	0.086	ug/L	1		8270E SIM	Total/NA
Pyrene	0.11	J	0.19	0.037	ug/L	1		8270E SIM	Total/NA
1-Methylnaphthalene	49		0.96	0.38	ug/L	5		8270E SIM	Total/NA
2-Methylnaphthalene	35		0.19	0.063	ug/L	1		8270E SIM	Total/NA
Dibenzofuran	1.4	J	9.6	0.16	ug/L	1		8270E	Total/NA
Phenol - DL	420		48	12	ug/L	5		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P93B-ROX-090623

Lab Sample ID: 400-243066-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	480000		5000	2500	ug/L	5000		8260D	Total/NA
2-Methylnaphthalene	0.075	J	0.19	0.062	ug/L	1		8270E SIM	Total/NA
Benzoic acid	18	J *- *1	28	6.9	ug/L	1		8270E	Total/NA
Bis(2-ethylhexyl) phthalate	5.1	J	9.4	4.7	ug/L	1		8270E	Total/NA
Phenol	180		9.4	2.5	ug/L	1		8270E	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: TB-ROX-090623-8260-A
Date Collected: 09/06/23 00:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/15/23 15:52	1
Acrolein	ND		20	3.3	ug/L			09/15/23 15:52	1
Acrylonitrile	ND		10	2.8	ug/L			09/15/23 15:52	1
Benzene	ND		1.0	0.50	ug/L			09/15/23 15:52	1
Bromobenzene	ND		1.0	0.54	ug/L			09/15/23 15:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/15/23 15:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/15/23 15:52	1
Bromoform	ND		5.0	0.25	ug/L			09/15/23 15:52	1
Bromomethane	ND		1.0	0.98	ug/L			09/15/23 15:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/15/23 15:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/15/23 15:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/15/23 15:52	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/15/23 15:52	1
Chloroethane	ND		1.0	0.76	ug/L			09/15/23 15:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/15/23 15:52	1
Chloroform	ND		1.0	0.90	ug/L			09/15/23 15:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/15/23 15:52	1
Chloromethane	ND		1.0	0.90	ug/L			09/15/23 15:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/15/23 15:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/15/23 15:52	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/15/23 15:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/15/23 15:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/15/23 15:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/15/23 15:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/15/23 15:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/15/23 15:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/15/23 15:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 15:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 15:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 15:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 15:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/15/23 15:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/15/23 15:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/15/23 15:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/15/23 15:52	1
2-Hexanone	ND		25	1.4	ug/L			09/15/23 15:52	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/15/23 15:52	1
Methylene bromide	ND		5.0	0.22	ug/L			09/15/23 15:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/15/23 15:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/15/23 15:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/15/23 15:52	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/15/23 15:52	1
Naphthalene	ND		5.0	3.0	ug/L			09/15/23 15:52	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/15/23 15:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/15/23 15:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/15/23 15:52	1
o-Xylene	ND		5.0	0.60	ug/L			09/15/23 15:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/15/23 15:52	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/15/23 15:52	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: TB-ROX-090623-8260-A
Date Collected: 09/06/23 00:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-1
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/15/23 15:52	1
Styrene	ND		1.0	1.0	ug/L			09/15/23 15:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/15/23 15:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/15/23 15:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/15/23 15:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/15/23 15:52	1
Toluene	ND		1.0	0.90	ug/L			09/15/23 15:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 15:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/15/23 15:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/15/23 15:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/15/23 15:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/15/23 15:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/15/23 15:52	1
Trichloroethene	ND		1.0	0.15	ug/L			09/15/23 15:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/15/23 15:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/15/23 15:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/15/23 15:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/15/23 15:52	1
Vinyl acetate	ND		25	0.93	ug/L			09/15/23 15:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/15/23 15:52	1
Xylenes, Total	ND		10	1.6	ug/L			09/15/23 15:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*72 - 130*		*09/15/23 15:52*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/15/23 15:52*	*1*
Toluene-d8 (Surr)	*109*		*64 - 132*		*09/15/23 15:52*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: TB-ROX-090623-8011-A
Date Collected: 09/06/23 00:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-2
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-Dibromo-3-Chloropropane	ND		0.032	0.018	ug/L		09/12/23 08:25	09/12/23 22:06	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		09/12/23 08:25	09/12/23 22:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*51 - 149*	*09/12/23 08:25*	*09/12/23 22:06*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW4-ROX-090623-EB
Date Collected: 09/06/23 08:25
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/15/23 16:41	1
Acrolein	ND		20	3.3	ug/L			09/15/23 16:41	1
Acrylonitrile	ND		10	2.8	ug/L			09/15/23 16:41	1
Benzene	ND		1.0	0.50	ug/L			09/15/23 16:41	1
Bromobenzene	ND		1.0	0.54	ug/L			09/15/23 16:41	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/15/23 16:41	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/15/23 16:41	1
Bromoform	ND		5.0	0.25	ug/L			09/15/23 16:41	1
Bromomethane	ND		1.0	0.98	ug/L			09/15/23 16:41	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/15/23 16:41	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/15/23 16:41	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/15/23 16:41	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/15/23 16:41	1
Chloroethane	ND		1.0	0.76	ug/L			09/15/23 16:41	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/15/23 16:41	1
Chloroform	ND		1.0	0.90	ug/L			09/15/23 16:41	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/15/23 16:41	1
Chloromethane	ND		1.0	0.90	ug/L			09/15/23 16:41	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/15/23 16:41	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/15/23 16:41	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/15/23 16:41	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/15/23 16:41	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/15/23 16:41	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/15/23 16:41	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/15/23 16:41	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/15/23 16:41	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/15/23 16:41	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 16:41	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 16:41	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 16:41	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 16:41	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/15/23 16:41	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/15/23 16:41	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/15/23 16:41	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/15/23 16:41	1
2-Hexanone	ND		25	1.4	ug/L			09/15/23 16:41	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/15/23 16:41	1
Methylene bromide	ND		5.0	0.22	ug/L			09/15/23 16:41	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/15/23 16:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/15/23 16:41	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/15/23 16:41	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/15/23 16:41	1
Naphthalene	ND		5.0	3.0	ug/L			09/15/23 16:41	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/15/23 16:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/15/23 16:41	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/15/23 16:41	1
o-Xylene	ND		5.0	0.60	ug/L			09/15/23 16:41	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/15/23 16:41	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/15/23 16:41	1

Client Sample ID: MW4-ROX-090623-EB
Date Collected: 09/06/23 08:25
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-3
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/15/23 16:41	1
Styrene	ND		1.0	1.0	ug/L			09/15/23 16:41	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/15/23 16:41	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/15/23 16:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/15/23 16:41	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/15/23 16:41	1
Toluene	ND		1.0	0.90	ug/L			09/15/23 16:41	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 16:41	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/15/23 16:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/15/23 16:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/15/23 16:41	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/15/23 16:41	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/15/23 16:41	1
Trichloroethene	ND		1.0	0.15	ug/L			09/15/23 16:41	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/15/23 16:41	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/15/23 16:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/15/23 16:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/15/23 16:41	1
Vinyl acetate	ND		25	0.93	ug/L			09/15/23 16:41	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/15/23 16:41	1
Xylenes, Total	ND		10	1.6	ug/L			09/15/23 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*122*		*72 - 130*		*09/15/23 16:41*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*09/15/23 16:41*	*1*
Toluene-d8 (Surr)	*108*		*64 - 132*		*09/15/23 16:41*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.096	ug/L		09/12/23 10:32	09/14/23 22:09	1
Acenaphthylene	ND		0.19	0.043	ug/L		09/12/23 10:32	09/14/23 22:09	1
Anthracene	ND		0.19	0.046	ug/L		09/12/23 10:32	09/14/23 22:09	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 22:09	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/12/23 10:32	09/14/23 22:09	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/12/23 10:32	09/14/23 22:09	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/12/23 10:32	09/14/23 22:09	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/12/23 10:32	09/14/23 22:09	1
Chrysene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 22:09	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		09/12/23 10:32	09/14/23 22:09	1
Fluoranthene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 22:09	1
Fluorene	ND		0.19	0.087	ug/L		09/12/23 10:32	09/14/23 22:09	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 22:09	1
Phenanthrene	ND		0.19	0.088	ug/L		09/12/23 10:32	09/14/23 22:09	1
Pyrene	ND		0.19	0.038	ug/L		09/12/23 10:32	09/14/23 22:09	1
1-Methylnaphthalene	ND		0.19	0.078	ug/L		09/12/23 10:32	09/14/23 22:09	1
2-Methylnaphthalene	ND		0.19	0.064	ug/L		09/12/23 10:32	09/14/23 22:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*133*		*18 - 147*	*09/12/23 10:32*	*09/14/23 22:09*	*1*
2-Fluorobiphenyl	*101*		*15 - 128*	*09/12/23 10:32*	*09/14/23 22:09*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW4-ROX-090623-EB
Date Collected: 09/06/23 08:25
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-3
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	68		10 - 144	09/12/23 10:32	09/14/23 22:09	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.7	3.7	ug/L		09/12/23 10:32	09/14/23 19:00	1
Benzenethiol	ND	*-	9.7	1.7	ug/L		09/12/23 10:32	09/14/23 19:00	1
Benzoic acid	ND	*- *1	29	7.1	ug/L		09/12/23 10:32	09/14/23 19:00	1
Benzyl alcohol	ND		9.7	1.9	ug/L		09/12/23 10:32	09/14/23 19:00	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		09/12/23 10:32	09/14/23 19:00	1
Bis(2-chloroethyl)ether	ND	*+	9.7	2.6	ug/L		09/12/23 10:32	09/14/23 19:00	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		09/12/23 10:32	09/14/23 19:00	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		09/12/23 10:32	09/14/23 19:00	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		09/12/23 10:32	09/14/23 19:00	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		09/12/23 10:32	09/14/23 19:00	1
4-Chloroaniline	ND		9.7	3.3	ug/L		09/12/23 10:32	09/14/23 19:00	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		09/12/23 10:32	09/14/23 19:00	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		09/12/23 10:32	09/14/23 19:00	1
2-Chlorophenol	ND		9.7	2.1	ug/L		09/12/23 10:32	09/14/23 19:00	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		09/12/23 10:32	09/14/23 19:00	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		09/12/23 10:32	09/14/23 19:00	1
Dibenzofuran	ND		9.7	0.17	ug/L		09/12/23 10:32	09/14/23 19:00	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		09/12/23 10:32	09/14/23 19:00	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		09/12/23 10:32	09/14/23 19:00	1
Diethyl phthalate	ND		9.7	0.23	ug/L		09/12/23 10:32	09/14/23 19:00	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		09/12/23 10:32	09/14/23 19:00	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		09/12/23 10:32	09/14/23 19:00	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		09/12/23 10:32	09/14/23 19:00	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		09/12/23 10:32	09/14/23 19:00	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/14/23 19:00	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		09/12/23 10:32	09/14/23 19:00	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		09/12/23 10:32	09/14/23 19:00	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		09/12/23 10:32	09/14/23 19:00	1
1,4-Dioxane	ND		9.7	0.97	ug/L		09/12/23 10:32	09/14/23 19:00	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		09/12/23 10:32	09/14/23 19:00	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		09/12/23 10:32	09/14/23 19:00	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/14/23 19:00	1
Hexachloroethane	ND		9.7	4.1	ug/L		09/12/23 10:32	09/14/23 19:00	1
Indene	ND		9.7	0.97	ug/L		09/12/23 10:32	09/14/23 19:00	1
Isophorone	ND		9.7	0.14	ug/L		09/12/23 10:32	09/14/23 19:00	1
2-Methylphenol	ND		9.7	1.8	ug/L		09/12/23 10:32	09/14/23 19:00	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/12/23 10:32	09/14/23 19:00	1
2-Nitroaniline	ND		9.7	2.1	ug/L		09/12/23 10:32	09/14/23 19:00	1
3-Nitroaniline	ND		9.7	1.8	ug/L		09/12/23 10:32	09/14/23 19:00	1
4-Nitroaniline	ND		9.7	1.5	ug/L		09/12/23 10:32	09/14/23 19:00	1
Nitrobenzene	ND		9.7	0.13	ug/L		09/12/23 10:32	09/14/23 19:00	1
2-Nitrophenol	ND		9.7	5.1	ug/L		09/12/23 10:32	09/14/23 19:00	1
4-Nitrophenol	ND		9.7	2.0	ug/L		09/12/23 10:32	09/14/23 19:00	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		09/12/23 10:32	09/14/23 19:00	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW4-ROX-090623-EB

Lab Sample ID: 400-243066-3

Date Collected: 09/06/23 08:25

Matrix: Water

Date Received: 09/07/23 08:21

Method: SW846 8270E - 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		09/12/23 10:32	09/14/23 19:00	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		09/12/23 10:32	09/14/23 19:00	1
Pentachlorophenol	ND		19	1.4	ug/L		09/12/23 10:32	09/14/23 19:00	1
Phenol	ND		9.7	2.5	ug/L		09/12/23 10:32	09/14/23 19:00	1
Pyridine	ND		9.7	3.1	ug/L		09/12/23 10:32	09/14/23 19:00	1
Quinoline	ND		9.7	4.4	ug/L		09/12/23 10:32	09/14/23 19:00	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		09/12/23 10:32	09/14/23 19:00	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		09/12/23 10:32	09/14/23 19:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*49*		*46 - 124*	*09/12/23 10:32*	*09/14/23 19:00*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/14/23 19:00*	*1*
Nitrobenzene-d5	*44*		*36 - 126*	*09/12/23 10:32*	*09/14/23 19:00*	*1*
Phenol-d5	*29*		*17 - 127*	*09/12/23 10:32*	*09/14/23 19:00*	*1*
Terphenyl-d14	*59*		*44 - 149*	*09/12/23 10:32*	*09/14/23 19:00*	*1*
2,4,6-Tribromophenol	*49*		*26 - 150*	*09/12/23 10:32*	*09/14/23 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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 22:49	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*09/12/23 08:25*	*09/12/23 22:49*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW4-ROX-090623
Date Collected: 09/06/23 09:35
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/15/23 13:27	1
Acrolein	ND		20	3.3	ug/L			09/15/23 13:27	1
Acrylonitrile	ND		10	2.8	ug/L			09/15/23 13:27	1
Benzene	ND		1.0	0.50	ug/L			09/15/23 13:27	1
Bromobenzene	ND		1.0	0.54	ug/L			09/15/23 13:27	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/15/23 13:27	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/15/23 13:27	1
Bromoform	ND	F1	5.0	0.25	ug/L			09/15/23 13:27	1
Bromomethane	ND		1.0	0.98	ug/L			09/15/23 13:27	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/15/23 13:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/15/23 13:27	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/15/23 13:27	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/15/23 13:27	1
Chloroethane	ND		1.0	0.76	ug/L			09/15/23 13:27	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			09/15/23 13:27	1
Chloroform	ND		1.0	0.90	ug/L			09/15/23 13:27	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/15/23 13:27	1
Chloromethane	ND		1.0	0.90	ug/L			09/15/23 13:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/15/23 13:27	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/15/23 13:27	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/15/23 13:27	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/15/23 13:27	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/15/23 13:27	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/15/23 13:27	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/15/23 13:27	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/15/23 13:27	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/15/23 13:27	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 13:27	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 13:27	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 13:27	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 13:27	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/15/23 13:27	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/15/23 13:27	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/15/23 13:27	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/15/23 13:27	1
2-Hexanone	ND		25	1.4	ug/L			09/15/23 13:27	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/15/23 13:27	1
Methylene bromide	ND		5.0	0.22	ug/L			09/15/23 13:27	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/15/23 13:27	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/15/23 13:27	1
Methyl tert-butyl ether	**0.33**	**J**	1.0	0.22	ug/L			09/15/23 13:27	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/15/23 13:27	1
Naphthalene	ND		5.0	3.0	ug/L			09/15/23 13:27	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/15/23 13:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/15/23 13:27	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/15/23 13:27	1
o-Xylene	ND		5.0	0.60	ug/L			09/15/23 13:27	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/15/23 13:27	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/15/23 13:27	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW4-ROX-090623
Date Collected: 09/06/23 09:35
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-4
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/15/23 13:27	1
Styrene	ND		1.0	1.0	ug/L			09/15/23 13:27	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/15/23 13:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/15/23 13:27	1
1,1,2,2-Tetrachloroethane	ND	F1	1.0	0.50	ug/L			09/15/23 13:27	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/15/23 13:27	1
Toluene	ND		1.0	0.90	ug/L			09/15/23 13:27	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 13:27	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/15/23 13:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/15/23 13:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/15/23 13:27	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/15/23 13:27	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/15/23 13:27	1
Trichloroethene	ND		1.0	0.15	ug/L			09/15/23 13:27	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/15/23 13:27	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/15/23 13:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/15/23 13:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/15/23 13:27	1
Vinyl acetate	ND		25	0.93	ug/L			09/15/23 13:27	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/15/23 13:27	1
Xylenes, Total	ND		10	1.6	ug/L			09/15/23 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*123*		*72 - 130*		*09/15/23 13:27*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*09/15/23 13:27*	*1*
Toluene-d8 (Surr)	*110*		*64 - 132*		*09/15/23 13:27*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.097	ug/L		09/12/23 10:32	09/14/23 22:30	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/12/23 10:32	09/14/23 22:30	1
Anthracene	ND		0.20	0.046	ug/L		09/12/23 10:32	09/14/23 22:30	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/14/23 22:30	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/12/23 10:32	09/14/23 22:30	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/12/23 10:32	09/14/23 22:30	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		09/12/23 10:32	09/14/23 22:30	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/12/23 10:32	09/14/23 22:30	1
Chrysene	ND		0.20	0.032	ug/L		09/12/23 10:32	09/14/23 22:30	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		09/12/23 10:32	09/14/23 22:30	1
Fluoranthene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/14/23 22:30	1
Fluorene	ND		0.20	0.087	ug/L		09/12/23 10:32	09/14/23 22:30	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/14/23 22:30	1
Phenanthrene	ND		0.20	0.088	ug/L		09/12/23 10:32	09/14/23 22:30	1
Pyrene	ND		0.20	0.038	ug/L		09/12/23 10:32	09/14/23 22:30	1
1-Methylnaphthalene	ND		0.20	0.078	ug/L		09/12/23 10:32	09/14/23 22:30	1
2-Methylnaphthalene	ND		0.20	0.065	ug/L		09/12/23 10:32	09/14/23 22:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*104*		*18 - 147*	*09/12/23 10:32*	*09/14/23 22:30*	*1*
2-Fluorobiphenyl	*86*		*15 - 128*	*09/12/23 10:32*	*09/14/23 22:30*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW4-ROX-090623
Date Collected: 09/06/23 09:35
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-4
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*63*		*10 - 144*	*09/12/23 10:32*	*09/14/23 22:30*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.8	3.7	ug/L		09/12/23 10:32	09/14/23 19:22	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		09/12/23 10:32	09/14/23 19:22	1
Benzoic acid	ND	*- *1	29	7.2	ug/L		09/12/23 10:32	09/14/23 19:22	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/12/23 10:32	09/14/23 19:22	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/12/23 10:32	09/14/23 19:22	1
Bis(2-chloroethyl)ether	ND	*+	9.8	2.6	ug/L		09/12/23 10:32	09/14/23 19:22	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/12/23 10:32	09/14/23 19:22	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/12/23 10:32	09/14/23 19:22	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/12/23 10:32	09/14/23 19:22	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/12/23 10:32	09/14/23 19:22	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/12/23 10:32	09/14/23 19:22	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/12/23 10:32	09/14/23 19:22	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/12/23 10:32	09/14/23 19:22	1
2-Chlorophenol	ND		9.8	2.2	ug/L		09/12/23 10:32	09/14/23 19:22	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/12/23 10:32	09/14/23 19:22	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/12/23 10:32	09/14/23 19:22	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/12/23 10:32	09/14/23 19:22	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		09/12/23 10:32	09/14/23 19:22	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		09/12/23 10:32	09/14/23 19:22	1
Diethyl phthalate	ND		9.8	0.24	ug/L		09/12/23 10:32	09/14/23 19:22	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/12/23 10:32	09/14/23 19:22	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		09/12/23 10:32	09/14/23 19:22	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		09/12/23 10:32	09/14/23 19:22	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		09/12/23 10:32	09/14/23 19:22	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/14/23 19:22	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/12/23 10:32	09/14/23 19:22	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/12/23 10:32	09/14/23 19:22	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/12/23 10:32	09/14/23 19:22	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/12/23 10:32	09/14/23 19:22	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/12/23 10:32	09/14/23 19:22	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/12/23 10:32	09/14/23 19:22	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		09/12/23 10:32	09/14/23 19:22	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/12/23 10:32	09/14/23 19:22	1
Indene	ND		9.8	0.98	ug/L		09/12/23 10:32	09/14/23 19:22	1
Isophorone	ND		9.8	0.14	ug/L		09/12/23 10:32	09/14/23 19:22	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/12/23 10:32	09/14/23 19:22	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/12/23 10:32	09/14/23 19:22	1
2-Nitroaniline	ND		9.8	2.2	ug/L		09/12/23 10:32	09/14/23 19:22	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/12/23 10:32	09/14/23 19:22	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/12/23 10:32	09/14/23 19:22	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/12/23 10:32	09/14/23 19:22	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/12/23 10:32	09/14/23 19:22	1
4-Nitrophenol	ND		9.8	2.1	ug/L		09/12/23 10:32	09/14/23 19:22	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/12/23 10:32	09/14/23 19:22	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW4-ROX-090623
Date Collected: 09/06/23 09:35
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-4
Matrix: Water

Method: SW846 8270E - 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		09/12/23 10:32	09/14/23 19:22	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/12/23 10:32	09/14/23 19:22	1
Pentachlorophenol	ND		20	1.4	ug/L		09/12/23 10:32	09/14/23 19:22	1
Phenol	ND		9.8	2.5	ug/L		09/12/23 10:32	09/14/23 19:22	1
Pyridine	ND		9.8	3.1	ug/L		09/12/23 10:32	09/14/23 19:22	1
Quinoline	ND		9.8	4.4	ug/L		09/12/23 10:32	09/14/23 19:22	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/12/23 10:32	09/14/23 19:22	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/12/23 10:32	09/14/23 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*45*	*S1-*	*46 - 124*	*09/12/23 10:32*	*09/14/23 19:22*	*1*
2-Fluorophenol	*10*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/14/23 19:22*	*1*
Nitrobenzene-d5	*41*		*36 - 126*	*09/12/23 10:32*	*09/14/23 19:22*	*1*
Phenol-d5	*28*		*17 - 127*	*09/12/23 10:32*	*09/14/23 19:22*	*1*
Terphenyl-d14	*54*		*44 - 149*	*09/12/23 10:32*	*09/14/23 19:22*	*1*
2,4,6-Tribromophenol	*52*		*26 - 150*	*09/12/23 10:32*	*09/14/23 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-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 23:10	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*09/12/23 08:25*	*09/12/23 23:10*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW25-ROX-090623
Date Collected: 09/06/23 11:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/15/23 17:06	1
Acrolein	ND		20	3.3	ug/L			09/15/23 17:06	1
Acrylonitrile	ND		10	2.8	ug/L			09/15/23 17:06	1
Benzene	**16**		1.0	0.50	ug/L			09/15/23 17:06	1
Bromobenzene	ND		1.0	0.54	ug/L			09/15/23 17:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/15/23 17:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/15/23 17:06	1
Bromoform	ND		5.0	0.25	ug/L			09/15/23 17:06	1
Bromomethane	ND		1.0	0.98	ug/L			09/15/23 17:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/15/23 17:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/15/23 17:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/15/23 17:06	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/15/23 17:06	1
Chloroethane	ND		1.0	0.76	ug/L			09/15/23 17:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/15/23 17:06	1
Chloroform	ND		1.0	0.90	ug/L			09/15/23 17:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/15/23 17:06	1
Chloromethane	ND		1.0	0.90	ug/L			09/15/23 17:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/15/23 17:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/15/23 17:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/15/23 17:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/15/23 17:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/15/23 17:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/15/23 17:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/15/23 17:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/15/23 17:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/15/23 17:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 17:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 17:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 17:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 17:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/15/23 17:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/15/23 17:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/15/23 17:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/15/23 17:06	1
2-Hexanone	ND		25	1.4	ug/L			09/15/23 17:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/15/23 17:06	1
Methylene bromide	ND		5.0	0.22	ug/L			09/15/23 17:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/15/23 17:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/15/23 17:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/15/23 17:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/15/23 17:06	1
Naphthalene	ND		5.0	3.0	ug/L			09/15/23 17:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/15/23 17:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/15/23 17:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/15/23 17:06	1
o-Xylene	ND		5.0	0.60	ug/L			09/15/23 17:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/15/23 17:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/15/23 17:06	1

Client Sample ID: MW25-ROX-090623
Date Collected: 09/06/23 11:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-5
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/15/23 17:06	1
Styrene	ND		1.0	1.0	ug/L			09/15/23 17:06	1
tert-Butylbenzene	**0.71**	**J**	1.0	0.63	ug/L			09/15/23 17:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/15/23 17:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/15/23 17:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/15/23 17:06	1
Toluene	ND		1.0	0.90	ug/L			09/15/23 17:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 17:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/15/23 17:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/15/23 17:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/15/23 17:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/15/23 17:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/15/23 17:06	1
Trichloroethene	ND		1.0	0.15	ug/L			09/15/23 17:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/15/23 17:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/15/23 17:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/15/23 17:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/15/23 17:06	1
Vinyl acetate	ND		25	0.93	ug/L			09/15/23 17:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/15/23 17:06	1
Xylenes, Total	ND		10	1.6	ug/L			09/15/23 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 130*		*09/15/23 17:06*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*09/15/23 17:06*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*09/15/23 17:06*	*1*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.093	ug/L		09/12/23 10:32	09/15/23 18:47	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/23 10:32	09/15/23 18:47	1
Anthracene	ND		0.19	0.044	ug/L		09/12/23 10:32	09/15/23 18:47	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 18:47	1
Benzo[a]pyrene	ND		0.19	0.060	ug/L		09/12/23 10:32	09/15/23 18:47	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/12/23 10:32	09/15/23 18:47	1
Benzo[g,h,i]perylene	ND		0.19	0.025	ug/L		09/12/23 10:32	09/15/23 18:47	1
Benzo[k]fluoranthene	ND		0.19	0.058	ug/L		09/12/23 10:32	09/15/23 18:47	1
Chrysene	ND		0.19	0.031	ug/L		09/12/23 10:32	09/15/23 18:47	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/15/23 18:47	1
Fluoranthene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 18:47	1
Fluorene	ND		0.19	0.084	ug/L		09/12/23 10:32	09/15/23 18:47	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 18:47	1
Phenanthrene	ND		0.19	0.085	ug/L		09/12/23 10:32	09/15/23 18:47	1
Pyrene	ND		0.19	0.037	ug/L		09/12/23 10:32	09/15/23 18:47	1
1-Methylnaphthalene	ND		0.19	0.075	ug/L		09/12/23 10:32	09/15/23 18:47	1
2-Methylnaphthalene	ND		0.19	0.062	ug/L		09/12/23 10:32	09/15/23 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*52*		*18 - 147*	*09/12/23 10:32*	*09/15/23 18:47*	*1*
2-Fluorobiphenyl	*63*		*15 - 128*	*09/12/23 10:32*	*09/15/23 18:47*	*1*

Client Sample ID: MW25-ROX-090623
Date Collected: 09/06/23 11:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-5
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*62*		*10 - 144*	*09/12/23 10:32*	*09/15/23 18:47*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.4	3.6	ug/L		09/12/23 10:32	09/15/23 19:18	1
Benzenethiol	ND		9.4	1.6	ug/L		09/12/23 10:32	09/15/23 19:18	1
Benzoic acid	ND	*- *1	28	6.9	ug/L		09/12/23 10:32	09/15/23 19:18	1
Benzyl alcohol	ND		9.4	1.9	ug/L		09/12/23 10:32	09/15/23 19:18	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		09/12/23 10:32	09/15/23 19:18	1
Bis(2-chloroethyl)ether	ND	*+	9.4	2.5	ug/L		09/12/23 10:32	09/15/23 19:18	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		09/12/23 10:32	09/15/23 19:18	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		09/12/23 10:32	09/15/23 19:18	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		09/12/23 10:32	09/15/23 19:18	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		09/12/23 10:32	09/15/23 19:18	1
4-Chloroaniline	ND		9.4	3.2	ug/L		09/12/23 10:32	09/15/23 19:18	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		09/12/23 10:32	09/15/23 19:18	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		09/12/23 10:32	09/15/23 19:18	1
2-Chlorophenol	ND		9.4	2.1	ug/L		09/12/23 10:32	09/15/23 19:18	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		09/12/23 10:32	09/15/23 19:18	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		09/12/23 10:32	09/15/23 19:18	1
Dibenzofuran	ND		9.4	0.16	ug/L		09/12/23 10:32	09/15/23 19:18	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		09/12/23 10:32	09/15/23 19:18	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		09/12/23 10:32	09/15/23 19:18	1
Diethyl phthalate	ND		9.4	0.23	ug/L		09/12/23 10:32	09/15/23 19:18	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		09/12/23 10:32	09/15/23 19:18	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		09/12/23 10:32	09/15/23 19:18	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		09/12/23 10:32	09/15/23 19:18	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		09/12/23 10:32	09/15/23 19:18	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/12/23 10:32	09/15/23 19:18	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		09/12/23 10:32	09/15/23 19:18	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		09/12/23 10:32	09/15/23 19:18	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		09/12/23 10:32	09/15/23 19:18	1
1,4-Dioxane	ND		9.4	0.94	ug/L		09/12/23 10:32	09/15/23 19:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		09/12/23 10:32	09/15/23 19:18	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		09/12/23 10:32	09/15/23 19:18	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/15/23 19:18	1
Hexachloroethane	ND		9.4	4.0	ug/L		09/12/23 10:32	09/15/23 19:18	1
Indene	ND		9.4	0.94	ug/L		09/12/23 10:32	09/15/23 19:18	1
Isophorone	ND		9.4	0.13	ug/L		09/12/23 10:32	09/15/23 19:18	1
2-Methylphenol	ND		9.4	1.7	ug/L		09/12/23 10:32	09/15/23 19:18	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/12/23 10:32	09/15/23 19:18	1
2-Nitroaniline	ND		9.4	2.1	ug/L		09/12/23 10:32	09/15/23 19:18	1
3-Nitroaniline	ND		9.4	1.7	ug/L		09/12/23 10:32	09/15/23 19:18	1
4-Nitroaniline	ND		9.4	1.4	ug/L		09/12/23 10:32	09/15/23 19:18	1
Nitrobenzene	ND		9.4	0.12	ug/L		09/12/23 10:32	09/15/23 19:18	1
2-Nitrophenol	ND		9.4	4.9	ug/L		09/12/23 10:32	09/15/23 19:18	1
4-Nitrophenol	ND		9.4	2.0	ug/L		09/12/23 10:32	09/15/23 19:18	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		09/12/23 10:32	09/15/23 19:18	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW25-ROX-090623
Date Collected: 09/06/23 11:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-5
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		09/12/23 10:32	09/15/23 19:18	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		09/12/23 10:32	09/15/23 19:18	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/15/23 19:18	1
Phenol	ND		9.4	2.5	ug/L		09/12/23 10:32	09/15/23 19:18	1
Pyridine	ND		9.4	3.0	ug/L		09/12/23 10:32	09/15/23 19:18	1
Quinoline	ND		9.4	4.2	ug/L		09/12/23 10:32	09/15/23 19:18	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		09/12/23 10:32	09/15/23 19:18	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		09/12/23 10:32	09/15/23 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*46 - 124*	*09/12/23 10:32*	*09/15/23 19:18*	*1*
2-Fluorophenol	*13*		*13 - 113*	*09/12/23 10:32*	*09/15/23 19:18*	*1*
Nitrobenzene-d5	*49*		*36 - 126*	*09/12/23 10:32*	*09/15/23 19:18*	*1*
Phenol-d5	*35*		*17 - 127*	*09/12/23 10:32*	*09/15/23 19:18*	*1*
Terphenyl-d14	*48*		*44 - 149*	*09/12/23 10:32*	*09/15/23 19:18*	*1*
2,4,6-Tribromophenol	*57*		*26 - 150*	*09/12/23 10:32*	*09/15/23 19:18*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/12/23 08:25	09/12/23 23:31	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		09/12/23 08:25	09/12/23 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*09/12/23 08:25*	*09/12/23 23:31*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW7-ROX-090623
Date Collected: 09/06/23 12:10
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50000	20000	ug/L			09/15/23 13:52	2000
Acrolein	ND		40000	6600	ug/L			09/15/23 13:52	2000
Acrylonitrile	ND		20000	5600	ug/L			09/15/23 13:52	2000
Bromobenzene	ND		2000	1100	ug/L			09/15/23 13:52	2000
Bromochloromethane	ND		2000	420	ug/L			09/15/23 13:52	2000
Bromodichloromethane	ND		2000	1000	ug/L			09/15/23 13:52	2000
Bromoform	ND		10000	500	ug/L			09/15/23 13:52	2000
Bromomethane	ND		2000	2000	ug/L			09/15/23 13:52	2000
2-Butanone (MEK)	ND		50000	5200	ug/L			09/15/23 13:52	2000
Carbon disulfide	ND		2000	1000	ug/L			09/15/23 13:52	2000
Carbon tetrachloride	ND		2000	380	ug/L			09/15/23 13:52	2000
Chlorobenzene	ND		2000	1800	ug/L			09/15/23 13:52	2000
Chloroethane	ND		2000	1500	ug/L			09/15/23 13:52	2000
2-Chloroethyl vinyl ether	ND		10000	4000	ug/L			09/15/23 13:52	2000
Chloroform	ND		2000	1800	ug/L			09/15/23 13:52	2000
1-Chlorohexane	ND		2000	640	ug/L			09/15/23 13:52	2000
Chloromethane	ND		2000	1800	ug/L			09/15/23 13:52	2000
cis-1,2-Dichloroethene	ND		2000	400	ug/L			09/15/23 13:52	2000
cis-1,3-Dichloropropene	ND		10000	1000	ug/L			09/15/23 13:52	2000
Dibromochloromethane	ND		2000	480	ug/L			09/15/23 13:52	2000
1,2-Dichlorobenzene	ND		2000	1000	ug/L			09/15/23 13:52	2000
1,3-Dichlorobenzene	ND		2000	1100	ug/L			09/15/23 13:52	2000
1,4-Dichlorobenzene	ND		2000	1300	ug/L			09/15/23 13:52	2000
Dichlorodifluoromethane	ND		2000	1700	ug/L			09/15/23 13:52	2000
1,1-Dichloroethane	ND		2000	1000	ug/L			09/15/23 13:52	2000
1,2-Dichloroethane	ND		2000	380	ug/L			09/15/23 13:52	2000
1,1-Dichloroethene	ND		2000	1000	ug/L			09/15/23 13:52	2000
1,2-Dichloropropane	ND		2000	1000	ug/L			09/15/23 13:52	2000
1,3-Dichloropropane	ND		2000	1000	ug/L			09/15/23 13:52	2000
2,2-Dichloropropane	ND		2000	1000	ug/L			09/15/23 13:52	2000
1,1-Dichloropropene	ND		2000	1000	ug/L			09/15/23 13:52	2000
Ethylbenzene	ND		2000	1000	ug/L			09/15/23 13:52	2000
Ethyl methacrylate	ND		2000	1200	ug/L			09/15/23 13:52	2000
Hexachlorobutadiene	ND		10000	1800	ug/L			09/15/23 13:52	2000
2-Hexanone	ND		50000	2800	ug/L			09/15/23 13:52	2000
Isopropylbenzene	ND		2000	1100	ug/L			09/15/23 13:52	2000
Methylene bromide	ND		10000	440	ug/L			09/15/23 13:52	2000
Methylene Chloride	ND		10000	6000	ug/L			09/15/23 13:52	2000
4-Methyl-2-pentanone (MIBK)	ND		50000	3600	ug/L			09/15/23 13:52	2000
Methyl tert-butyl ether	ND		2000	440	ug/L			09/15/23 13:52	2000
m-Xylene & p-Xylene	ND		10000	1300	ug/L			09/15/23 13:52	2000
Naphthalene	ND		10000	6000	ug/L			09/15/23 13:52	2000
n-Butylbenzene	ND		2000	1500	ug/L			09/15/23 13:52	2000
N-Propylbenzene	ND		2000	1400	ug/L			09/15/23 13:52	2000
o-Chlorotoluene	ND		2000	1100	ug/L			09/15/23 13:52	2000
o-Xylene	ND		10000	1200	ug/L			09/15/23 13:52	2000
p-Chlorotoluene	ND		2000	1100	ug/L			09/15/23 13:52	2000
p-Isopropyltoluene	ND		2000	1400	ug/L			09/15/23 13:52	2000
sec-Butylbenzene	ND		2000	1400	ug/L			09/15/23 13:52	2000

Client Sample ID: MW7-ROX-090623
Date Collected: 09/06/23 12:10
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-6
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		2000	2000	ug/L			09/15/23 13:52	2000
tert-Butylbenzene	ND		2000	1300	ug/L			09/15/23 13:52	2000
1,1,1,2-Tetrachloroethane	ND		2000	320	ug/L			09/15/23 13:52	2000
1,1,2,2-Tetrachloroethane	ND		2000	1000	ug/L			09/15/23 13:52	2000
Tetrachloroethene	ND		2000	1800	ug/L			09/15/23 13:52	2000
Toluene	ND		2000	1800	ug/L			09/15/23 13:52	2000
trans-1,2-Dichloroethene	ND		2000	1000	ug/L			09/15/23 13:52	2000
trans-1,3-Dichloropropene	ND		10000	400	ug/L			09/15/23 13:52	2000
1,2,3-Trichlorobenzene	ND		2000	1800	ug/L			09/15/23 13:52	2000
1,2,4-Trichlorobenzene	ND		2000	1600	ug/L			09/15/23 13:52	2000
1,1,1-Trichloroethane	ND		2000	360	ug/L			09/15/23 13:52	2000
1,1,2-Trichloroethane	ND		10000	420	ug/L			09/15/23 13:52	2000
Trichloroethene	ND		2000	300	ug/L			09/15/23 13:52	2000
Trichlorofluoromethane	ND		2000	1000	ug/L			09/15/23 13:52	2000
1,2,3-Trichloropropane	ND		10000	1700	ug/L			09/15/23 13:52	2000
1,2,4-Trimethylbenzene	ND		2000	1600	ug/L			09/15/23 13:52	2000
1,3,5-Trimethylbenzene	ND		2000	1100	ug/L			09/15/23 13:52	2000
Vinyl acetate	ND		50000	1900	ug/L			09/15/23 13:52	2000
Vinyl chloride	ND		2000	1000	ug/L			09/15/23 13:52	2000
Xylenes, Total	ND		20000	3200	ug/L			09/15/23 13:52	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*72 - 130*		*09/15/23 13:52*	*2000*
Dibromofluoromethane	*97*		*75 - 126*		*09/15/23 13:52*	*2000*
Toluene-d8 (Surr)	*106*		*64 - 132*		*09/15/23 13:52*	*2000*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**560000**		5000	2500	ug/L			09/15/23 19:05	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*121*		*72 - 130*		*09/15/23 19:05*	*5000*
Dibromofluoromethane	*102*		*75 - 126*		*09/15/23 19:05*	*5000*
Toluene-d8 (Surr)	*109*		*64 - 132*		*09/15/23 19:05*	*5000*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.13**	**J**	0.20	0.097	ug/L		09/12/23 10:32	09/14/23 23:11	1
Acenaphthylene	ND		0.20	0.043	ug/L		09/12/23 10:32	09/14/23 23:11	1
Anthracene	ND		0.20	0.046	ug/L		09/12/23 10:32	09/14/23 23:11	1
Benzo[a]anthracene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/14/23 23:11	1
Benzo[a]pyrene	ND		0.20	0.063	ug/L		09/12/23 10:32	09/14/23 23:11	1
Benzo[b]fluoranthene	ND		0.20	0.036	ug/L		09/12/23 10:32	09/14/23 23:11	1
Benzo[g,h,i]perylene	ND		0.20	0.026	ug/L		09/12/23 10:32	09/14/23 23:11	1
Benzo[k]fluoranthene	ND		0.20	0.061	ug/L		09/12/23 10:32	09/14/23 23:11	1
Chrysene	ND		0.20	0.032	ug/L		09/12/23 10:32	09/14/23 23:11	1
Dibenz(a,h)anthracene	ND		0.20	0.047	ug/L		09/12/23 10:32	09/14/23 23:11	1
Fluoranthene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/14/23 23:11	1
Fluorene	**0.11**	**J**	0.20	0.087	ug/L		09/12/23 10:32	09/14/23 23:11	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/14/23 23:11	1

Client Sample ID: MW7-ROX-090623
Date Collected: 09/06/23 12:10
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-6
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.13	J	0.20	0.088	ug/L		09/12/23 10:32	09/14/23 23:11	1
Pyrene	ND		0.20	0.038	ug/L		09/12/23 10:32	09/14/23 23:11	1
1-Methylnaphthalene	1.0		0.20	0.078	ug/L		09/12/23 10:32	09/14/23 23:11	1
2-Methylnaphthalene	1.5		0.20	0.065	ug/L		09/12/23 10:32	09/14/23 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*48*		*18 - 147*	*09/12/23 10:32*	*09/14/23 23:11*	*1*
2-Fluorobiphenyl	*89*		*15 - 128*	*09/12/23 10:32*	*09/14/23 23:11*	*1*
Nitrobenzene-d5	*40*		*10 - 144*	*09/12/23 10:32*	*09/14/23 23:11*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.8	3.7	ug/L		09/12/23 10:32	09/14/23 20:04	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		09/12/23 10:32	09/14/23 20:04	1
Benzoic acid	ND	*- *1	29	7.1	ug/L		09/12/23 10:32	09/14/23 20:04	1
Benzyl alcohol	ND		9.8	2.0	ug/L		09/12/23 10:32	09/14/23 20:04	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		09/12/23 10:32	09/14/23 20:04	1
Bis(2-chloroethyl)ether	ND	*+	9.8	2.6	ug/L		09/12/23 10:32	09/14/23 20:04	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		09/12/23 10:32	09/14/23 20:04	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		09/12/23 10:32	09/14/23 20:04	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		09/12/23 10:32	09/14/23 20:04	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		09/12/23 10:32	09/14/23 20:04	1
4-Chloroaniline	ND		9.8	3.3	ug/L		09/12/23 10:32	09/14/23 20:04	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		09/12/23 10:32	09/14/23 20:04	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		09/12/23 10:32	09/14/23 20:04	1
2-Chlorophenol	ND		9.8	2.2	ug/L		09/12/23 10:32	09/14/23 20:04	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		09/12/23 10:32	09/14/23 20:04	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		09/12/23 10:32	09/14/23 20:04	1
Dibenzofuran	ND		9.8	0.17	ug/L		09/12/23 10:32	09/14/23 20:04	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		09/12/23 10:32	09/14/23 20:04	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		09/12/23 10:32	09/14/23 20:04	1
Diethyl phthalate	ND		9.8	0.23	ug/L		09/12/23 10:32	09/14/23 20:04	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		09/12/23 10:32	09/14/23 20:04	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		09/12/23 10:32	09/14/23 20:04	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		09/12/23 10:32	09/14/23 20:04	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		09/12/23 10:32	09/14/23 20:04	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/14/23 20:04	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		09/12/23 10:32	09/14/23 20:04	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		09/12/23 10:32	09/14/23 20:04	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		09/12/23 10:32	09/14/23 20:04	1
1,4-Dioxane	ND		9.8	0.98	ug/L		09/12/23 10:32	09/14/23 20:04	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		09/12/23 10:32	09/14/23 20:04	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		09/12/23 10:32	09/14/23 20:04	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		09/12/23 10:32	09/14/23 20:04	1
Hexachloroethane	ND		9.8	4.1	ug/L		09/12/23 10:32	09/14/23 20:04	1
Indene	ND		9.8	0.98	ug/L		09/12/23 10:32	09/14/23 20:04	1
Isophorone	ND		9.8	0.14	ug/L		09/12/23 10:32	09/14/23 20:04	1
2-Methylphenol	ND		9.8	1.8	ug/L		09/12/23 10:32	09/14/23 20:04	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		09/12/23 10:32	09/14/23 20:04	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW7-ROX-090623
Date Collected: 09/06/23 12:10
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-6
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.8	2.2	ug/L		09/12/23 10:32	09/14/23 20:04	1
3-Nitroaniline	ND		9.8	1.8	ug/L		09/12/23 10:32	09/14/23 20:04	1
4-Nitroaniline	ND		9.8	1.5	ug/L		09/12/23 10:32	09/14/23 20:04	1
Nitrobenzene	ND		9.8	0.13	ug/L		09/12/23 10:32	09/14/23 20:04	1
2-Nitrophenol	ND		9.8	5.1	ug/L		09/12/23 10:32	09/14/23 20:04	1
4-Nitrophenol	ND		9.8	2.1	ug/L		09/12/23 10:32	09/14/23 20:04	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		09/12/23 10:32	09/14/23 20:04	1
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		09/12/23 10:32	09/14/23 20:04	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		09/12/23 10:32	09/14/23 20:04	1
Pentachlorophenol	ND		20	1.4	ug/L		09/12/23 10:32	09/14/23 20:04	1
Phenol	**77**		9.8	2.5	ug/L		09/12/23 10:32	09/14/23 20:04	1
Pyridine	ND		9.8	3.1	ug/L		09/12/23 10:32	09/14/23 20:04	1
Quinoline	ND		9.8	4.4	ug/L		09/12/23 10:32	09/14/23 20:04	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		09/12/23 10:32	09/14/23 20:04	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		09/12/23 10:32	09/14/23 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*51*		*46 - 124*	*09/12/23 10:32*	*09/14/23 20:04*	*1*
2-Fluorophenol	*15*		*13 - 113*	*09/12/23 10:32*	*09/14/23 20:04*	*1*
Nitrobenzene-d5	*49*		*36 - 126*	*09/12/23 10:32*	*09/14/23 20:04*	*1*
Phenol-d5	*34*		*17 - 127*	*09/12/23 10:32*	*09/14/23 20:04*	*1*
Terphenyl-d14	*30*	*S1-*	*44 - 149*	*09/12/23 10:32*	*09/14/23 20:04*	*1*
2,4,6-Tribromophenol	*58*		*26 - 150*	*09/12/23 10:32*	*09/14/23 20:04*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 23:53	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*09/12/23 08:25*	*09/12/23 23:53*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW7-ROX-090623-DUP

Date Collected: 09/06/23 12:10
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-7

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130000	50000	ug/L			09/15/23 19:30	5000
Acrolein	ND		100000	17000	ug/L			09/15/23 19:30	5000
Acrylonitrile	ND		50000	14000	ug/L			09/15/23 19:30	5000
Benzene	**460000**		5000	2500	ug/L			09/15/23 19:30	5000
Bromobenzene	ND		5000	2700	ug/L			09/15/23 19:30	5000
Bromochloromethane	ND		5000	1100	ug/L			09/15/23 19:30	5000
Bromodichloromethane	ND		5000	2500	ug/L			09/15/23 19:30	5000
Bromoform	ND		25000	1300	ug/L			09/15/23 19:30	5000
Bromomethane	ND		5000	4900	ug/L			09/15/23 19:30	5000
2-Butanone (MEK)	ND		130000	13000	ug/L			09/15/23 19:30	5000
Carbon disulfide	ND		5000	2500	ug/L			09/15/23 19:30	5000
Carbon tetrachloride	ND		5000	950	ug/L			09/15/23 19:30	5000
Chlorobenzene	ND		5000	4500	ug/L			09/15/23 19:30	5000
Chloroethane	ND		5000	3800	ug/L			09/15/23 19:30	5000
2-Chloroethyl vinyl ether	ND		25000	10000	ug/L			09/15/23 19:30	5000
Chloroform	ND		5000	4500	ug/L			09/15/23 19:30	5000
1-Chlorohexane	ND		5000	1600	ug/L			09/15/23 19:30	5000
Chloromethane	ND		5000	4500	ug/L			09/15/23 19:30	5000
cis-1,2-Dichloroethene	ND		5000	1000	ug/L			09/15/23 19:30	5000
cis-1,3-Dichloropropene	ND		25000	2500	ug/L			09/15/23 19:30	5000
Dibromochloromethane	ND		5000	1200	ug/L			09/15/23 19:30	5000
1,2-Dichlorobenzene	ND		5000	2500	ug/L			09/15/23 19:30	5000
1,3-Dichlorobenzene	ND		5000	2700	ug/L			09/15/23 19:30	5000
1,4-Dichlorobenzene	ND		5000	3200	ug/L			09/15/23 19:30	5000
Dichlorodifluoromethane	ND		5000	4300	ug/L			09/15/23 19:30	5000
1,1-Dichloroethane	ND		5000	2500	ug/L			09/15/23 19:30	5000
1,2-Dichloroethane	ND		5000	950	ug/L			09/15/23 19:30	5000
1,1-Dichloroethene	ND		5000	2500	ug/L			09/15/23 19:30	5000
1,2-Dichloropropane	ND		5000	2500	ug/L			09/15/23 19:30	5000
1,3-Dichloropropane	ND		5000	2500	ug/L			09/15/23 19:30	5000
2,2-Dichloropropane	ND		5000	2500	ug/L			09/15/23 19:30	5000
1,1-Dichloropropene	ND		5000	2500	ug/L			09/15/23 19:30	5000
Ethylbenzene	ND		5000	2500	ug/L			09/15/23 19:30	5000
Ethyl methacrylate	ND		5000	3000	ug/L			09/15/23 19:30	5000
Hexachlorobutadiene	ND		25000	4500	ug/L			09/15/23 19:30	5000
2-Hexanone	ND		130000	7000	ug/L			09/15/23 19:30	5000
Isopropylbenzene	ND		5000	2700	ug/L			09/15/23 19:30	5000
Methylene bromide	ND		25000	1100	ug/L			09/15/23 19:30	5000
Methylene Chloride	ND		25000	15000	ug/L			09/15/23 19:30	5000
4-Methyl-2-pentanone (MIBK)	ND		130000	9000	ug/L			09/15/23 19:30	5000
Methyl tert-butyl ether	ND		5000	1100	ug/L			09/15/23 19:30	5000
m-Xylene & p-Xylene	ND		25000	3200	ug/L			09/15/23 19:30	5000
Naphthalene	ND		25000	15000	ug/L			09/15/23 19:30	5000
n-Butylbenzene	ND		5000	3800	ug/L			09/15/23 19:30	5000
N-Propylbenzene	ND		5000	3500	ug/L			09/15/23 19:30	5000
o-Chlorotoluene	ND		5000	2900	ug/L			09/15/23 19:30	5000
o-Xylene	ND		25000	3000	ug/L			09/15/23 19:30	5000
p-Chlorotoluene	ND		5000	2800	ug/L			09/15/23 19:30	5000
p-Isopropyltoluene	ND		5000	3600	ug/L			09/15/23 19:30	5000

Client Sample ID: MW7-ROX-090623-DUP
Date Collected: 09/06/23 12:10
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-7
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5000	3500	ug/L			09/15/23 19:30	5000
Styrene	ND		5000	5000	ug/L			09/15/23 19:30	5000
tert-Butylbenzene	ND		5000	3200	ug/L			09/15/23 19:30	5000
1,1,1,2-Tetrachloroethane	ND		5000	800	ug/L			09/15/23 19:30	5000
1,1,2,2-Tetrachloroethane	ND		5000	2500	ug/L			09/15/23 19:30	5000
Tetrachloroethene	ND		5000	4500	ug/L			09/15/23 19:30	5000
Toluene	ND		5000	4500	ug/L			09/15/23 19:30	5000
trans-1,2-Dichloroethene	ND		5000	2500	ug/L			09/15/23 19:30	5000
trans-1,3-Dichloropropene	ND		25000	1000	ug/L			09/15/23 19:30	5000
1,2,3-Trichlorobenzene	ND		5000	4500	ug/L			09/15/23 19:30	5000
1,2,4-Trichlorobenzene	ND		5000	4100	ug/L			09/15/23 19:30	5000
1,1,1-Trichloroethane	ND		5000	900	ug/L			09/15/23 19:30	5000
1,1,2-Trichloroethane	ND		25000	1100	ug/L			09/15/23 19:30	5000
Trichloroethene	ND		5000	750	ug/L			09/15/23 19:30	5000
Trichlorofluoromethane	ND		5000	2600	ug/L			09/15/23 19:30	5000
1,2,3-Trichloropropane	ND		25000	4200	ug/L			09/15/23 19:30	5000
1,2,4-Trimethylbenzene	ND		5000	4100	ug/L			09/15/23 19:30	5000
1,3,5-Trimethylbenzene	ND		5000	2800	ug/L			09/15/23 19:30	5000
Vinyl acetate	ND		130000	4700	ug/L			09/15/23 19:30	5000
Vinyl chloride	ND		5000	2500	ug/L			09/15/23 19:30	5000
Xylenes, Total	ND		50000	8000	ug/L			09/15/23 19:30	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*72 - 130*		*09/15/23 19:30*	*5000*
4-Bromofluorobenzene	*121*		*72 - 130*		*09/16/23 10:29*	*5000*
Dibromofluoromethane	*98*		*75 - 126*		*09/15/23 19:30*	*5000*
Dibromofluoromethane	*94*		*75 - 126*		*09/16/23 10:29*	*5000*
Toluene-d8 (Surr)	*103*		*64 - 132*		*09/15/23 19:30*	*5000*
Toluene-d8 (Surr)	*110*		*64 - 132*		*09/16/23 10:29*	*5000*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.095	ug/L		09/12/23 10:32	09/14/23 23:31	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/23 10:32	09/14/23 23:31	1
Anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/14/23 23:31	1
Benzo[a]anthracene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 23:31	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/12/23 10:32	09/14/23 23:31	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/12/23 10:32	09/14/23 23:31	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/12/23 10:32	09/14/23 23:31	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/12/23 10:32	09/14/23 23:31	1
Chrysene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 23:31	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/12/23 10:32	09/14/23 23:31	1
Fluoranthene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 23:31	1
Fluorene	**0.12**	**J**	0.19	0.086	ug/L		09/12/23 10:32	09/14/23 23:31	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 23:31	1
Phenanthrene	**0.14**	**J**	0.19	0.087	ug/L		09/12/23 10:32	09/14/23 23:31	1
Pyrene	ND		0.19	0.038	ug/L		09/12/23 10:32	09/14/23 23:31	1
1-Methylnaphthalene	**0.80**		0.19	0.077	ug/L		09/12/23 10:32	09/14/23 23:31	1
2-Methylnaphthalene	**1.2**		0.19	0.064	ug/L		09/12/23 10:32	09/14/23 23:31	1

Client Sample ID: MW7-ROX-090623-DUP

Date Collected: 09/06/23 12:10
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-7

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*69*		*18 - 147*	*09/12/23 10:32*	*09/14/23 23:31*	*1*
2-Fluorobiphenyl	*78*		*15 - 128*	*09/12/23 10:32*	*09/14/23 23:31*	*1*
Nitrobenzene-d5	*35*		*10 - 144*	*09/12/23 10:32*	*09/14/23 23:31*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.6	3.7	ug/L		09/12/23 10:32	09/14/23 20:25	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		09/12/23 10:32	09/14/23 20:25	1
Benzoic acid	ND	*- *1	29	7.0	ug/L		09/12/23 10:32	09/14/23 20:25	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/12/23 10:32	09/14/23 20:25	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/12/23 10:32	09/14/23 20:25	1
Bis(2-chloroethyl)ether	ND	*+	9.6	2.6	ug/L		09/12/23 10:32	09/14/23 20:25	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/12/23 10:32	09/14/23 20:25	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/12/23 10:32	09/14/23 20:25	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/12/23 10:32	09/14/23 20:25	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/12/23 10:32	09/14/23 20:25	1
4-Chloroaniline	ND		9.6	3.3	ug/L		09/12/23 10:32	09/14/23 20:25	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		09/12/23 10:32	09/14/23 20:25	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 20:25	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/12/23 10:32	09/14/23 20:25	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/12/23 10:32	09/14/23 20:25	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 20:25	1
Dibenzofuran	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 20:25	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/12/23 10:32	09/14/23 20:25	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/12/23 10:32	09/14/23 20:25	1
Diethyl phthalate	ND		9.6	0.23	ug/L		09/12/23 10:32	09/14/23 20:25	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 20:25	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 20:25	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		09/12/23 10:32	09/14/23 20:25	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/12/23 10:32	09/14/23 20:25	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/14/23 20:25	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/14/23 20:25	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/14/23 20:25	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 20:25	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 20:25	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 20:25	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 20:25	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/14/23 20:25	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/12/23 10:32	09/14/23 20:25	1
Indene	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 20:25	1
Isophorone	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 20:25	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/12/23 10:32	09/14/23 20:25	1
3 & 4 Methylphenol	**0.45**	**J**	19	0.38	ug/L		09/12/23 10:32	09/14/23 20:25	1
2-Nitroaniline	ND		9.6	2.1	ug/L		09/12/23 10:32	09/14/23 20:25	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/12/23 10:32	09/14/23 20:25	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/12/23 10:32	09/14/23 20:25	1
Nitrobenzene	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 20:25	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/12/23 10:32	09/14/23 20:25	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/12/23 10:32	09/14/23 20:25	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW7-ROX-090623-DUP

Lab Sample ID: 400-243066-7

Date Collected: 09/06/23 12:10

Matrix: Water

Date Received: 09/07/23 08:21

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 20:25	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		09/12/23 10:32	09/14/23 20:25	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/12/23 10:32	09/14/23 20:25	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/14/23 20:25	1
Phenol	**83**		9.6	2.5	ug/L		09/12/23 10:32	09/14/23 20:25	1
Pyridine	ND		9.6	3.1	ug/L		09/12/23 10:32	09/14/23 20:25	1
Quinoline	ND		9.6	4.3	ug/L		09/12/23 10:32	09/14/23 20:25	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		09/12/23 10:32	09/14/23 20:25	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*46 - 124*	*09/12/23 10:32*	*09/14/23 20:25*	*1*
2-Fluorophenol	*15*		*13 - 113*	*09/12/23 10:32*	*09/14/23 20:25*	*1*
Nitrobenzene-d5	*52*		*36 - 126*	*09/12/23 10:32*	*09/14/23 20:25*	*1*
Phenol-d5	*38*		*17 - 127*	*09/12/23 10:32*	*09/14/23 20:25*	*1*
Terphenyl-d14	*54*		*44 - 149*	*09/12/23 10:32*	*09/14/23 20:25*	*1*
2,4,6-Tribromophenol	*66*		*26 - 150*	*09/12/23 10:32*	*09/14/23 20:25*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/13/23 00:14	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/13/23 00:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*09/12/23 08:25*	*09/13/23 00:14*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: TB-ROX-090623-8260-B
Date Collected: 09/06/23 00:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			09/15/23 16:17	1
Acrolein	ND		20	3.3	ug/L			09/15/23 16:17	1
Acrylonitrile	ND		10	2.8	ug/L			09/15/23 16:17	1
Benzene	ND		1.0	0.50	ug/L			09/15/23 16:17	1
Bromobenzene	ND		1.0	0.54	ug/L			09/15/23 16:17	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/15/23 16:17	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/15/23 16:17	1
Bromoform	ND		5.0	0.25	ug/L			09/15/23 16:17	1
Bromomethane	ND		1.0	0.98	ug/L			09/15/23 16:17	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/15/23 16:17	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/15/23 16:17	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/15/23 16:17	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/15/23 16:17	1
Chloroethane	ND		1.0	0.76	ug/L			09/15/23 16:17	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/15/23 16:17	1
Chloroform	ND		1.0	0.90	ug/L			09/15/23 16:17	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/15/23 16:17	1
Chloromethane	ND		1.0	0.90	ug/L			09/15/23 16:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/15/23 16:17	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/15/23 16:17	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/15/23 16:17	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/15/23 16:17	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/15/23 16:17	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/15/23 16:17	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/15/23 16:17	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/15/23 16:17	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/15/23 16:17	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 16:17	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 16:17	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 16:17	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 16:17	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/15/23 16:17	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/15/23 16:17	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/15/23 16:17	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/15/23 16:17	1
2-Hexanone	ND		25	1.4	ug/L			09/15/23 16:17	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/15/23 16:17	1
Methylene bromide	ND		5.0	0.22	ug/L			09/15/23 16:17	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/15/23 16:17	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/15/23 16:17	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/15/23 16:17	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/15/23 16:17	1
Naphthalene	ND		5.0	3.0	ug/L			09/15/23 16:17	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/15/23 16:17	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/15/23 16:17	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/15/23 16:17	1
o-Xylene	ND		5.0	0.60	ug/L			09/15/23 16:17	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/15/23 16:17	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/15/23 16:17	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: TB-ROX-090623-8260-B
Date Collected: 09/06/23 00:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-8
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/15/23 16:17	1
Styrene	ND		1.0	1.0	ug/L			09/15/23 16:17	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/15/23 16:17	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/15/23 16:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/15/23 16:17	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/15/23 16:17	1
Toluene	ND		1.0	0.90	ug/L			09/15/23 16:17	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 16:17	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/15/23 16:17	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/15/23 16:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/15/23 16:17	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/15/23 16:17	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/15/23 16:17	1
Trichloroethene	ND		1.0	0.15	ug/L			09/15/23 16:17	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/15/23 16:17	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/15/23 16:17	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/15/23 16:17	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/15/23 16:17	1
Vinyl acetate	ND		25	0.93	ug/L			09/15/23 16:17	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/15/23 16:17	1
Xylenes, Total	ND		10	1.6	ug/L			09/15/23 16:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*72 - 130*		*09/15/23 16:17*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*09/15/23 16:17*	*1*
Toluene-d8 (Surr)	*107*		*64 - 132*		*09/15/23 16:17*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: TB-ROX-090623-8011-B
Date Collected: 09/06/23 00:00
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-9
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-Dibromo-3-Chloropropane	ND		0.031	0.018	ug/L		09/12/23 08:25	09/13/23 00:35	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		09/12/23 08:25	09/13/23 00:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*09/12/23 08:25*	*09/13/23 00:35*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P59-ROX-090623
Date Collected: 09/06/23 09:05
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**99**		25	10	ug/L			09/15/23 17:30	1
Acrolein	ND		20	3.3	ug/L			09/15/23 17:30	1
Acrylonitrile	ND		10	2.8	ug/L			09/15/23 17:30	1
Bromobenzene	ND		1.0	0.54	ug/L			09/15/23 17:30	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/15/23 17:30	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/15/23 17:30	1
Bromoform	ND		5.0	0.25	ug/L			09/15/23 17:30	1
Bromomethane	ND		1.0	0.98	ug/L			09/15/23 17:30	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/15/23 17:30	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/15/23 17:30	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/15/23 17:30	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/15/23 17:30	1
Chloroethane	ND		1.0	0.76	ug/L			09/15/23 17:30	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/15/23 17:30	1
Chloroform	ND		1.0	0.90	ug/L			09/15/23 17:30	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/15/23 17:30	1
Chloromethane	ND		1.0	0.90	ug/L			09/15/23 17:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/15/23 17:30	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/15/23 17:30	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/15/23 17:30	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/15/23 17:30	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/15/23 17:30	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/15/23 17:30	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/15/23 17:30	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/15/23 17:30	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/15/23 17:30	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 17:30	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 17:30	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 17:30	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 17:30	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/15/23 17:30	1
Ethylbenzene	**35**		1.0	0.50	ug/L			09/15/23 17:30	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/15/23 17:30	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/15/23 17:30	1
2-Hexanone	ND		25	1.4	ug/L			09/15/23 17:30	1
Isopropylbenzene	**33**		1.0	0.53	ug/L			09/15/23 17:30	1
Methylene bromide	ND		5.0	0.22	ug/L			09/15/23 17:30	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/15/23 17:30	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/15/23 17:30	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/15/23 17:30	1
m-Xylene & p-Xylene	**75**		5.0	0.63	ug/L			09/15/23 17:30	1
Naphthalene	**29**		5.0	3.0	ug/L			09/15/23 17:30	1
n-Butylbenzene	**3.9**		1.0	0.76	ug/L			09/15/23 17:30	1
N-Propylbenzene	**58**		1.0	0.69	ug/L			09/15/23 17:30	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/15/23 17:30	1
o-Xylene	**2.6**	**J**	5.0	0.60	ug/L			09/15/23 17:30	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/15/23 17:30	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/15/23 17:30	1
sec-Butylbenzene	**2.1**		1.0	0.70	ug/L			09/15/23 17:30	1

Client Sample ID: P59-ROX-090623
Date Collected: 09/06/23 09:05
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-10
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			09/15/23 17:30	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/15/23 17:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/15/23 17:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/15/23 17:30	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/15/23 17:30	1
Toluene	**48**		1.0	0.90	ug/L			09/15/23 17:30	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 17:30	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/15/23 17:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/15/23 17:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/15/23 17:30	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/15/23 17:30	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/15/23 17:30	1
Trichloroethene	ND		1.0	0.15	ug/L			09/15/23 17:30	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/15/23 17:30	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/15/23 17:30	1
1,2,4-Trimethylbenzene	**17**		1.0	0.82	ug/L			09/15/23 17:30	1
1,3,5-Trimethylbenzene	**23**		1.0	0.56	ug/L			09/15/23 17:30	1
Vinyl acetate	ND		25	0.93	ug/L			09/15/23 17:30	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/15/23 17:30	1
Xylenes, Total	**77**		10	1.6	ug/L			09/15/23 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*72 - 130*		*09/15/23 17:30*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*09/15/23 17:30*	*1*
Toluene-d8 (Surr)	*108*		*64 - 132*		*09/15/23 17:30*	*1*

Method: SW846 8260D - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**890**		10	5.0	ug/L			09/16/23 09:17	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*72 - 130*		*09/16/23 09:17*	*10*
Dibromofluoromethane	*93*		*75 - 126*		*09/16/23 09:17*	*10*
Toluene-d8 (Surr)	*104*		*64 - 132*		*09/16/23 09:17*	*10*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.33**		0.19	0.095	ug/L		09/12/23 10:32	09/14/23 23:52	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/23 10:32	09/14/23 23:52	1
Anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/14/23 23:52	1
Benzo[a]anthracene	**0.063**	**J**	0.19	0.033	ug/L		09/12/23 10:32	09/14/23 23:52	1
Benzo[a]pyrene	ND		0.19	0.062	ug/L		09/12/23 10:32	09/14/23 23:52	1
Benzo[b]fluoranthene	ND		0.19	0.036	ug/L		09/12/23 10:32	09/14/23 23:52	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/12/23 10:32	09/14/23 23:52	1
Benzo[k]fluoranthene	ND		0.19	0.060	ug/L		09/12/23 10:32	09/14/23 23:52	1
Chrysene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/14/23 23:52	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/12/23 10:32	09/14/23 23:52	1
Fluoranthene	**0.13**	**J**	0.19	0.033	ug/L		09/12/23 10:32	09/14/23 23:52	1
Fluorene	**0.27**		0.19	0.086	ug/L		09/12/23 10:32	09/14/23 23:52	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/14/23 23:52	1

Client Sample ID: P59-ROX-090623
Date Collected: 09/06/23 09:05
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-10
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	**0.49**		0.19	0.087	ug/L		09/12/23 10:32	09/14/23 23:52	1
Pyrene	**0.41**		0.19	0.038	ug/L		09/12/23 10:32	09/14/23 23:52	1
1-Methylnaphthalene	**8.3**		0.19	0.077	ug/L		09/12/23 10:32	09/14/23 23:52	1
2-Methylnaphthalene	**11**		0.19	0.064	ug/L		09/12/23 10:32	09/14/23 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*99*		*18 - 147*	*09/12/23 10:32*	*09/14/23 23:52*	*1*
2-Fluorobiphenyl	*93*		*15 - 128*	*09/12/23 10:32*	*09/14/23 23:52*	*1*
Nitrobenzene-d5	*59*		*10 - 144*	*09/12/23 10:32*	*09/14/23 23:52*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.6	3.7	ug/L		09/12/23 10:32	09/14/23 20:46	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		09/12/23 10:32	09/14/23 20:46	1
Benzoic acid	ND	*- *1	29	7.0	ug/L		09/12/23 10:32	09/14/23 20:46	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/12/23 10:32	09/14/23 20:46	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/12/23 10:32	09/14/23 20:46	1
Bis(2-chloroethyl)ether	ND	*+	9.6	2.6	ug/L		09/12/23 10:32	09/14/23 20:46	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/12/23 10:32	09/14/23 20:46	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/12/23 10:32	09/14/23 20:46	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/12/23 10:32	09/14/23 20:46	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/12/23 10:32	09/14/23 20:46	1
4-Chloroaniline	ND		9.6	3.3	ug/L		09/12/23 10:32	09/14/23 20:46	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		09/12/23 10:32	09/14/23 20:46	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 20:46	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/12/23 10:32	09/14/23 20:46	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/12/23 10:32	09/14/23 20:46	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 20:46	1
Dibenzofuran	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 20:46	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/12/23 10:32	09/14/23 20:46	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/12/23 10:32	09/14/23 20:46	1
Diethyl phthalate	ND		9.6	0.23	ug/L		09/12/23 10:32	09/14/23 20:46	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 20:46	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 20:46	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		09/12/23 10:32	09/14/23 20:46	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/12/23 10:32	09/14/23 20:46	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/14/23 20:46	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/14/23 20:46	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/14/23 20:46	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 20:46	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 20:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 20:46	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 20:46	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/14/23 20:46	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/12/23 10:32	09/14/23 20:46	1
Indene	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 20:46	1
Isophorone	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 20:46	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/12/23 10:32	09/14/23 20:46	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		09/12/23 10:32	09/14/23 20:46	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P59-ROX-090623
Date Collected: 09/06/23 09:05
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-10
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.6	2.1	ug/L		09/12/23 10:32	09/14/23 20:46	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/12/23 10:32	09/14/23 20:46	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/12/23 10:32	09/14/23 20:46	1
Nitrobenzene	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 20:46	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/12/23 10:32	09/14/23 20:46	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/12/23 10:32	09/14/23 20:46	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 20:46	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		09/12/23 10:32	09/14/23 20:46	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/12/23 10:32	09/14/23 20:46	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/14/23 20:46	1
Phenol	**2.8**	**J**	9.6	2.5	ug/L		09/12/23 10:32	09/14/23 20:46	1
Pyridine	ND		9.6	3.1	ug/L		09/12/23 10:32	09/14/23 20:46	1
Quinoline	ND		9.6	4.3	ug/L		09/12/23 10:32	09/14/23 20:46	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		09/12/23 10:32	09/14/23 20:46	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		09/12/23 10:32	09/14/23 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*09/12/23 10:32*	*09/14/23 20:46*	*1*
2-Fluorophenol	*4*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/14/23 20:46*	*1*
Nitrobenzene-d5	*60*		*36 - 126*	*09/12/23 10:32*	*09/14/23 20:46*	*1*
Phenol-d5	*18*		*17 - 127*	*09/12/23 10:32*	*09/14/23 20:46*	*1*
Terphenyl-d14	*73*		*44 - 149*	*09/12/23 10:32*	*09/14/23 20:46*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*09/12/23 10:32*	*09/14/23 20:46*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 22:27	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*51 - 149*	*09/12/23 08:25*	*09/12/23 22:27*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P58-ROX-090623
Date Collected: 09/06/23 09:55
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50000	20000	ug/L			09/16/23 09:40	2000
Acrolein	ND		40000	6600	ug/L			09/16/23 09:40	2000
Acrylonitrile	ND		20000	5600	ug/L			09/16/23 09:40	2000
Benzene	**320000**		2000	1000	ug/L			09/16/23 09:40	2000
Bromobenzene	ND		2000	1100	ug/L			09/16/23 09:40	2000
Bromochloromethane	ND		2000	420	ug/L			09/16/23 09:40	2000
Bromodichloromethane	ND		2000	1000	ug/L			09/16/23 09:40	2000
Bromoform	ND		10000	500	ug/L			09/16/23 09:40	2000
Bromomethane	ND		2000	2000	ug/L			09/16/23 09:40	2000
2-Butanone (MEK)	ND		50000	5200	ug/L			09/16/23 09:40	2000
Carbon disulfide	ND		2000	1000	ug/L			09/16/23 09:40	2000
Carbon tetrachloride	ND		2000	380	ug/L			09/16/23 09:40	2000
Chlorobenzene	ND		2000	1800	ug/L			09/16/23 09:40	2000
Chloroethane	ND		2000	1500	ug/L			09/16/23 09:40	2000
2-Chloroethyl vinyl ether	ND		10000	4000	ug/L			09/16/23 09:40	2000
Chloroform	ND		2000	1800	ug/L			09/16/23 09:40	2000
1-Chlorohexane	ND		2000	640	ug/L			09/16/23 09:40	2000
Chloromethane	ND		2000	1800	ug/L			09/16/23 09:40	2000
cis-1,2-Dichloroethene	ND		2000	400	ug/L			09/16/23 09:40	2000
cis-1,3-Dichloropropene	ND		10000	1000	ug/L			09/16/23 09:40	2000
Dibromochloromethane	ND		2000	480	ug/L			09/16/23 09:40	2000
1,2-Dichlorobenzene	ND		2000	1000	ug/L			09/16/23 09:40	2000
1,3-Dichlorobenzene	ND		2000	1100	ug/L			09/16/23 09:40	2000
1,4-Dichlorobenzene	ND		2000	1300	ug/L			09/16/23 09:40	2000
Dichlorodifluoromethane	ND		2000	1700	ug/L			09/16/23 09:40	2000
1,1-Dichloroethane	ND		2000	1000	ug/L			09/16/23 09:40	2000
1,2-Dichloroethane	ND		2000	380	ug/L			09/16/23 09:40	2000
1,1-Dichloroethene	ND		2000	1000	ug/L			09/16/23 09:40	2000
1,2-Dichloropropane	ND		2000	1000	ug/L			09/16/23 09:40	2000
1,3-Dichloropropane	ND		2000	1000	ug/L			09/16/23 09:40	2000
2,2-Dichloropropane	ND		2000	1000	ug/L			09/16/23 09:40	2000
1,1-Dichloropropene	ND		2000	1000	ug/L			09/16/23 09:40	2000
Ethylbenzene	ND		2000	1000	ug/L			09/16/23 09:40	2000
Ethyl methacrylate	ND		2000	1200	ug/L			09/16/23 09:40	2000
Hexachlorobutadiene	ND		10000	1800	ug/L			09/16/23 09:40	2000
2-Hexanone	ND		50000	2800	ug/L			09/16/23 09:40	2000
Isopropylbenzene	ND		2000	1100	ug/L			09/16/23 09:40	2000
Methylene bromide	ND		10000	440	ug/L			09/16/23 09:40	2000
Methylene Chloride	ND		10000	6000	ug/L			09/16/23 09:40	2000
4-Methyl-2-pentanone (MIBK)	ND		50000	3600	ug/L			09/16/23 09:40	2000
Methyl tert-butyl ether	ND		2000	440	ug/L			09/16/23 09:40	2000
m-Xylene & p-Xylene	ND		10000	1300	ug/L			09/16/23 09:40	2000
Naphthalene	ND		10000	6000	ug/L			09/16/23 09:40	2000
n-Butylbenzene	ND		2000	1500	ug/L			09/16/23 09:40	2000
N-Propylbenzene	ND		2000	1400	ug/L			09/16/23 09:40	2000
o-Chlorotoluene	ND		2000	1100	ug/L			09/16/23 09:40	2000
o-Xylene	ND		10000	1200	ug/L			09/16/23 09:40	2000
p-Chlorotoluene	ND		2000	1100	ug/L			09/16/23 09:40	2000
p-Isopropyltoluene	ND		2000	1400	ug/L			09/16/23 09:40	2000

Client Sample ID: P58-ROX-090623
Date Collected: 09/06/23 09:55
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-11
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		2000	1400	ug/L			09/16/23 09:40	2000
Styrene	ND		2000	2000	ug/L			09/16/23 09:40	2000
tert-Butylbenzene	ND		2000	1300	ug/L			09/16/23 09:40	2000
1,1,1,2-Tetrachloroethane	ND		2000	320	ug/L			09/16/23 09:40	2000
1,1,2,2-Tetrachloroethane	ND		2000	1000	ug/L			09/16/23 09:40	2000
Tetrachloroethene	ND		2000	1800	ug/L			09/16/23 09:40	2000
Toluene	ND		2000	1800	ug/L			09/16/23 09:40	2000
trans-1,2-Dichloroethene	ND		2000	1000	ug/L			09/16/23 09:40	2000
trans-1,3-Dichloropropene	ND		10000	400	ug/L			09/16/23 09:40	2000
1,2,3-Trichlorobenzene	ND		2000	1800	ug/L			09/16/23 09:40	2000
1,2,4-Trichlorobenzene	ND		2000	1600	ug/L			09/16/23 09:40	2000
1,1,1-Trichloroethane	ND		2000	360	ug/L			09/16/23 09:40	2000
1,1,2-Trichloroethane	ND		10000	420	ug/L			09/16/23 09:40	2000
Trichloroethene	ND		2000	300	ug/L			09/16/23 09:40	2000
Trichlorofluoromethane	ND		2000	1000	ug/L			09/16/23 09:40	2000
1,2,3-Trichloropropane	ND		10000	1700	ug/L			09/16/23 09:40	2000
1,2,4-Trimethylbenzene	ND		2000	1600	ug/L			09/16/23 09:40	2000
1,3,5-Trimethylbenzene	ND		2000	1100	ug/L			09/16/23 09:40	2000
Vinyl acetate	ND		50000	1900	ug/L			09/16/23 09:40	2000
Vinyl chloride	ND		2000	1000	ug/L			09/16/23 09:40	2000
Xylenes, Total	ND		20000	3200	ug/L			09/16/23 09:40	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*114*		*72 - 130*		*09/16/23 09:40*	*2000*
Dibromofluoromethane	*95*		*75 - 126*		*09/16/23 09:40*	*2000*
Toluene-d8 (Surr)	*107*		*64 - 132*		*09/16/23 09:40*	*2000*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.46**		0.19	0.093	ug/L		09/12/23 10:32	09/15/23 00:13	1
Acenaphthylene	ND		0.19	0.041	ug/L		09/12/23 10:32	09/15/23 00:13	1
Anthracene	ND		0.19	0.044	ug/L		09/12/23 10:32	09/15/23 00:13	1
Benzo[a]anthracene	**0.059**	**J**	0.19	0.032	ug/L		09/12/23 10:32	09/15/23 00:13	1
Benzo[a]pyrene	ND		0.19	0.060	ug/L		09/12/23 10:32	09/15/23 00:13	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/12/23 10:32	09/15/23 00:13	1
Benzo[g,h,i]perylene	ND		0.19	0.025	ug/L		09/12/23 10:32	09/15/23 00:13	1
Benzo[k]fluoranthene	ND		0.19	0.058	ug/L		09/12/23 10:32	09/15/23 00:13	1
Chrysene	ND		0.19	0.031	ug/L		09/12/23 10:32	09/15/23 00:13	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/15/23 00:13	1
Fluoranthene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 00:13	1
Fluorene	**1.0**		0.19	0.084	ug/L		09/12/23 10:32	09/15/23 00:13	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 00:13	1
Phenanthrene	**0.91**		0.19	0.085	ug/L		09/12/23 10:32	09/15/23 00:13	1
Pyrene	**0.19**		0.19	0.037	ug/L		09/12/23 10:32	09/15/23 00:13	1
1-Methylnaphthalene	**67**		0.94	0.38	ug/L		09/12/23 10:32	09/15/23 19:07	5
2-Methylnaphthalene	**50**		0.94	0.31	ug/L		09/12/23 10:32	09/15/23 19:07	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*112*		*18 - 147*	*09/12/23 10:32*	*09/15/23 00:13*	*1*
2-Fluorobiphenyl	*77*		*15 - 128*	*09/12/23 10:32*	*09/15/23 00:13*	*1*

Client Sample ID: P58-ROX-090623
Date Collected: 09/06/23 09:55
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-11
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	56		10 - 144	09/12/23 10:32	09/15/23 00:13	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.4	3.6	ug/L		09/12/23 10:32	09/14/23 21:07	1
Benzenethiol	ND	*-	9.4	1.6	ug/L		09/12/23 10:32	09/14/23 21:07	1
Benzoic acid	ND	*- *1	28	6.9	ug/L		09/12/23 10:32	09/14/23 21:07	1
Benzyl alcohol	ND		9.4	1.9	ug/L		09/12/23 10:32	09/14/23 21:07	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		09/12/23 10:32	09/14/23 21:07	1
Bis(2-chloroethyl)ether	ND	*+	9.4	2.5	ug/L		09/12/23 10:32	09/14/23 21:07	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		09/12/23 10:32	09/14/23 21:07	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		09/12/23 10:32	09/14/23 21:07	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		09/12/23 10:32	09/14/23 21:07	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		09/12/23 10:32	09/14/23 21:07	1
4-Chloroaniline	ND		9.4	3.2	ug/L		09/12/23 10:32	09/14/23 21:07	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		09/12/23 10:32	09/14/23 21:07	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		09/12/23 10:32	09/14/23 21:07	1
2-Chlorophenol	ND		9.4	2.1	ug/L		09/12/23 10:32	09/14/23 21:07	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		09/12/23 10:32	09/14/23 21:07	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		09/12/23 10:32	09/14/23 21:07	1
Dibenzofuran	**1.5**	**J**	9.4	0.16	ug/L		09/12/23 10:32	09/14/23 21:07	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		09/12/23 10:32	09/14/23 21:07	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		09/12/23 10:32	09/14/23 21:07	1
Diethyl phthalate	ND		9.4	0.23	ug/L		09/12/23 10:32	09/14/23 21:07	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		09/12/23 10:32	09/14/23 21:07	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		09/12/23 10:32	09/14/23 21:07	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		09/12/23 10:32	09/14/23 21:07	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		09/12/23 10:32	09/14/23 21:07	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/12/23 10:32	09/14/23 21:07	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		09/12/23 10:32	09/14/23 21:07	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		09/12/23 10:32	09/14/23 21:07	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		09/12/23 10:32	09/14/23 21:07	1
1,4-Dioxane	ND		9.4	0.94	ug/L		09/12/23 10:32	09/14/23 21:07	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		09/12/23 10:32	09/14/23 21:07	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		09/12/23 10:32	09/14/23 21:07	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		09/12/23 10:32	09/14/23 21:07	1
Hexachloroethane	ND		9.4	4.0	ug/L		09/12/23 10:32	09/14/23 21:07	1
Indene	ND		9.4	0.94	ug/L		09/12/23 10:32	09/14/23 21:07	1
Isophorone	ND		9.4	0.13	ug/L		09/12/23 10:32	09/14/23 21:07	1
2-Methylphenol	ND		9.4	1.7	ug/L		09/12/23 10:32	09/14/23 21:07	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/12/23 10:32	09/14/23 21:07	1
2-Nitroaniline	ND		9.4	2.1	ug/L		09/12/23 10:32	09/14/23 21:07	1
3-Nitroaniline	ND		9.4	1.7	ug/L		09/12/23 10:32	09/14/23 21:07	1
4-Nitroaniline	ND		9.4	1.4	ug/L		09/12/23 10:32	09/14/23 21:07	1
Nitrobenzene	ND		9.4	0.12	ug/L		09/12/23 10:32	09/14/23 21:07	1
2-Nitrophenol	ND		9.4	4.9	ug/L		09/12/23 10:32	09/14/23 21:07	1
4-Nitrophenol	ND		9.4	2.0	ug/L		09/12/23 10:32	09/14/23 21:07	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		09/12/23 10:32	09/14/23 21:07	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P58-ROX-090623
Date Collected: 09/06/23 09:55
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-11
Matrix: Water

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		09/12/23 10:32	09/14/23 21:07	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		09/12/23 10:32	09/14/23 21:07	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/14/23 21:07	1
Phenol	**270**		9.4	2.4	ug/L		09/12/23 10:32	09/14/23 21:07	1
Pyridine	ND		9.4	3.0	ug/L		09/12/23 10:32	09/14/23 21:07	1
Quinoline	ND		9.4	4.2	ug/L		09/12/23 10:32	09/14/23 21:07	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		09/12/23 10:32	09/14/23 21:07	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		09/12/23 10:32	09/14/23 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*46 - 124*	*09/12/23 10:32*	*09/14/23 21:07*	*1*
2-Fluorophenol	*7*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/14/23 21:07*	*1*
Nitrobenzene-d5	*60*		*36 - 126*	*09/12/23 10:32*	*09/14/23 21:07*	*1*
Phenol-d5	*34*		*17 - 127*	*09/12/23 10:32*	*09/14/23 21:07*	*1*
Terphenyl-d14	*61*		*44 - 149*	*09/12/23 10:32*	*09/14/23 21:07*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*09/12/23 10:32*	*09/14/23 21:07*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.032	0.018	ug/L		09/12/23 08:25	09/13/23 01:18	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		09/12/23 08:25	09/13/23 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*09/12/23 08:25*	*09/13/23 01:18*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P58-ROX-090623-DUP

Date Collected: 09/06/23 09:55
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-12

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50000	20000	ug/L			09/16/23 10:04	2000
Acrolein	ND		40000	6600	ug/L			09/16/23 10:04	2000
Acrylonitrile	ND		20000	5600	ug/L			09/16/23 10:04	2000
Benzene	**330000**		2000	1000	ug/L			09/16/23 10:04	2000
Bromobenzene	ND		2000	1100	ug/L			09/16/23 10:04	2000
Bromochloromethane	ND		2000	420	ug/L			09/16/23 10:04	2000
Bromodichloromethane	ND		2000	1000	ug/L			09/16/23 10:04	2000
Bromoform	ND		10000	500	ug/L			09/16/23 10:04	2000
Bromomethane	ND		2000	2000	ug/L			09/16/23 10:04	2000
2-Butanone (MEK)	ND		50000	5200	ug/L			09/16/23 10:04	2000
Carbon disulfide	ND		2000	1000	ug/L			09/16/23 10:04	2000
Carbon tetrachloride	ND		2000	380	ug/L			09/16/23 10:04	2000
Chlorobenzene	ND		2000	1800	ug/L			09/16/23 10:04	2000
Chloroethane	ND		2000	1500	ug/L			09/16/23 10:04	2000
2-Chloroethyl vinyl ether	ND		10000	4000	ug/L			09/16/23 10:04	2000
Chloroform	ND		2000	1800	ug/L			09/16/23 10:04	2000
1-Chlorohexane	ND		2000	640	ug/L			09/16/23 10:04	2000
Chloromethane	ND		2000	1800	ug/L			09/16/23 10:04	2000
cis-1,2-Dichloroethene	ND		2000	400	ug/L			09/16/23 10:04	2000
cis-1,3-Dichloropropene	ND		10000	1000	ug/L			09/16/23 10:04	2000
Dibromochloromethane	ND		2000	480	ug/L			09/16/23 10:04	2000
1,2-Dichlorobenzene	ND		2000	1000	ug/L			09/16/23 10:04	2000
1,3-Dichlorobenzene	ND		2000	1100	ug/L			09/16/23 10:04	2000
1,4-Dichlorobenzene	ND		2000	1300	ug/L			09/16/23 10:04	2000
Dichlorodifluoromethane	ND		2000	1700	ug/L			09/16/23 10:04	2000
1,1-Dichloroethane	ND		2000	1000	ug/L			09/16/23 10:04	2000
1,2-Dichloroethane	ND		2000	380	ug/L			09/16/23 10:04	2000
1,1-Dichloroethene	ND		2000	1000	ug/L			09/16/23 10:04	2000
1,2-Dichloropropane	ND		2000	1000	ug/L			09/16/23 10:04	2000
1,3-Dichloropropane	ND		2000	1000	ug/L			09/16/23 10:04	2000
2,2-Dichloropropane	ND		2000	1000	ug/L			09/16/23 10:04	2000
1,1-Dichloropropene	ND		2000	1000	ug/L			09/16/23 10:04	2000
Ethylbenzene	ND		2000	1000	ug/L			09/16/23 10:04	2000
Ethyl methacrylate	ND		2000	1200	ug/L			09/16/23 10:04	2000
Hexachlorobutadiene	ND		10000	1800	ug/L			09/16/23 10:04	2000
2-Hexanone	ND		50000	2800	ug/L			09/16/23 10:04	2000
Isopropylbenzene	ND		2000	1100	ug/L			09/16/23 10:04	2000
Methylene bromide	ND		10000	440	ug/L			09/16/23 10:04	2000
Methylene Chloride	ND		10000	6000	ug/L			09/16/23 10:04	2000
4-Methyl-2-pentanone (MIBK)	ND		50000	3600	ug/L			09/16/23 10:04	2000
Methyl tert-butyl ether	ND		2000	440	ug/L			09/16/23 10:04	2000
m-Xylene & p-Xylene	ND		10000	1300	ug/L			09/16/23 10:04	2000
Naphthalene	ND		10000	6000	ug/L			09/16/23 10:04	2000
n-Butylbenzene	ND		2000	1500	ug/L			09/16/23 10:04	2000
N-Propylbenzene	ND		2000	1400	ug/L			09/16/23 10:04	2000
o-Chlorotoluene	ND		2000	1100	ug/L			09/16/23 10:04	2000
o-Xylene	ND		10000	1200	ug/L			09/16/23 10:04	2000
p-Chlorotoluene	ND		2000	1100	ug/L			09/16/23 10:04	2000
p-Isopropyltoluene	ND		2000	1400	ug/L			09/16/23 10:04	2000

Client Sample ID: P58-ROX-090623-DUP
Date Collected: 09/06/23 09:55
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-12
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		2000	1400	ug/L			09/16/23 10:04	2000
Styrene	ND		2000	2000	ug/L			09/16/23 10:04	2000
tert-Butylbenzene	ND		2000	1300	ug/L			09/16/23 10:04	2000
1,1,1,2-Tetrachloroethane	ND		2000	320	ug/L			09/16/23 10:04	2000
1,1,2,2-Tetrachloroethane	ND		2000	1000	ug/L			09/16/23 10:04	2000
Tetrachloroethene	ND		2000	1800	ug/L			09/16/23 10:04	2000
Toluene	ND		2000	1800	ug/L			09/16/23 10:04	2000
trans-1,2-Dichloroethene	ND		2000	1000	ug/L			09/16/23 10:04	2000
trans-1,3-Dichloropropene	ND		10000	400	ug/L			09/16/23 10:04	2000
1,2,3-Trichlorobenzene	ND		2000	1800	ug/L			09/16/23 10:04	2000
1,2,4-Trichlorobenzene	ND		2000	1600	ug/L			09/16/23 10:04	2000
1,1,1-Trichloroethane	ND		2000	360	ug/L			09/16/23 10:04	2000
1,1,2-Trichloroethane	ND		10000	420	ug/L			09/16/23 10:04	2000
Trichloroethene	ND		2000	300	ug/L			09/16/23 10:04	2000
Trichlorofluoromethane	ND		2000	1000	ug/L			09/16/23 10:04	2000
1,2,3-Trichloropropane	ND		10000	1700	ug/L			09/16/23 10:04	2000
1,2,4-Trimethylbenzene	ND		2000	1600	ug/L			09/16/23 10:04	2000
1,3,5-Trimethylbenzene	ND		2000	1100	ug/L			09/16/23 10:04	2000
Vinyl acetate	ND		50000	1900	ug/L			09/16/23 10:04	2000
Vinyl chloride	ND		2000	1000	ug/L			09/16/23 10:04	2000
Xylenes, Total	ND		20000	3200	ug/L			09/16/23 10:04	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*72 - 130*		*09/16/23 10:04*	*2000*
Dibromofluoromethane	*98*		*75 - 126*		*09/16/23 10:04*	*2000*
Toluene-d8 (Surr)	*107*		*64 - 132*		*09/16/23 10:04*	*2000*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.30**		0.19	0.095	ug/L		09/12/23 10:32	09/15/23 00:33	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/23 10:32	09/15/23 00:33	1
Anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/15/23 00:33	1
Benzo[a]anthracene	**0.038**	**J**	0.19	0.033	ug/L		09/12/23 10:32	09/15/23 00:33	1
Benzo[a]pyrene	ND		0.19	0.061	ug/L		09/12/23 10:32	09/15/23 00:33	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/12/23 10:32	09/15/23 00:33	1
Benzo[g,h,i]perylene	ND		0.19	0.026	ug/L		09/12/23 10:32	09/15/23 00:33	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/12/23 10:32	09/15/23 00:33	1
Chrysene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 00:33	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		09/12/23 10:32	09/15/23 00:33	1
Fluoranthene	**0.046**	**J**	0.19	0.033	ug/L		09/12/23 10:32	09/15/23 00:33	1
Fluorene	**0.67**		0.19	0.085	ug/L		09/12/23 10:32	09/15/23 00:33	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.033	ug/L		09/12/23 10:32	09/15/23 00:33	1
Phenanthrene	**0.65**		0.19	0.086	ug/L		09/12/23 10:32	09/15/23 00:33	1
Pyrene	**0.11**	**J**	0.19	0.037	ug/L		09/12/23 10:32	09/15/23 00:33	1
1-Methylnaphthalene	**49**		0.96	0.38	ug/L		09/12/23 10:32	09/15/23 19:28	5
2-Methylnaphthalene	**35**		0.19	0.063	ug/L		09/12/23 10:32	09/15/23 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*40*		*18 - 147*	*09/12/23 10:32*	*09/15/23 00:33*	*1*
2-Fluorobiphenyl	*45*		*15 - 128*	*09/12/23 10:32*	*09/15/23 00:33*	*1*

Client Sample ID: P58-ROX-090623-DUP

Date Collected: 09/06/23 09:55
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-12

Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	*50*		*10 - 144*	*09/12/23 10:32*	*09/15/23 00:33*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.6	3.6	ug/L		09/12/23 10:32	09/14/23 21:29	1
Benzenethiol	ND	*-	9.6	1.6	ug/L		09/12/23 10:32	09/14/23 21:29	1
Benzoic acid	ND	*- *1	29	7.0	ug/L		09/12/23 10:32	09/14/23 21:29	1
Benzyl alcohol	ND		9.6	1.9	ug/L		09/12/23 10:32	09/14/23 21:29	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		09/12/23 10:32	09/14/23 21:29	1
Bis(2-chloroethyl)ether	ND	*+	9.6	2.6	ug/L		09/12/23 10:32	09/14/23 21:29	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		09/12/23 10:32	09/14/23 21:29	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		09/12/23 10:32	09/14/23 21:29	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		09/12/23 10:32	09/14/23 21:29	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		09/12/23 10:32	09/14/23 21:29	1
4-Chloroaniline	ND		9.6	3.3	ug/L		09/12/23 10:32	09/14/23 21:29	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		09/12/23 10:32	09/14/23 21:29	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 21:29	1
2-Chlorophenol	ND		9.6	2.1	ug/L		09/12/23 10:32	09/14/23 21:29	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		09/12/23 10:32	09/14/23 21:29	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 21:29	1
Dibenzofuran	**1.4**	**J**	9.6	0.16	ug/L		09/12/23 10:32	09/14/23 21:29	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		09/12/23 10:32	09/14/23 21:29	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		09/12/23 10:32	09/14/23 21:29	1
Diethyl phthalate	ND		9.6	0.23	ug/L		09/12/23 10:32	09/14/23 21:29	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		09/12/23 10:32	09/14/23 21:29	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 21:29	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		09/12/23 10:32	09/14/23 21:29	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		09/12/23 10:32	09/14/23 21:29	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		09/12/23 10:32	09/14/23 21:29	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/14/23 21:29	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		09/12/23 10:32	09/14/23 21:29	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 21:29	1
1,4-Dioxane	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 21:29	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 21:29	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		09/12/23 10:32	09/14/23 21:29	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/14/23 21:29	1
Hexachloroethane	ND		9.6	4.0	ug/L		09/12/23 10:32	09/14/23 21:29	1
Indene	ND		9.6	0.96	ug/L		09/12/23 10:32	09/14/23 21:29	1
Isophorone	ND		9.6	0.13	ug/L		09/12/23 10:32	09/14/23 21:29	1
2-Methylphenol	ND		9.6	1.7	ug/L		09/12/23 10:32	09/14/23 21:29	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/12/23 10:32	09/14/23 21:29	1
2-Nitroaniline	ND		9.6	2.1	ug/L		09/12/23 10:32	09/14/23 21:29	1
3-Nitroaniline	ND		9.6	1.7	ug/L		09/12/23 10:32	09/14/23 21:29	1
4-Nitroaniline	ND		9.6	1.4	ug/L		09/12/23 10:32	09/14/23 21:29	1
Nitrobenzene	ND		9.6	0.12	ug/L		09/12/23 10:32	09/14/23 21:29	1
2-Nitrophenol	ND		9.6	5.0	ug/L		09/12/23 10:32	09/14/23 21:29	1
4-Nitrophenol	ND		9.6	2.0	ug/L		09/12/23 10:32	09/14/23 21:29	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		09/12/23 10:32	09/14/23 21:29	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P58-ROX-090623-DUP

Date Collected: 09/06/23 09:55
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-12

Matrix: Water

Method: SW846 8270E - 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		09/12/23 10:32	09/14/23 21:29	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		09/12/23 10:32	09/14/23 21:29	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/14/23 21:29	1
Pyridine	ND		9.6	3.1	ug/L		09/12/23 10:32	09/14/23 21:29	1
Quinoline	ND		9.6	4.3	ug/L		09/12/23 10:32	09/14/23 21:29	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		09/12/23 10:32	09/14/23 21:29	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		09/12/23 10:32	09/14/23 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*52*		*46 - 124*	*09/12/23 10:32*	*09/14/23 21:29*	*1*
2-Fluorophenol	*22*		*13 - 113*	*09/12/23 10:32*	*09/14/23 21:29*	*1*
Nitrobenzene-d5	*49*		*36 - 126*	*09/12/23 10:32*	*09/14/23 21:29*	*1*
Phenol-d5	*43*		*17 - 127*	*09/12/23 10:32*	*09/14/23 21:29*	*1*
Terphenyl-d14	*29*	*S1-*	*44 - 149*	*09/12/23 10:32*	*09/14/23 21:29*	*1*
2,4,6-Tribromophenol	*64*		*26 - 150*	*09/12/23 10:32*	*09/14/23 21:29*	*1*

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	**420**		48	12	ug/L		09/12/23 10:32	09/21/23 16:00	5

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/13/23 01:39	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/13/23 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*09/12/23 08:25*	*09/13/23 01:39*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P93B-ROX-090623
Date Collected: 09/06/23 11:15
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130000	50000	ug/L			09/15/23 18:41	5000
Acrolein	ND		100000	17000	ug/L			09/15/23 18:41	5000
Acrylonitrile	ND		50000	14000	ug/L			09/15/23 18:41	5000
Benzene	**480000**		5000	2500	ug/L			09/15/23 18:41	5000
Bromobenzene	ND		5000	2700	ug/L			09/15/23 18:41	5000
Bromochloromethane	ND		5000	1100	ug/L			09/15/23 18:41	5000
Bromodichloromethane	ND		5000	2500	ug/L			09/15/23 18:41	5000
Bromoform	ND		25000	1300	ug/L			09/15/23 18:41	5000
Bromomethane	ND		5000	4900	ug/L			09/15/23 18:41	5000
2-Butanone (MEK)	ND		130000	13000	ug/L			09/15/23 18:41	5000
Carbon disulfide	ND		5000	2500	ug/L			09/15/23 18:41	5000
Carbon tetrachloride	ND		5000	950	ug/L			09/15/23 18:41	5000
Chlorobenzene	ND		5000	4500	ug/L			09/15/23 18:41	5000
Chloroethane	ND		5000	3800	ug/L			09/15/23 18:41	5000
2-Chloroethyl vinyl ether	ND		25000	10000	ug/L			09/15/23 18:41	5000
Chloroform	ND		5000	4500	ug/L			09/15/23 18:41	5000
1-Chlorohexane	ND		5000	1600	ug/L			09/15/23 18:41	5000
Chloromethane	ND		5000	4500	ug/L			09/15/23 18:41	5000
cis-1,2-Dichloroethene	ND		5000	1000	ug/L			09/15/23 18:41	5000
cis-1,3-Dichloropropene	ND		25000	2500	ug/L			09/15/23 18:41	5000
Dibromochloromethane	ND		5000	1200	ug/L			09/15/23 18:41	5000
1,2-Dichlorobenzene	ND		5000	2500	ug/L			09/15/23 18:41	5000
1,3-Dichlorobenzene	ND		5000	2700	ug/L			09/15/23 18:41	5000
1,4-Dichlorobenzene	ND		5000	3200	ug/L			09/15/23 18:41	5000
Dichlorodifluoromethane	ND		5000	4300	ug/L			09/15/23 18:41	5000
1,1-Dichloroethane	ND		5000	2500	ug/L			09/15/23 18:41	5000
1,2-Dichloroethane	ND		5000	950	ug/L			09/15/23 18:41	5000
1,1-Dichloroethene	ND		5000	2500	ug/L			09/15/23 18:41	5000
1,2-Dichloropropane	ND		5000	2500	ug/L			09/15/23 18:41	5000
1,3-Dichloropropane	ND		5000	2500	ug/L			09/15/23 18:41	5000
2,2-Dichloropropane	ND		5000	2500	ug/L			09/15/23 18:41	5000
1,1-Dichloropropene	ND		5000	2500	ug/L			09/15/23 18:41	5000
Ethylbenzene	ND		5000	2500	ug/L			09/15/23 18:41	5000
Ethyl methacrylate	ND		5000	3000	ug/L			09/15/23 18:41	5000
Hexachlorobutadiene	ND		25000	4500	ug/L			09/15/23 18:41	5000
2-Hexanone	ND		130000	7000	ug/L			09/15/23 18:41	5000
Isopropylbenzene	ND		5000	2700	ug/L			09/15/23 18:41	5000
Methylene bromide	ND		25000	1100	ug/L			09/15/23 18:41	5000
Methylene Chloride	ND		25000	15000	ug/L			09/15/23 18:41	5000
4-Methyl-2-pentanone (MIBK)	ND		130000	9000	ug/L			09/15/23 18:41	5000
Methyl tert-butyl ether	ND		5000	1100	ug/L			09/15/23 18:41	5000
m-Xylene & p-Xylene	ND		25000	3200	ug/L			09/15/23 18:41	5000
Naphthalene	ND		25000	15000	ug/L			09/15/23 18:41	5000
n-Butylbenzene	ND		5000	3800	ug/L			09/15/23 18:41	5000
N-Propylbenzene	ND		5000	3500	ug/L			09/15/23 18:41	5000
o-Chlorotoluene	ND		5000	2900	ug/L			09/15/23 18:41	5000
o-Xylene	ND		25000	3000	ug/L			09/15/23 18:41	5000
p-Chlorotoluene	ND		5000	2800	ug/L			09/15/23 18:41	5000
p-Isopropyltoluene	ND		5000	3600	ug/L			09/15/23 18:41	5000

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P93B-ROX-090623
Date Collected: 09/06/23 11:15
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-13
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5000	3500	ug/L			09/15/23 18:41	5000
Styrene	ND		5000	5000	ug/L			09/15/23 18:41	5000
tert-Butylbenzene	ND		5000	3200	ug/L			09/15/23 18:41	5000
1,1,1,2-Tetrachloroethane	ND		5000	800	ug/L			09/15/23 18:41	5000
1,1,2,2-Tetrachloroethane	ND		5000	2500	ug/L			09/15/23 18:41	5000
Tetrachloroethene	ND		5000	4500	ug/L			09/15/23 18:41	5000
Toluene	ND		5000	4500	ug/L			09/15/23 18:41	5000
trans-1,2-Dichloroethene	ND		5000	2500	ug/L			09/15/23 18:41	5000
trans-1,3-Dichloropropene	ND		25000	1000	ug/L			09/15/23 18:41	5000
1,2,3-Trichlorobenzene	ND		5000	4500	ug/L			09/15/23 18:41	5000
1,2,4-Trichlorobenzene	ND		5000	4100	ug/L			09/15/23 18:41	5000
1,1,1-Trichloroethane	ND		5000	900	ug/L			09/15/23 18:41	5000
1,1,2-Trichloroethane	ND		25000	1100	ug/L			09/15/23 18:41	5000
Trichloroethene	ND		5000	750	ug/L			09/15/23 18:41	5000
Trichlorofluoromethane	ND		5000	2600	ug/L			09/15/23 18:41	5000
1,2,3-Trichloropropane	ND		25000	4200	ug/L			09/15/23 18:41	5000
1,2,4-Trimethylbenzene	ND		5000	4100	ug/L			09/15/23 18:41	5000
1,3,5-Trimethylbenzene	ND		5000	2800	ug/L			09/15/23 18:41	5000
Vinyl acetate	ND		130000	4700	ug/L			09/15/23 18:41	5000
Vinyl chloride	ND		5000	2500	ug/L			09/15/23 18:41	5000
Xylenes, Total	ND		50000	8000	ug/L			09/15/23 18:41	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*120*		*72 - 130*		*09/15/23 18:41*	*5000*
Dibromofluoromethane	*97*		*75 - 126*		*09/15/23 18:41*	*5000*
Toluene-d8 (Surr)	*109*		*64 - 132*		*09/15/23 18:41*	*5000*

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.093	ug/L		09/12/23 10:32	09/15/23 00:54	1
Acenaphthylene	ND		0.19	0.042	ug/L		09/12/23 10:32	09/15/23 00:54	1
Anthracene	ND		0.19	0.044	ug/L		09/12/23 10:32	09/15/23 00:54	1
Benzo[a]anthracene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 00:54	1
Benzo[a]pyrene	ND		0.19	0.060	ug/L		09/12/23 10:32	09/15/23 00:54	1
Benzo[b]fluoranthene	ND		0.19	0.035	ug/L		09/12/23 10:32	09/15/23 00:54	1
Benzo[g,h,i]perylene	ND		0.19	0.025	ug/L		09/12/23 10:32	09/15/23 00:54	1
Benzo[k]fluoranthene	ND		0.19	0.059	ug/L		09/12/23 10:32	09/15/23 00:54	1
Chrysene	ND		0.19	0.031	ug/L		09/12/23 10:32	09/15/23 00:54	1
Dibenz(a,h)anthracene	ND		0.19	0.045	ug/L		09/12/23 10:32	09/15/23 00:54	1
Fluoranthene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 00:54	1
Fluorene	ND		0.19	0.084	ug/L		09/12/23 10:32	09/15/23 00:54	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.032	ug/L		09/12/23 10:32	09/15/23 00:54	1
Phenanthrene	ND		0.19	0.085	ug/L		09/12/23 10:32	09/15/23 00:54	1
Pyrene	ND		0.19	0.037	ug/L		09/12/23 10:32	09/15/23 00:54	1
1-Methylnaphthalene	ND		0.19	0.076	ug/L		09/12/23 10:32	09/15/23 00:54	1
2-Methylnaphthalene	**0.075**	**J**	0.19	0.062	ug/L		09/12/23 10:32	09/15/23 00:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*86*		*18 - 147*	*09/12/23 10:32*	*09/15/23 00:54*	*1*
2-Fluorobiphenyl	*82*		*15 - 128*	*09/12/23 10:32*	*09/15/23 00:54*	*1*

Client Sample ID: P93B-ROX-090623
Date Collected: 09/06/23 11:15
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-13
Matrix: Water

Method: SW846 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	28		10 - 144	09/12/23 10:32	09/15/23 00:54	1

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*-	9.4	3.6	ug/L		09/12/23 10:32	09/14/23 21:50	1
Benzenethiol	ND	*-	9.4	1.6	ug/L		09/12/23 10:32	09/14/23 21:50	1
Benzoic acid	**18**	**J *- *1**	28	6.9	ug/L		09/12/23 10:32	09/14/23 21:50	1
Benzyl alcohol	ND		9.4	1.9	ug/L		09/12/23 10:32	09/14/23 21:50	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		09/12/23 10:32	09/14/23 21:50	1
Bis(2-chloroethyl)ether	ND	*+	9.4	2.5	ug/L		09/12/23 10:32	09/14/23 21:50	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		09/12/23 10:32	09/14/23 21:50	1
Bis(2-ethylhexyl) phthalate	**5.1**	**J**	9.4	4.7	ug/L		09/12/23 10:32	09/14/23 21:50	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		09/12/23 10:32	09/14/23 21:50	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		09/12/23 10:32	09/14/23 21:50	1
4-Chloroaniline	ND		9.4	3.2	ug/L		09/12/23 10:32	09/14/23 21:50	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		09/12/23 10:32	09/14/23 21:50	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		09/12/23 10:32	09/14/23 21:50	1
2-Chlorophenol	ND		9.4	2.1	ug/L		09/12/23 10:32	09/14/23 21:50	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		09/12/23 10:32	09/14/23 21:50	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		09/12/23 10:32	09/14/23 21:50	1
Dibenzofuran	ND		9.4	0.16	ug/L		09/12/23 10:32	09/14/23 21:50	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		09/12/23 10:32	09/14/23 21:50	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		09/12/23 10:32	09/14/23 21:50	1
Diethyl phthalate	ND		9.4	0.23	ug/L		09/12/23 10:32	09/14/23 21:50	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		09/12/23 10:32	09/14/23 21:50	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		09/12/23 10:32	09/14/23 21:50	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		09/12/23 10:32	09/14/23 21:50	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		09/12/23 10:32	09/14/23 21:50	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		09/12/23 10:32	09/14/23 21:50	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		09/12/23 10:32	09/14/23 21:50	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		09/12/23 10:32	09/14/23 21:50	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		09/12/23 10:32	09/14/23 21:50	1
1,4-Dioxane	ND		9.4	0.94	ug/L		09/12/23 10:32	09/14/23 21:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		09/12/23 10:32	09/14/23 21:50	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		09/12/23 10:32	09/14/23 21:50	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		09/12/23 10:32	09/14/23 21:50	1
Hexachloroethane	ND		9.4	4.0	ug/L		09/12/23 10:32	09/14/23 21:50	1
Indene	ND		9.4	0.94	ug/L		09/12/23 10:32	09/14/23 21:50	1
Isophorone	ND		9.4	0.13	ug/L		09/12/23 10:32	09/14/23 21:50	1
2-Methylphenol	ND		9.4	1.7	ug/L		09/12/23 10:32	09/14/23 21:50	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		09/12/23 10:32	09/14/23 21:50	1
2-Nitroaniline	ND		9.4	2.1	ug/L		09/12/23 10:32	09/14/23 21:50	1
3-Nitroaniline	ND		9.4	1.7	ug/L		09/12/23 10:32	09/14/23 21:50	1
4-Nitroaniline	ND		9.4	1.4	ug/L		09/12/23 10:32	09/14/23 21:50	1
Nitrobenzene	ND		9.4	0.12	ug/L		09/12/23 10:32	09/14/23 21:50	1
2-Nitrophenol	ND		9.4	4.9	ug/L		09/12/23 10:32	09/14/23 21:50	1
4-Nitrophenol	ND		9.4	2.0	ug/L		09/12/23 10:32	09/14/23 21:50	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		09/12/23 10:32	09/14/23 21:50	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: P93B-ROX-090623

Lab Sample ID: 400-243066-13

Date Collected: 09/06/23 11:15

Matrix: Water

Date Received: 09/07/23 08:21

Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		09/12/23 10:32	09/14/23 21:50	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		09/12/23 10:32	09/14/23 21:50	1
Pentachlorophenol	ND		19	1.3	ug/L		09/12/23 10:32	09/14/23 21:50	1
Phenol	**180**		9.4	2.5	ug/L		09/12/23 10:32	09/14/23 21:50	1
Pyridine	ND		9.4	3.0	ug/L		09/12/23 10:32	09/14/23 21:50	1
Quinoline	ND		9.4	4.2	ug/L		09/12/23 10:32	09/14/23 21:50	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		09/12/23 10:32	09/14/23 21:50	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		09/12/23 10:32	09/14/23 21:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*62*		*46 - 124*	*09/12/23 10:32*	*09/14/23 21:50*	*1*
2-Fluorophenol	*14*		*13 - 113*	*09/12/23 10:32*	*09/14/23 21:50*	*1*
Nitrobenzene-d5	*55*		*36 - 126*	*09/12/23 10:32*	*09/14/23 21:50*	*1*
Phenol-d5	*42*		*17 - 127*	*09/12/23 10:32*	*09/14/23 21:50*	*1*
Terphenyl-d14	*69*		*44 - 149*	*09/12/23 10:32*	*09/14/23 21:50*	*1*
2,4,6-Tribromophenol	*72*		*26 - 150*	*09/12/23 10:32*	*09/14/23 21:50*	*1*

Method: EPA 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/13/23 02:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/13/23 02:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*51 - 149*	*09/12/23 08:25*	*09/13/23 02:00*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
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.
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.

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 MONTHLY GW

Job ID: 400-243066-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-130)	(75-126)	(64-132)
400-243066-1	TB-ROX-090623-8260-A	118	95	109
400-243066-3	MW4-ROX-090623-EB	122	99	108
400-243066-4	MW4-ROX-090623	123	99	110
400-243066-4 MS	MW4-ROX-090623	117	96	106
400-243066-4 MSD	MW4-ROX-090623	114	94	105
400-243066-5	MW25-ROX-090623	109	95	102
400-243066-6	MW7-ROX-090623	117	97	106
400-243066-6 - DL	MW7-ROX-090623	121	102	109
400-243066-7	MW7-ROX-090623-DUP	114	98	103
400-243066-7	MW7-ROX-090623-DUP	121	94	110
400-243066-8	TB-ROX-090623-8260-B	119	97	107
400-243066-10	P59-ROX-090623	117	98	108
400-243066-10 - DL	P59-ROX-090623	111	93	104
400-243066-11	P58-ROX-090623	114	95	107
400-243066-12	P58-ROX-090623-DUP	112	98	107
400-243066-13	P93B-ROX-090623	120	97	109
LCS 400-641136/1004	Lab Control Sample	106	92	100
LCS 400-641297/1002	Lab Control Sample	103	91	99
MB 400-641136/6	Method Blank	106	94	101
MB 400-641297/4	Method Blank	111	92	101

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270E - 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)
400-243066-3	MW4-ROX-090623-EB	49	10 S1-	44	29	59	49
400-243066-4	MW4-ROX-090623	45 S1-	10 S1-	41	28	54	52
400-243066-5	MW25-ROX-090623	58	13	49	35	48	57
400-243066-6	MW7-ROX-090623	51	15	49	34	30 S1-	58
400-243066-7	MW7-ROX-090623-DUP	58	15	52	38	54	66
400-243066-10	P59-ROX-090623	67	4 S1-	60	18	73	69
400-243066-11	P58-ROX-090623	63	7 S1-	60	34	61	71
400-243066-12	P58-ROX-090623-DUP	52	22	49	43	29 S1-	64
400-243066-13	P93B-ROX-090623	62	14	55	42	69	72
LCS 400-640651/17-A	Lab Control Sample	70	24	63	49	90	55
LCS 400-640651/2-A	Lab Control Sample	66	22	64	44	69	68
LCSD 400-640651/18-A	Lab Control Sample Dup	69	38	61	56	81	62
LCSD 400-640651/3-A	Lab Control Sample Dup	70	13	57	42	73	75
MB 400-640651/1-A	Method Blank	64	3 S1-	54	8 S1-	68	37

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	TPHL (18-147)	FBP (15-128)	NBZ (10-144)
400-243066-3	MW4-ROX-090623-EB	133	101	68
400-243066-4	MW4-ROX-090623	104	86	63
400-243066-5	MW25-ROX-090623	52	63	62
400-243066-6	MW7-ROX-090623	48	89	40
400-243066-7	MW7-ROX-090623-DUP	69	78	35
400-243066-10	P59-ROX-090623	99	93	59
400-243066-11	P58-ROX-090623	112	77	56
400-243066-12	P58-ROX-090623-DUP	40	45	50
400-243066-13	P93B-ROX-090623	86	82	28
LCS 400-640651/19-A	Lab Control Sample	112	91	66
LCSD 400-640651/20-A	Lab Control Sample Dup	112	94	67
MB 400-640651/1-A	Method Blank	94	75	69

Surrogate Legend

TPHL = Terphenyl-d14
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5

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)
400-243066-2	TB-ROX-090623-8011-A	89
400-243066-3	MW4-ROX-090623-EB	104
400-243066-4	MW4-ROX-090623	104
400-243066-5	MW25-ROX-090623	99
400-243066-6	MW7-ROX-090623	96
400-243066-7	MW7-ROX-090623-DUP	101
400-243066-9	TB-ROX-090623-8011-B	96
400-243066-10	P59-ROX-090623	111
400-243066-11	P58-ROX-090623	101
400-243066-12	P58-ROX-090623-DUP	118
400-243066-13	P93B-ROX-090623	88
LCS 400-640625/2-A	Lab Control Sample	82
LCSD 400-640625/3-A	Lab Control Sample Dup	94
MB 400-640625/1-A	Method Blank	91

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET PEN
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030C	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 MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: TB-ROX-090623-8260-A
Lab Sample ID: 400-243066-1
Date Collected: 09/06/23 00:00
Matrix: Water
Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	641136	09/15/23 15:52	WPD	EET PEN

Client Sample ID: TB-ROX-090623-8011-A
Lab Sample ID: 400-243066-2
Date Collected: 09/06/23 00:00
Matrix: Water
Date Received: 09/07/23 08:21

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 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 22:06	DS	EET PEN

Client Sample ID: MW4-ROX-090623-EB
Lab Sample ID: 400-243066-3
Date Collected: 09/06/23 08:25
Matrix: Water
Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	641136	09/15/23 16:41	WPD	EET PEN
Total/NA	Prep	3520C			256.8 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 19:00	S1B	EET PEN
Total/NA	Prep	3520C			256.8 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 22:09	TH	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 22:49	DS	EET PEN

Client Sample ID: MW4-ROX-090623
Lab Sample ID: 400-243066-4
Date Collected: 09/06/23 09:35
Matrix: Water
Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	641136	09/15/23 13:27	WPD	EET PEN
Total/NA	Prep	3520C			255.2 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 19:22	S1B	EET PEN
Total/NA	Prep	3520C			255.2 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 22:30	TH	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 23:10	DS	EET PEN

Client Sample ID: MW25-ROX-090623
Lab Sample ID: 400-243066-5
Date Collected: 09/06/23 11:00
Matrix: Water
Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	641136	09/15/23 17:06	WPD	EET PEN
Total/NA	Prep	3520C			265 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 19:18	VC1	EET PEN

Client Sample ID: MW25-ROX-090623

Lab Sample ID: 400-243066-5
Date Collected: 09/06/23 11:00
Matrix: Water
Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			265 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641154	09/15/23 18:47	KJA	EET PEN
Total/NA	Prep	8011			34 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 23:31	DS	EET PEN

Client Sample ID: MW7-ROX-090623

Lab Sample ID: 400-243066-6
Date Collected: 09/06/23 12:10
Matrix: Water
Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		2000	5 mL	5 mL	641136	09/15/23 13:52	WPD	EET PEN
Total/NA	Analysis	8260D	DL	5000	5 mL	5 mL	641136	09/15/23 19:05	WPD	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 20:04	S1B	EET PEN
Total/NA	Prep	3520C			255.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 23:11	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 23:53	DS	EET PEN

Client Sample ID: MW7-ROX-090623-DUP

Lab Sample ID: 400-243066-7
Date Collected: 09/06/23 12:10
Matrix: Water
Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5000	5 mL	5 mL	641136	09/15/23 19:30	WPD	EET PEN
Total/NA	Analysis	8260D		5000	5 mL	5 mL	641297	09/16/23 10:29	WPD	EET PEN
Total/NA	Prep	3520C			259.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 20:25	S1B	EET PEN
Total/NA	Prep	3520C			259.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 23:31	TH	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/13/23 00:14	DS	EET PEN

Client Sample ID: TB-ROX-090623-8260-B

Lab Sample ID: 400-243066-8
Date Collected: 09/06/23 00:00
Matrix: Water
Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	641136	09/15/23 16:17	WPD	EET PEN

Client Sample ID: TB-ROX-090623-8011-B

Lab Sample ID: 400-243066-9

Date Collected: 09/06/23 00:00

Matrix: Water

Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.6 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/13/23 00:35	DS	EET PEN

Client Sample ID: P59-ROX-090623

Lab Sample ID: 400-243066-10

Date Collected: 09/06/23 09:05

Matrix: Water

Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	5 mL	5 mL	641136	09/15/23 17:30	WPD	EET PEN
Total/NA	Analysis	8260D	DL	10	5 mL	5 mL	641297	09/16/23 09:17	WPD	EET PEN
Total/NA	Prep	3520C			259.8 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 20:46	S1B	EET PEN
Total/NA	Prep	3520C			259.8 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 23:52	TH	EET PEN
Total/NA	Prep	8011			35.3 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 22:27	DS	EET PEN

Client Sample ID: P58-ROX-090623

Lab Sample ID: 400-243066-11

Date Collected: 09/06/23 09:55

Matrix: Water

Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		2000	5 mL	5 mL	641297	09/16/23 09:40	WPD	EET PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 21:07	S1B	EET PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		5	0.4 mL	0.4 mL	641154	09/15/23 19:07	KJA	EET PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/15/23 00:13	TH	EET PEN
Total/NA	Prep	8011			33.3 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/13/23 01:18	DS	EET PEN

Client Sample ID: P58-ROX-090623-DUP

Lab Sample ID: 400-243066-12

Date Collected: 09/06/23 09:55

Matrix: Water

Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		2000	5 mL	5 mL	641297	09/16/23 10:04	WPD	EET PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 21:29	S1B	EET PEN
Total/NA	Prep	3520C	DL		261.4 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E	DL	5	0.4 mL	0.4 mL	642113	09/21/23 16:00	S1B	EET PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		5	0.4 mL	0.4 mL	641154	09/15/23 19:28	KJA	EET PEN

Client Sample ID: P58-ROX-090623-DUP

Lab Sample ID: 400-243066-12

Date Collected: 09/06/23 09:55

Matrix: Water

Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			261.4 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/15/23 00:33	TH	EET PEN
Total/NA	Prep	8011			34.8 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/13/23 01:39	DS	EET PEN

Client Sample ID: P93B-ROX-090623

Lab Sample ID: 400-243066-13

Date Collected: 09/06/23 11:15

Matrix: Water

Date Received: 09/07/23 08:21

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		5000	5 mL	5 mL	641136	09/15/23 18:41	WPD	EET PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 21:50	S1B	EET PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/15/23 00:54	TH	EET PEN
Total/NA	Prep	8011			34.6 mL	35 mL	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/13/23 02:00	DS	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-640625/1-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	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 17:29	DS	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-640651/1-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 17:33	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641154	09/15/23 16:40	KJA	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-641136/6

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	8260D		1	5 mL	5 mL	641136	09/15/23 09:55	WPD	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-641297/4
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	8260D		1	5 mL	5 mL	641297	09/16/23 07:45	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640625/2-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	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 17:50	DS	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/17-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 16:10	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/19-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:05	TH	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-640651/2-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 17:59	VC1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-641136/1004
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	8260D		1	5 mL	5 mL	641136	09/15/23 08:59	WPD	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-641297/1002
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	8260D		1	5 mL	5 mL	641297	09/16/23 07:02	WPD	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-640625/3-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	640625	09/12/23 08:25	PG	EET PEN
Total/NA	Analysis	8011		1			640659	09/12/23 18:12	DS	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-640651/18-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	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641055	09/14/23 16:32	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-640651/20-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	640651	09/12/23 10:33	BKL	EET PEN
Total/NA	Analysis	8270E SIM		1	0.4 mL	0.4 mL	641090	09/14/23 20:25	TH	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-640651/3-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	3520C			250 mL	1 mL	640651	09/12/23 10:32	BKL	EET PEN
Total/NA	Analysis	8270E		1	0.4 mL	0.4 mL	641239	09/15/23 18:25	VC1	EET PEN

Client Sample ID: MW4-ROX-090623
Date Collected: 09/06/23 09:35
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-4 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	8260D		1	5 mL	5 mL	641136	09/15/23 14:38	WPD	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA MONTHLY GW

Job ID: 400-243066-1

Client Sample ID: MW4-ROX-090623

Date Collected: 09/06/23 09:35
Date Received: 09/07/23 08:21

Lab Sample ID: 400-243066-4 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	8260D		1	5 mL	5 mL	641136	09/15/23 15:03	WPD	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 641136

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-1	TB-ROX-090623-8260-A	Total/NA	Water	8260D	
400-243066-3	MW4-ROX-090623-EB	Total/NA	Water	8260D	
400-243066-4	MW4-ROX-090623	Total/NA	Water	8260D	
400-243066-5	MW25-ROX-090623	Total/NA	Water	8260D	
400-243066-6	MW7-ROX-090623	Total/NA	Water	8260D	
400-243066-6 - DL	MW7-ROX-090623	Total/NA	Water	8260D	
400-243066-7	MW7-ROX-090623-DUP	Total/NA	Water	8260D	
400-243066-8	TB-ROX-090623-8260-B	Total/NA	Water	8260D	
400-243066-10	P59-ROX-090623	Total/NA	Water	8260D	
400-243066-13	P93B-ROX-090623	Total/NA	Water	8260D	
MB 400-641136/6	Method Blank	Total/NA	Water	8260D	
LCS 400-641136/1004	Lab Control Sample	Total/NA	Water	8260D	
400-243066-4 MS	MW4-ROX-090623	Total/NA	Water	8260D	
400-243066-4 MSD	MW4-ROX-090623	Total/NA	Water	8260D	

Analysis Batch: 641297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-7	MW7-ROX-090623-DUP	Total/NA	Water	8260D	
400-243066-10 - DL	P59-ROX-090623	Total/NA	Water	8260D	
400-243066-11	P58-ROX-090623	Total/NA	Water	8260D	
400-243066-12	P58-ROX-090623-DUP	Total/NA	Water	8260D	
MB 400-641297/4	Method Blank	Total/NA	Water	8260D	
LCS 400-641297/1002	Lab Control Sample	Total/NA	Water	8260D	

GC/MS Semi VOA

Prep Batch: 640651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-3	MW4-ROX-090623-EB	Total/NA	Water	3520C	
400-243066-4	MW4-ROX-090623	Total/NA	Water	3520C	
400-243066-5	MW25-ROX-090623	Total/NA	Water	3520C	
400-243066-6	MW7-ROX-090623	Total/NA	Water	3520C	
400-243066-7	MW7-ROX-090623-DUP	Total/NA	Water	3520C	
400-243066-10	P59-ROX-090623	Total/NA	Water	3520C	
400-243066-11	P58-ROX-090623	Total/NA	Water	3520C	
400-243066-12	P58-ROX-090623-DUP	Total/NA	Water	3520C	
400-243066-12 - DL	P58-ROX-090623-DUP	Total/NA	Water	3520C	
400-243066-13	P93B-ROX-090623	Total/NA	Water	3520C	
MB 400-640651/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-640651/17-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640651/19-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-640651/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-640651/18-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640651/20-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-640651/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 641055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-3	MW4-ROX-090623-EB	Total/NA	Water	8270E	640651
400-243066-4	MW4-ROX-090623	Total/NA	Water	8270E	640651
400-243066-6	MW7-ROX-090623	Total/NA	Water	8270E	640651

GC/MS Semi VOA (Continued)

Analysis Batch: 641055 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-7	MW7-ROX-090623-DUP	Total/NA	Water	8270E	640651
400-243066-10	P59-ROX-090623	Total/NA	Water	8270E	640651
400-243066-11	P58-ROX-090623	Total/NA	Water	8270E	640651
400-243066-12	P58-ROX-090623-DUP	Total/NA	Water	8270E	640651
400-243066-13	P93B-ROX-090623	Total/NA	Water	8270E	640651
LCS 400-640651/17-A	Lab Control Sample	Total/NA	Water	8270E	640651
LCSD 400-640651/18-A	Lab Control Sample Dup	Total/NA	Water	8270E	640651

Analysis Batch: 641090

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-3	MW4-ROX-090623-EB	Total/NA	Water	8270E SIM	640651
400-243066-4	MW4-ROX-090623	Total/NA	Water	8270E SIM	640651
400-243066-6	MW7-ROX-090623	Total/NA	Water	8270E SIM	640651
400-243066-7	MW7-ROX-090623-DUP	Total/NA	Water	8270E SIM	640651
400-243066-10	P59-ROX-090623	Total/NA	Water	8270E SIM	640651
400-243066-11	P58-ROX-090623	Total/NA	Water	8270E SIM	640651
400-243066-12	P58-ROX-090623-DUP	Total/NA	Water	8270E SIM	640651
400-243066-13	P93B-ROX-090623	Total/NA	Water	8270E SIM	640651
LCS 400-640651/19-A	Lab Control Sample	Total/NA	Water	8270E SIM	640651
LCSD 400-640651/20-A	Lab Control Sample Dup	Total/NA	Water	8270E SIM	640651

Analysis Batch: 641154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-5	MW25-ROX-090623	Total/NA	Water	8270E SIM	640651
400-243066-11	P58-ROX-090623	Total/NA	Water	8270E SIM	640651
400-243066-12	P58-ROX-090623-DUP	Total/NA	Water	8270E SIM	640651
MB 400-640651/1-A	Method Blank	Total/NA	Water	8270E SIM	640651

Analysis Batch: 641239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-5	MW25-ROX-090623	Total/NA	Water	8270E	640651
MB 400-640651/1-A	Method Blank	Total/NA	Water	8270E	640651
LCS 400-640651/2-A	Lab Control Sample	Total/NA	Water	8270E	640651
LCSD 400-640651/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	640651

Analysis Batch: 642113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-12 - DL	P58-ROX-090623-DUP	Total/NA	Water	8270E	640651

GC Semi VOA

Prep Batch: 640625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-2	TB-ROX-090623-8011-A	Total/NA	Water	8011	
400-243066-3	MW4-ROX-090623-EB	Total/NA	Water	8011	
400-243066-4	MW4-ROX-090623	Total/NA	Water	8011	
400-243066-5	MW25-ROX-090623	Total/NA	Water	8011	
400-243066-6	MW7-ROX-090623	Total/NA	Water	8011	
400-243066-7	MW7-ROX-090623-DUP	Total/NA	Water	8011	
400-243066-9	TB-ROX-090623-8011-B	Total/NA	Water	8011	
400-243066-10	P59-ROX-090623	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 640625 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-11	P58-ROX-090623	Total/NA	Water	8011	
400-243066-12	P58-ROX-090623-DUP	Total/NA	Water	8011	
400-243066-13	P93B-ROX-090623	Total/NA	Water	8011	
MB 400-640625/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-640625/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-640625/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 640659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-243066-2	TB-ROX-090623-8011-A	Total/NA	Water	8011	640625
400-243066-3	MW4-ROX-090623-EB	Total/NA	Water	8011	640625
400-243066-4	MW4-ROX-090623	Total/NA	Water	8011	640625
400-243066-5	MW25-ROX-090623	Total/NA	Water	8011	640625
400-243066-6	MW7-ROX-090623	Total/NA	Water	8011	640625
400-243066-7	MW7-ROX-090623-DUP	Total/NA	Water	8011	640625
400-243066-9	TB-ROX-090623-8011-B	Total/NA	Water	8011	640625
400-243066-10	P59-ROX-090623	Total/NA	Water	8011	640625
400-243066-11	P58-ROX-090623	Total/NA	Water	8011	640625
400-243066-12	P58-ROX-090623-DUP	Total/NA	Water	8011	640625
400-243066-13	P93B-ROX-090623	Total/NA	Water	8011	640625
MB 400-640625/1-A	Method Blank	Total/NA	Water	8011	640625
LCS 400-640625/2-A	Lab Control Sample	Total/NA	Water	8011	640625
LCSD 400-640625/3-A	Lab Control Sample Dup	Total/NA	Water	8011	640625

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 400-641136/6
Matrix: Water
Analysis Batch: 641136

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			09/15/23 09:55	1
Acrolein	ND		20	3.3	ug/L			09/15/23 09:55	1
Acrylonitrile	ND		10	2.8	ug/L			09/15/23 09:55	1
Benzene	ND		1.0	0.50	ug/L			09/15/23 09:55	1
Bromobenzene	ND		1.0	0.54	ug/L			09/15/23 09:55	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/15/23 09:55	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/15/23 09:55	1
Bromoform	ND		5.0	0.25	ug/L			09/15/23 09:55	1
Bromomethane	ND		1.0	0.98	ug/L			09/15/23 09:55	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/15/23 09:55	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/15/23 09:55	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/15/23 09:55	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/15/23 09:55	1
Chloroethane	ND		1.0	0.76	ug/L			09/15/23 09:55	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/15/23 09:55	1
Chloroform	ND		1.0	0.90	ug/L			09/15/23 09:55	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/15/23 09:55	1
Chloromethane	ND		1.0	0.90	ug/L			09/15/23 09:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/15/23 09:55	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/15/23 09:55	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/15/23 09:55	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/15/23 09:55	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/15/23 09:55	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/15/23 09:55	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/15/23 09:55	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/15/23 09:55	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/15/23 09:55	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 09:55	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 09:55	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 09:55	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/15/23 09:55	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/15/23 09:55	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/15/23 09:55	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/15/23 09:55	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/15/23 09:55	1
2-Hexanone	ND		25	1.4	ug/L			09/15/23 09:55	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/15/23 09:55	1
Methylene bromide	ND		5.0	0.22	ug/L			09/15/23 09:55	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/15/23 09:55	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/15/23 09:55	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/15/23 09:55	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/15/23 09:55	1
Naphthalene	ND		5.0	3.0	ug/L			09/15/23 09:55	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/15/23 09:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/15/23 09:55	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/15/23 09:55	1
o-Xylene	ND		5.0	0.60	ug/L			09/15/23 09:55	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/15/23 09:55	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-641136/6
Matrix: Water
Analysis Batch: 641136

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			09/15/23 09:55	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/15/23 09:55	1
Styrene	ND		1.0	1.0	ug/L			09/15/23 09:55	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/15/23 09:55	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/15/23 09:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/15/23 09:55	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/15/23 09:55	1
Toluene	ND		1.0	0.90	ug/L			09/15/23 09:55	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/15/23 09:55	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/15/23 09:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/15/23 09:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/15/23 09:55	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/15/23 09:55	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/15/23 09:55	1
Trichloroethene	ND		1.0	0.15	ug/L			09/15/23 09:55	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/15/23 09:55	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			09/15/23 09:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/15/23 09:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/15/23 09:55	1
Vinyl acetate	ND		25	0.93	ug/L			09/15/23 09:55	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/15/23 09:55	1
Xylenes, Total	ND		10	1.6	ug/L			09/15/23 09:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 130*		*09/15/23 09:55*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*09/15/23 09:55*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/15/23 09:55*	*1*

Lab Sample ID: LCS 400-641136/1004
Matrix: Water
Analysis Batch: 641136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	240		ug/L		120	43 - 160
Acrolein	250	303		ug/L		121	38 - 160
Acrylonitrile	500	518		ug/L		104	64 - 142
Benzene	50.0	47.4		ug/L		95	70 - 130
Bromobenzene	50.0	47.3		ug/L		95	70 - 132
Bromochloromethane	50.0	42.6		ug/L		85	70 - 130
Bromodichloromethane	50.0	46.5		ug/L		93	67 - 133
Bromoform	50.0	50.6		ug/L		101	57 - 140
Bromomethane	25.0	17.7		ug/L		71	10 - 160
2-Butanone (MEK)	200	217		ug/L		109	61 - 145
Carbon disulfide	50.0	45.8		ug/L		92	61 - 137
Carbon tetrachloride	50.0	43.9		ug/L		88	61 - 137
Chlorobenzene	50.0	46.4		ug/L		93	70 - 130
Chloroethane	25.0	22.5		ug/L		90	55 - 141
2-Chloroethyl vinyl ether	25.0	17.6		ug/L		70	10 - 160

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-641136/1004
Matrix: Water
Analysis Batch: 641136

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloroform	50.0	43.6		ug/L		87	69 - 130
1-Chlorohexane	50.0	54.9		ug/L		110	69 - 130
Chloromethane	25.0	23.4		ug/L		93	58 - 137
cis-1,2-Dichloroethene	50.0	49.1		ug/L		98	68 - 130
cis-1,3-Dichloropropene	50.0	48.8		ug/L		98	69 - 132
Dibromochloromethane	50.0	46.3		ug/L		93	67 - 135
1,2-Dichlorobenzene	50.0	47.4		ug/L		95	67 - 130
1,3-Dichlorobenzene	50.0	48.3		ug/L		97	70 - 130
1,4-Dichlorobenzene	50.0	48.3		ug/L		97	70 - 130
Dichlorodifluoromethane	25.0	12.9		ug/L		52	41 - 146
1,1-Dichloroethane	50.0	47.4		ug/L		95	70 - 130
1,2-Dichloroethane	50.0	44.8		ug/L		90	69 - 130
1,1-Dichloroethene	50.0	44.4		ug/L		89	63 - 134
1,2-Dichloropropane	50.0	51.3		ug/L		103	70 - 130
1,3-Dichloropropane	50.0	50.0		ug/L		100	70 - 130
2,2-Dichloropropane	50.0	44.6		ug/L		89	52 - 135
1,1-Dichloropropene	50.0	47.4		ug/L		95	70 - 130
Ethylbenzene	50.0	48.6		ug/L		97	70 - 130
Ethyl methacrylate	50.0	49.4		ug/L		99	68 - 130
Hexachlorobutadiene	50.0	59.1		ug/L		118	53 - 140
2-Hexanone	200	227		ug/L		113	65 - 137
Isopropylbenzene	50.0	46.9		ug/L		94	70 - 130
Methylene bromide	50.0	44.7		ug/L		89	70 - 130
Methylene Chloride	50.0	44.6		ug/L		89	66 - 135
4-Methyl-2-pentanone (MIBK)	200	209		ug/L		105	69 - 138
Methyl tert-butyl ether	50.0	46.4		ug/L		93	66 - 130
m-Xylene & p-Xylene	50.0	48.2		ug/L		96	70 - 130
Naphthalene	50.0	48.8		ug/L		98	47 - 149
n-Butylbenzene	50.0	50.8		ug/L		102	67 - 130
N-Propylbenzene	50.0	47.9		ug/L		96	70 - 130
o-Chlorotoluene	50.0	47.9		ug/L		96	70 - 130
o-Xylene	50.0	47.6		ug/L		95	70 - 130
p-Chlorotoluene	50.0	49.1		ug/L		98	70 - 130
p-Isopropyltoluene	50.0	48.6		ug/L		97	65 - 130
sec-Butylbenzene	50.0	49.5		ug/L		99	66 - 130
Styrene	50.0	45.4		ug/L		91	70 - 130
tert-Butylbenzene	50.0	54.0		ug/L		108	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.7		ug/L		93	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.7		ug/L		97	70 - 131
Tetrachloroethene	50.0	45.0		ug/L		90	65 - 130
Toluene	50.0	48.0		ug/L		96	70 - 130
trans-1,2-Dichloroethene	50.0	45.4		ug/L		91	70 - 130
trans-1,3-Dichloropropene	50.0	48.5		ug/L		97	63 - 130
1,2,3-Trichlorobenzene	50.0	53.9		ug/L		108	60 - 138
1,2,4-Trichlorobenzene	50.0	53.8		ug/L		108	60 - 140
1,1,1-Trichloroethane	50.0	43.0		ug/L		86	68 - 130
1,1,2-Trichloroethane	50.0	49.5		ug/L		99	70 - 130
Trichloroethene	50.0	43.7		ug/L		87	70 - 130
Trichlorofluoromethane	25.0	20.6		ug/L		83	65 - 138

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-641136/1004
Matrix: Water
Analysis Batch: 641136

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	45.6		ug/L		91	70 - 130
1,2,4-Trimethylbenzene	50.0	48.1		ug/L		96	70 - 130
1,3,5-Trimethylbenzene	50.0	48.1		ug/L		96	69 - 130
Vinyl acetate	50.0	47.9		ug/L		96	26 - 160
Vinyl chloride	25.0	21.9		ug/L		87	59 - 136
Xylenes, Total	100	95.8		ug/L		96	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*72 - 130*
Dibromofluoromethane	*92*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Lab Sample ID: 400-243066-4 MS
Matrix: Water
Analysis Batch: 641136

Client Sample ID: MW4-ROX-090623
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	167		ug/L		83	43 - 150
Acrolein	ND		250	272		ug/L		109	38 - 150
Acrylonitrile	ND		500	638		ug/L		128	62 - 149
Benzene	ND		50.0	58.4		ug/L		117	56 - 142
Bromobenzene	ND		50.0	62.2		ug/L		124	59 - 136
Bromochloromethane	ND		50.0	51.8		ug/L		104	64 - 140
Bromodichloromethane	ND		50.0	56.1		ug/L		112	59 - 143
Bromoform	ND	F1	50.0	72.8	F1	ug/L		146	50 - 140
Bromomethane	ND		25.0	17.3		ug/L		69	10 - 150
2-Butanone (MEK)	ND		200	153		ug/L		76	55 - 150
Carbon disulfide	ND		50.0	55.8		ug/L		112	48 - 150
Carbon tetrachloride	ND		50.0	54.8		ug/L		110	55 - 145
Chlorobenzene	ND		50.0	56.3		ug/L		113	64 - 130
Chloroethane	ND		25.0	22.4		ug/L		90	50 - 150
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	55.5		ug/L		111	60 - 141
1-Chlorohexane	ND		50.0	63.9		ug/L		128	56 - 136
Chloromethane	ND		25.0	21.7		ug/L		87	49 - 148
cis-1,2-Dichloroethene	ND		50.0	60.4		ug/L		121	59 - 143
cis-1,3-Dichloropropene	ND		50.0	57.2		ug/L		114	57 - 140
Dibromochloromethane	ND		50.0	60.7		ug/L		121	56 - 143
1,2-Dichlorobenzene	ND		50.0	59.9		ug/L		120	52 - 137
1,3-Dichlorobenzene	ND		50.0	58.7		ug/L		117	54 - 135
1,4-Dichlorobenzene	ND		50.0	58.4		ug/L		117	53 - 135
Dichlorodifluoromethane	ND		25.0	13.3		ug/L		53	16 - 150
1,1-Dichloroethane	ND		50.0	61.7		ug/L		123	61 - 144
1,2-Dichloroethane	ND		50.0	54.1		ug/L		108	60 - 141
1,1-Dichloroethene	ND		50.0	56.2		ug/L		112	54 - 147
1,2-Dichloropropane	ND		50.0	63.0		ug/L		126	66 - 137
1,3-Dichloropropane	ND		50.0	64.3		ug/L		129	66 - 133
2,2-Dichloropropane	ND		50.0	56.1		ug/L		112	42 - 144

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-243066-4 MS
Matrix: Water
Analysis Batch: 641136

Client Sample ID: MW4-ROX-090623
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	58.5		ug/L		117	65 - 136
Ethylbenzene	ND		50.0	58.3		ug/L		117	58 - 131
Ethyl methacrylate	ND		50.0	63.6		ug/L		127	64 - 130
Hexachlorobutadiene	ND		50.0	60.7		ug/L		121	31 - 149
2-Hexanone	ND		200	211		ug/L		105	65 - 140
Isopropylbenzene	ND		50.0	52.6		ug/L		105	56 - 133
Methylene bromide	ND		50.0	53.7		ug/L		107	63 - 138
Methylene Chloride	ND		50.0	52.7		ug/L		105	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	234		ug/L		117	63 - 146
Methyl tert-butyl ether	0.33	J	50.0	55.4		ug/L		110	59 - 137
m-Xylene & p-Xylene	ND		50.0	55.7		ug/L		111	57 - 130
Naphthalene	ND		50.0	64.9		ug/L		130	25 - 150
n-Butylbenzene	ND		50.0	55.0		ug/L		110	41 - 142
N-Propylbenzene	ND		50.0	58.9		ug/L		118	51 - 138
o-Chlorotoluene	ND		50.0	60.4		ug/L		121	53 - 134
o-Xylene	ND		50.0	55.8		ug/L		112	61 - 130
p-Chlorotoluene	ND		50.0	59.6		ug/L		119	54 - 133
p-Isopropyltoluene	ND		50.0	56.0		ug/L		112	48 - 139
sec-Butylbenzene	ND		50.0	58.4		ug/L		117	50 - 138
Styrene	ND		50.0	54.1		ug/L		108	58 - 131
tert-Butylbenzene	ND		50.0	67.6		ug/L		135	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	59.4		ug/L		119	59 - 137
1,1,2,2-Tetrachloroethane	ND	F1	50.0	71.9	F1	ug/L		144	66 - 135
Tetrachloroethene	ND		50.0	54.3		ug/L		109	52 - 133
Toluene	ND		50.0	62.4		ug/L		125	65 - 130
trans-1,2-Dichloroethene	ND		50.0	55.2		ug/L		110	61 - 143
trans-1,3-Dichloropropene	ND		50.0	61.1		ug/L		122	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	64.9		ug/L		130	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	60.0		ug/L		120	39 - 148
1,1,1-Trichloroethane	ND		50.0	54.3		ug/L		109	57 - 142
1,1,2-Trichloroethane	ND		50.0	65.2		ug/L		130	66 - 131
Trichloroethene	ND		50.0	51.9		ug/L		104	64 - 136
Trichlorofluoromethane	ND		25.0	20.4		ug/L		82	54 - 150
1,2,3-Trichloropropane	ND		50.0	66.5		ug/L		133	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	57.8		ug/L		116	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	58.3		ug/L		117	52 - 135
Vinyl acetate	ND		50.0	47.1		ug/L		94	26 - 150
Vinyl chloride	ND		25.0	21.0		ug/L		84	46 - 150
Xylenes, Total	ND		100	111		ug/L		111	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*117*		*72 - 130*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*106*		*64 - 132*

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-243066-4 MSD
Matrix: Water
Analysis Batch: 641136

Client Sample ID: MW4-ROX-090623
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	154		ug/L		77	43 - 150	8	30
Acrolein	ND		250	309		ug/L		124	38 - 150	13	31
Acrylonitrile	ND		500	569		ug/L		114	62 - 149	12	30
Benzene	ND		50.0	51.6		ug/L		103	56 - 142	12	30
Bromobenzene	ND		50.0	56.1		ug/L		112	59 - 136	10	30
Bromochloromethane	ND		50.0	45.6		ug/L		91	64 - 140	13	30
Bromodichloromethane	ND		50.0	49.2		ug/L		98	59 - 143	13	30
Bromoform	ND	F1	50.0	61.1		ug/L		122	50 - 140	17	30
Bromomethane	ND		25.0	19.4		ug/L		78	10 - 150	11	50
2-Butanone (MEK)	ND		200	136		ug/L		68	55 - 150	12	30
Carbon disulfide	ND		50.0	50.2		ug/L		100	48 - 150	10	30
Carbon tetrachloride	ND		50.0	48.4		ug/L		97	55 - 145	13	30
Chlorobenzene	ND		50.0	50.6		ug/L		101	64 - 130	11	30
Chloroethane	ND		25.0	25.1		ug/L		100	50 - 150	11	30
2-Chloroethyl vinyl ether	ND	F1	25.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	48.0		ug/L		96	60 - 141	14	30
1-Chlorohexane	ND		50.0	57.2		ug/L		114	56 - 136	11	30
Chloromethane	ND		25.0	26.1		ug/L		104	49 - 148	18	31
cis-1,2-Dichloroethene	ND		50.0	53.3		ug/L		107	59 - 143	12	30
cis-1,3-Dichloropropene	ND		50.0	51.3		ug/L		103	57 - 140	11	30
Dibromochloromethane	ND		50.0	52.4		ug/L		105	56 - 143	15	30
1,2-Dichlorobenzene	ND		50.0	53.7		ug/L		107	52 - 137	11	30
1,3-Dichlorobenzene	ND		50.0	53.5		ug/L		107	54 - 135	9	30
1,4-Dichlorobenzene	ND		50.0	53.1		ug/L		106	53 - 135	10	30
Dichlorodifluoromethane	ND		25.0	14.5		ug/L		58	16 - 150	9	31
1,1-Dichloroethane	ND		50.0	51.5		ug/L		103	61 - 144	18	30
1,2-Dichloroethane	ND		50.0	49.7		ug/L		99	60 - 141	8	30
1,1-Dichloroethene	ND		50.0	48.9		ug/L		98	54 - 147	14	30
1,2-Dichloropropane	ND		50.0	56.3		ug/L		113	66 - 137	11	30
1,3-Dichloropropane	ND		50.0	55.8		ug/L		112	66 - 133	14	30
2,2-Dichloropropane	ND		50.0	48.4		ug/L		97	42 - 144	15	31
1,1-Dichloropropene	ND		50.0	50.3		ug/L		101	65 - 136	15	30
Ethylbenzene	ND		50.0	52.8		ug/L		106	58 - 131	10	30
Ethyl methacrylate	ND		50.0	55.6		ug/L		111	64 - 130	14	30
Hexachlorobutadiene	ND		50.0	57.8		ug/L		116	31 - 149	5	36
2-Hexanone	ND		200	180		ug/L		90	65 - 140	16	30
Isopropylbenzene	ND		50.0	48.7		ug/L		97	56 - 133	8	30
Methylene bromide	ND		50.0	48.0		ug/L		96	63 - 138	11	30
Methylene Chloride	ND		50.0	46.3		ug/L		93	60 - 146	13	32
4-Methyl-2-pentanone (MIBK)	ND		200	209		ug/L		104	63 - 146	11	30
Methyl tert-butyl ether	0.33	J	50.0	49.6		ug/L		99	59 - 137	11	30
m-Xylene & p-Xylene	ND		50.0	51.3		ug/L		103	57 - 130	8	30
Naphthalene	ND		50.0	56.2		ug/L		112	25 - 150	14	30
n-Butylbenzene	ND		50.0	52.9		ug/L		106	41 - 142	4	31
N-Propylbenzene	ND		50.0	54.5		ug/L		109	51 - 138	8	30
o-Chlorotoluene	ND		50.0	55.9		ug/L		112	53 - 134	8	30
o-Xylene	ND		50.0	50.6		ug/L		101	61 - 130	10	30
p-Chlorotoluene	ND		50.0	54.2		ug/L		108	54 - 133	9	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 400-243066-4 MSD
Matrix: Water
Analysis Batch: 641136

Client Sample ID: MW4-ROX-090623
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	53.1		ug/L		106	48 - 139	5	30
sec-Butylbenzene	ND		50.0	54.4		ug/L		109	50 - 138	7	30
Styrene	ND		50.0	49.0		ug/L		98	58 - 131	10	30
tert-Butylbenzene	ND		50.0	62.0		ug/L		124	54 - 146	9	30
1,1,1,2-Tetrachloroethane	ND		50.0	52.0		ug/L		104	59 - 137	13	30
1,1,2,2-Tetrachloroethane	ND	F1	50.0	60.7		ug/L		121	66 - 135	17	30
Tetrachloroethene	ND		50.0	48.5		ug/L		97	52 - 133	11	30
Toluene	ND		50.0	54.7		ug/L		109	65 - 130	13	30
trans-1,2-Dichloroethene	ND		50.0	48.7		ug/L		97	61 - 143	12	30
trans-1,3-Dichloropropene	ND		50.0	53.5		ug/L		107	53 - 133	13	30
1,2,3-Trichlorobenzene	ND		50.0	57.4		ug/L		115	43 - 145	12	30
1,2,4-Trichlorobenzene	ND		50.0	56.2		ug/L		112	39 - 148	7	30
1,1,1-Trichloroethane	ND		50.0	47.4		ug/L		95	57 - 142	13	30
1,1,2-Trichloroethane	ND		50.0	55.8		ug/L		112	66 - 131	16	30
Trichloroethene	ND		50.0	46.9		ug/L		94	64 - 136	10	30
Trichlorofluoromethane	ND		25.0	20.2		ug/L		81	54 - 150	1	30
1,2,3-Trichloropropane	ND		50.0	55.5		ug/L		111	65 - 133	18	30
1,2,4-Trimethylbenzene	ND		50.0	53.9		ug/L		108	50 - 139	7	30
1,3,5-Trimethylbenzene	ND		50.0	54.4		ug/L		109	52 - 135	7	30
Vinyl acetate	ND		50.0	56.0		ug/L		112	26 - 150	17	33
Vinyl chloride	ND		25.0	24.1		ug/L		97	46 - 150	14	30
Xylenes, Total	ND		100	102		ug/L		102	59 - 130	9	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*114*		*72 - 130*
Dibromofluoromethane	*94*		*75 - 126*
Toluene-d8 (Surr)	*105*		*64 - 132*

Lab Sample ID: MB 400-641297/4
Matrix: Water
Analysis Batch: 641297

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			09/16/23 07:45	1
Acrolein	ND		20	3.3	ug/L			09/16/23 07:45	1
Acrylonitrile	ND		10	2.8	ug/L			09/16/23 07:45	1
Benzene	ND		1.0	0.50	ug/L			09/16/23 07:45	1
Bromobenzene	ND		1.0	0.54	ug/L			09/16/23 07:45	1
Bromochloromethane	ND		1.0	0.21	ug/L			09/16/23 07:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			09/16/23 07:45	1
Bromoform	ND		5.0	0.25	ug/L			09/16/23 07:45	1
Bromomethane	ND		1.0	0.98	ug/L			09/16/23 07:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			09/16/23 07:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			09/16/23 07:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			09/16/23 07:45	1
Chlorobenzene	ND		1.0	0.90	ug/L			09/16/23 07:45	1
Chloroethane	ND		1.0	0.76	ug/L			09/16/23 07:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			09/16/23 07:45	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-641297/4
Matrix: Water
Analysis Batch: 641297

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0	0.90	ug/L			09/16/23 07:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			09/16/23 07:45	1
Chloromethane	ND		1.0	0.90	ug/L			09/16/23 07:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			09/16/23 07:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			09/16/23 07:45	1
Dibromochloromethane	ND		1.0	0.24	ug/L			09/16/23 07:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			09/16/23 07:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			09/16/23 07:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			09/16/23 07:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			09/16/23 07:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			09/16/23 07:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			09/16/23 07:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			09/16/23 07:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			09/16/23 07:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			09/16/23 07:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			09/16/23 07:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			09/16/23 07:45	1
Ethylbenzene	ND		1.0	0.50	ug/L			09/16/23 07:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			09/16/23 07:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			09/16/23 07:45	1
2-Hexanone	ND		25	1.4	ug/L			09/16/23 07:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			09/16/23 07:45	1
Methylene bromide	ND		5.0	0.22	ug/L			09/16/23 07:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			09/16/23 07:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			09/16/23 07:45	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			09/16/23 07:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			09/16/23 07:45	1
Naphthalene	ND		5.0	3.0	ug/L			09/16/23 07:45	1
n-Butylbenzene	ND		1.0	0.76	ug/L			09/16/23 07:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			09/16/23 07:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			09/16/23 07:45	1
o-Xylene	ND		5.0	0.60	ug/L			09/16/23 07:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			09/16/23 07:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			09/16/23 07:45	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			09/16/23 07:45	1
Styrene	ND		1.0	1.0	ug/L			09/16/23 07:45	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			09/16/23 07:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			09/16/23 07:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			09/16/23 07:45	1
Tetrachloroethene	ND		1.0	0.90	ug/L			09/16/23 07:45	1
Toluene	ND		1.0	0.90	ug/L			09/16/23 07:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			09/16/23 07:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			09/16/23 07:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			09/16/23 07:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			09/16/23 07:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			09/16/23 07:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			09/16/23 07:45	1
Trichloroethene	ND		1.0	0.15	ug/L			09/16/23 07:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			09/16/23 07:45	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 400-641297/4
Matrix: Water
Analysis Batch: 641297

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			09/16/23 07:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			09/16/23 07:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			09/16/23 07:45	1
Vinyl acetate	ND		25	0.93	ug/L			09/16/23 07:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			09/16/23 07:45	1
Xylenes, Total	ND		10	1.6	ug/L			09/16/23 07:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*72 - 130*		*09/16/23 07:45*	*1*
Dibromofluoromethane	*92*		*75 - 126*		*09/16/23 07:45*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*09/16/23 07:45*	*1*

Lab Sample ID: LCS 400-641297/1002
Matrix: Water
Analysis Batch: 641297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	237		ug/L		118	43 - 160
Acrolein	250	305		ug/L		122	38 - 160
Acrylonitrile	500	471		ug/L		94	64 - 142
Benzene	50.0	45.5		ug/L		91	70 - 130
Bromobenzene	50.0	44.5		ug/L		89	70 - 132
Bromochloromethane	50.0	40.5		ug/L		81	70 - 130
Bromodichloromethane	50.0	44.4		ug/L		89	67 - 133
Bromoform	50.0	43.5		ug/L		87	57 - 140
Bromomethane	25.0	16.9		ug/L		68	10 - 160
2-Butanone (MEK)	200	212		ug/L		106	61 - 145
Carbon disulfide	50.0	45.1		ug/L		90	61 - 137
Carbon tetrachloride	50.0	41.9		ug/L		84	61 - 137
Chlorobenzene	50.0	45.9		ug/L		92	70 - 130
Chloroethane	25.0	24.7		ug/L		99	55 - 141
2-Chloroethyl vinyl ether	25.0	20.1		ug/L		81	10 - 160
Chloroform	50.0	42.6		ug/L		85	69 - 130
1-Chlorohexane	50.0	54.3		ug/L		109	69 - 130
Chloromethane	25.0	26.4		ug/L		106	58 - 137
cis-1,2-Dichloroethene	50.0	47.6		ug/L		95	68 - 130
cis-1,3-Dichloropropene	50.0	46.0		ug/L		92	69 - 132
Dibromochloromethane	50.0	43.2		ug/L		86	67 - 135
1,2-Dichlorobenzene	50.0	46.3		ug/L		93	67 - 130
1,3-Dichlorobenzene	50.0	46.7		ug/L		93	70 - 130
1,4-Dichlorobenzene	50.0	47.5		ug/L		95	70 - 130
Dichlorodifluoromethane	25.0	14.2		ug/L		57	41 - 146
1,1-Dichloroethane	50.0	48.3		ug/L		97	70 - 130
1,2-Dichloroethane	50.0	41.7		ug/L		83	69 - 130
1,1-Dichloroethene	50.0	43.5		ug/L		87	63 - 134
1,2-Dichloropropane	50.0	50.3		ug/L		101	70 - 130
1,3-Dichloropropane	50.0	46.1		ug/L		92	70 - 130
2,2-Dichloropropane	50.0	42.4		ug/L		85	52 - 135

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 400-641297/1002
Matrix: Water
Analysis Batch: 641297

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	45.8		ug/L		92	70 - 130
Ethylbenzene	50.0	48.4		ug/L		97	70 - 130
Ethyl methacrylate	50.0	45.9		ug/L		92	68 - 130
Hexachlorobutadiene	50.0	59.5		ug/L		119	53 - 140
2-Hexanone	200	235		ug/L		118	65 - 137
Isopropylbenzene	50.0	46.0		ug/L		92	70 - 130
Methylene bromide	50.0	42.0		ug/L		84	70 - 130
Methylene Chloride	50.0	41.9		ug/L		84	66 - 135
4-Methyl-2-pentanone (MIBK)	200	198		ug/L		99	69 - 138
Methyl tert-butyl ether	50.0	41.7		ug/L		83	66 - 130
m-Xylene & p-Xylene	50.0	46.9		ug/L		94	70 - 130
Naphthalene	50.0	47.3		ug/L		95	47 - 149
n-Butylbenzene	50.0	50.8		ug/L		102	67 - 130
N-Propylbenzene	50.0	45.7		ug/L		91	70 - 130
o-Chlorotoluene	50.0	47.9		ug/L		96	70 - 130
o-Xylene	50.0	46.1		ug/L		92	70 - 130
p-Chlorotoluene	50.0	46.4		ug/L		93	70 - 130
p-Isopropyltoluene	50.0	47.5		ug/L		95	65 - 130
sec-Butylbenzene	50.0	46.7		ug/L		93	66 - 130
Styrene	50.0	44.1		ug/L		88	70 - 130
tert-Butylbenzene	50.0	43.3		ug/L		87	64 - 139
1,1,1,2-Tetrachloroethane	50.0	44.3		ug/L		89	67 - 131
1,1,2,2-Tetrachloroethane	50.0	44.5		ug/L		89	70 - 131
Tetrachloroethene	50.0	44.0		ug/L		88	65 - 130
Toluene	50.0	46.3		ug/L		93	70 - 130
trans-1,2-Dichloroethene	50.0	42.6		ug/L		85	70 - 130
trans-1,3-Dichloropropene	50.0	44.4		ug/L		89	63 - 130
1,2,3-Trichlorobenzene	50.0	54.1		ug/L		108	60 - 138
1,2,4-Trichlorobenzene	50.0	53.8		ug/L		108	60 - 140
1,1,1-Trichloroethane	50.0	40.7		ug/L		81	68 - 130
1,1,2-Trichloroethane	50.0	44.7		ug/L		89	70 - 130
Trichloroethene	50.0	42.5		ug/L		85	70 - 130
Trichlorofluoromethane	25.0	23.0		ug/L		92	65 - 138
1,2,3-Trichloropropane	50.0	40.4		ug/L		81	70 - 130
1,2,4-Trimethylbenzene	50.0	45.2		ug/L		90	70 - 130
1,3,5-Trimethylbenzene	50.0	45.5		ug/L		91	69 - 130
Vinyl acetate	50.0	48.5		ug/L		97	26 - 160
Vinyl chloride	25.0	24.0		ug/L		96	59 - 136
Xylenes, Total	100	93.0		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*103*		*72 - 130*
Dibromofluoromethane	*91*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		09/12/23 10:32	09/15/23 17:33	1
Benzenethiol	ND		10	1.7	ug/L		09/12/23 10:32	09/15/23 17:33	1
Benzoic acid	ND		30	7.3	ug/L		09/12/23 10:32	09/15/23 17:33	1
Benzyl alcohol	ND		10	2.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		09/12/23 10:32	09/15/23 17:33	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		09/12/23 10:32	09/15/23 17:33	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		09/12/23 10:32	09/15/23 17:33	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		09/12/23 10:32	09/15/23 17:33	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Chloroaniline	ND		10	3.4	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Chloronaphthalene	ND		10	0.14	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Chlorophenol	ND		10	2.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Dibenzofuran	ND		10	0.17	ug/L		09/12/23 10:32	09/15/23 17:33	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Diethyl phthalate	ND		10	0.24	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		09/12/23 10:32	09/15/23 17:33	1
Dimethyl phthalate	ND		10	0.17	ug/L		09/12/23 10:32	09/15/23 17:33	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		09/12/23 10:32	09/15/23 17:33	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		09/12/23 10:32	09/15/23 17:33	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		09/12/23 10:32	09/15/23 17:33	1
1,4-Dioxane	ND		10	1.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Hexachlorobenzene	ND		10	0.17	ug/L		09/12/23 10:32	09/15/23 17:33	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		09/12/23 10:32	09/15/23 17:33	1
Hexachloroethane	ND		10	4.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
Indene	ND		10	1.0	ug/L		09/12/23 10:32	09/15/23 17:33	1
Isophorone	ND		10	0.14	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Methylphenol	ND		10	1.8	ug/L		09/12/23 10:32	09/15/23 17:33	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Nitroaniline	ND		10	2.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
3-Nitroaniline	ND		10	1.8	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Nitroaniline	ND		10	1.5	ug/L		09/12/23 10:32	09/15/23 17:33	1
Nitrobenzene	ND		10	0.13	ug/L		09/12/23 10:32	09/15/23 17:33	1
2-Nitrophenol	ND		10	5.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
4-Nitrophenol	ND		10	2.1	ug/L		09/12/23 10:32	09/15/23 17:33	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		09/12/23 10:32	09/15/23 17:33	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		09/12/23 10:32	09/15/23 17:33	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		09/12/23 10:32	09/15/23 17:33	1
Pentachlorophenol	ND		20	1.4	ug/L		09/12/23 10:32	09/15/23 17:33	1
Phenol	ND		10	2.6	ug/L		09/12/23 10:32	09/15/23 17:33	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		09/12/23 10:32	09/15/23 17:33	1
Quinoline	ND		10	4.5	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		09/12/23 10:32	09/15/23 17:33	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		09/12/23 10:32	09/15/23 17:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*46 - 124*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
2-Fluorophenol	*3*	*S1-*	*13 - 113*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
Nitrobenzene-d5	*54*		*36 - 126*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
Phenol-d5	*8*	*S1-*	*17 - 127*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
Terphenyl-d14	*68*		*44 - 149*	*09/12/23 10:32*	*09/15/23 17:33*	*1*
2,4,6-Tribromophenol	*37*		*26 - 150*	*09/12/23 10:32*	*09/15/23 17:33*	*1*

Lab Sample ID: LCS 400-640651/17-A
Matrix: Water
Analysis Batch: 641055

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	2.31	J *-	ug/L		2	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*24*		*13 - 113*
Nitrobenzene-d5	*63*		*36 - 126*
Phenol-d5	*49*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*
2,4,6-Tribromophenol	*55*		*26 - 150*

Lab Sample ID: LCS 400-640651/2-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	ND	*-	ug/L		2	21 - 120
Benzoic acid	522	49.0	*-	ug/L		9	10 - 144
Benzyl alcohol	120	72.4		ug/L		60	28 - 120
Bis(2-chloroethoxy)methane	120	70.9		ug/L		59	47 - 120
Bis(2-chloroethyl)ether	120	138		ug/L		115	44 - 120
bis (2-chloroisopropyl) ether	120	55.8		ug/L		46	33 - 121
Bis(2-ethylhexyl) phthalate	120	93.0		ug/L		78	52 - 147
4-Bromophenyl phenyl ether	120	82.1		ug/L		68	54 - 122
Butyl benzyl phthalate	120	91.8		ug/L		76	54 - 133
4-Chloroaniline	120	68.1		ug/L		57	26 - 120
4-Chloro-3-methylphenol	120	82.8		ug/L		69	48 - 131
2-Chloronaphthalene	120	81.3		ug/L		68	52 - 121
2-Chlorophenol	120	56.4		ug/L		47	40 - 120
4-Chlorophenyl phenyl ether	120	85.5		ug/L		71	56 - 125
Dibenz[a,h]acridine	120	122		ug/L		102	31 - 150

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-640651/2-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenzofuran	120	86.4		ug/L		72	56 - 122
3,3'-Dichlorobenzidine	160	104		ug/L		65	36 - 132
2,4-Dichlorophenol	120	76.0		ug/L		63	49 - 120
Diethyl phthalate	120	94.4		ug/L		79	50 - 137
2,4-Dimethylphenol	120	78.4		ug/L		65	48 - 120
Dimethyl phthalate	120	85.6		ug/L		71	57 - 124
Di-n-butyl phthalate	120	96.5		ug/L		80	58 - 126
4,6-Dinitro-ortho-cresol	240	168		ug/L		70	23 - 148
2,4-Dinitrophenol	240	123		ug/L		51	10 - 150
2,4-Dinitrotoluene	120	92.3		ug/L		77	54 - 142
2,6-Dinitrotoluene	120	83.7		ug/L		70	55 - 130
Di-n-octyl phthalate	120	97.4		ug/L		81	57 - 138
1,4-Dioxane	120	46.8		ug/L		39	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	73.6		ug/L		61	45 - 124
Hexachlorobenzene	120	84.8		ug/L		71	52 - 129
Hexachlorocyclopentadiene	120	35.3		ug/L		29	10 - 134
Hexachloroethane	120	78.1		ug/L		65	20 - 120
Indene	120	81.6		ug/L		68	49 - 120
Isophorone	120	71.4		ug/L		60	48 - 120
2-Methylphenol	120	81.0		ug/L		68	46 - 124
3 & 4 Methylphenol	120	75.2		ug/L		63	45 - 120
2-Nitroaniline	120	72.7		ug/L		61	51 - 145
3-Nitroaniline	120	66.7		ug/L		56	37 - 127
4-Nitroaniline	120	85.3		ug/L		71	36 - 137
Nitrobenzene	120	71.0		ug/L		59	45 - 120
2-Nitrophenol	120	77.2		ug/L		64	40 - 124
4-Nitrophenol	240	184		ug/L		77	23 - 146
N-Nitrosodimethylamine	120	54.6		ug/L		45	29 - 137
N-Nitrosodi-n-propylamine	120	75.8		ug/L		63	45 - 120
N-Nitrosodiphenylamine	119	79.4		ug/L		67	54 - 120
Pentachlorophenol	240	169		ug/L		70	31 - 130
Phenol	120	58.2		ug/L		49	11 - 120
Pyridine	240	98.8		ug/L		41	16 - 120
Quinoline	120	87.2		ug/L		73	49 - 130
2,4,5-Trichlorophenol	120	81.3		ug/L		68	51 - 136
2,4,6-Trichlorophenol	120	81.0		ug/L		67	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*66*		*46 - 124*
2-Fluorophenol	*22*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*44*		*17 - 127*
Terphenyl-d14	*69*		*44 - 149*
2,4,6-Tribromophenol	*68*		*26 - 150*

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-640651/18-A
Matrix: Water
Analysis Batch: 641055

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	3.07	J *-	ug/L		3	10 - 120	28	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*69*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*61*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*81*		*44 - 149*
2,4,6-Tribromophenol	*62*		*26 - 150*

Lab Sample ID: LCSD 400-640651/3-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	ND	*-	ug/L		2	21 - 120	4	30
Benzoic acid			522	18.4	J *- *1	ug/L		4	10 - 144	91	30
Benzyl alcohol			120	82.4		ug/L		69	28 - 120	13	30
Bis(2-chloroethoxy)methane			120	74.7		ug/L		62	47 - 120	5	30
Bis(2-chloroethyl)ether			120	153	*+	ug/L		127	44 - 120	10	30
bis (2-chloroisopropyl) ether			120	62.0		ug/L		52	33 - 121	11	30
Bis(2-ethylhexyl) phthalate			120	100		ug/L		83	52 - 147	7	30
4-Bromophenyl phenyl ether			120	90.2		ug/L		75	54 - 122	9	30
Butyl benzyl phthalate			120	101		ug/L		84	54 - 133	10	30
4-Chloroaniline			120	76.4		ug/L		64	26 - 120	12	30
4-Chloro-3-methylphenol			120	88.1		ug/L		73	48 - 131	6	30
2-Chloronaphthalene			120	93.5		ug/L		78	52 - 121	14	30
2-Chlorophenol			120	50.6		ug/L		42	40 - 120	11	30
4-Chlorophenyl phenyl ether			120	94.9		ug/L		79	56 - 125	10	30
Dibenz[a,h]acridine			120	132		ug/L		110	31 - 150	7	30
Dibenzofuran			120	95.5		ug/L		80	56 - 122	10	30
3,3'-Dichlorobenzidine			160	111		ug/L		70	36 - 132	6	30
2,4-Dichlorophenol			120	77.2		ug/L		64	49 - 120	1	30
Diethyl phthalate			120	105		ug/L		87	50 - 137	10	30
2,4-Dimethylphenol			120	82.9		ug/L		69	48 - 120	6	30
Dimethyl phthalate			120	95.0		ug/L		79	57 - 124	10	30
Di-n-butyl phthalate			120	105		ug/L		87	58 - 126	8	30
4,6-Dinitro-ortho-cresol			240	188		ug/L		78	23 - 148	11	30
2,4-Dinitrophenol			240	126		ug/L		52	10 - 150	2	30
2,4-Dinitrotoluene			120	103		ug/L		86	54 - 142	11	30
2,6-Dinitrotoluene			120	93.8		ug/L		78	55 - 130	11	30
Di-n-octyl phthalate			120	107		ug/L		89	57 - 138	10	30
1,4-Dioxane			120	40.1		ug/L		33	31 - 120	15	30
1,2-Diphenylhydrazine (as Azobenzene)			120	80.9		ug/L		67	45 - 124	9	30
Hexachlorobenzene			120	93.8		ug/L		78	52 - 129	10	30
Hexachlorocyclopentadiene			120	44.1		ug/L		37	10 - 134	22	30
Hexachloroethane			120	86.3		ug/L		72	20 - 120	10	30

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-640651/3-A
Matrix: Water
Analysis Batch: 641239

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indene			120	90.5		ug/L		75	49 - 120	10	30
Isophorone			120	75.5		ug/L		63	48 - 120	6	30
2-Methylphenol			120	86.9		ug/L		72	46 - 124	7	30
3 & 4 Methylphenol			120	80.9		ug/L		67	45 - 120	7	30
2-Nitroaniline			120	81.0		ug/L		67	51 - 145	11	30
3-Nitroaniline			120	73.6		ug/L		61	37 - 127	10	30
4-Nitroaniline			120	97.4		ug/L		81	36 - 137	13	30
Nitrobenzene			120	75.0		ug/L		62	45 - 120	6	30
2-Nitrophenol			120	78.8		ug/L		66	40 - 124	2	30
4-Nitrophenol			240	208		ug/L		87	23 - 146	12	30
N-Nitrosodimethylamine			120	66.0		ug/L		55	29 - 137	19	30
N-Nitrosodi-n-propylamine			120	84.9		ug/L		71	45 - 120	11	30
N-Nitrosodiphenylamine			119	87.9		ug/L		74	54 - 120	10	30
Pentachlorophenol			240	182		ug/L		76	31 - 130	7	30
Phenol			120	59.5		ug/L		50	11 - 120	2	30
Pyridine			240	112		ug/L		47	16 - 120	12	30
Quinoline			120	93.2		ug/L		78	49 - 130	7	30
2,4,5-Trichlorophenol			120	91.1		ug/L		76	51 - 136	11	30
2,4,6-Trichlorophenol			120	88.3		ug/L		74	50 - 127	9	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*13*		*13 - 113*
Nitrobenzene-d5	*57*		*36 - 126*
Phenol-d5	*42*		*17 - 127*
Terphenyl-d14	*73*		*44 - 149*
2,4,6-Tribromophenol	*75*		*26 - 150*

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.099	ug/L		09/12/23 10:32	09/15/23 16:40	1
Acenaphthylene	ND		0.20	0.044	ug/L		09/12/23 10:32	09/15/23 16:40	1
Anthracene	ND		0.20	0.047	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[a]anthracene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[a]pyrene	ND		0.20	0.064	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[b]fluoranthene	ND		0.20	0.037	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[g,h,i]perylene	ND		0.20	0.027	ug/L		09/12/23 10:32	09/15/23 16:40	1
Benzo[k]fluoranthene	ND		0.20	0.062	ug/L		09/12/23 10:32	09/15/23 16:40	1
Chrysene	ND		0.20	0.033	ug/L		09/12/23 10:32	09/15/23 16:40	1
Dibenz(a,h)anthracene	ND		0.20	0.048	ug/L		09/12/23 10:32	09/15/23 16:40	1
Fluoranthene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Fluorene	ND		0.20	0.089	ug/L		09/12/23 10:32	09/15/23 16:40	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.034	ug/L		09/12/23 10:32	09/15/23 16:40	1
Phenanthrene	ND		0.20	0.090	ug/L		09/12/23 10:32	09/15/23 16:40	1

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 400-640651/1-A
Matrix: Water
Analysis Batch: 641154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640651

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.20	0.039	ug/L		09/12/23 10:32	09/15/23 16:40	1
1-Methylnaphthalene	ND		0.20	0.080	ug/L		09/12/23 10:32	09/15/23 16:40	1
2-Methylnaphthalene	ND		0.20	0.066	ug/L		09/12/23 10:32	09/15/23 16:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*94*		*18 - 147*	*09/12/23 10:32*	*09/15/23 16:40*	*1*
2-Fluorobiphenyl	*75*		*15 - 128*	*09/12/23 10:32*	*09/15/23 16:40*	*1*
Nitrobenzene-d5	*69*		*10 - 144*	*09/12/23 10:32*	*09/15/23 16:40*	*1*

Lab Sample ID: LCS 400-640651/19-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	2.00	1.64		ug/L		82	40 - 140
Acenaphthylene	2.00	1.79		ug/L		89	40 - 140
Anthracene	2.00	1.55		ug/L		77	40 - 140
Benzo[a]anthracene	2.00	1.74		ug/L		87	40 - 140
Benzo[a]pyrene	2.00	1.41		ug/L		71	40 - 140
Benzo[b]fluoranthene	2.00	1.55		ug/L		78	40 - 140
Benzo[g,h,i]perylene	2.00	1.54		ug/L		77	40 - 140
Benzo[k]fluoranthene	2.00	1.60		ug/L		80	40 - 140
Chrysene	2.00	1.73		ug/L		87	40 - 140
Dibenz(a,h)anthracene	2.00	1.37		ug/L		69	40 - 140
Fluoranthene	2.00	1.78		ug/L		89	40 - 140
Fluorene	2.00	1.67		ug/L		83	40 - 140
Indeno[1,2,3-cd]pyrene	2.00	1.45		ug/L		73	40 - 140
Phenanthrene	2.00	1.52		ug/L		76	40 - 140
Pyrene	2.00	1.72		ug/L		86	40 - 140
1-Methylnaphthalene	2.00	1.74		ug/L		87	40 - 140
2-Methylnaphthalene	2.00	1.78		ug/L		89	40 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*112*		*18 - 147*
2-Fluorobiphenyl	*91*		*15 - 128*
Nitrobenzene-d5	*66*		*10 - 144*

Lab Sample ID: LCSD 400-640651/20-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	2.00	1.63		ug/L		81	40 - 140	1	40
Acenaphthylene	2.00	1.75		ug/L		87	40 - 140	2	40
Anthracene	2.00	1.57		ug/L		79	40 - 140	1	40
Benzo[a]anthracene	2.00	1.82		ug/L		91	40 - 140	4	40
Benzo[a]pyrene	2.00	1.43		ug/L		72	40 - 140	2	40
Benzo[b]fluoranthene	2.00	1.46		ug/L		73	40 - 140	6	40

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCSD 400-640651/20-A
Matrix: Water
Analysis Batch: 641090

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640651

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[g,h,i]perylene			2.00	1.47		ug/L		74	40 - 140	4	40
Benzo[k]fluoranthene			2.00	1.54		ug/L		77	40 - 140	4	40
Chrysene			2.00	1.72		ug/L		86	40 - 140	1	40
Dibenz(a,h)anthracene			2.00	1.34		ug/L		67	40 - 140	2	40
Fluoranthene			2.00	1.82		ug/L		91	40 - 140	3	40
Fluorene			2.00	1.63		ug/L		82	40 - 140	2	40
Indeno[1,2,3-cd]pyrene			2.00	1.44		ug/L		72	40 - 140	1	40
Phenanthrene			2.00	1.54		ug/L		77	40 - 140	1	40
Pyrene			2.00	1.71		ug/L		85	40 - 140	1	40
1-Methylnaphthalene			2.00	1.83		ug/L		91	40 - 140	5	40
2-Methylnaphthalene			2.00	1.86		ug/L		93	40 - 140	4	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Terphenyl-d14	*112*		*18 - 147*
2-Fluorobiphenyl	*94*		*15 - 128*
Nitrobenzene-d5	*67*		*10 - 144*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-640625/1-A
Matrix: Water
Analysis Batch: 640659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 640625

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		09/12/23 08:25	09/12/23 17:29	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		09/12/23 08:25	09/12/23 17:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*51 - 149*	*09/12/23 08:25*	*09/12/23 17:29*	*1*

Lab Sample ID: LCS 400-640625/2-A
Matrix: Water
Analysis Batch: 640659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 640625

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane			0.101	0.0964		ug/L		96	60 - 140
1,2-Dibromoethane			0.101	0.0962		ug/L		95	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*82*		*51 - 149*

Lab Sample ID: LCSD 400-640625/3-A
Matrix: Water
Analysis Batch: 640659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640625

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.0991		ug/L		99	60 - 140	3	30
1,2-Dibromoethane			0.101	0.101		ug/L		100	60 - 140	5	30

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-640625/3-A
Matrix: Water
Analysis Batch: 640659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 640625

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	94		51 - 149

400-243066 COC

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: 9/6/2023
PO #	**GSAP Project ID**	PAGE: 2 of 2
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2

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, S. Beadle	

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 – 3.3.2

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 8270 SIMS
	TB-ROX-090623-8260-B	9/6/2023	0000	Water	2					2	X			
	TB-ROX-090623-8011-B	9/6/2023	0000	Water	2					2		X		
	P59-ROX-090623	9/6/2023	0905	Water	6			2		8	X	X	X	X
	P58-ROX-090623	9/6/2023	0955	Water	6			2		8	X	X	X	X
	P58-ROX-090623-DUP	9/6/2023	0955	Water	6			2		8	X	X	X	X
	P93B-ROX-090623	9/6/2023	1115	Water	6			2		8	X	X	X	X

L. Beadle 9/6/23

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: See page 1	9/6/2023	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 9/7/24	Time 821
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time

Version: 12July23

CUSTODY SEALS: See page 1

2.2°C IR8
2.8°C IR8

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: 9/6/2023
PO #	**GSAP Project ID**	PAGE: 1 of 2
60697537 – 3.3.2	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 Monthly GW 60697537 – 3.3.2

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 – 3.3.2

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 8270 SIMS
	TB-ROX-090623-8260-A	9/6/2023	0000	Water	2					2	X			
	TB-ROX-090623-8011-A	9/6/2023	0000	Water	2					2		X		
	MW4-ROX-090623-EB	9/6/2023	0825	Water	6			2		8	X	X	X	X
	MW4-ROX-090623	9/6/2023	0935	Water	6			2		8	X	X	X	X
	MW25-ROX-090623	9/6/2023	1100	Water	6			2		8	X	X	X	X
	MW7-ROX-090623	9/6/2023	1210	Water	6			2		8	X	X	X	X
	MW7-ROX-090623-DUP	9/6/2023	1210	Water	6			2		8	X	X	X	X

Joe Mayer 9-6-23

Relinquished by: (Signature)	Received by: (Signature)	Date	Time:
JOE MAYER	FEDEX: 5293 4337 5412, 5293 4337 5423	9/6/2023	1600
Relinquished by: (Signature)	Received by: (Signature) BP	Date: 9/7/23	Time: 821
Relinquished by: (Signature)	Received by: (Signature)	Date	Time:

Version: 13Oct22

CUSTODY SEALS: 1599784, 1599785, 1599786, 1599787

2.8°C BRS
2.2°C IR

Page 86 of 88

9/22/2023

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-243066-1

Login Number: 243066
List Number: 1
Creator: Earnest, Tamantha

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.		
The cooler's custody seal, if present, is intact.		
Sample custody seals, if present, are intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the containers received and the COC.		
Samples are received within Holding Time (excluding tests with immediate HTs)		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-243066-1
Project/Site: ROXANA MONTHLY 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	06-30-24
ANAB	ISO/IEC 17025	L2471	02-22-26
Arkansas DEQ	State	88-00689	08-01-24
California	State	2510	06-30-24
Florida	NELAP	E81010	06-30-24
Georgia	State	E81010(FL)	06-30-24
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-24
Louisiana (All)	NELAP	30976	06-30-24
Louisiana (DW)	State	LA017	12-31-23
Maryland	State	233	09-30-23
North Carolina (WW/SW)	State	314	12-31-23
Oklahoma	NELAP	9810	12-31-23
Pennsylvania	NELAP	68-00467	01-31-24
South Carolina	State	96026	06-30-24
Tennessee	State	TN02907	06-30-24
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-24
USDA	US Federal Programs	P330-21-00056	05-17-24
USDA	US Federal Programs	FLGNV23001	01-08-26
Virginia	NELAP	460166	06-14-24
West Virginia DEP	State	136	03-31-24

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USFD0686-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 3Q23 GW RPT\AUGUST 2023 ROXANA GROUNDWATER\WORKSPACE\FIGURE 3B AUGUST 2023 CONTOURS WF.DWG Last edited: Aug. 10, 23 @ 9:21 AM 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 AUGUST 3–4, 2023.

403

403

403.5

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402

402.5

TYDEMAN AVE
FIRST ST
SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFEE AVE
VILLAGE OF ROXANA
VILLAGE OF ROXANA
NORTH PROPERTY
WOOD RIVER REFINERY
WEST PROPERTY
MAIN PROPERTY
BP
PUBLIC WORKS YARD
1986 APPROXIMATE BENZENE RELEASE SITE RAND AVENUE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

T-13 402.83
T-1 402.62
T-2
T-12 402.09
T-6 401.94
MW-9 402.63
MW-10 402.51
MW-28 403.83
ROST-4-PZ(A) 403.52
ROST-4-PZ(B) 403.20
MW-27 403.22
P-55R 403.94
ROST-4-PZ(D) 402.91
ROST-4-PZ(C) 402.76
ROST-4-PZ 402.96
ROST-3-MW 402.42
ROST-4-PZ(E) 402.95
ROST-4-PZ(F) 403.01
ROST-4-PZ(G) 402.24
MW-11 402.33
P-54 402.41
MW-24 402.34
MW-22 402.24
MW-18 402.11
MW-17 402.21
MW-19 402.06
MW-16 402.17
MW-20 402
MW-12 402.22
MW-2 402.04
MW-1 402.15
MW-26 402.17
MW-4 402.16
MW-21 402.04
MW-3 402.23
MW-25 402.20
MW-7 402.15
MW-5 402.25
MW-23 402.32
MW-8
P-93A 402.02
P-93B
P-93C
P-93D
P-57 401.99
P-58 402.08
P-59 402.01
P-56 401.97
P-60 402.12
P-68 402.12
P-74 401.91
P-66 402.18
MW-6A 402.43
MW-6B
MW-6C
MW-6D
MW-13 402.47
P-114R 402.48
MW-14 402.49
P-75
P-76
P-77
P-78
P-69
P-70
P-61
P-62
P-71
P-72
P-73
P-67
T-7
P-117
P-116
P-115
P-119
T-62
T-63
T-64
A-147
A-22
A-27
A-28
A-29
A-30
A-31
A-32
A-33
A-34
A-35
A-37
A-57
A-58
A-16
F-50
W-77
W-78
W-79
W-80
W-81
W-85
W-89
T-24
S-1

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 September 2023 DSGN. BY: gds CHKD. BY: mr/bh	Groundwater Contours August 2023 – West Fenceline	FIG. NO. 1

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 3Q23 GW RPT\SEPTEMBER 2023 ROXANA GROUNDWATER\WORKSPACE\FIGURE 3B AUGUST 2023 CONTOURS WF.DWG Last edited: Sep. 22, 23 @ 6:01 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 SEPTEMBER 7, 2023.
4. WELL P-74 WAS INACCESSIBLE DURING THE MONTHLY GAUGING EVENT DUE TO CONSTRUCTION ACTIVITIES.

403

402.5

403

402.5

403.5

402

401.5

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
NORTH PROPERTY
WOOD RIVER REFINERY
MAIN PROPERTY
WEST PROPERTY
BP
PUBLIC WORKS YARD
1986 APPROXIMATE BENZENE RELEASE SITE
RAND AVENUE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

T-13 402.71
T-1 402.51
MW-10 402.21
MW-9 402.57
MW-28 403.72
ROST-4-PZ(A) 403.39
ROST-4-PZ(B) 403.16
P-55R 403.84
MW-27 403.11
ROST-4-PZ(D) 402.82
ROST-4-PZ(C) 402.70
ROST-4-PZ 402.90
ROST-3-MW 402.35
ROST-4-PZ(E) 402.83
MW-11 402.24
ROST-4-PZ(F) 402.97
ROST-4-PZ(G) 402.23
P-54 402.27
MW-24 402.24
MW-22 402.22
MW-17 402.23
T-12 402.15
MW-18 402.19
MW-19 402.19
MW-16 402.17
P-59 402.10
MW-12 402.16
MW-20 402.12
P-56 402.07
MW-2 402.11
MW-1 402.12
T-6 402.02
MW-26 402.13
MW-4 402.18
MW-21 402.06
P-57 402.04
MW-3 402.05
P-93A 402.02
P-93B
P-93C
P-93D
MW-25 402.03
MW-7 402.10
MW-5 402.15
MW-8
MW-23 402.21
P-58 402.10
P-60 402.16
P-68 401.16
T-24
P-69
P-70
P-62
P-74
P-61
P-59 402.10
P-71
S-1
P-72
P-73
P-75
P-66 402.03
MW-6A 402.31
MW-6B
MW-6C
MW-6D
MW-13 402.26
MW-14 402.40
P-114R 402.18
P-117
P-116
P-115
P-119
P-67
T-7
T-62
T-63
T-64
A-147
A-58
A-57
A-34
A-32
A-33
A-37
A-35
A-16
A-27
A-30
A-22
A-29
F-50
F-76
F-77
F-73
F-74
F-75
28
W-77
W-85
W-78
W-79
W-80
W-89
W-81

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 October 2023 DSGN. BY: gds CHKD. BY: mr/bh	Groundwater Contours September 2023 – West Fenceline	FIG. NO. 1

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q23 GW RPT\01_NOVEMBER 2023 ROXANA GROUNDWATER\WORKSPACE\FIGURE 1 - NOVEMBER 2023 CONTOURS WF.DWG Last edited: Nov. 15, 23 @ 6:56 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 NOVEMBER 3, 2023.

402.75

402.25

403.25

402.75

402.25

401.25

401.75

401.75

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
NORTH PROPERTY
WOOD RIVER REFINERY
PUBLIC WORKS YARD
BP
WEST PROPERTY
MAIN PROPERTY
1986 APPROXIMATE BENZENE RELEASE SITE RAND AVENUE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

T-13 402.12
T-1 401.9
MW-10 401.79
MW-9 401.87
ROST-4-PZ(A) 402.56
ROST-4-PZ(B) 402.73
MW-28 403.35
MW-27 402.61
P-55R 403.44
ROST-4-PZ(D) 402.37
ROST-4-PZ(C) 402.19
ROST-4-PZ 402.53
ROST-4-PZ(E) 402.6
ROST-3-MW 401.64
MW-11 401.3
ROST-4-PZ(F) 402.68
ROST-4-PZ(G) 401.48
P-54 401.56
P-60 401.32
P-68 401.46
T-12 401.36
MW-24 401.5
MW-17 401.39
MW-22 401.43
MW-18 401.29
P-74 401.07
MW-19 401.28
P-59 401.23
MW-16 401.34
P-56 401.23
MW-12 401.4
MW-20 401.21
MW-2 401.18
MW-1 401.36
T-6 401.33
MW-26 401.4
P-57 401.35
MW-4 401.39
MW-21 401.31
MW-3 401.4
P-93A 401.41
P-93B
P-93C
P-93D
MW-25 401.46
MW-7 401.44
MW-5 401.55
MW-23 401.57
MW-8
P-58 401.5
P-66 401.6
MW-6A 401.73
MW-6B
MW-6C
MW-6D
MW-13 401.73
MW-14 401.91
P-114R 401.71

W-77 W-85 W-78 W-79 W-80 W-89 W-81

A-31 A-58 A-57 A-34 A-28 A-33 A-37 A-27 A-35 A-16 A-30 A-22 A-29 A-147 F-50 F-76 F-77 F-78 F-79 F-74 F-75 T-24 P-61 P-62 P-69 P-70 P-71 P-72 P-73 S-1 T-2 P-75 P-67 T-7 P-117 P-116 P-115 P-119 T-62 T-63 T-64

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 December 2023 DSGN. BY: gds CHKD. BY: mr/bh	Groundwater Contours November 2023 – West Fenceline	FIG. NO. 1

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4023 GW RPT\02_DECEMBER 2023 ROXANA GROUNDWATER\WORKSPACE\FIGURE 1 GW CONTOURS DECEMBER WF.DWG Last edited: Dec. 21, 23 @ 3:48 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
- –402.50– 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 DECEMBER 5–6, 2023.
4. WELL MW–13 WAS INACCESSIBLE DURING THE MONTHLY GAUGING EVENT DUE TO CONSTRUCTION ACTIVITIES.

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
BP
NORTH PROPERTY
WEST PROPERTY
MAIN PROPERTY
WOOD RIVER REFINERY
PUBLIC WORKS YARD
1986 APPROXIMATE BENZENE RELEASE SITE
RAND AVENUE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

T-13 401.74
T-1 401.55
MW-9 401.50
MW-10 401.41
MW-28 402.98
ROST-4-PZ(A) 402.20
ROST-4-PZ(B) 402.43
P-55R 403.14
MW-27 402.20
ROST-4-PZ(D) 402.00
ROST-4-PZ(C) 401.82
ROST-3-MW 401.28
ROST-4-PZ 402.34
P-60 401.06
P-68 401.11
ROST-4-PZ(E) 402.30
ROST-4-PZ(G) 401.06
ROST-4-PZ(F) 402.51
MW-11 400.89
MW-17 401.02
T-12 401.00
P-54 401.22
MW-24 401.15
MW-22 401.08
MW-18 400.87
MW-19 400.79
P-59 400.91
P-74 400.75
MW-16 401.91
MW-12 401.01
P-56 400.88
MW-20 400.76
MW-2 400.78
MW-1 400.94
MW-26 400.98
T-6 400.95
MW-21 400.76
P-57 400.97
MW-4 401.97
MW-3 401.00
P-93A 401.02
P-93B
P-93C
P-93D
MW-25 401.01
MW-5 401.07
MW-7 400.96
MW-8
MW-23 401.12
P-58 401.02
P-66 401.20
MW-6A 401.26
MW-6B
MW-6C
MW-6D
MW-14 401.52
MW-13
P-114R 401.33
P-117
P-116
P-115
P-119
T-62
T-63
T-64
P-67
T-7

402
401.50
402.50
403
402
401.50
401.50
401
401.50

W-77 W-85 W-78 W-79 W-80 W-89 W-81

A-32 A-31 A-58 A-57 A-34 A-28 A-33 A-37 A-27 A-35 A-16 A-30 A-22 A-29 A-147
T-24 P-69 P-62 P-70 P-61 P-71 S-1 P-72 P-73 P-75
F-50 F-76 F-77 F-78 F-79 F-74 F-75

0 300
SCALE FEET

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY: gds December 2023 DSGN. BY: gds CHKD. BY: mr/bh	Groundwater Contours December 2023 – West Fenceline	FIG. NO. 1

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 3Q23 GW RPT\SEPTEMBER 2023 ROXANA GROUNDWATER\WORKSPACE\FIGURE 6 AUG-SEP23 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GW.DWG Last edited: Oct. 24, 23 @ 11:03 AM 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. 560 / 460) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
6. CONTOUR LINES IN AREA OF P-55R AND P-66 ADJUSTED BASED ON AVAILABLE AUGUST/SEPTEMBER 2023 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.
9. WELL P-74 WAS INACCESSIBLE DURING THE MONTHLY SAMPLING EVENT DUE TO CONSTRUCTION ACTIVITIES.

BP

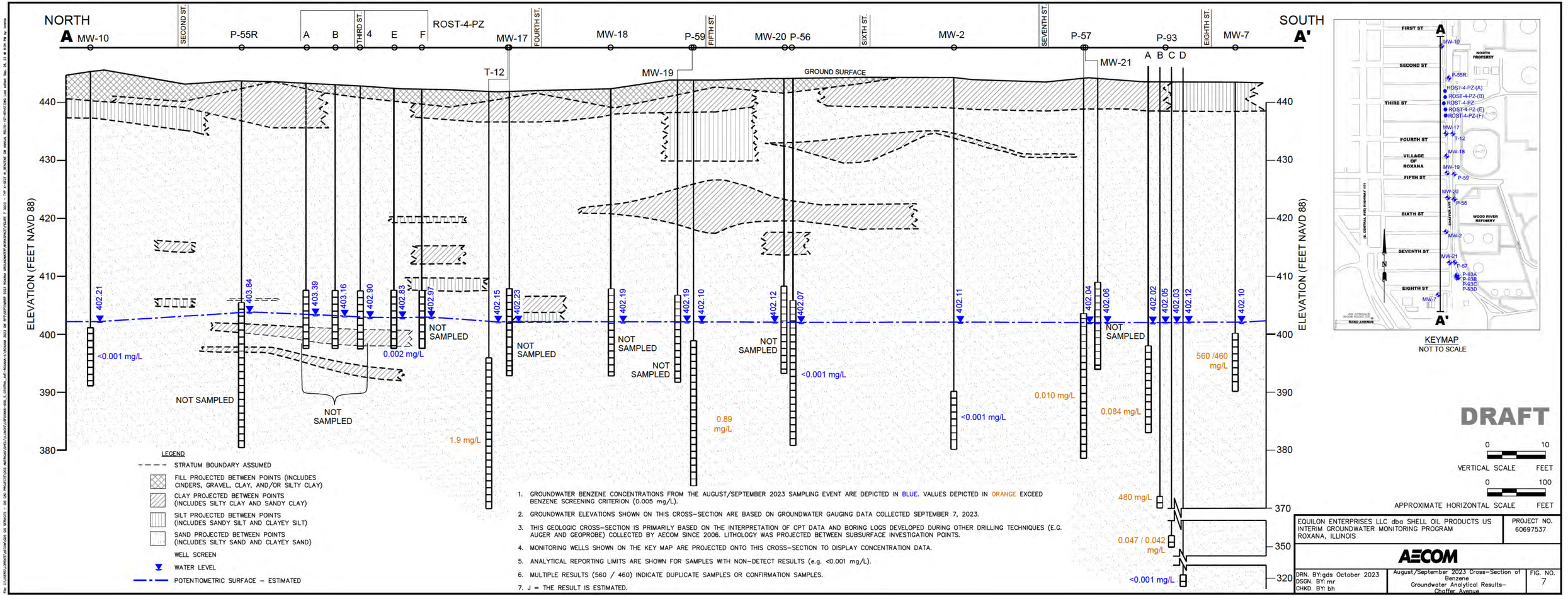
SECOND ST
THIRD ST
FOURTH ST
VILLAGE OF ROXANA
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
1ST STREET
2ND STREET
RAND AVENUE
NORTH PROPERTY
WOOD RIVER REFINERY
PUBLIC WORKS YARD
MAIN PROPERTY
WEST PROPERTY

PZ-1(101)
PZ-1(85)
MW-9 <0.001
MW-10 <0.001
MW-28 <0.001
MW-27 <0.001
ROST-4-PZ(A)
ROST-4-PZ(B)
ROST-4-PZ(C) 0.0026
ROST-3-MW <0.001 / <0.001
ROST-4-PZ(D)
ROST-4-PZ(E) 0.002
ROST-4-PZ(F)
ROST-4-PZ(G) <0.001
MW-11 <0.001
P-54 <0.001
MW-24 <0.001
MW-22 0.0015
MW-18
MW-19
MW-16 <0.001
PZ-2(84)
PZ-2(70.5)
MW-12 <0.001
MW-20
P-56 <0.001
MW-01 <0.001
MW-2 <0.001
MW-26 <0.001
MW-4 <0.001
MW-3 <0.001
MW-25 0.016
MW-5 <0.001
MW-7 560 / 460
MW-23 <0.001
MW-13 <0.001
MW-6A <0.001
MW-6B <0.001 / <0.001
MW-6C <0.001
MW-6D <0.001
P-114R <0.001
MW-14 <0.001
P-115
P-55R 0.08*
P-60-11
ROST-4-PZ
P-60-5
P-60
P-60-12
P-60-13
P-68 0.08
0.01
MW-17
T-12 1.9
R-85 W-85
P-69
P-74
P-59 0.89
R-78 W-78
P-61
P-70
R-77 W-77
T-24
P-57 0.10
P-93A 0.084
P-93B 480
P-93C 0.047 / 0.042
P-93D <0.001
P-73
R-80 W-80
R-79 W-79
R-89 W-89
P-58 320 / 330
P-66 1.11
1.00
P-75
R-81 W-81
A-34
A-28
A-33
A-27
A-22
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

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60697537
AECOM		
DRN. BY:gds October 2023 DSGN. BY:mr CHKD. BY:bh	August/September 2023 Dissolved Phase Benzene Concentrations in Groundwater	FIG. NO. 6



1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE AUGUST/SEPTEMBER 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 SEPTEMBER 7, 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 (560 / 460) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
7. J = THE RESULT IS ESTIMATED.

KEYMAP
NOT TO SCALE

DRAFT

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 October 2023
DSGN. BY: mr
CHKD. BY: bh

August/September 2023 Cross-Section of Benzene Groundwater Analytical Results–Chaffee Avenue

FIG. NO. 7

Mary Massa, PG
Geologist
M: 314/795-7580
E: mary.massa@aecom.com

AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
aecom.com