Illinois Environmental Protection Agency

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

RCRA FACILITY GROUNDWATER, LEACHATE AND GAS REPORTING FORM

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

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

Facility Name: Equilon Enterprises LLC dba Shell Oil Products US

Facility Address: 900 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)

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

☐ Well Construction Information

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

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

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

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

☐ Gas Monitoring Reports

☑ Other (identify)

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

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

October 12, 2022

Mr. Kenneth E Smith, 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 – 3rd Quarter 2022

Roxana, Illinois

1191150002 – Madison County

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

Log No. B-43R-CA-21

Dear Mr. Smith:

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

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

If you have any questions during your review, please contact Leroy (Buddy) Bealer, SOPUS 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

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: 3rd Quarter 2022 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
IEPA Collinsville FOS, IEPA, Collinsville
Michelle Knapp, Atlantic Richfield Company
Greg Mollett, Greensfelder
Repositories - Roxana Public L brary, website

AECOM

3rd Quarter 2022 Report

Roxana Interim Groundwater Monitoring Program

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

Project number: 60674381

October 2022

Delivering a better world

Quality information

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

Revision History

Revision	Revision date	Details	Authorized	Name	Position

Distribution List

# Hard Copies	PDF Required	Association / Company Name
1 – original	No	Mr. Kenneth E Smith, PE IEPA, Springfield
None	Yes	Mr. Thomas Morgan Phillips 66
None	Yes	Ms. Amy Butler IEPA, Springfield
None	Yes	IEPA Collinsville FOS IEPA, Collinsville
None	Yes	Ms. Michelle Knapp Atlantic Richfield Company
None	Yes	Greg Mollett Greensfelder
None	Yes	Roxana Public L brary
None	Yes	website

Prepared for:

Equilon Enterprises LLC dba Shell Oil Products US

Prepared by:

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

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

Copyright © 2022 by AECOM

All rights reserved. No part of this copyrighted work may be reproduced, distributed, or transmitted in any form or by any means without the prior written permission of AECOM.

Table of Contents

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

Tables

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

Figures

Figure 1 Investigation Area Location Map
Figure 2 Roxana Interim Groundwater Monitoring Well Locations
Figure 3a Groundwater Contours 3Q22
Figure 3b Groundwater Contours 3Q22-West Fenceline
Figure 4a 3Q22 Thickness of LNAPL-West Fenceline
Figure 4b 3Q22 Thickness of LNAPL
Figure 5 3Q22 Groundwater Monitoring Well Analytical Exceedances
Figure 6 3Q22 Dissolved Phase Benzene Concentrations in Groundwater
Figure 7 3Q22 Cross-Section of Benzene Groundwater Analytical Results-Chaffer Avenue
Figure 8 3Q22 Cross-Section of Benzene Groundwater Analytical Results-Roxana Public Works Yard

Appendices

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

1 Introduction

AECOM Technical Services, Inc. (AECOM) is submitting this report on behalf of Equilon Enterprises LLC d/b/a Shell Oil Products US (Shell) for the 3rd Quarter 2022 (3Q22) 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 (July 2022 through September 2022); prior regulatory-related correspondence which has not yet been addressed by IEPA can be found in **Appendix A**.

- 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.

Groundwater samples were collected and analyzed during 3Q22 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 February 2, 2022 (AECOM, 2022c).

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

No additional work activities were conducted during 3Q22.

2.3 Groundwater Monitoring Well Gauging and Sampling

Groundwater Monitoring Well Gauging

The comprehensive quarterly groundwater monitoring well gauging event was conducted between July 5 and 7, 2022. Well P-15 was remeasured, and well P-63 was measured, on July 8, 2022 due to anomalous initial results, and unsafe conditions at the well during the comprehensive gauging event, respectively. Well MW-26 was not measured during the comprehensive groundwater gauging event due to inaccessibility. The gauging activities were conducted in conjunction with the 3Q22 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 July 8 and 18, 2022. 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-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 (Well Wizard®) and dedicated bonded polyethylene tubing.

For both sampling methods pumping was performed at a low flow rate (≤ 300 mL/minute) to minimize drawdown of the water level within the groundwater monitoring well. During groundwater purging, water quality parameters (pH, temperature, specific conductivity, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP)) were

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

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

Groundwater monitoring wells located inside the WRR and designated for sampling in the Interim Groundwater Monitoring Program, P-55R, P-66, 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, MW-8, and MW-25 are managed as hazardous waste based on prior characterization in conjunction with generator knowledge, and decontamination fluid and purge water from other groundwater monitoring wells in the Village are managed as non-hazardous waste based on prior characterization in conjunction with generator knowledge; both hazardous and non-hazardous waste were disposed at the Heritage facility in Indianapolis, Indiana.

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

2.5 Groundwater Sample Handling and Laboratory Testing

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

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

Samples were analyzed by TestAmerica 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 3Q22 groundwater gauging and sampling event.

3.1 Groundwater Monitoring Well Gauging Results

The comprehensive quarterly groundwater monitoring well gauging for the 3Q22 event was conducted between July 5 and 7, 2022. Well P-15 was remeasured, and well P-63 was measured, on July 8, 2022 due to anomalous initial results, and unsafe conditions at the well during the comprehensive gauging event, respectively. Well MW-26 was not measured during the comprehensive groundwater gauging event due to inaccessibility. 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 wells in the vicinity of the West Fenceline have risen approximately 0.2 to 1.3 feet since the 2Q22 gauging event. Groundwater levels in most wells in the central portion of the WRR have fallen approximately 0.1 to 1.5 feet since the 2Q22 gauging event. Groundwater levels in wells in the eastern portion of the WRR have fallen approximately 0.1 to 1.1 foot since the 2Q22 gauging event. Water levels are above the top of the screens in the majority of the wells gauged during the 3Q22 event. The potentiometric surface observed during the 3Q22 groundwater monitoring well gauging (**Figures 3a** and **3b**) illustrates an inward gradient with groundwater flow toward the WRR groundwater production wells.

During the 3Q22 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 0.01 to 0.12 feet. Measured LNAPL thickness and the number of locations where it was observed during the 3Q22 quarterly gauging events was generally comparable to that observed in 2Q22.

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; these wells will be gauged, and sampled in the absence of LNAPL, during the quarterly Roxana Interim Groundwater Monitoring program.

During the 3Q22 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 3Q22 gauging event.

During 3Q22, LNAPL was observed in groundwater monitoring well P-68 located on WRR property at a thickness greater than 0.10 feet and was removed using bailers[2]. The recovered LNAPL was placed in a double-walled lube cube located on the WRR North Property, the contents of which are taken to the WRR oil-water separators for reprocessing.

3.2 Data Quality Review Results

A total of 8 sample delivery groups (SDGs) were prepared and sent to TestAmerica for the 3Q22 event. Fifty-two different groundwater sample sets were prepared and analyzed for VOCs and SVOCs (including PAHs). The 52 samples included 41 different investigative sample sets, five field duplicate sets, and three matrix spike/matrix spike duplicate (MS/MSD) sets. SDGs for 3Q22 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

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

13 TB sets were analyzed for groundwater VOCs. Laboratory method blanks were analyzed with every analytical batch.

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 bis(2-ethylhexyl) phthalate results, the laboratory re-extracted and re-analyzed for bis(2-ethylhexyl) phthalate in six investigative samples (MW12-ROX-070822, MW6C-ROX-070822, MW6A-ROX-070822, P114R-ROX-071122, MW22-ROX-071422, and ROST4PZE-ROX-071522); bis(2-ethylhexyl) phthalate is a common laboratory and field contaminant. The extraction holding time criteria was exceeded for the re-extracted samples; however, the results from these re-analyses were consistent with historical data (non-detect). Based on professional judgement, the results from the re-analyses were used for the purposes of this report.

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 2Q22 sampling event. The laboratory analytical results for the groundwater samples collected during this event are presented in **Table 3**.

Analytical detections were compared to the concentration limits as provided in Condition IV(E)(1) of the Permit for the WRB Refining LP Wood River Refinery[3]. These concentration limits include the Groundwater Quality Standards for Class I: Potable Resource Groundwater (35 IAC 620, Subpart D, Section 410) (Part 620) (IEPA, 2012c), the IEPA Tiered Approach to Corrective Action Objectives (TACO) Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route (35 IAC 742, Appendix B, Table E) (IEPA, 2007), and the IEPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables) (IEPA, 2018). Where screening values were available from multiple sources from the ones mentioned above, screening values from Part 620 were used preferentially over the screening values found in TACO and Chemicals not in TACO sources. All three sources are checked on a quarterly basis to ensure the most current published screening values are being used. The results of this screening comparison are presented in **Table 3**.

Samples from 12 groundwater monitoring wells in the Interim Groundwater Monitoring Program (six in the Village, six in the WRR along the West Fenceline) exhibited exceedances of the groundwater screening criteria for one or more of the following constituents:

- Benzene
- 1,2,4-Trimethylbenzene
- Benzo(a)pyrene
- 2-Methylnaphthalene
- Naphthalene
- Benzo(a)anthracene
- Benzo(b)fluoranthene
- Phenol

Figure 5 presents concentrations of analytes that exceeded the indicated screening criteria for 3Q22. These findings are generally consistent with the results from previous sampling events.

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

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

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

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

Beginning in 2Q21, a Mann-Kendall analysis of the analytical benzene results from the eight sampled groundwater wells in the 4th Street and Public Works Yard areas was conducted. The Mann-Kendall analysis was performed using GWSDAT (GroundWater Spatio-Temporal Data Analysis Tool). As of 3Q22, statistically significant downward trends were displayed for six wells, no wells displayed statistically significant increasing trends, and the remaining two wells displayed trends that were not statistically significant[5]. Results from the Mann-Kendall analysis conducted via GWSDAT are presented in **Appendix D-2**.

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

4 Summary and Conclusions

AECOM conducted the 3Q22 Interim Groundwater Monitoring Program, and the following conclusions are based on the data and information collected as part of this program:

- During 3Q22, groundwater level data indicate groundwater flow from the Investigation Area is moving toward groundwater production wells at the WRR. Groundwater levels in wells in the vicinity of the West Fenceline have risen approximately 0.2 to 1.3 feet since the 2Q22 gauging event. Groundwater levels in most wells in the central portion of the WRR have fallen approximately 0.1 to 1.5 feet since the 2Q22 gauging event. Groundwater levels in wells in the eastern portion of the WRR have fallen approximately 0.1 to 1.1 foot since the 2Q22 gauging event.

- Measured LNAPL thickness and the number of locations where it was observed during the 3Q22 quarterly gauging events was generally comparable to that observed in 2Q22. LNAPL was detected in P-66 during 2Q22 and 3Q22, however LNAPL was 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 4Q22 Roxana Interim Groundwater Monitoring program.

- The analytical results from 3Q22 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 six wells, no wells displayed statistically significant increasing trends, and the remaining two wells displayed trends that are 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, dated October 12, 2020.

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

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

AECOM, 2022 (AECOM, 2022c); *Shell GESS Health and Safety Plan: Rand Avenue, Roxana / Route 111, and WRR Investigation and Remediation*. Prepared for Shell Oil Products US (Shell), dated February 2, 2022.

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 September 26, 2022.

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 25, 2014; modified July 29, 2015; modified December 20, 2019.

Illinois Environmental Protection Agency, 2011 (IEPA, 2011a); *Corrective Action Letter for the West Fenceline*. Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated June 16, 2011.

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

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

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

Illinois Environmental Protection Agency, 2012 (IEPA, 2012c); 35 Illinois Administrative Code 620, Subpart D, Section 410. *Groundwater Quality Standards for Class 1: Potable Resource Groundwater (Part 620)*. Effective October 5, 2012; accessed on September 26, 2022.

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

Illinois Environmental Protection Agency, 2013 (IEPA, 2013b); *Response to Submittals received February 8, 2012; November 14, 2012; January 25, 2013; and March 14, 2013*. Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated July 18, 2013.

Illinois Environmental Protection Agency, 2014 (IEPA, 2014a); *Response to Class I* Permit Modification Requests.* Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated June 13, 2014.

Illinois Environmental Protection Agency, 2014 (IEPA, 2014b); *Response to Groundwater Monitoring Well Installation Plan Location on BP Property.* Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated October 9, 2014.

Illinois Environmental Protection Agency, 2014 (IEPA, 2014c); *Response to the Groundwater Portions of the Two Subject Submittals (Proposed Plan for Groundwater Corrective Action and Request for a 60-day Extension for Submittal of the Plan).* Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated November 25, 2014.

Illinois Environmental Protection Agency, 2015 (IEPA, 2015); *Approval of an April 3, 2013, Submittal Made on Behalf of Equilon Enterprises LLC and WRB Refining LP by Robert Billman, URS Corporation.* Issued to Shell Oil Products (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated May 22, 2015.

Illinois Environmental Protection Agency, 2016 (IEPA, 2016a); *IEPA Approval of Perched Groundwater Monitoring Location Abandonments*. Issued to Shell Oil Products (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated July 27, 2016.

Illinois Environmental Protection Agency, 2016 (IEPA, 2016b); *IEPA Approval Conditions and Modifications for the Response to IEPA Letter Dated April 8, 2013, for Groundwater Conditions Near East 3rd and Chaffer Streets (which was dated July 29, 2013*. Issued to Shell Oil Products (Shell) and WRB Refining LP (WRB Wood River Refinery (WRR), dated July 27, 2016.

Illinois Environmental Protection Agency, 2016 (IEPA, 2016c); *Response to Two Subject Submittals Submitted on Behalf of Shell Oil Products US (SOPUS) by URS Corporation (URS), in Regards to the WRB Refining, LLC Wood River Refinery (WRR) in Roxana, IL*. Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated February 23, 2016.

Illinois Environmental Protection Agency, 2017 (IEPA, 2017); *IEPA Approval to Reduce Gauging – Roxana Groundwater Monitoring Program*. Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated August 2, 2017.

Illinois Environmental Protection Agency Toxicity Assessment Unit; *Chemicals Not in TACO, Tier 1 Tables*, 2018 (IEPA, 2018). http://www.epa.state.il.us/land/taco/chemicals-not-in-taco-tier-1-tables.html. Accessed on September 26, 2022.

Illinois Environmental Protection Agency, 2019 (IEPA, 2019); *Groundwater Ordinances Reviewed for Use As Environmental Institutional Controls*. http://epadata.epa.state.il.us/land/gwordinance/municipality.asp?Municipality=Roxana. Emailed to Shell Oil Products US (Shell), dated November 7, 2019.

Illinois Environmental Protection Agency, 2020 (IEPA, 2020a); *Notice of Permit Renewal Application Incompleteness*. Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated June 30, 2020.

Illinois Environmental Protection Agency, 2020 (IEPA, 2020b); *Notice of Permit Completeness*. Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated October 30, 2020.

Illinois Environmental Protection Agency, 2020 (IEPA, 2020c); *RCRA Groundwater O&M Inspection*. Issued to Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated October 6, 2020.

Illinois Environmental Protection Agency, 2022 (IEPA, 2022); *Public Works Yard (PWY) Steam Enhanced Extraction (SEE) Workplan Approval with Conditions*. Issued to Shell Oil Products US (Shell), dated August 22, 2022.

URS Corporation, 2013 (URS, 2013a); *Roxana Perched Groundwater Monitoring Locations*; Prepared for Shell Oil Products US (Shell); dated August 16, 2013.

URS Corporation, 2013 (URS, 2013b); *Response to IEPA Letter April 8, 2013 – Groundwater Conditions near East 3rd and Chaffer Streets, Roxana, Illinois*; Prepared for Shell Oil Products US (Shell); dated July 29, 2013.

URS Corporation, 2013 (URS, 2013c); *Proposed Plan for Groundwater Corrective Action, Roxana, Illinois*; Prepared for Shell Oil Products US (Shell); dated November 14, 2013.

URS Corporation, 2014 (URS, 2014a); *Perched Groundwater Monitoring Locations*; Prepared for Shell Oil Products US (Shell); dated January 14, 2014.

URS Corporation, 2014 (URS, 2014b); *Perched Groundwater Monitoring Request for Abandonment*; Prepared for Shell Oil Products US (Shell); dated January 14, 2014.

URS Corporation, 2014 (URS, 2014c); *Request to Reduce Gauging – Roxana Groundwater Monitoring Program, Roxana IL*; Prepared for Shell Oil Products US (Shell); dated December 5, 2014.

U.S. Environmental Protection Agency, November 2020 (USEPA, 2020); *National Functional Guidelines for Organic Superfund Methods Data Review.*

Tables

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
MW 01											
4Q21	442.83	10/5/2021	NE	37.81	NA	NA	NA	405.02	394.03 - 384.03 (48.80 - 58.80)	0.1	*
1Q22		1/3/2022	NE	39.03	NA	NA	NA	403.80		0.0	*
2Q22		4/5/2022	NE	39.78	NA	NA	NA	403.05		0.0	*
3Q22		7/5/2022	NE	38.89	NA	NA	NA	403.94		0.0	*
MW 02											
4Q21	443.93	10/4/2021	NE	39.11	NA	NA	NA	404.82	394.06 - 384.06 (49.87 - 59.87)	9.8	*
1Q22		1/3/2022	NE	40.41	NA	NA	NA	403.52		317.2	*
2Q22		4/4/2022	NE	41.13	NA	NA	NA	402.80		161.2	*
3Q22		7/5/2022	NE	40.28	NA	NA	NA	403.65		5.0	*
MW 03											
4Q21	430.23	10/5/2021	NE	25.09	NA	NA	NA	405.14	395.56 - 385.56 (34.67 - 44.67)	0.2	*
1Q22		1/4/2022	NE	26.20	NA	NA	NA	404.03		0.3	*
2Q22		4/5/2022	NE	26.94	NA	NA	NA	403.29		0.0	*
3Q22		7/5/2022	NE	25.89	NA	NA	NA	404.34		0.0	*
MW 04											
4Q21	441.31	10/5/2021	NE	36.29	NA	NA	NA	405.02	396.25 - 386.25 (45.06 - 55.06)	0.4	*
1Q22		1/4/2022	NE	37.43	NA	NA	NA	403.88		0.0	*
2Q22		4/5/2022	NE	38.19	NA	NA	NA	403.12		0.0	*
3Q22		7/5/2022	NE	37.29	NA	NA	NA	404.02		0.0	*
MW 05											
4Q21	429.98	10/5/2021	NE	24.79	NA	NA	NA	405.19	396.01 - 386.01 (33.97 - 43.97)	2.8	*
1Q22		1/4/2022	NE	25.90	NA	NA	NA	404.08		0.0	*
2Q22		4/5/2022	NE	26.62	NA	NA	NA	403.36		0.0	*
3Q22		7/6/2022	NE	25.68	NA	NA	NA	404.30		0.0	*
MW 06A											
4Q21	432.33	10/5/2021	NE	26.94	NA	NA	NA	405.39	398.48 - 388.48 (33.85 - 43.85)	0.0	*
1Q22		1/4/2022	NE	28.02	NA	NA	NA	404.31		0.1	*
2Q22		4/5/2022	NE	28.70	NA	NA	NA	403.63		0.0	*
3Q22		7/6/2022	NE	26.86	NA	NA	NA	405.47		0.0	*
MW 06B											
4Q21	432.37	10/5/2021	NE	26.98	NA	NA	NA	405.39	368.32 - 363.32 (64.05 - 69.05)	0.0	*
1Q22		1/4/2022	NE	28.07	NA	NA	NA	404.30		0.1	*
2Q22		4/5/2022	NE	28.76	NA	NA	NA	403.61		0.0	*
3Q22		7/6/2022	NE	27.91	NA	NA	NA	404.46		0.0	*
MW 06C											
4Q21	432.18	10/5/2021	NE	26.78	NA	NA	NA	405.40	347.23 - 342.23 (84.95 - 89.95)	0.0	*
1Q22		1/4/2022	NE	27.86	NA	NA	NA	404.32		0.1	*
2Q22		4/5/2022	NE	28.53	NA	NA	NA	403.65		0.0	*
3Q22		7/6/2022	NE	27.70	NA	NA	NA	404.48		0.0	*
MW 06D											
4Q21	432.06	10/5/2021	NE	26.63	NA	NA	NA	405.43	327.34 - 322.34 (104.72 - 109.72)	0.0	*
1Q22		1/4/2022	NE	27.73	NA	NA	NA	404.33		0.1	*
2Q22		4/5/2022	NE	28.39	NA	NA	NA	403.67		0.0	*
3Q22		7/6/2022	NE	27.54	NA	NA	NA	404.52		0.0	*
MW 07											
4Q21	443.31	10/4/2021	NE	38.33	NA	NA	NA	404.98	400.39 - 390.39 (42.92 - 52.92)	18.2	*
1Q22		1/3/2022	NE	39.64	NA	NA	NA	403.67		65.6	*
2Q22		4/4/2022	NE	40.28	NA	NA	NA	403.03		2.6	*
3Q22		7/5/2022	NE	39.37	NA	NA	NA	403.94		0.0	*
MW 08											
4Q21	434.43	10/5/2021	NE	29.29	NA	NA	NA	405.14	400.83 - 390.83 (33.60 - 43.60)	0.0	*
1Q22		1/4/2022	NE	30.38	NA	NA	NA	404.05		0.0	*
2Q22		4/5/2022	NE	31.12	NA	NA	NA	403.31		0.5	*
3Q22		7/6/2022	NE	30.22	NA	NA	NA	404.21		0.0	*
MW 09											
4Q21	445.28	10/4/2021	NE	39.21	NA	NA	NA	406.07	399.24 - 389.24 (46.04 - 56.04)	0.1	*
1Q22		1/3/2022	NE	40.43	NA	NA	NA	404.85		0.2	*
2Q22		4/4/2022	NE	41.43	NA	NA	NA	403.85		0.0	*
3Q22		7/5/2022	NE	40.73	NA	NA	NA	404.55		0.0	*
MW 10											
4Q21	445.06	10/4/2021	NE	39.09	NA	NA	NA	405.97	400.63 - 390.63 (44.43 - 54.43)	0.1	*
1Q22		1/3/2022	NE	40.33	NA	NA	NA	404.73		0.1	*
2Q22		4/4/2022	NE	41.30	NA	NA	NA	403.76		0.0	*
3Q22		7/5/2022	NE	40.28	NA	NA	NA	404.78		0.0	*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
MW 11											
4Q21	442.38	10/4/2021	NE	36.90	NA	NA	NA	405.48	400.72 - 390.72 (41.66 - 51.66)	0.0	*
1Q22		1/3/2022	NE	38.14	NA	NA	NA	404.24		0.2	*
2Q22		4/5/2022	NE	39.04	NA	NA	NA	403.34		0.0	*
3Q22		7/5/2022	NE	38.24	NA	NA	NA	404.14		0.0	*
MW 12											
4Q21	442.64	10/5/2021	NE	37.49	NA	NA	NA	405.15	400.72 - 390.72 (41.92 - 51.92)	0.3	*
1Q22		1/3/2022	NE	38.72	NA	NA	NA	403.92		0.2	*
2Q22		4/5/2022	NE	39.54	NA	NA	NA	403.10		0.0	*
3Q22		7/5/2022	NE	38.60	NA	NA	NA	404.04		0.0	*
MW 13											
4Q21	430.30	10/5/2021	NE	24.71	NA	NA	NA	405.59	405.50 - 395.50 (24.80 - 34.80)	0.0	*
1Q22		1/4/2022	NE	25.72	NA	NA	NA	404.58		5.7	
2Q22		4/5/2022	NE	26.43	NA	NA	NA	403.87		71.2	
3Q22		7/6/2022	NE	25.50	NA	NA	NA	404.80		0.0	
MW 14											
4Q21	434.61	10/6/2021	NE	29.02	NA	NA	NA	405.59	401.19 - 391.19 (33.42 - 43.42)	41.3	*
1Q22		1/5/2022	NE	30.17	NA	NA	NA	404.44		2.9	*
2Q22		4/6/2022	NE	30.85	NA	NA	NA	403.76		64.5	*
3Q22		7/7/2022	NE	30.13	NA	NA	NA	404.48		16.6	*
MW 16											
4Q21	443.60	10/4/2021	NE	38.57	NA	NA	NA	405.03	406.10 - 396.10 (37.50 - 47.50)	0.0	
1Q22		1/4/2022	NE	39.62	NA	NA	NA	403.98		0.0	
2Q22		4/5/2022	NE	40.70	NA	NA	NA	402.90		0.0	
3Q22		7/5/2022	NE	39.85	NA	NA	NA	403.75		0.0	
MW 17											
4Q21	441.78	10/4/2021	NE	36.85	NA	NA	NA	404.93	407.49 - 392.49 (34.29 - 49.29)	0.0	
1Q22		1/3/2022	NE	38.02	NA	NA	NA	403.76		0.1	
2Q22		4/4/2022	NE	39.09	NA	NA	NA	402.69		0.0	
3Q22		7/5/2022	NE	38.39	NA	NA	NA	403.39		0.0	
MW 18											
4Q21	442.24	10/4/2021	NE	37.46	NA	NA	NA	404.78	407.32 - 392.32 (34.92 - 49.92)	0.0	
1Q22		1/3/2022	NE	38.68	NA	NA	NA	403.56		0.0	
2Q22		4/4/2022	NE	39.77	NA	NA	NA	402.47		0.0	
3Q22		7/5/2022	NE	38.87	NA	NA	NA	403.37		0.0	
MW 19											
4Q21	442.98	10/4/2021	NE	38.16	NA	NA	NA	404.82	406.64 - 391.64 (36.34 - 51.34)	0.0	
1Q22		1/3/2022	NE	39.38	NA	NA	NA	403.60		0.0	
2Q22		4/4/2022	NE	40.41	NA	NA	NA	402.57		0.0	
3Q22		7/5/2022	NE	39.54	NA	NA	NA	403.44		0.0	
MW 20											
4Q21	443.86	10/4/2021	NE	39.06	NA	NA	NA	404.80	407.98 - 392.98 (35.88 - 50.88)	0.0	
1Q22		1/3/2022	NE	40.35	NA	NA	NA	403.51		0.0	
2Q22		4/4/2022	NE	41.22	NA	NA	NA	402.64		0.0	
3Q22		7/5/2022	NE	40.36	NA	NA	NA	403.50		0.0	
MW 21											
4Q21	444.01	10/4/2021	NE	39.19	NA	NA	NA	404.82	409.00 - 394.00 (35.01 - 50.01)	0.0	
1Q22		1/3/2022	NE	40.55	NA	NA	NA	403.46		0.5	
2Q22		4/4/2022	NE	41.22	NA	NA	NA	402.79		0.0	
3Q22		7/5/2022	NE	40.31	NA	NA	NA	403.70		0.0	
MW 22											
4Q21	442.38	10/4/2021	NE	37.18	NA	NA	NA	405.20	403.95 - 393.95 (38.43 - 48.43)	0.0	*
1Q22		1/3/2022	NE	38.37	NA	NA	NA	404.01		0.0	*
2Q22		4/5/2022	NE	39.36	NA	NA	NA	403.02		0.0	
3Q22		7/5/2022	NE	38.56	NA	NA	NA	403.82		0.0	
MW 23											
4Q21	431.57	10/5/2021	NE	26.28	NA	NA	NA	405.29	402.55 - 392.55 (29.02 - 39.02)	5.5	*
1Q22		1/4/2022	NE	27.38	NA	NA	NA	404.19		0.2	*
2Q22		4/5/2022	NE	27.98	NA	NA	NA	403.59		20.0	*
3Q22		7/6/2022	NE	26.94	NA	NA	NA	404.63		0.0	*
MW 24											
4Q21	443.65	10/5/2021	NE	38.28	NA	NA	NA	405.37	404.04 - 394.04 (39.61 - 49.61)	0.0	*
1Q22		1/3/2022	NE	39.44	NA	NA	NA	404.21		0.0	*
2Q22		4/5/2022	NE	40.34	NA	NA	NA	403.31		0.0	
3Q22		7/7/2022	NE	39.55	NA	NA	NA	404.10		0.0	*

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
MW 25											
4Q21	438.53	10/5/2021	NE	33.47	NA	NA	NA	405.06	402.94 - 392.94 (35.59 - 45.59)	200.8	*
1Q22		1/4/2022	NE	34.59	NA	NA	NA	403.94		140.6	*
2Q22		4/5/2022	NE	35.34	NA	NA	NA	403.19		94.1	*
3Q22		7/5/2022	NE	34.41	NA	NA	NA	404.12		8.9	*
MW 26											
4Q21	441.23	10/5/2021	NE	36.22	NA	NA	NA	405.01	403.08 - 393.08 (38.15 - 48.15)	3.0	*
1Q22		1/3/2022	NE	37.44	NA	NA	NA	403.79		0.2	*
2Q22		4/5/2022	NE	38.15	NA	NA	NA	403.08		0.0	
3Q22		NM	NM	NM	NA	NA	NA	NA		NM	Inaccessible due to parked vehicle.
MW 27											
4Q21	443.60	10/4/2021	NE	37.19	NA	NA	NA	406.41	403.81 - 393.81 (39.79 - 49.79)	0.1	*
1Q22		1/3/2022	NE	38.25	NA	NA	NA	405.35		0.2	*
2Q22		4/5/2022	NE	39.35	NA	NA	NA	404.25		0.0	*
3Q22		7/5/2022	NE	39.08	NA	NA	NA	404.52		0.0	*
MW 28											
4Q21	443.55	10/4/2021	NE	36.31	NA	NA	NA	407.24	409.94 - 399.94 (33.61 - 43.61)	0.1	
1Q22		1/3/2022	NE	37.48	NA	NA	NA	406.07		0.1	
2Q22		4/5/2022	NE	38.45	NA	NA	NA	405.10		0.0	
3Q22		7/5/2022	NE	38.27	NA	NA	NA	405.28		0.0	
P 01											
4Q21	442.98	10/5/2021	NE	28.95	NA	NA	NA	414.03	380.76 - 375.76 (62.22 - 67.22)	0.0	*
1Q22		1/5/2022	NE	31.32	NA	NA	NA	411.66		0.0	*
2Q22		4/5/2022	NE	31.60	NA	NA	NA	411.38		0.0	*
3Q22		7/7/2022	NE	32.02	NA	NA	NA	410.96		0.0	*
P 4U											
4Q21	442.74	10/5/2021	NE	30.15	NA	NA	NA	412.59	361.59 - 359.59 (81.15 - 83.15)	0.0	*
1Q22		1/5/2022	NE	32.32	NA	NA	NA	410.42		0.0	*
2Q22		4/5/2022	NE	32.90	NA	NA	NA	409.84		0.0	*
3Q22		7/6/2022	NE	33.35	NA	NA	NA	409.39		0.0	*
P 5L											
4Q21	444.01	10/5/2021	NE	30.04	NA	NA	NA	413.97	303.61 - 301.61 (140.40 - 142.40)	0.0	*
1Q22		1/5/2022	NE	32.25	NA	NA	NA	411.76		0.0	*
2Q22		4/5/2022	NE	32.74	NA	NA	NA	411.27			*
3Q22		7/6/2022	NE	33.06	NA	NA	NA	410.95		0.0	*
P 5U											
4Q21	444.42	10/5/2021	NE	31.19	NA	NA	NA	413.23	313.79 - 311.79 (130.63 - 132.63)	0.0	*
1Q22		1/5/2022	NE	33.44	NA	NA	NA	410.98		0.0	*
2Q22		4/5/2022	NE	34.02	NA	NA	NA	410.40		0.0	*
3Q22		7/6/2022	NE	34.61	NA	NA	NA	409.81		0.0	*
P 6U											
4Q21	443.63	10/5/2021	NE	30.81	NA	NA	NA	412.82	363.13 - 361.13 (80.50 - 82.50)	0.0	*
1Q22		1/5/2022	NE	32.95	NA	NA	NA	410.68		0.0	*
2Q22		4/5/2022	NE	33.53	NA	NA	NA	410.10		0.0	*
3Q22		7/6/2022	NE	34.00	NA	NA	NA	409.63		0.0	*
P 7U											
4Q21	444.08	10/5/2021	NE	31.01	NA	NA	NA	413.07	383.00 - 381.00 (61.08 - 63.08)	0.0	*
1Q22		1/5/2022	NE	33.15	NA	NA	NA	410.93		0.0	*
2Q22		4/5/2022	NE	33.75	NA	NA	NA	410.33		0.0	*
3Q22		7/6/2022	NE	34.21	NA	NA	NA	409.87		0.0	*
P 8U											
4Q21	442.07	10/5/2021	NE	31.12	NA	NA	NA	410.95	382.72 - 380.72 (59.35 - 61.35)	0.0	*
1Q22		1/5/2022	NE	33.06	NA	NA	NA	409.01		0.0	*
2Q22		4/5/2022	NE	33.81	NA	NA	NA	408.26		0.0	*
3Q22		7/6/2022	NE	34.55	NA	NA	NA	407.52		0.0	*
P 9U											
4Q21	445.20	10/5/2021	NE	35.72	NA	NA	NA	409.48	344.61 - 342.61 (100.59 - 102.59)	0.0	*
1Q22		1/3/2022	NE	37.48	NA	NA	NA	407.72		0.0	*
2Q22		4/5/2022	NE	38.37	NA	NA	NA	406.83		0.0	*
3Q22		7/6/2022	NE	39.36	NA	NA	NA	405.84		0.0	*
P 11L											
4Q21	442.76	10/5/2021	NE	31.98	NA	NA	NA	410.78	332.55 - 330.55 (110.21 - 112.21)	0.0	*
1Q22		1/5/2022	NE	34.05	NA	NA	NA	408.71		0.0	*
2Q22		4/5/2022	NE	34.74	NA	NA	NA	408.02		0.0	*
3Q22		7/6/2022	NE	35.42	NA	NA	NA	407.34		0.0	*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 11U											
4Q21	443.38	10/5/2021	NE	32.63	NA	NA	NA	410.75	343.46 - 341.46 (99.92 - 101.92)	0.0	*
1Q22		1/5/2022	NE	34.65	NA	NA	NA	408.73		0.0	*
2Q22		4/5/2022	NE	35.38	NA	NA	NA	408.00		0.0	*
3Q22		7/6/2022	NE	36.02	NA	NA	NA	407.36		0.0	*
P 14											
4Q21	443.01	10/5/2021	NE	29.01	NA	NA	NA	414.00	395.54 - 385.54 (47.47 - 57.47)	0.0	*
1Q22		1/5/2022	NE	31.40	NA	NA	NA	411.61		0.0	*
2Q22		4/5/2022	NE	31.69	NA	NA	NA	411.32		0.0	*
3Q22		7/19/2022	NE	32.09	NA	NA	NA	410.92		0.0	*
P 15											
4Q21	443.88	10/5/2021	NE	30.81	NA	NA	NA	413.07	398.43 - 388.43 (45.45 - 55.45)	0.0	*
1Q22		1/5/2022	NE	32.93	NA	NA	NA	410.95		0.0	*
2Q22		4/5/2022	NE	33.58	NA	NA	NA	410.30		0.0	*
3Q22		7/8/2022	NE	33.98	NA	NA	NA	409.90		0.0	*
P 16											
4Q21	442.84	10/5/2021	NE	29.71	NA	NA	NA	413.13	397.10 - 387.10 (45.74 - 55.74)	0.0	*
1Q22		1/5/2022	NE	31.88	NA	NA	NA	410.96		0.0	*
2Q22		4/5/2022	NE	32.77	NA	NA	NA	410.07		0.0	*
3Q22		7/6/2022	NE	32.86	NA	NA	NA	409.98		0.0	*
P 43											
4Q21	444.62	10/5/2021	NE	33.50	NA	NA	NA	411.12	381.06 - 371.06 (63.56 - 73.56)	0.0	*
1Q22		1/5/2022	NE	35.52	NA	NA	NA	409.10		0.0	*
2Q22		4/5/2022	NE	36.25	NA	NA	NA	408.37		0.0	*
3Q22		7/6/2022	NE	36.81	NA	NA	NA	407.81		0.0	*
P 53											
4Q21	446.57	10/5/2021	NE	38.52	NA	NA	NA	408.05	406.26 - 381.26 (40.31 - 65.31)	0.0	*
1Q22		1/4/2022	NE	39.57	NA	NA	NA	407.00		0.2	*
2Q22		4/4/2022	NE	40.63	NA	NA	NA	405.94		0.0	
3Q22		7/6/2022	NE	38.27	NA	NA	NA	408.30		0.0	*
P 54											
4Q21	442.52	10/5/2021	NE	37.02	NA	NA	NA	405.50	404.52 - 379.52 (38.00 - 63.00)	0.0	*
1Q22		1/3/2022	NE	38.22	NA	NA	NA	404.30		0.0	
2Q22		4/5/2022	NE	39.06	NA	NA	NA	403.46		0.0	
3Q22		7/5/2022	NE	38.19	NA	NA	NA	404.33		0.0	
P 55R											
4Q21	444.01	10/4/2021	36.85	36.99	407.02	407.16	0.14	407.13	403.58 - 393.58 (40.43 - 50.43)	108.5	*
1Q22		1/3/2022	37.44	37.49	406.52	406.57	0.05	406.56		350.1	*
2Q22		4/4/2022	39.01	39.09	404.92	405.00	0.08	404.98		209.5	*
3Q22		7/5/2022	38.60	38.69	405.32	405.41	0.09	405.39		197.6	*
P 56											
4Q21	446.32	10/4/2021	NE	41.54	NA	NA	NA	404.78	405.50 - 380.50 (40.82 - 65.82)	76.1	
1Q22		1/3/2022	NE	42.69	NA	NA	NA	403.63		1.3	
2Q22		4/4/2022	NE	43.66	NA	NA	NA	402.66		4.8	
3Q22		7/5/2022	NE	42.88	NA	NA	NA	403.44		258.7	
P 57											
4Q21	447.15	10/4/2021	NE	42.36	NA	NA	NA	404.79	402.96 - 392.96 (44.19 - 54.19)	6.0	*
1Q22		1/3/2022	NE	43.52	NA	NA	NA	403.63		117.6	*
2Q22		4/4/2022	NE	44.30	NA	NA	NA	402.85		76.1	
3Q22		7/5/2022	NE	43.53	NA	NA	NA	403.62		125.8	*
P 58											
4Q21	445.16	10/4/2021	40.23	40.24	404.92	404.93	0.01	404.93	404.95 - 379.95 (40.21 - 65.21)	0.1	
1Q22		1/3/2022	NE	41.43	NA	NA	NA	403.73		0.1	
2Q22		4/4/2022	NE	42.10	NA	NA	NA	403.06		0.0	
3Q22		7/5/2022	NE	41.33	NA	NA	NA	403.83		2.0	
P 59											
4Q21	447.07	10/4/2021	NE	42.33	NA	NA	NA	404.74	399.16 - 374.16 (47.91 - 72.91)	147.2	*
1Q22		1/3/2022	NE	43.42	NA	NA	NA	403.65		262.3	*
2Q22		4/4/2022	NE	44.52	NA	NA	NA	402.55		275.2	*
3Q22		7/5/2022	NE	43.73	NA	NA	NA	403.34		349.5	*
P 60											
4Q21	446.88	10/4/2021	NE	41.67	NA	NA	NA	405.21	402.23 - 382.23 (44.65 - 64.65)	7.7	*
1Q22		1/3/2022	NE	42.83	NA	NA	NA	404.05		14.9	*
2Q22		4/4/2022	NE	44.52	NA	NA	NA	402.36		3.5	*
3Q22		7/5/2022	NE	43.29	NA	NA	NA	403.59		0.5	*

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 61											
4Q21	444.66	10/4/2021	40.28	40.30	404.36	404.38	0.02	404.38	398.98 - 373.98 (45.68 - 70.68)	135.9	*
1Q22		1/4/2022	41.22	41.23	403.43	403.44	0.01	403.44		82.0	*
2Q22		4/4/2022	NE	42.54	NA	NA	NA	402.12		74.6	*
3Q22		7/6/2022	NE	41.94	NA	NA	NA	402.72		83.7	*
P 62											
4Q21	442.60	10/4/2021	37.79	37.80	404.80	404.81	0.01	404.81	401.13 - 376.13 (41.47 - 66.47)	60.5	*
1Q22		1/4/2022	38.67	38.70	403.90	403.93	0.03	403.92		12.0	*
2Q22		4/4/2022	39.82	39.84	402.76	402.78	0.02	402.78		22.5	*
3Q22		7/6/2022	39.53	39.55	403.05	403.07	0.02	403.07		40.9	*
P 63											
4Q21	446.06	10/4/2021	41.32	41.33	404.73	404.74	0.01	404.74	398.77 - 373.77 (47.29 - 72.29)	2.8	*
1Q22		1/4/2022	42.35	42.40	403.66	403.71	0.05	403.70		128.5	*
2Q22		4/4/2022	43.38	43.39	402.67	402.68	0.01	402.68		126.1	*
3Q22		7/8/2022	43.44	43.45	402.61	402.62	0.01	402.61		146.7	*
P 64											
4Q21	446.78	10/4/2021	42.55	42.56	404.22	404.23	0.01	404.23	399.55 - 374.55 (47.23 - 72.23)	99.2	*
1Q22		1/4/2022	43.45	43.46	403.32	403.33	0.01	403.33		22.1	*
2Q22		4/4/2022	44.54	44.60	402.18	402.24	0.06	402.23		78.3	*
3Q22		7/5/2022	44.72	44.77	402.01	402.06	0.05	402.05		134.2	*
P 65											
4Q21	444.77	10/4/2021	NE	40.16	NA	NA	NA	404.61	397.75 - 372.75 (47.02 - 72.02)	2.2	*
1Q22		1/4/2022	NE	41.22	NA	NA	NA	403.55		0.4	*
2Q22		4/4/2022	NE	42.12	NA	NA	NA	402.65		1.6	*
3Q22		7/6/2022	NE	42.12	NA	NA	NA	402.65		2.9	*
P 66											
4Q21	437.00	10/6/2021	NE	31.89	NA	NA	NA	405.11	402.28 - 377.28 (34.72 - 59.72)	37.6	*
1Q22		1/5/2022	NE	33.00	NA	NA	NA	404.00		52.5	*
2Q22		4/6/2022	33.63	34.11	402.89	403.37	0.48	403.27		240.1	*
3Q22		7/7/2022	33.00	33.01	403.99	404.00	0.01	404.00		42.6	*
P 67											
4Q21	444.30	10/6/2021	NE	38.03	NA	NA	NA	406.27	402.32 - 377.32 (41.98 - 66.98)	30.9	*
1Q22		1/5/2022	39.33	39.35	404.95	404.97	0.02	404.97		2.3	*
2Q22		4/6/2022	39.93	39.94	404.36	404.37	0.01	404.37		3.5	*
3Q22		7/7/2022	39.49	39.52	404.78	404.81	0.03	404.80		0.0	*
P 68											
4Q21	445.38	10/4/2021	40.28	40.64	404.74	405.10	0.36	405.03	401.62 - 376.62 (43.76 - 68.76)	154.2	*
1Q22		1/4/2022	41.16	41.17	404.21	404.22	0.01	404.22		171.9	*
2Q22		4/4/2022	42.46	42.54	402.84	402.92	0.08	402.90		224.0	*
3Q22		7/7/2022	41.93	42.05	403.33	403.45	0.12	403.43		396.7	*
P 69											
4Q21	443.77	10/4/2021	NE	39.11	NA	NA	NA	404.66	402.95 - 377.95 (40.82 - 65.82)	166.0	*
1Q22		1/4/2022	NE	39.98	NA	NA	NA	403.79		47.1	*
2Q22		4/4/2022	NE	41.32	NA	NA	NA	402.45		0.0	
3Q22		7/6/2022	NE	40.79	NA	NA	NA	402.98		309.0	*
P 70											
4Q21	443.11	10/4/2021	NE	38.45	NA	NA	NA	404.66	398.44 - 373.44 (44.67 - 69.67)	213.0	*
1Q22		1/4/2022	39.36	39.40	403.71	403.75	0.04	403.74		265.9	*
2Q22		4/4/2022	NE	40.55	NA	NA	NA	402.56		182.4	*
3Q22		7/6/2022	NE	40.20	NA	NA	NA	402.91		302.8	*
P 71											
4Q21	445.09	10/4/2021	NE	39.81	NA	NA	NA	405.28	402.48 - 377.48 (42.61 - 67.61)	16.2	*
1Q22		1/4/2022	NE	40.56	NA	NA	NA	404.53		35.4	*
2Q22		4/4/2022	NE	41.47	NA	NA	NA	403.62		1.4	*
3Q22		7/6/2022	NE	41.51	NA	NA	NA	403.58		68.7	*
P 72											
4Q21	444.70	10/4/2021	NE	39.49	NA	NA	NA	405.21	398.93 - 373.93 (45.77 - 70.77)	13.6	*
1Q22		1/4/2022	NE	40.36	NA	NA	NA	404.34		2.2	*
2Q22		4/4/2022	NE	41.22	NA	NA	NA	403.48		4.5	*
3Q22		7/6/2022	NE	40.94	NA	NA	NA	403.76		6.5	*
P 73											
4Q21	444.02	10/4/2021	NE	39.84	NA	NA	NA	404.18	402.42 - 377.42 (41.59 - 66.59)	35.6	*
1Q22		1/4/2022	NE	39.76	NA	NA	NA	404.26		16.8	*
2Q22		4/4/2022	NE	41.59	NA	NA	NA	402.43		72.5	*
3Q22		7/6/2022	NE	41.70	NA	NA	NA	402.32		149.4	

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 74											
4Q21	442.93	10/4/2021	NE	38.32	NA	NA	NA	404.61	399.10 - 374.10 (43.83 - 68.83)	6.3	*
1Q22		1/4/2022	NE	39.22	NA	NA	NA	403.71		0.0	*
2Q22		4/4/2022	NE	40.12	NA	NA	NA	402.81		0.0	*
3Q22		7/6/2022	NE	39.87	NA	NA	NA	403.06		0.3	*
P 75											
4Q21	446.68	10/6/2021	NE	41.78	NA	NA	NA	404.90	403.55 - 378.55 (43.13 - 68.13)	43.7	*
1Q22		1/5/2022	NE	43.01	NA	NA	NA	403.67		37.6	*
2Q22		4/6/2022	NE	43.57	NA	NA	NA	403.11		0.0	
3Q22		7/7/2022	NE	42.99	NA	NA	NA	403.69		38.5	*
P 82A											
4Q21	434.94	10/6/2021	NE	25.76	NA	NA	NA	409.18	401.73 - 386.73 (33.21 - 48.21)	0.0	*
1Q22		1/5/2022	NE	27.03	NA	NA	NA	407.91		0.2	*
2Q22		4/6/2022	NE	27.64	NA	NA	NA	407.30		0.0	*
3Q22		7/6/2022	NE	27.12	NA	NA	NA	407.82		0.0	*
P 82B											
4Q21	434.68	10/6/2021	NE	25.47	NA	NA	NA	409.21	371.88 - 369.88 (62.80 - 64.80)	0.0	*
1Q22		1/5/2022	NE	26.86	NA	NA	NA	407.82		0.0	*
2Q22		4/6/2022	NE	27.36	NA	NA	NA	407.32		0.0	*
3Q22		7/6/2022	NE	26.83	NA	NA	NA	407.85		0.0	*
P 82C											
4Q21	434.41	10/6/2021	NE	25.19	NA	NA	NA	409.22	351.64 - 349.64 (82.77 - 84.77)	0.0	*
1Q22		1/5/2022	NE	26.56	NA	NA	NA	407.85		0.0	*
2Q22		4/6/2022	NE	27.06	NA	NA	NA	407.35		0.0	*
3Q22		7/6/2022	NE	26.53	NA	NA	NA	407.88		0.0	*
P 82D											
4Q21	435.09	10/6/2021	NE	25.97	NA	NA	NA	409.12	323.55 - 321.55 (111.54 - 113.54)	0.0	*
1Q22		1/5/2022	NE	27.35	NA	NA	NA	407.74		0.0	*
2Q22		4/6/2022	NE	27.82	NA	NA	NA	407.27		0.0	*
3Q22		7/6/2022	NE	27.30	NA	NA	NA	407.79		0.0	*
P 83A											
4Q21	445.54	10/6/2021	NE	38.77	NA	NA	NA	406.77	398.14 - 383.14 (47.40 - 62.40)	0.0	*
1Q22		1/3/2022	NE	40.08	NA	NA	NA	405.46		0.0	*
2Q22		4/4/2022	NE	40.93	NA	NA	NA	404.61		0.0	*
3Q22		7/5/2022	NE	41.42	NA	NA	NA	404.12		0.0	*
P 83B											
4Q21	445.77	10/6/2021	NE	39.03	NA	NA	NA	406.74	371.97 - 369.97 (73.80 - 75.80)	0.0	*
1Q22		1/3/2022	NE	40.30	NA	NA	NA	405.47		0.0	*
2Q22		4/4/2022	NE	41.17	NA	NA	NA	404.60		0.0	*
3Q22		7/5/2022	NE	41.70	NA	NA	NA	404.07		0.0	*
P 83C											
4Q21	445.95	10/6/2021	NE	39.20	NA	NA	NA	406.75	353.56 - 351.56 (92.39 - 94.39)	0.0	*
1Q22		1/3/2022	NE	40.46	NA	NA	NA	405.49		0.0	*
2Q22		4/4/2022	NE	41.32	NA	NA	NA	404.63		0.0	*
3Q22		7/5/2022	NE	41.84	NA	NA	NA	404.11		0.6	*
P 83D											
4Q21	445.86	10/6/2021	NE	39.17	NA	NA	NA	406.69	312.06 - 310.06 (133.80 - 135.80)	0.0	*
1Q22		1/3/2022	NE	40.45	NA	NA	NA	405.41		0.0	*
2Q22		4/4/2022	NE	41.30	NA	NA	NA	404.56		0.0	*
3Q22		7/5/2022	NE	41.80	NA	NA	NA	404.06		0.0	*
P 84A											
4Q21	446.63	10/5/2021	NE	39.44	NA	NA	NA	407.19	397.71 - 382.71 (48.92 - 63.92)	0.0	*
1Q22		1/4/2022	NE	40.50	NA	NA	NA	406.13		0.1	*
2Q22		4/4/2022	NE	41.60	NA	NA	NA	405.03		0.0	*
3Q22		7/7/2022	NE	41.62	NA	NA	NA	405.01		0.0	*
P 84B											
4Q21	446.35	10/5/2021	NE	39.16	NA	NA	NA	407.19	372.85 - 370.85 (73.50 - 75.50)	0.0	*
1Q22		1/4/2022	NE	40.25	NA	NA	NA	406.10		0.1	*
2Q22		4/5/2022	NE	41.32	NA	NA	NA	405.03		0.0	*
3Q22		7/7/2022	NE	41.36	NA	NA	NA	404.99		0.0	*
P 84C											
4Q21	446.37	10/5/2021	NE	39.17	NA	NA	NA	407.20	352.32 - 350.32 (94.05 - 96.05)	0.0	*
1Q22		1/4/2022	NE	40.26	NA	NA	NA	406.11		0.1	*
2Q22		4/5/2022	NE	41.28	NA	NA	NA	405.09		0.0	*
3Q22		7/7/2022	NE	41.36	NA	NA	NA	405.01		0.0	*

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 84D											
4Q21	446.38	10/5/2021	NE	39.17	NA	NA	NA	407.21	325.55 - 323.55 (120.83 - 122.83)	0.0	*
1Q22		1/4/2022	NE	40.26	NA	NA	NA	406.12		0.1	*
2Q22		4/5/2022	NE	41.27	NA	NA	NA	405.11		0.0	*
3Q22		7/7/2022	NE	41.38	NA	NA	NA	405.00		0.0	*
P 88A											
4Q21	443.27	10/6/2021	NE	31.01	NA	NA	NA	412.26	404.87 - 389.87 (38.40 - 53.40)	0.0	*
1Q22		1/4/2022	NE	32.27	NA	NA	NA	411.00		0.1	*
2Q22		4/6/2022	NE	33.57	NA	NA	NA	409.70		0.0	*
3Q22		7/7/2022	NE	33.11	NA	NA	NA	410.16		0.0	*
P 88B											
4Q21	443.35	10/6/2021	NE	31.07	NA	NA	NA	412.28	371.70 - 369.70 (71.65 - 73.65)	0.0	*
1Q22		1/4/2022	NE	32.33	NA	NA	NA	411.02		0.1	*
2Q22		4/6/2022	NE	33.62	NA	NA	NA	409.73		0.0	*
3Q22		7/7/2022	NE	33.16	NA	NA	NA	410.19		0.0	*
P 88C											
4Q21	443.31	10/6/2021	NE	31.02	NA	NA	NA	412.29	351.01 - 349.01 (92.30 - 94.30)	0.0	*
1Q22		1/4/2022	NE	32.27	NA	NA	NA	411.04		0.0	*
2Q22		4/6/2022	NE	33.56	NA	NA	NA	409.75		0.0	*
3Q22		7/7/2022	NE	33.13	NA	NA	NA	410.18		0.0	*
P 88D											
4Q21	443.38	10/6/2021	NE	31.17	NA	NA	NA	412.21	331.21 - 329.21 (112.17 - 114.17)	0.0	*
1Q22		1/4/2022	NE	32.42	NA	NA	NA	410.96		0.1	*
2Q22		4/6/2022	NE	33.69	NA	NA	NA	409.69		0.0	*
3Q22		7/7/2022	NE	33.23	NA	NA	NA	410.15		0.0	*
P 89B											
4Q21	447.64	10/5/2021	NE	38.87	NA	NA	NA	408.77	370.28 - 368.28 (77.36 - 79.36)	0.0	*
1Q22		1/5/2022	NE	40.52	NA	NA	NA	407.12		0.0	*
2Q22		4/5/2022	NE	41.28	NA	NA	NA	406.36		0.0	*
3Q22		7/6/2022	NE	42.29	NA	NA	NA	405.35		0.0	*
P 89C											
4Q21	447.96	10/5/2021	NE	39.22	NA	NA	NA	408.74	351.56 - 349.56 (96.40 - 98.40)	0.0	*
1Q22		1/5/2022	NE	40.84	NA	NA	NA	407.12		0.0	*
2Q22		4/5/2022	NE	41.61	NA	NA	NA	406.35		0.0	*
3Q22		7/6/2022	NE	42.72	NA	NA	NA	405.24		0.0	*
P 89D											
4Q21	447.83	10/5/2021	NE	39.30	NA	NA	NA	408.53	309.33 - 307.33 (138.50 - 140.50)	0.0	*
1Q22		1/5/2022	NE	40.85	NA	NA	NA	406.98		0.0	*
2Q22		4/5/2022	NE	41.58	NA	NA	NA	406.25		0.0	*
3Q22		7/6/2022	NE	42.84	NA	NA	NA	404.99		0.0	*
P 91A											
4Q21	447.43	10/4/2021	43.95	43.96	403.47	403.48	0.01	403.48	395.92 - 380.92 (51.51 - 66.51)	10.2	*
1Q22		1/4/2022	44.66	44.67	402.76	402.77	0.01	402.77		7.7	*
2Q22		4/5/2022	NE	45.85	NA	NA	NA	401.58		177.6	*
3Q22		7/5/2022	NE	46.26	NA	NA	NA	401.17		6.6	*
P 91B											
4Q21	447.47	10/4/2021	NE	44.07	NA	NA	NA	403.40	372.78 - 370.78 (74.69 - 76.69)	7.4	*
1Q22		1/4/2022	NE	44.79	NA	NA	NA	402.68		0.0	*
2Q22		4/5/2022	NE	45.97	NA	NA	NA	401.50		6.0	*
3Q22		7/5/2022	NE	46.35	NA	NA	NA	401.12		1.8	*
P 91C											
4Q21	447.27	10/4/2021	NE	43.84	NA	NA	NA	403.43	352.54 - 350.54 (94.73 - 96.73)	0.0	*
1Q22		1/4/2022	NE	44.51	NA	NA	NA	402.76		0.0	*
2Q22		4/5/2022	NE	45.71	NA	NA	NA	401.56		0.7	*
3Q22		7/5/2022	NE	46.11	NA	NA	NA	401.16		0.0	*
P 91D											
4Q21	447.26	10/4/2021	NE	43.87	NA	NA	NA	403.39	278.94 - 276.94 (168.32 - 170.32)	0.0	*
1Q22		1/4/2022	NE	44.52	NA	NA	NA	402.74		0.0	*
2Q22		4/5/2022	NE	45.71	NA	NA	NA	401.55		8.2	*
3Q22		7/5/2022	NE	46.12	NA	NA	NA	401.14		0.0	*
P 92A											
4Q21	446.39	10/4/2021	42.19	42.20	404.19	404.20	0.01	404.20	398.82 - 383.82 (47.57 - 62.57)	5.2	*
1Q22		1/4/2022	43.05	43.10	403.29	403.34	0.05	403.33		49.3	*
2Q22		4/4/2022	NE	44.08	NA	NA	NA	402.31		28.0	*
3Q22		7/5/2022	42.21	42.22	404.17	404.18	0.01	404.18		72.0	*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 92B											
4Q21	446.33	10/4/2021	NE	42.10	NA	NA	NA	404.23	371.92 - 369.92 (74.41 - 76.41)	0.0	*
1Q22		1/4/2022	NE	42.97	NA	NA	NA	403.36		0.0	*
2Q22		4/4/2022	NE	44.01	NA	NA	NA	402.32		0.0	*
3Q22		7/5/2022	NE	44.11	NA	NA	NA	402.22		0.0	*
P 92C											
4Q21	446.34	10/4/2021	NE	42.08	NA	NA	NA	404.26	353.38 - 348.38 (92.96 - 97.96)	0.0	*
1Q22		1/4/2022	NE	42.97	NA	NA	NA	403.37		0.0	*
2Q22		4/4/2022	NE	43.99	NA	NA	NA	402.35		0.0	*
3Q22		7/5/2022	NE	42.88	NA	NA	NA	403.46		0.6	*
P 92D											
4Q21	446.15	10/4/2021	NE	41.08	NA	NA	NA	405.07	305.15 - 303.15 (141.00 - 143.00)	0.0	*
1Q22		1/4/2022	NE	42.87	NA	NA	NA	403.28		0.0	*
2Q22		4/4/2022	NE	43.87	NA	NA	NA	402.28		0.0	*
3Q22		7/5/2022	NE	44.03	NA	NA	NA	402.12		0.0	*
P 93A											
4Q21	445.37	10/4/2021	NE	40.56	NA	NA	NA	404.81	402.30 - 392.30 (43.07 - 53.07)	0.0	*
1Q22		1/3/2022	NE	41.79	NA	NA	NA	403.58		0.0	*
2Q22		4/4/2022	NE	42.47	NA	NA	NA	402.90		0.0	*
3Q22		7/5/2022	NE	41.68	NA	NA	NA	403.69		0.0	*
P 93B											
4Q21	446.70	10/4/2021	NE	41.88	NA	NA	NA	404.82	371.92 - 369.92 (74.78 - 76.78)	0.0	*
1Q22		1/3/2022	NE	43.06	NA	NA	NA	403.64		0.0	*
2Q22		4/4/2022	NE	43.80	NA	NA	NA	402.90		0.0	*
3Q22		7/5/2022	NE	43.05	NA	NA	NA	403.65		0.0	*
P 93C											
4Q21	446.55	10/4/2021	NE	41.47	NA	NA	NA	405.08	353.67 - 348.67 (92.88 - 97.88)	0.0	*
1Q22		1/3/2022	NE	42.90	NA	NA	NA	403.65		0.0	*
2Q22		4/4/2022	NE	43.83	NA	NA	NA	402.72		0.0	*
3Q22		7/5/2022	NE	42.88	NA	NA	NA	403.67		0.0	*
P 93D											
4Q21	446.97	10/4/2021	NE	42.09	NA	NA	NA	404.88	321.31 - 319.31 (125.66 - 127.66)	0.0	*
1Q22		1/3/2022	NE	43.28	NA	NA	NA	403.69		0.0	*
2Q22		4/4/2022	NE	44.03	NA	NA	NA	402.94		0.0	*
3Q22		7/5/2022	NE	43.23	NA	NA	NA	403.74		0.0	*
P 94											
4Q21	445.04	10/5/2021	NE	34.70	NA	NA	NA	410.34	398.80 - 383.80 (46.24 - 61.24)	0.0	*
1Q22		1/3/2022	NE	36.49	NA	NA	NA	408.55		0.0	*
2Q22		4/4/2022	NE	37.36	NA	NA	NA	407.68		0.0	*
3Q22		7/5/2022	NE	38.02	NA	NA	NA	407.02		0.0	*
P 95											
4Q21	443.95	10/6/2021	NE	28.93	NA	NA	NA	415.02	407.43 - 392.43 (36.52 - 51.52)	0.0	*
1Q22		1/4/2022	NE	30.18	NA	NA	NA	413.77		0.1	*
2Q22		4/6/2022	NE	31.64	NA	NA	NA	412.31		0.0	*
3Q22		7/7/2022	NE	31.24	NA	NA	NA	412.71		0.0	*
P 102											
4Q21	445.14	10/6/2021	NE	32.29	NA	NA	NA	412.85	402.39 - 382.39 (42.75 - 62.75)	52.8	*
1Q22		1/5/2022	NE	34.26	NA	NA	NA	410.88		1.1	*
2Q22		4/6/2022	NE	35.36	NA	NA	NA	409.78		1.7	*
3Q22		7/7/2022	NE	35.20	NA	NA	NA	409.94		2.5	*
P 114R											
4Q21	429.48	10/5/2021	NE	23.86	NA	NA	NA	405.62	406.47 - 396.47 (23.01 - 33.01)	6.2	
1Q22		1/4/2022	NE	24.88	NA	NA	NA	404.60		10.8	
2Q22		4/5/2022	NE	25.48	NA	NA	NA	404.00		48.4	
3Q22		7/6/2022	NE	24.25	NA	NA	NA	405.23		6.2	
P 115											
4Q21	433.54	10/5/2021	NE	27.88	NA	NA	NA	405.66	401.24 - 381.24 (32.30 - 52.30)	0.0	*
1Q22		1/4/2022	NE	28.97	NA	NA	NA	404.57		0.1	*
2Q22		4/5/2022	NE	29.41	NA	NA	NA	404.13		0.0	*
3Q22		7/6/2022	NE	28.16	NA	NA	NA	405.38		0.0	*
P 116											
4Q21	436.79	10/5/2021	NE	31.37	NA	NA	NA	405.42	399.35 - 379.35 (37.44 - 57.44)	1.7	*
1Q22		1/4/2022	NE	32.44	NA	NA	NA	404.35		0.1	*
2Q22		4/5/2022	NE	32.81	NA	NA	NA	403.98		0.0	*
3Q22		7/6/2022	NE	31.51	NA	NA	NA	405.28		0.0	*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 117											
4Q21	432.87	10/5/2021	NE	27.62	NA	NA	NA	405.25	399.94 - 379.94 (32.93 - 52.93)	1.2	*
1Q22		1/4/2022	NE	28.69	NA	NA	NA	404.18		0.1	*
2Q22		4/5/2022	NE	29.03	NA	NA	NA	403.84		0.0	*
3Q22		7/6/2022	NE	27.67	NA	NA	NA	405.20		0.0	*
P 118											
4Q21	431.48	10/5/2021	NE	26.65	NA	NA	NA	404.83	400.36 - 384.43 (31.12 - 47.05)	0.0	*
1Q22		1/4/2022	NE	27.66	NA	NA	NA	403.82		0.0	*
2Q22		4/5/2022	NE	27.74	NA	NA	NA	403.74		0.0	*
3Q22		7/6/2022	NE	26.39	NA	NA	NA	405.09		0.0	*
P 119											
4Q21	432.11	10/5/2021	NE	26.11	NA	NA	NA	406.00	401.44 - 385.51 (30.67 - 46.60)	0.1	*
1Q22		1/4/2022	NE	27.03	NA	NA	NA	405.08		0.1	*
2Q22		4/5/2022	NE	27.78	NA	NA	NA	404.33		0.0	*
3Q22		7/6/2022	NE	26.94	NA	NA	NA	405.17		0.0	*
P 120											
4Q21	433.00	10/5/2021	NE	26.25	NA	NA	NA	406.75	401.62 - 385.69 (31.38 - 47.31)	0.2	*
1Q22		1/4/2022	NE	27.58	NA	NA	NA	405.42		0.0	*
2Q22		4/5/2022	NE	27.99	NA	NA	NA	405.01		0.0	*
3Q22		7/6/2022	NE	27.09	NA	NA	NA	405.91		0.0	*
P 129											
4Q21	432.66	10/5/2021	NE	29.28	NA	NA	NA	403.38	400.69 - 384.76 (31.97 - 47.90)	0.0	*
1Q22		1/4/2022	NE	30.12	NA	NA	NA	402.54		0.0	*
2Q22		4/5/2022	NE	29.36	NA	NA	NA	403.30		0.0	*
3Q22		7/6/2022	NE	28.23	NA	NA	NA	404.43		0.0	*
ROST 3 MW											
4Q21	442.52	10/5/2021	NE	36.98	NA	NA	NA	405.54	404.71 - 394.71 (37.81 - 47.81)	0.0	*
1Q22		1/3/2022	NE	38.10	NA	NA	NA	404.42		0.0	
2Q22		4/5/2022	NE	39.12	NA	NA	NA	403.40		31.5	
3Q22		7/5/2022	NE	38.43	NA	NA	NA	404.09		75.6	
ROST 4 PZ											
4Q21	442.15	10/4/2021	NE	36.08	NA	NA	NA	406.07	407.22 - 397.22 (34.93 - 44.93)	1.5	
1Q22		1/3/2022	NE	37.27	NA	NA	NA	404.88		0.2	
2Q22		4/4/2022	NE	38.21	NA	NA	NA	403.94		0.0	
3Q22		7/5/2022	NE	37.93	NA	NA	NA	404.22		0.0	
ROST 4 PZ(A)											
4Q21	442.15	10/4/2021	NE	35.15	NA	NA	NA	407.00	407.38 - 397.38 (34.77 - 44.77)	33.3	
1Q22		1/3/2022	NE	36.34	NA	NA	NA	405.81		0.0	
2Q22		4/4/2022	NE	37.36	NA	NA	NA	404.79		0.0	
3Q22		7/5/2022	NE	36.96	NA	NA	NA	405.19		0.0	
ROST 4 PZ(B)											
4Q21	442.40	10/4/2021	NE	35.95	NA	NA	NA	406.45	407.35 - 397.35 (35.05 - 45.05)	0.0	
1Q22		1/3/2022	NE	37.10	NA	NA	NA	405.30		0.0	
2Q22		4/4/2022	NE	38.22	NA	NA	NA	404.18		0.0	
3Q22		7/5/2022	NE	37.89	NA	NA	NA	404.51		0.0	
ROST 4 PZ(C)											
4Q21	442.97	10/4/2021	NE	37.02	NA	NA	NA	405.95	408.02 - 398.02 (34.95 - 44.95)	0.1	
1Q22		1/3/2022	NE	38.13	NA	NA	NA	404.84		0.1	
2Q22		4/5/2022	NE	39.17	NA	NA	NA	403.80		0.0	
3Q22		7/5/2022	NE	38.81	NA	NA	NA	404.16		0.0	
ROST 4 PZ(D)											
4Q21	442.92	10/4/2021	NE	36.88	NA	NA	NA	406.04	407.95 - 397.95 (34.97 - 44.97)	0.7	
1Q22		1/3/2022	NE	38.03	NA	NA	NA	404.89		0.8	
2Q22		4/5/2022	NE	38.96	NA	NA	NA	403.96		0.0	
3Q22		7/5/2022	NE	38.65	NA	NA	NA	404.27		0.0	
ROST 4 PZ(E)											
4Q21	441.98	10/4/2021	NE	36.14	NA	NA	NA	405.84	407.23-397.23 (34.75-44.75)	1.0	
1Q22		1/3/2022	37.20	37.21	404.77	404.78	0.01	404.78		0.0	Initial gauge.
		1/11/2022	NE	37.09	NA	NA	NA	404.89		0.0	Confirmation gauge.
2Q22		4/4/2022	NE	38.19	NA	NA	NA	403.79		0.0	
3Q22		7/5/2022	NE	37.82	NA	NA	NA	404.16		0.0	
ROST 4 PZ(F)											
4Q21	442.12	10/4/2021	NE	36.40	NA	NA	NA	405.72	407.59 - 397.59 (34.53 - 44.53)	0.1	
1Q22		1/3/2022	NE	37.40	NA	NA	NA	404.72		0.0	
2Q22		4/4/2022	NE	39.41	NA	NA	NA	402.71		0.0	
3Q22		7/5/2022	NE	38.09	NA	NA	NA	404.03		0.0	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
ROST 4 PZ(G)											
4Q21	442.20	10/4/2021	NE	36.97	NA	NA	NA	405.23	407.92 - 397.92 (34.28 - 44.28)	108.9	
1Q22		1/3/2022	NE	38.15	NA	NA	NA	404.05		308.5	
2Q22		4/5/2022	NE	39.16	NA	NA	NA	403.04		50.3	
3Q22		7/5/2022	NE	38.46	NA	NA	NA	403.74		0.0	
S 1											
4Q21	444.06	10/4/2021	39.35	39.37	404.69	404.71	0.02	404.71	Unknown	113.8	
1Q22		1/4/2022	40.26	40.28	403.78	403.80	0.02	403.80		61.7	
2Q22		4/4/2022	41.24	41.25	402.81	402.82	0.01	402.82		141.5	
3Q22		7/6/2022	41.02	41.06	403.00	403.04	0.04	403.03		156.6	
T 1											
4Q21	445.61	10/4/2021	NE	39.40	NA	NA	NA	406.21	398.61 - 388.61 (47.00 - 57.00)	0.0	*
1Q22		1/3/2022	NE	40.57	NA	NA	NA	405.04		0.0	*
2Q22		4/4/2022	NE	41.55	NA	NA	NA	404.06		0.0	*
3Q22		7/5/2022	NE	41.22	NA	NA	NA	404.39		0.3	*
T 2											
4Q21	443.40	10/4/2021	NE	37.54	NA	NA	NA	405.86	392.90 - 372.76 (50.49 - 70.64)	0.0	*
1Q22		1/4/2022	NE	38.56	NA	NA	NA	404.84		0.0	*
2Q22		4/4/2022	NE	39.61	NA	NA	NA	403.79		0.0	*
3Q22		7/5/2022	NE	39.63	NA	NA	NA	403.77		0.0	*
T 3											
4Q21	449.21	10/4/2021	NE	44.46	NA	NA	NA	404.75	403.99 - 388.99 (45.22 - 60.22)	0.0	*
1Q22		1/3/2022	NE	45.76	NA	NA	NA	403.45		0.2	
2Q22		4/4/2022	NE	46.57	NA	NA	NA	402.64		0.0	
3Q22		7/5/2022	NE	46.76	NA	NA	NA	402.45		0.0	
T 4											
4Q21	446.82	10/5/2021	NE	43.38	NA	NA	NA	403.44	396.80 - 381.80 (50.02 - 65.02)	0.3	*
1Q22		1/4/2022	NE	43.86	NA	NA	NA	402.96		0.0	*
2Q22		4/5/2022	NE	44.70	NA	NA	NA	402.12		0.0	*
3Q22		7/5/2022	NE	46.23	NA	NA	NA	400.59		0.0	*
T 5											
4Q21	443.66	10/4/2021	NE	38.36	NA	NA	NA	405.30	395.33 - 378.78 (48.33 - 64.88)	2.1	*
1Q22		1/4/2022	NE	39.37	NA	NA	NA	404.29		1.0	*
2Q22		4/4/2022	NE	40.30	NA	NA	NA	403.36		2.5	*
3Q22		7/6/2022	NE	40.22	NA	NA	NA	403.44		16.8	*
T 6											
4Q21	446.78	10/4/2021	NE	41.99	NA	NA	NA	404.79	394.27 - 380.02 (52.51 - 66.76)	4.2	*
1Q22		1/3/2022	NE	43.22	NA	NA	NA	403.56		0.2	*
2Q22		4/4/2022	NE	43.97	NA	NA	NA	402.81		1.4	*
3Q22		7/5/2022	NE	43.23	NA	NA	NA	403.55		0.0	*
T 7											
4Q21	444.26	10/6/2021	NE	38.06	NA	NA	NA	406.20	395.54 - 380.54 (48.72 - 63.72)	9.5	*
1Q22		1/6/2022	NE	39.26	NA	NA	NA	405.00		2.0	*
2Q22		4/6/2022	NE	39.92	NA	NA	NA	404.34		2.1	*
3Q22		7/7/2022	NE	39.44	NA	NA	NA	404.82		0.0	*
T 12											
4Q21	444.99	10/4/2021	NE	40.10	NA	NA	NA	404.89	398.16 - 372.16 (46.83 - 72.83)	49.1	*
1Q22		1/3/2022	NE	41.99	NA	NA	NA	403.00		3.5	*
2Q22		4/4/2022	NE	42.39	NA	NA	NA	402.60		3.1	*
3Q22		7/5/2022	NE	41.64	NA	NA	NA	403.35		5.7	*
T 13											
4Q21	443.76	10/4/2021	NE	37.21	NA	NA	NA	406.55	399.95 - 373.95 (43.81 - 69.81)	0.0	*
1Q22		1/3/2022	NE	38.78	NA	NA	NA	404.98		0.0	*
2Q22		4/4/2022	NE	39.41	NA	NA	NA	404.35		0.0	*
3Q22		7/5/2022	NE	39.10	NA	NA	NA	404.66		0.0	*
T 15											
4Q21	445.35	10/4/2021	NE	39.21	NA	NA	NA	406.14	396.95 - 370.95 (48.40 - 74.40)	0.0	*
1Q22		1/4/2022	NE	40.31	NA	NA	NA	405.04		0.0	*
2Q22		4/4/2022	NE	41.35	NA	NA	NA	404.00		0.0	*
3Q22		7/5/2022	NE	41.55	NA	NA	NA	403.80		0.0	*
T 17											
4Q21	446.19	10/5/2021	NE	38.02	NA	NA	NA	408.17	401.72 - 375.72 (44.47 - 70.47)	0.1	*
1Q22		1/3/2022	NE	39.53	NA	NA	NA	406.66		0.2	*
2Q22		4/4/2022	NE	40.34	NA	NA	NA	405.85		0.0	*
3Q22		7/5/2022	NE	41.28	NA	NA	NA	404.91		0.0	*

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
T 19											
4Q21	446.99	10/5/2021	NE	43.42	NA	NA	NA	403.57	396.22 - 370.22 (50.77 - 76.77)	52.7	*
1Q22		1/4/2022	NE	43.91	NA	NA	NA	403.08		2.3	*
2Q22		4/5/2022	NE	44.74	NA	NA	NA	402.25		8.5	*
3Q22		7/5/2022	NE	46.22	NA	NA	NA	400.77		33.8	*
T 21											
4Q21	444.22	10/6/2021	NE	29.15	NA	NA	NA	415.07	412.26 - 386.26 (31.96 - 57.96)	0.0	*
1Q22		1/5/2022	NE	30.91	NA	NA	NA	413.31		0.5	*
2Q22		4/6/2022	NE	31.91	NA	NA	NA	412.31		0.0	*
3Q22		7/7/2022	NE	31.56	NA	NA	NA	412.66		0.0	*
T 22											
4Q21	442.37	10/6/2021	NE	31.14	NA	NA	NA	411.23	410.82 - 385.12 (31.55 - 57.25)	0.0	*
1Q22		1/5/2022	NE	32.83	NA	NA	NA	409.54		0.2	
2Q22		4/6/2022	NE	33.47	NA	NA	NA	408.90		0.0	
3Q22		7/7/2022	NE	32.87	NA	NA	NA	409.50		0.0	
T 23											
4Q21	432.90	10/6/2021	NE	24.21	NA	NA	NA	408.69	405.67 - 379.67 (27.23 - 53.23)	0.0	*
1Q22		1/5/2022	NE	25.92	NA	NA	NA	406.98		0.0	*
2Q22		4/6/2022	NE	26.05	NA	NA	NA	406.85		0.0	*
3Q22		7/7/2022	NE	25.51	NA	NA	NA	407.39		0.0	*
T 24											
4Q21	444.00	10/4/2021	39.05	39.09	404.91	404.95	0.04	404.94	402.50 - 376.85 (41.50 - 67.15)	0.1	*
1Q22		1/4/2022	39.94	39.99	404.01	404.06	0.05	404.05		16.8	*
2Q22		4/4/2022	41.11	41.24	402.76	402.89	0.13	402.86		0.0	*
3Q22		7/6/2022	NE	40.93	NA	NA	NA	403.07		16.4	*
T 28											
4Q21	444.56	10/4/2021	NE	37.68	NA	NA	NA	406.88	Unknown	0.0	
1Q22		1/3/2022	NE	39.14	NA	NA	NA	405.42		0.0	
2Q22		4/4/2022	NE	39.94	NA	NA	NA	404.62		0.0	
3Q22		7/5/2022	NE	40.64	NA	NA	NA	403.92		0.0	
T 37											
4Q21	447.44	10/5/2021	NE	38.72	NA	NA	NA	408.72	398.58 - 378.58 (48.85 - 68.85)	0.0	*
1Q22		1/5/2022	NE	40.36	NA	NA	NA	407.08		0.0	*
2Q22		4/5/2022	NE	41.10	NA	NA	NA	406.34		0.0	*
3Q22		7/6/2022	NE	42.24	NA	NA	NA	405.20		0.0	*
T 38											
4Q21	445.89	10/5/2021	NE	35.38	NA	NA	NA	410.51	396.75 - 376.75 (49.14 - 69.14)	0.0	*
1Q22		1/5/2022	NE	37.73	NA	NA	NA	408.16		0.0	*
2Q22		4/5/2022	NE	38.39	NA	NA	NA	407.50		0.0	*
3Q22		7/6/2022	NE	38.67	NA	NA	NA	407.22		0.0	*
T 62											
4Q21	432.16	10/5/2021	NE	26.07	NA	NA	NA	406.09	412.45 - 382.45 (19.71 - 49.71)	0.0	
1Q22		1/4/2022	NE	27.02	NA	NA	NA	405.14		0.1	
2Q22		4/5/2022	NE	27.72	NA	NA	NA	404.44		0.0	
3Q22		7/6/2022	NE	26.57	NA	NA	NA	405.59		0.0	
T 63											
4Q21	431.55	10/5/2021	NE	25.75	NA	NA	NA	405.80	411.57 - 381.57 (19.98 - 49.98)	0.0	
1Q22		1/4/2022	NE	26.79	NA	NA	NA	404.76		0.1	
2Q22		4/5/2022	NE	27.32	NA	NA	NA	404.23		0.0	
3Q22		7/6/2022	NE	26.02	NA	NA	NA	405.53		0.0	
T 64											
4Q21	429.10	10/5/2021	NE	23.86	NA	NA	NA	405.24	409.29 - 379.29 (19.81 - 49.81)	0.0	
1Q22		1/4/2022	NE	24.94	NA	NA	NA	404.16		0.0	
2Q22		4/7/2022	NE	25.19	NA	NA	NA	403.91		0.0	
3Q22		7/6/2022	NE	23.67	NA	NA	NA	405.43		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 spec fic gravity of 0.80 for the we ls 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 we ls be surveyed every five (5) years.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-01							
4Q21	6.88	18.90	1.096	27 05	0.64	-23 2	
1Q22	6.85	16.22	0.942	9.52	0.96	122.5	
2Q22	6.78	17.10	1.013	24 80	0.37	58 2	
3Q22	6.98	21.61	1.042	30 53	0.51	20 5	
MW-02							
4Q21	7.12	19.00	0.990	5.36	0.66	21 2	
1Q22	7.14	16.07	1.003	10 30	0.46	-129.2	
2Q22	7.15	16.37	1.021	4.61	0.20	-123.2	
3Q22	7.13	21.56	0.968	2.87	0.40	-140.6	
MW-03							
4Q21	6.69	19.20	1.368	11 84	0.45	-88.4	
1Q22	6.84	15.94	1.347	1.19	0.44	-135.4	
2Q22	6.69	16.73	1.492	3.69	0.18	-56 8	
3Q22	6.68	20.37	1.461	3.56	0.34	-137.8	
MW-04							
4Q21	6.54	17.90	0.990	42 34	0.71	171.4	
1Q22	6.79	16.13	0.961	17 03	0.70	-53 0	
2Q22	6.54	15.38	1.134	15 23	0.37	103.2	
3Q22	6.72	20.57	1.172	22.16	0.34	-103.5	
MW-05							
4Q21	6.60	19.10	1.050	3.43	0.59	47.1	
1Q22	6.94	16.46	1.190	2.53	0.47	-144.4	
2Q22	6.67	17.80	1.134	5.26	0.28	35.7	
3Q22	6.70	20.59	1.126	9.98	1.01	-100.9	
MW-06A							
4Q21	6.52	20.30	1.444	30.10	0.50	-51 2	
1Q22	6.80	18.30	1.196	33 24	0.44	-121.2	
2Q22	6.52	18.20	1.189	29 00	0.16	-67.7	
3Q22	6.80	22.51	0.956	32 29	1.02	-72 9	
MW-06B							
4Q21	6.93	20.50	0.963	0.00	0.41	-35.4	
1Q22	7.06	16.20	0.794	2.89	0.53	-106.6	
2Q22	7.06	17.59	0.832	7.91	0.37	-61 8	
3Q22	7.14	21.72	0.763	8.30	0.91	-96.1	
MW-06C							
4Q21	6.63	19.60	0.690	4.65	0.52	101.9	
1Q22	7.24	14.31	0.655	8.62	2.79	83 9	
2Q22	7.08	17.24	0.761	3.11	0.37	-70 8	
3Q22	7.12	21.07	0.766	1.92	0.88	-111.9	
MW-06D							
4Q21	7.03	19.40	0.964	43.70	0.44	-105.4	
1Q22	7.09	15.04	1.056	27.13	2.43	97 5	
2Q22	6.91	17.36	1.314	10 87	0.19	-62.1	
3Q22	7.00	20.22	0.993	33.11	0.84	-98.4	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-07							
4Q21	6.73	19.00	1.197	6.06	0.59	72 3	
1Q22	6.72	16.49	1.216	12.14	0.64	-59 6	
2Q22	6.78	17.66	1.470	5.16	0.27	16 0	
3Q22	6.78	22.51	1.296	7.48	0.32	-75.1	
MW-08							
4Q21	6.70	19.00	1.176	15 33	0.62	59 0	
1Q22	6.83	16.57	1.255	7.91	0.71	-133.9	
2Q22	6.81	16.77	1.409	11 56	0.27	3.0	
3Q22	6.86	22.25	1.393	4.69	0.32	-145.3	
MW-09							
4Q21	6.81	18.50	1.257	6.01	0.64	6.0	
1Q22	6.84	14.57	1.142	16 63	0.72	-67.7	
2Q22	6.71	17.31	1.300	18 85	2.58	84 9	
3Q22	6.58	20.08	1.102	6.32	0.44	-61 8	
MW-10							
4Q21	6.76	19.20	1.641	16.40	0.49	-32.1	
1Q22	6.99	18.01	1.365	47.48	0.67	-105.6	
2Q22	6.96	17.28	1.494	37 26	0.25	-83 6	
3Q22	6.94	21.40	2.106	31.71	0.45	-138.4	
MW-11							
4Q21	6.75	18.70	1.647	6.20	0.67	8.7	
1Q22	6.84	14.59	1.437	48 34	0.72	-53.4	
2Q22	6.83	16.48	1.493	6.97	2.70	78 0	
3Q22	6.70	20.08	1.615	13 33	0.41	-91 0	
MW-12							
4Q21	6.56	18.20	0.987	1.77	0.59	140.1	
1Q22	6.97	17.06	0.859	16.40	0.84	109.6	
2Q22	6.97	16.99	0.912	7.53	0.34	2.7	
3Q22	7.03	21.12	0.937	8.62	0.45	74 6	
MW-13							
4Q21	6.57	20.70	1.305	22 98	0.55	-94.1	
1Q22	6.70	17.90	1.206	49 63	0.57	-124.8	
2Q22	6.42	19.12	1.233	32.49	0.21	-19.7	
3Q22	6.59	23.85	1.009	19 63	0.14	-125.8	
MW-14							
4Q21	6.57	19.20	1.008	10.70	0.66	92.4	
1Q22	6.71	17.08	1.202	17 96	0.71	52 3	
2Q22	6.63	15.60	1.225	37.70	0.20	-33 8	
3Q22	6.67	20.80	1.197	36 29	0.66	-84.7	
MW-16							
4Q21	6.78	19.80	0.927	15 32	0.72	39 2	
1Q22	6.85	15.29	0.803	34 63	0.85	-57.4	
2Q22	6.72	16.29	0.900	8.48	0.40	14.4	
3Q22	6.73	21.08	0.873	25 62	0.63	-14 6	

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							
4Q21	6.79	19.60	1.269	10 34	0.69	9.8	
1Q22	6.98	15.75	1.289	7.46	0.57	-52.7	
2Q22	6.97	17.69	1.195	4.68	0.29	3.1	
3Q22	6.99	22.70	1.064	9.92	0.45	-104.1	
MW-23							
4Q21	6.52	18.80	1.192	38 55	0.48	-48 0	
1Q22	6.50	16.07	0.985	32 59	0.74	-76 3	
2Q22	6.62	17.31	0.959	16 34	0.28	-22 3	
3Q22	6.53	21.70	1.057	11 65	0.36	-99 9	
MW-24							
4Q21	6.88	19.10	1.453	1.90	0.75	49 3	
1Q22	6.92	15.79	1.221	29 33	1.01	13.7	
2Q22	7.00	17.53	1.627	10 06	2.67	87.7	
3Q22	6.62	19.35	1.618	4.61	0.38	140.0	
MW-25							
4Q21	6.74	18.80	1.061	13.45	0.74	135.0	
1Q22	6.90	17.03	1.022	10 55	0.72	-96 8	
2Q22	6.82	17.47	1.217	42 28	0.18	21 8	
3Q22	6.91	22.57	1.087	13 94	0.38	-129.9	
MW-26							
4Q21	6.67	19.40	1.607	14 57	0.67	56.1	
1Q22	6.70	15.13	1.528	12 68	0.58	127.2	
2Q22	6.76	16.94	1.580	23 64	0.41	19 5	
3Q22	6.58	20.50	1.311	1.06	0.93	127.3	
MW-27							
4Q21	6.81	18.70	0.924	12 33	2.17	45 3	
1Q22	6.91	16.99	0.810	39.42	1.61	104.5	
2Q22	6.87	15.29	0.933	14.72	0.80	25 6	
3Q22	6.77	19.72	0.857	11.48	1.72	38 2	
MW-28							
4Q21	6.56	18.30	1.473	33 87	0.66	113.1	
1Q22	6.74	17.92	1.150	36.79	0.52	-53 2	
2Q22	6.65	17.30	1.129	20 21	0.28	48.4	
3Q22	6.73	21.17	1.124	29.48	0.34	-53 6	
P-54							
4Q21	6.69	19.10	1.135	1.02	2.57	34 6	
1Q22	6.82	13.91	1.367	1.97	2.87	194.5	
2Q22	6.85	13.38	1.367	6.22	2.03	65 2	
3Q22	6.75	21.62	1.067	9.35	2.31	81 9	
P-55R							
4Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q22	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							
4Q21	7.14	18.91	1.055	2.14	0.88	-123.7	
1Q22	7.02	17.70	1.092	5.85	0.43	-144.6	
2Q22	7.03	17.98	1.097	16.10	0.48	-140.9	
3Q22	7.12	23.09	1.053	9.59	0.28	-129.5	
P-57							
4Q21	6.88	21.20	0.979	4.65	0.54	-54 3	
1Q22	7.01	16.18	1.106	6.75	0.79	-51 2	
2Q22	6.88	18.30	1.067	2.39	0.27	-65.4	
3Q22	6.85	22.10	1.104	0.47	0.43	-134.5	
P-58							
4Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q22	6.83	18.70	1.382	17 01	0.41	-141.3	
2Q22	6.68	18.82	1.434	16 04	0.23	-29.1	
3Q22	6.72	23.15	1.448	43 98	0.17	-148.1	
P-59							
4Q21	6.60	22.96	1.224	23 30	0.88	-87 3	
1Q22	6.53	19.20	1.397	2.21	0.45	-120.6	
2Q22	6.46	18.42	1.412	2.81	0.30	27.4	
3Q22	6.52	24.71	1.317	3.95	0.28	-111.3	
P-66							
4Q21	6.65	20.07	1.334	4.04	1.21	-70.1	
1Q22	6.66	17.48	1.335	2.70	0.67	-63 3	
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-68							
4Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-74							
4Q21	6.57	22.60	0.209	8.01	0.62	11 5	
1Q22	6.43	16.70	0.207	9.12	0.57	69.7	
2Q22	6.69	15.17	0.194	9.89	1.35	106.4	
3Q22	6.38	22.48	0.187	7.58	0.33	-31 8	
P-93A							
4Q21	6.44	18.40	1.181	2.03	1.03	60.4	
1Q22	6.47	18.60	1.398	0.00	0.44	-51 9	
2Q22	6.65	19.84	1.332	2.49	0.47	-51 3	
3Q22	6.43	21.50	1.272	0.00	0.68	114.9	
P-93B							
4Q21	6.71	18.70	1.276	46 31	0.90	-68 8	
1Q22	6.69	17.35	1.362	3.14	0.51	-119.4	
2Q22	6.58	15.20	1.302	2.78	0.31	46 9	
3Q22	6.59	19.72	1.302	3.18	0.46	-68 3	

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							
4Q21	6.85	20.20	1.023	0.00	0.68	-24.7	
1Q22	6.87	15.50	1.067	4.93	0.75	-43.7	
2Q22	7.06	17.80	1.033	5.23	0.56	-117.7	
3Q22	6.92	20.48	1.069	5.27	0.33	-105.4	
P-93D							
4Q21	6.97	18.25	1.120	8.00	0.92	-70 0	
1Q22	7.17	13.50	1.200	6.66	1.06	-11 5	
2Q22	7.11	16.86	1.207	5.39	0.81	-104.2	
3Q22	6.97	19.27	1.110	3.28	0.32	-47 9	
P-114R							
4Q21	6.58	22.50	1.078	28.72	0.40	-132.4	
1Q22	6.78	19.93	0.934	45 55	0.55	-133.0	
2Q22	6.70	20.16	1.155	32 51	0.17	-80 2	
3Q22	6.51	25.54	0.893	39 65	0.40	-142.1	
ROST-3-MW							
4Q21	6.64	19.00	1.463	7.60	0.53	-29 2	
1Q22	6.76	14.79	1.333	15.79	0.80	-97 5	
2Q22	6.74	16.26	1.273	42.45	0.20	-50 6	
3Q22	6.67	18.71	1.142	2.55	0.80	-99 9	
ROST-4-PZ(C)							
4Q21	6.71	17.70	1.301	19 63	0.80	163.5	
1Q22	6.91	16.86	1.504	6.73	0.35	-273.0	
2Q22	6.76	16.50	1.393	7.99	0.23	-60 8	
3Q22	6.99	22.33	1.255	19 62	0.42	-108.2	
ROST-4-PZ(E)							
4Q21	6.79	19.20	1.864	20.16	0.59	47 0	
1Q22	6.82	18.09	1.731	8.60	0.53	-110.1	
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q22	6.84	21.15	1.725	3.93	0.30	-110.7	
ROST-4-PZ(G)							
4Q21	6.69	19.10	1.314	2.80	0.57	-4.1	
1Q22	6.91	17.13	1.252	3.65	0.47	-149.3	
2Q22	6.73	16.87	1.296	4.90	0.27	35 9	
3Q22	6.85	20.76	1.159	20 69	0.84	-143.2	
T-12							
4Q21	6.86	20.65	1.512	6.27	1.08	-104.9	
1Q22	7.11	18.15	1.453	5.07	0.64	-99 3	
2Q22	7.02	19.22	1.532	3.87	0.60	-142.3	
3Q22	6.83	22.65	1.570	4.86	0.30	-137.1	

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 RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene
Screening Values (mg/L)			**6.3** [1]	**0.005** [1]	**4.2** [1]	**0.35** [3]	**0.7** [3]	**0.7** [3]	**0.7** [1]	**0.100** [1]	**0.07** [1]		**0.14**		**0.07**		**0.7** [1]	**0.7** [1]	**0.07** [1]	**0.14** [1]	**0.7** [3]	**0.1** [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-101321	10/13/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW1-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW1-ROX-041322	4/13/2022	<0.025	<0.001	<0.025	<0 001	<0.001	0.0011	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.0039	<0.001	<0.001	<0.001
	MW1-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-02	MW2-ROX-101521	10/15/2021	<0.025	0.0016	0.007 J	0.0045	0.0047	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.0039	<0.001	<0.005	0.063	0.043	<0.001	0.013	0.066	<0.001
	MW2-ROX-011122	1/11/2022	<0.13	<0.005	<0.13	<0 005	0.0061	<0.005	<0.005	<0.005	<0 005	<0.005	<0.005	0.0059	<0.005	<0 025	0.14	0.057	<0.005	0.019	0.086	<0.005
	MW2-ROX-041422	4/14/2022	<0.025	0.0013	<0.025	0.0013	0.0031	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.0028	<0.001	<0.005	0.072	0.032	<0.001	0.012	0.045	<0.001
	MW2-ROX-041422-DUP	4/14/2022	<0.025	0.0013	<0.025	0.0017	0.0038	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.0039	<0.001	<0.005	0.082	0.036	<0.001	0.014	0.054	<0.001
	MW2-ROX-071422	7/14/2022	<0.13	<0.005	<0.13	<0 005	0.0060	<0.005	<0.005	<0.005	<0 005	<0.005	<0.005	0.0075	<0.005	<0 025	0.42	0.069	<0.005	0.045	0.095	<0.005
MW-03	MW3-ROX-101521	10/15/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	0.0016	<0.001	<0.001	0.004	<0.001
	MW3-ROX-101521-DUP	10/15/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	0.0014	<0.001	<0.001	0.0035	<0.001
	MW3-ROX-011022	1/10/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW3-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.0005 J	<0.005	<0.001	<0.001
	MW3-ROX-071422	7/14/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00085 J	<0.005	<0.001	<0.001
MW-04	MW4-ROX-101921	10/19/2021	<0.025 UJ	0.00068 J	<0.025 UJ	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00066 J	<0.001	<0.001	<0.001
	MW4-ROX-011122	1/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00054 J	<0.001	<0.001	<0.001
	MW4-ROX-041922	4/19/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.0009 J	<0.005	<0.001	<0.001
	MW4-ROX-071822	7/18/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00044 J	<0.005	<0.001	<0.001
MW-05	MW5-ROX-101421	10/14/2021	<0.025	<0.001	<0.025	<0 001	<0.001	0.0014	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.0071	<0.001	<0.001	<0.001
	MW5-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	0.0016	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.0024	<0.001	<0.001	<0.001
	MW5-ROX-041322	4/13/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW5-ROX-071122	7/11/2022	< 0.025	<0.001	<0.025	<0 001	<0.001	0.0022	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.003	<0.005	<0.001	<0.001
MW-06A	MW6A-ROX-101121	10/11/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00059 J	<0.001	<0.001	<0.001
	MW6A-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00054 J	<0.001	<0.001	<0.001
	MW6A-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00041 J	<0.001	<0.001	<0.001
	MW6A-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00038 J	<0.005	<0.001	<0.001
MW-06B	MW6B-ROX-101121	10/11/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00052 J	<0.001	<0.001	<0.001
	MW6B-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00041 J	<0.001	<0.001	<0.001
	MW6B-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00035 J	<0.001	<0.001	<0.001
	MW6B-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00033 J	<0.005	<0.001	<0.001
MW-06C	MW6C-ROX-101221	10/12/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00034 J	<0.001	<0.001	<0.001
	MW6C-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00031 J	<0.001	<0.001	<0.001
	MW6C-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00036 J	<0.001	<0.001	<0.001
	MW6C-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00031 J	<0.005	<0.001	<0.001
MW-06D	MW6D-ROX-101221	10/12/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW6D-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW6D-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW6D-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.0010	<0.005	<0.001	<0.001
MW-07	MW7-ROX-101921	10/19/2021	<63	570	<63	<2.5	<2.5	<2 5	<2.5	<2.5	<2.5	<2.5	<2 5	<2.5	<2.5	<13	<2.5	<2 5	<2.5	<2.5	<2.5	<2.5
	MW7-ROX-101921-DUP	10/19/2021	<63	620	<63	<2.5	<2.5	<2 5	<2.5	<2.5	<2.5	<2.5	<2 5	<2.5	<2.5	<13	<2.5	<2 5	<2.5	<2.5	<2.5	<2.5
	MW7-ROX-011122	1/11/2022	<13 UJ	850	<13 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<2.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ
	MW7-ROX-011122-DUP	1/11/2022	<13 UJ	740	<13 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<2.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ
	MW7-ROX-041922	4/19/2022	<13 UJ	820	<13 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<2.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<2.5 UJ	<0.5 UJ	<0.5 UJ
	MW7-ROX-041922-DUP	4/19/2022	<13	950	<13	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5	<2.5	<0.5	<0 5	<0.5	<2.5	<0.5	<0.5
	MW7-ROX-071822	7/18/2022	<25 UJ	560	<25 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<5 UJ	<1 UJ	<1 UJ	<1 UJ	<5 UJ	<1 UJ	<1 UJ

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene
Screening Values (mg/L)			6.3 [1]	0.005 [1]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.100 [1]	0.07 [1]		0.14		0.07		0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-08	MW8-ROX-101921	10/19/2021	<25	110	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	MW8-ROX-011122	1/11/2022	<5	260	<5	<0.2	<0.2	<0 2	<0.2	<0.2	<0.2	<0.2	<0 2	<0.2	<0.2	<1	0.16 J	<0 2	<0.2	<0.2	<0.2	<0.2
	MW8-ROX-041922	4/19/2022	<13 UJ	350	<13 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<2.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<2.5 UJ	<0.5 UJ	<0.5 UJ
	MW8-ROX-071822	7/18/2022	<1 3	13	<1.3	<0.05	<0 05	<0.05	<0.05	<0.05	<0.05	<0 05	<0.05	<0.05	<0.05	<0.25	<0 05	<0.05	0.061	<0.25	<0.05	<0.05
	MW8-ROX-071822-DUP	7/18/2022	<1 3	13	<1.3	<0.05	<0 05	<0.05	<0.05	<0.05	<0.05	<0 05	<0.05	<0.05	<0.05	<0.25	<0 05	<0.05	0.051	<0.25	<0.05	<0.05
MW-09	MW9-ROX-100721	10/7/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW9-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW9-ROX-040722	4/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW9-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0.0010	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-10	MW10-ROX-100721	10/7/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW10-ROX-011222	1/12/2022	<0.025	0.00036 J	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW10-ROX-041422	4/14/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
	MW10-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-11	MW11-ROX-100721	10/7/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW11-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW11-ROX-040722	4/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW11-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-12	MW12-ROX-101521	10/15/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW12-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW12-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
	MW12-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-13	MW13-ROX-100821	10/8/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00049 J	<0.001	<0.001	<0.001
	MW13-ROX-011022	1/10/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0023	<0.001	<0.001	<0.001
	MW13-ROX-041422	4/14/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00083 J	<0.005	<0.001	<0.001
	MW13-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00069 J	<0.005	<0.001	<0.001
MW-14	MW14-ROX-101321	10/13/2021	<0.025	<0.001	<0.025	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001	<0 001 UJ	<0 001	<0.001 UJ	<0.001 UJ	<0.001 UJ	<0.001	<0.005	<0.001 UJ	<0.001 UJ	<0.001	<0.001	<0.001 UJ	<0 001 UJ
	MW14-ROX-011322	1/13/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW14-ROX-040822	4/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW14-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-16	MW16-ROX-100821	10/8/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW16-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW16-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	MW16-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-22	MW22-ROX-101521	10/15/2021	<0.025	0.00038 J	<0.025	<0 001	<0.001	0.00089 J	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	0.0023	0.0009 J	<0.001	0.0015	0.0016	<0.001
	MW22-ROX-011022	1/10/2022	<0.025	0 0006 J	<0.025	<0 001	<0.001	0.0011	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	0.0014	0.00063 J	<0.001	0.0011	0.00073 J	<0.001
	MW22-ROX-041522	4/15/2022	<0.025	0.0031	<0.025	<0 001	0 0009 J	0.0025	<0.001	<0.001	<0 001	<0.001	<0.001	0.0012	<0.001	<0.005	0.025	0.0078	<0.001	0.016	0.014	<0.001
	MW22-ROX-071422	7/14/2022	<0.025	0.0026	<0.025	<0 001	0.0021	0.0028	<0.001	<0.001	<0 001	<0.001	<0.001	0.0027	<0.001	<0.005	0.055	0.017	<0.001	0.034	0.029	<0.001
	MW22-ROX-071422-DUP	7/14/2022	<0.025	0.0024	<0.025	<0 001	0.0027	0.0045	<0.001	<0.001	<0 001	<0.001	<0.001	0.0028	<0.001	<0.005	0.052	0.021	<0.001	0.039	0.037	<0.001
MW-23	MW23-ROX-101321	10/13/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001 UJ	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00025 J	<0.001	<0.001	<0.001
	MW23-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00028 J	<0.001	<0.001	<0.001
	MW23-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00025 J	<0.001	<0.001	<0.001
	MW23-ROX-071322	7/13/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	0.00021 J	<0 0050	<0.0010	<0.0010	0.00082 J	<0.005	<0.001	<0.001
MW-24	MW24-ROX-100721	10/7/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW24-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW24-ROX-040722	4/7/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW24-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene
Screening Values (mg/L)			6.3 [1]	0.005 [1]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.100 [1]	0.07 [1]		0.14		0.07		0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-25	MW25-ROX-101921	10/19/2021	<0.025	0.028	0.0027 J	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.0019	<0.001	<0.001	<0.001
	MW25-ROX-011122	1/11/2022	<0.025	0 02	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00039 J	<0.001	<0.001	<0.001
	MW25-ROX-041922	4/19/2022	<0.025	0.013	<0.025	<0 001	<0.001	<0.001	0.0034	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	MW25-ROX-071822	7/18/2022	<0.025	0.014	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-26	MW26-ROX-101421	10/14/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW26-ROX-011122	1/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW26-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00036 J	<0.001	<0.001	<0.001
	MW26-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-27	MW27-ROX-101321	10/13/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW27-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW27-ROX-040822	4/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW27-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
MW-28	MW28-ROX-101821	10/18/2021	<0.025	0.0071	<0.025	<0 001	0.0012	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.027	<0.001	<0.001	<0.001
	MW28-ROX-101821-DUP	10/18/2021	<0.025	0.0066	<0.025	<0 001	0.00091 J	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.024	<0.001	<0.001	<0.001
	MW28-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0 001	0.00085 J	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0028	<0.001	<0.001	<0.001
	MW28-ROX-041322	4/13/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0028	<0.001	<0.001	<0.001
	MW28-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.0064	<0.005	<0.001	<0.001
P-54	P54-ROX-101421	10/14/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	0 0005 J	<0.001	<0.001	<0.001	<0.001	<0.001
	P54-ROX-011022	1/10/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	P54-ROX-040822	4/8/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	P54-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
P-56	P56-ROX-101821	10/18/2021	<0.025	0.0029	<0.025	0 00082 J	0.0015	<0.001	<0.001	<0.001	0.0011	<0.001	<0.001	0.00088 J	<0.001	<0.005	0.0016	0.012	<0.001	0.0039	0.015	<0.001
	P56-ROX-011222	1/12/2022	0 024 J	0 0006 J	0.004 J	0 00094 J	0.0018	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.00092 J	<0.001	<0.005	0.001	0.012	<0.001	0.0017	0.014	<0.001
	P56-ROX-011222-DUP	1/12/2022	0 024 J	0.00058 J	0.0041 J	0 00088 J	0.0017	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.0009 J	<0.001	<0.005	0.0012	0.013	<0.001	0.0019	0.014	<0.001
	P56-ROX-042022	4/20/2022	<0.025	<0.001	<0.025	0.0013	0.0022	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.0013	<0.001	<0.005	0.0033	0.021	<0.001	<0.005	0.024	<0.001
	P56-ROX-071322	7/13/2022	<0.025	0 0007 J	<0.025	0 00082 J	0.0023	<0.001	0.00074 J	<0.001	<0 001	<0.001	0.0014	0.0012	<0.001	<0 005	0.0022	0.017	<0.001	0.0052	0.021	<0.001
P-57	P57-ROX-101821	10/18/2021	<0.63	3	<0.63	<0 025	<0.025	<0.025	<0.025	<0.025	<0 025	<0.025	<0.001	<0.025	<0.001	<0.13	0.02 J	0 022 J	<0.025	0.055	0 02 J	<0.025
	P57-ROX-011422	1/14/2022	<0.025	0.011	<0.025	0.0025	0.0039	0.0064	<0.001	<0.001	<0 001	<0.001	<0.025	0.00086 J	<0.025	<0.005	0.00054 J	0.017	<0.001	0.011	0.017	<0.001
	P57-ROX-041522	4/15/2022	<0.025	0.048	<0.025	<0 001	0 0008 J	0.0017	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	0.00052 J	0.0067	<0.001	0.0095	0.0053	<0.001
	P57-ROX-071522	7/15/2022	<0.025	0.014	<0.025	0.0033	0.0053	0.0074	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	0.00082 J	0.024	<0.001	0.018	0.023	<0.001
P-58	P58-ROX-011322	1/13/2022	<25	180	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	P58-ROX-011322-DUP	1/13/2022	<25	170	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	P58-ROX-041822	4/18/2022	<13	190	<13	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5	<2.5	0.34 J	<0 5	<0.5	<2.5	<0.5	<0.5
	P58-ROX-041822-DUP	4/18/2022	<13	210	<13	<0.5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<0 5	<0.5	<0.5	<2.5	0.43 J	<0 5	<0.5	<2.5	<0.5	<0.5
	P58-ROX-071422	7/14/2022	<25	230	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	0.69 J	<1	<1	<5	<1	<1
	P58-ROX-071422-DUP	7/14/2022	<25	230	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	0.57 J	<1	<1	<5	<1	<1
P-59	P59-ROX-102021	10/20/2021	<0 5	3.9	<0.5	<0.02	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0.02	<0.02	<0.1	0 24	0.052	<0.02	0.17	0.089	0.02
	P59-ROX-102021-DUP	10/20/2021	<0 5	3.9	<0.5	<0.02	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0.02	<0.02	<0.1	0 24	0.053	<0.02	0.19	0.096	<0.02
	P59-ROX-011322	1/13/2022	<0.025	4.1	<0.025	<0 001	0.0023	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	0.16	0.044	<0.001	0.18	0.066	<0.001
	P59-ROX-041822	4/18/2022	<0 5	3.8	<0.5	<0.02	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0.02	<0.02	<0.1	0 35	0.054	<0.02	0.17	0.096	<0.02
	P59-ROX-071422	7/14/2022	<0 5	1.9	<0.5	<0.02	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0.02	<0.02	<0.1	0.3	0.056	<0.02	0.13	0.086	<0.02
P-66	P66-ROX-102021	10/20/2021	<0.25	1	<0.25	<0.01	0 0094 J	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.05	0.17	0.073	<0.01	0.017	0.12	<0.01
	P66-ROX-102021-DUP	10/20/2021	<0.25	0 98	<0.25	<0.01	0 0091 J	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.05	0.16	0.072	<0.01	0.015	0.12	<0.01
	P66-ROX-011322	1/13/2022	<0.13	0.6	<0.13	<0 005	0 0044 J	<0.005	<0.005	<0.005	<0 005	<0.005	<0.005	<0.005	<0.005	<0 025	0.062	0.033	<0.005	0.0082	0.041	<0.005

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	2-Chlorotoluene	Cymene (p-isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene
Screening Values (mg/L)			6.3 [1]	0.005 [1]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.100 [1]	0.07 [1]		0.14		0.07		0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-74	P74-ROX-101221	10/12/2021	<0.025	0.089	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	P74-ROX-011322	1/13/2022	<0.025	0.18	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00054 J	<0.001	<0.001	<0.001
	P74-ROX-011322-DUP	1/13/2022	<0.025	0.15	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00053 J	<0.001	<0.001	<0.001
	P74-ROX-041822	4/18/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	P74-ROX-041822-DUP	4/18/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	P74-ROX-071322	7/13/2022	<0.025	0.041	<0.025	<0 001	<0.001	<0.001	0.00059 J	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.00068 J	<0.005	<0.001	<0.001
P-93A	P93A-ROX-101921	10/19/2021	<0.025	0.0033	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	P93A-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	0.00086 J	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	P93A-ROX-041922	4/19/2022	<0.025	0.0076	<0.025	<0 001	<0.001	0.0013	<0.001	<0.001	<0 001	0.00077 J	<0.001	<0.001	<0.001	0 00025 J	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	P93A-ROX-071522	7/15/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001
P-93B	P93B-ROX-101921	10/19/2021	<25	940	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1
	P93B-ROX-011322	1/13/2022	<130	870	<130	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	<5	<5
	P93B-ROX-042022	4/20/2022	<130	920	<130	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<25	<5	<5
	P93B-ROX-071522	7/15/2022	<50 UJ	1100	<50 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<2 UJ	<2 UJ
	P93B-ROX-071522-DUP	7/15/2022	<50 UJ	1100	<50 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<2 UJ	<2 UJ
P-93C	P93C-ROX-101221	10/12/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0022	<0.001	<0.001	<0.001
	P93C-ROX-011022	1/10/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0063	<0.001	<0.001	<0.001
	P93C-ROX-041922	4/19/2022	<0.025	0.047	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0031	<0.005	<0.001	<0.001
	P93C-ROX-071322	7/13/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	0.0038	<0.005	<0.001	<0.001
P-93D	P93D-ROX-101821	10/18/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00084 J	<0.001	<0.001	<0.001
	P93D-ROX-011422	1/14/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00082 J	<0.001	<0.001	<0.001
	P93D-ROX-041922	4/19/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.001	<0.005	<0.001	<0.001
	P93D-ROX-071522	7/15/2022	<0.025	0.0043	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.001	<0.005	<0.001	<0.001
P-114R	P114R-ROX-100821	10/8/2021	0.01 J *+ J	0 0006 J	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0012	<0.001	<0.001	<0.001
	P114R-ROX-011022	1/10/2022	<0.025	0.00084 J	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0022	<0.001	<0.001	<0.001
	P114R-ROX-041422	4/14/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.00093 J	<0.005	<0.001	<0.001
	P114R-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	0.0013	<0.005	<0.001	<0.001
ROST-3-MW	ROST3MW-ROX-100821	10/8/2021	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	ROST3MW-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	ROST3MW-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	ROST3MW-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	0.00058 J	0.00061 J	<0.001	<0.005	<0.001	<0.001
ROST-4-PZ(C)	ROST4PZC-ROX-101821	10/18/2021	<0.025	0.0022	0.006 J	<0 001	<0.001	<0.001	0.00058 J	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	0.0018	0.004	<0.001	0.027	0.0077	<0.001
	ROST4PZC-ROX-011122	1/11/2022	<0.025	0.00094 J	<0.025	<0 001	0 0007 J	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.001	<0.001	<0.005	0.00089 J	0.0057	<0.001	0.008	0.0095	<0.001
	ROST4PZC-ROX-041522	4/15/2022	<0.025	0.00023 J	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	ROST4PZ(C)-ROX-071422	7/14/2022	<0.025	0.0029	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.00094 J	<0.001	<0 005	0.0027	0.0047	<0.001	0.05	0.0077	<0.001
ROST-4-PZ(E)	ROST4PZE-ROX-101821	10/18/2021	<0.05	0.043	<0.05	<0 002	<0.002	<0.002	<0.002	<0.002	<0 002	<0.002	<0.002	<0.002	<0.002	<0.01	0 21	0.0078	<0.002	0.1	0.013	<0.002
	ROST4PZE-ROX-011222	1/12/2022	0.037 J J	0.044	0.0081 J	0.0016 J	0 0016 J	<0.002	<0.002	0.0005 J	<0 001	<0.002	<0.002	0.0017 J	<0.002	<0.01	0 34	0.013	<0.002	0.11	0.022	<0.002
	ROST4PZE-ROX-011222-DUP	1/12/2022	1.3 J	0.037	<0.05	<0 002	0 0017 J	<0.002	<0.002	<0.002	<0 002	<0.002	<0.002	0.0015 J	<0.002	<0.01	0 38	0.015	<0.002	0.11	0.023	<0.002
	ROST4PZ(E)-ROX-071522	7/15/2022	<0.025	0.021	<0.025	<0 001	0.0012	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.0018	<0.001	<0 005	0.2	0.0089 J	<0.001	0.11	0.013 J	<0.001
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	<0.025	0.017	<0.025	<0 001	0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	0.0012	<0.001	<0 005	0.16	0.0068 J	<0.001	0.11	0.0093 J	<0.001
ROST-4-PZ(G)	ROST4PZG-ROX-101421	10/14/2021	<0.025	0.00042 J *+ J	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	ROST4PZG-ROX-011022	1/10/2022	<0.025	0.00049 J	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001
	ROST4PZG-ROX-041522	4/15/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	ROST4PZG-ROX-041522-DUP	4/15/2022	<0.025	<0.001	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.005	<0 001	<0.001	<0.001	<0.005	<0.001	<0.001
	ROST4PZ(G)-ROX-071222	7/12/2022	<0.025	0.00033 J	<0.025	<0 001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0 005	<0.001	<0.001	<0.001	<0.005	<0.001	<0.001

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	2-Chlorotoluene	Cymene (p-isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene
Screening Values (mg/L)			**6.3** [1]	**0.005** [1]	**4.2** [1]	**0.35** [3]	**0.7** [3]	**0.7** [3]	**0.7** [1]	**0.100** [1]	**0.07** [1]		**0.14**		**0.07**		**0.7** [1]	**0.7** [1]	**0.07** [1]	**0.14** [1]	**0.7** [3]	**0.1** [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
T-12	T12-ROX-102021	10/20/2021	<0.25	1.9	<0.25	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.05	0 01	0.0058 J	0.0049 J	0.018	0.0082 J	<0.01
	T12-ROX-011422	1/14/2022	0.066	1.1	0.024 J	<0 002	<0.002	<0.002	<0.002	<0.002	<0 002	<0.002	<0.002	<0.002	<0.002	<0.01	0.0032	0.0014 J	0.0039	0.0021	0.002	<0.002
	T12-ROX-042022	4/20/2022	<0.25	1.2	<0.25	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.05	0.013	<0.01	0.0028 J	<0.05	0.008 J	<0.01
	T12-ROX-071422	7/14/2022	<0.25	1.3	<0.25	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.05	0.012	0.0071 J	<0.01	<0.05	0.014	<0.01

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs							SVOCs												
			Toluene	Trichlorofluoromethane	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	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine
Screening Values (mg/L)			1.0 [1]	2.1 [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]	0.56 [3]	0.012 [1]	
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-101321	10/13/2021	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	MW1-ROX-011222	1/12/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028 UJ	<0.0095	<0.0095	0.00016 J	<0 0095
	MW1-ROX-041322	4/13/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	MW1-ROX-070822	7/8/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0 0094	<0.00019	<0 0094
MW-02	MW2-ROX-101521	10/15/2021	0 0039	<0.001	0.019	0.026	0.025	0.0026 J	0.028	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0.0093	<0.00019	<0 0093
	MW2-ROX-011122	1/11/2022	0.005	<0.005	0.013	0.027	0.062	0.0069 J	0.069	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0095	<0.0095	<0.00019	<0 0095
	MW2-ROX-041422	4/14/2022	0 0033	<0.001	0.011	0.015	0.032	0.0035 J	0.035	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	MW2-ROX-041422-DUP	4/14/2022	0 0036	<0.001	0.013	0.018	0.038	0.0042 J	0.042	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0095	<0.0095	<0.00019	<0 0095
	MW2-ROX-071422	7/14/2022	0 0054	<0.005	0.092	0.049	0.24	0.021 J	0 26	<0 00019	<0.00019	<0.00019	0.000056 J	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0097	<0 0097	<0.00019	<0 0097
MW-03	MW3-ROX-101521	10/15/2021	0 0016	<0.001	<0.001	<0.001	0.0057	0.00084 J	0 0065 J	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	MW3-ROX-101521-DUP	10/15/2021	0 0012	<0.001	<0.001	<0.001	0.0047 J	0.00076 J	0 0055 J	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0 0094	<0.00019	<0 0094
	MW3-ROX-011022	1/10/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0 00021	<0.00021	<0.00021	<0.031	<0 01	<0.01	<0.00021	<0.01
	MW3-ROX-041222	4/12/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	0.000055 J	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	MW3-ROX-071422	7/14/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019 UJ	<0 00019	0 023 J	<0.0095	<0 0095	<0.00019	<0 0095
MW-04	MW4-ROX-101921	10/19/2021	0.00086 J	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0.0093	<0.00019	<0 0093
	MW4-ROX-011122	1/11/2022	0.00049 J	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0095	<0.0095	<0.00019	<0 0095
	MW4-ROX-041922	4/19/2022	0.00082 J	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019 U	<0.00019	0.00012 J	<0.029	<0.0097	<0 0097	<0.00019	<0 0097
	MW4-ROX-071822	7/18/2022	<0.001	<0.001	<0.001	<0.001	<0 005	<0.005	<0.01	<0.00019 UJ	<0 00019	<0.00019	<0.00019 U	0.00018 J	<0.00019 U	<0 00019	<0 00019	<0.029	<0 0096	<0 0096	<0.00019	<0 0096
MW-05	MW5-ROX-101421	10/14/2021	<0.001	<0 001	<0 001	<0.001	0.00066 J	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	MW5-ROX-010722	1/7/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.0002	<0.01
	MW5-ROX-041322	4/13/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019	0 00013 J	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	MW5-ROX-071122	7/11/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019 U	0.00011 J	0.000078 J	<0.00019	<0 00019	0.016 J F2	0 0053 J	<0 0093	<0.00019	<0 0093
MW-06A	MW6A-ROX-101121	10/11/2021	<0.001	<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 UJ	<0.0095	<0.0095	<0.00019	<0 0095
	MW6A-ROX-010722	1/7/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0097	<0.0097	<0.00019	<0 0097
	MW6A-ROX-041122	4/11/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00042 U	<0.00019 UJ	<0.00019 U	0.00016 J *+ J	0.00014 J	<0.00019 UJ	0.00014 J	0 027 J	<0.0094	<0 0094	0.0001 J	<0 0094
	MW6A-ROX-070822	7/8/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002 U	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0097 H UJ	<0.0099	<0.00020	<0 0099
MW-06B	MW6B-ROX-101121	10/11/2021	<0.001	<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	0.0073 J	<0.0095	<0.0095	<0.00019	<0 0095
	MW6B-ROX-010722	1/7/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099	<0.0099	<0.0002	<0 0099
	MW6B-ROX-041122	4/11/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	0 0001 J *+ J	0.00006 J	<0.00019 UJ	<0 00019	<0.028	<0.0095	<0 0095	<0.00019	<0 0095
	MW6B-ROX-070822	7/8/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0 0096	<0.00019	<0 0096
MW-06C	MW6C-ROX-101221	10/12/2021	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	MW6C-ROX-010622	1/6/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098	<0.0098	<0.0002	<0 0098
	MW6C-ROX-041122	4/11/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019 U	0.00012 J *+ J	0.000055 J J	<0.00019 UJ	<0 00019	<0.028	<0.0093	<0 0093	<0.00019	<0 0093
	MW6C-ROX-070822	7/8/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0096 H UJ	<0.0099	<0.0002	<0 0099
MW-06D	MW6D-ROX-101221	10/12/2021	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	MW6D-ROX-010622	1/6/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098	<0.0098	<0.0002	<0 0098
	MW6D-ROX-041122	4/11/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019 U	0.00011 J *+ J	0.000076 J	<0.00019 UJ	<0 00019	<0.028	<0.0095	<0 0095	<0.00019	<0 0095
	MW6D-ROX-070822	7/8/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0 0094	<0.00019	<0 0094
MW-07	MW7-ROX-101921	10/19/2021	<2.5	<2.5	<2.5	<2 5	<13	<13	<25	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0.0093	<0.00019	<0 0093
	MW7-ROX-101921-DUP	10/19/2021	<2.5	<2.5	<2.5	<2 5	<13	<13	<25	0.00038	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0.0093	<0.00019	<0 0093
	MW7-ROX-011122	1/11/2022	<0.5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<2.5 UJ	<2.5 UJ	<5 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	0.031	<0.0096	<0.0096	<0.00019	<0 0096
	MW7-ROX-011122-DUP	1/11/2022	<0.5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<2.5 UJ	<2.5 UJ	<5 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	0.031	<0.0095	<0.0095	<0.00019	<0 0095
	MW7-ROX-041922	4/19/2022	<0.5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<2.5 UJ	<2.5 UJ	<5 UJ	<0.0002	<0.0002	<0.0002 UJ	<0.0002	<0 0002	0.000087 J	<0.0002	<0.0002	0 022 J	<0.0099	<0.0099	<0.0002	<0 0099
	MW7-ROX-041922-DUP	4/19/2022	0.24 J	<0.5	<0.5	<0 5	<2.5	<2.5	<5	<0 0002	<0.0002	<0.0002 UJ	<0.0002	<0.0002	<0.0002	<0.0002	<0 0002	0 022 J	<0.0099	<0.0099	<0.0002	<0 0099
	MW7-ROX-071822	7/18/2022	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<5 UJ	<5 UJ	<10 UJ	0 00012 J J	0.00018 J	<0 00019	0 000066 J	<0.00019	<0.00019	<0 00019	<0.00019	0.022 J *1	<0.0096	<0.0096	<0 00019	<0 0096

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs							SVOCs												
			Toluene	Trichlorofluoromethane	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	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine
Screening Values (mg/L)			1.0 [1]	2.1 [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]	0.56 [3]	0.012 [1]	
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-08	MW8-ROX-101921	10/19/2021	0.43 J	<1	<1	<1	<5	<5	<10	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.00019	<0.00019	<0.028	<0.0093	<0 0093	<0.00019	<0 0093
	MW8-ROX-011122	1/11/2022	0.11 J	<0.2	<0.2	<0 2	0 35 J	<1	0.45 J	0.00027	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	MW8-ROX-041922	4/19/2022	<0.5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<2.5 UJ	<2.5 UJ	<5 UJ	<0.00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0097	<0 0097	<0.00019	<0 0097
	MW8-ROX-071822	7/18/2022	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	0.00031 J	<0.00019	<0 00019	0 000070 J	<0.00019	<0 00019	<0.00019	<0.00019	<0.028	<0.0095	<0.0095	<0 00019	<0 0095
	MW8-ROX-071822-DUP	7/18/2022	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	0.00035 J	0.00015 J	0.000058 J	0 000058 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0 0094	<0.0094	<0 00019	<0 0094
MW-09	MW9-ROX-100721	10/7/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0094	<0.0094	<0.00019	<0.0094
	MW9-ROX-010622	1/6/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0095	<0.0095	<0.00019	<0.0095
	MW9-ROX-040722	4/7/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0 00019	<0.00019 U	<0 00024 U	<0 00019	<0.00019	<0 028	<0.0094	<0.0094	<0.00019	<0.0094
	MW9-ROX-071222	7/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019 U	<0 00019 U	0.00018 J	0.00015 J J	<0 028	<0.0094	<0.0094	0 00017 J	<0.0094
MW-10	MW10-ROX-100721	10/7/2021	<0.001	<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	0.012 J	<0.0093	<0.0093	<0.00019	<0.0093
	MW10-ROX-011222	1/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028 UJ	<0.0094	<0.0094	<0.00019	<0.0094
	MW10-ROX-041422	4/14/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 029	<0.0095	<0.0095	<0.00019	<0.0095
	MW10-ROX-070822	7/8/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019 U	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0094	<0.0094	<0.00019	<0.0094
MW-11	MW11-ROX-100721	10/7/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0093	<0.0093	<0.00019	<0.0093
	MW11-ROX-010622	1/6/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0095	<0.0095	<0.00019	<0.0095
	MW11-ROX-040722	4/7/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.0002	<0.0002	<0.0002 UJ	<0.0002	<0.0002	<0 0002	<0.0002	<0.0002	<0 029	<0.0098	<0.0098	<0 0002	<0.0098
	MW11-ROX-070822	7/8/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 029	<0.0095	<0.0095	<0.00019	<0.0095
MW-12	MW12-ROX-101521	10/15/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0094	<0.0094	<0.00019	<0.0094
	MW12-ROX-011222	1/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028 UJ	<0.0094	<0.0094	<0.00019	<0.0094
	MW12-ROX-041222	4/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 029	<0.0097	<0.0097	<0.00019	<0.0097
	MW12-ROX-070822	7/8/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0095 H UJ	<0.0095	<0.00019	0.0046 J
MW-13	MW13-ROX-100821	10/8/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0094	<0.0094	<0.00019	<0.0094
	MW13-ROX-011022	1/10/2022	<0.001	<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	0.0055 J	<0.0094	<0.00019	<0.0094
	MW13-ROX-041422	4/14/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 029	<0.0097	<0.0097	<0.00019	<0.0097
	MW13-ROX-071122	7/11/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0095	<0.0095	<0.00019	<0.0095
MW-14	MW14-ROX-101321	10/13/2021	<0.001	<0 001	<0.001 UJ	<0.001 UJ	<0.005 UJ	<0.005 UJ	<0.01 UJ	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0094	<0.0094	<0.00019	<0.0094
	MW14-ROX-011322	1/13/2022	<0.001	<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 UJ	<0.0096	<0.0096	<0.00019	<0.0096
	MW14-ROX-040822	4/8/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	0.000088 J *+ J	<0.00019	0.00013 J J	0.00014 J	0 00012 J	0.00012 J	<0.029	<0.0096	<0 0096	0.00012 J	0.0025 J
	MW14-ROX-071122	7/11/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019 U	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0095	<0.0095	<0.00019	<0.0095
MW-16	MW16-ROX-100821	10/8/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0093	<0.0093	<0.00019	<0.0093
	MW16-ROX-010722	1/7/2022	<0.001	<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	0.0051 J	<0.0096	<0.00019	<0.0096
	MW16-ROX-041222	4/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019 UJ	<0.00019 UJ	0.00011 J J	0.00008 J J	<0 00019	<0.00019 UJ	<0 029	<0.0096	<0.0096	<0.00019 UJ	<0.0096
	MW16-ROX-071222	7/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019	<0.00019 U	0.00016 J J	<0 00019 U	<0 00019	0.00015 J J	<0 028	<0.0094	<0.0094	<0.00019	<0.0094
MW-22	MW22-ROX-101521	10/15/2021	<0.001	<0 001	0.014	0.00089 J	0.0017 J	<0.005	0.0021 J	<0.00019	<0 00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 028	<0.0093	<0.0093	<0.00019	<0.0093
	MW22-ROX-011022	1/10/2022	<0.001	<0 001	0.028	0.0049	0.0015 J	<0.005	0 0019 J	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.031	<0.01	<0.01	<0.0002	<0.01
	MW22-ROX-041522	4/15/2022	0 0027	<0.001	0.1	0.019	0.032	0.0029 J	0.035	<0 00019	<0.00019	<0.00019 UJ	<0.00019	0 000058 J	0.00011 J	<0.00019	0.00011 J	<0.029	<0.0097	<0.0097	<0.00019	<0 0097
	MW22-ROX-071422	7/14/2022	0 0057	<0.001	0.15	0 031 J	0.08	0 0076	0.088	<0.00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0095 H UJ	<0 0094	<0.00019	<0 0094
	MW22-ROX-071422-DUP	7/14/2022	0 0057	<0.001	0.18	0.04 J	0.097	0 0080	0.1	<0.00019 UJ	<0.00019	<0.00019	0 0001 J	0.00019	0.000072 J	<0.00019	<0 00019	<0.028	<0.0095	<0 0095	<0.00019	<0 0095
MW-23	MW23-ROX-101321	10/13/2021	<0.001	<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	0.0086 J	<0.0095	<0 0095	<0.00019	<0.0095
	MW23-ROX-010722	1/7/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.00019	<0.00019	<0.028	<0.0095	<0 0095	<0.00019	<0.0095
	MW23-ROX-041222	4/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019 UJ	0 000086 J J	0.000078 J J	<0 00019	<0.00019	<0.00019	<0.029	<0.0096	<0 0096	<0.00019	<0.0096
	MW23-ROX-071322	7/13/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	0.000041 J	<0.00019	<0 00019	0 016 J	<0.0095	<0 0095	<0.00019	<0.0095
MW-24	MW24-ROX-100721	10/7/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.00019	<0.00019	<0.028	<0.0095	<0 0095	<0.00019	<0.0095
	MW24-ROX-010722	1/7/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.00019	<0.00019	<0.029	<0.0096	<0 0096	<0.00019	<0.0096
	MW24-ROX-040722	4/7/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0 00019	<0.00019	<0.00019	<0.029	<0.0096	<0 0096	<0.00019	<0.0096
	MW24-ROX-071122	7/11/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.00019	<0.00019	<0.028	<0.0094	<0 0094	<0.00019	<0 0094

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs							SVOCs												
			Toluene	Trichlorofluoromethane	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	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine
Screening Values (mg/L)			1.0 [1]	2.1 [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]	0.56 [3]	0.012 [1]	
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-25	MW25-ROX-101921	10/19/2021	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0.0093	<0.00019	<0 0093
	MW25-ROX-011122	1/11/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	MW25-ROX-041922	4/19/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0.0002 UJ	<0.0002	<0 0002	0.000067 J	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.0002	<0.01
	MW25-ROX-071822	7/18/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.00019 UJ	<0.00019	<0.00019	0.000055 J	<0.00019	<0.00019	<0.00019	<0 00019	0.0084 J *1	<0.0094	<0.0094	<0.00019	<0 0094
MW-26	MW26-ROX-101421	10/14/2021	0.006	0 00057 J	<0.001	<0.001	0.0012 J	<0.005	0 0017 J	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0 0093	<0.00019	<0 0093
	MW26-ROX-011122	1/11/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.0002	<0.01
	MW26-ROX-041122	4/11/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	0.00015 J *+ J	0.00013 J	0.00025	0.00011 J	<0.028	<0.0094	<0 0094	<0.00019	<0 0094
	MW26-ROX-071222	7/12/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019 U	0.00012 J J	<0.00019 U	<0.00019	<0 00019	<0.028	<0.0095	<0.0095	<0.00019	<0 0095
MW-27	MW27-ROX-101321	10/13/2021	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0.0093	<0.00019	<0 0093
	MW27-ROX-011222	1/12/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028 UJ	<0.0094	<0.0094	<0.00019	<0 0094
	MW27-ROX-040822	4/8/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	0.00011 J	0.000092 J	<0.00019	0.000097 J	<0.028	<0.0095	<0 0095	<0.00019	<0 0095
	MW27-ROX-071122	7/11/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	0.00015 J	0.00018 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
MW-28	MW28-ROX-101821	10/18/2021	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	MW28-ROX-101821-DUP	10/18/2021	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0 00018	<0.027	<0.0092	<0.0092	<0.00018	<0 0092
	MW28-ROX-011222	1/12/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03 UJ	<0.01	<0.01	<0.0002	<0.01
	MW28-ROX-041322	4/13/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019 H UJ	<0.00019 H UJ	0.000054 J H J	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0 00019 H UJ	<0.029	<0.0095	<0.0095	<0.00019 H UJ	<0 0095
	MW28-ROX-071222	7/12/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019 U	0.0001 J J	<0.00019 U	<0.00019	<0 00019	<0.028	<0.0095	<0.0095	<0.00019	<0 0095
P-54	P54-ROX-101421	10/14/2021	0 0062	0.00062 J	<0 001	<0.001	0.0019 J	0.0009 J	0.0028 J	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	P54-ROX-011022	1/10/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0095	<0.0095	<0.00019	<0 0095
	P54-ROX-040822	4/8/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	0.00011 J	0.000083 J	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	P54-ROX-071222	7/12/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019 U	0.00014 J	<0.00019 U	0 00015 J	0.00011 J	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
P-56	P56-ROX-101821	10/18/2021	0 0012	<0.001	0.017	0.0052	0.039	0.0012 J	0 04	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	0.0051 J	<0.0094	<0.00019	<0 0094
	P56-ROX-011222	1/12/2022	0.00082 J	<0 001	0.011	0.0034	0.024	0.00078 J	0.025	0.00047	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029 UJ	<0.0096	<0.0096	<0.00019	<0 0096
	P56-ROX-011222-DUP	1/12/2022	0.00089 J	<0 001	0.013	0.0038	0.026	0.00086 J	0.027	0.00041	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03 UJ	<0.01	<0.01	<0.0002	<0.01
	P56-ROX-042022	4/20/2022	0 0012	<0 001	0.013	0.0045	0.034	0.001 J	0.035	0.00081	<0.0002	<0.0002 UJ	<0.0002	<0 0002	<0.0002	<0.0002 UJ	<0.0002	<0.03	<0.01	<0.01	<0.0002	<0.01
	P56-ROX-071322	7/13/2022	0 0014	<0 001	0.027	0.0071	0.052	0.0017 J	0.054	0.00063	<0.00018	0 000075 J	<0.00018	0.00016 J	0.000053 J	<0.00018	<0 00018	<0.028	<0.0092	<0 0092	<0.00018	<0 0092
P-57	P57-ROX-101821	10/18/2021	<0.025	<0 025	<0.025	<0.025	<0.13	<0.13	<0 25	0.00045	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.00019	<0 00019	<0.028	<0.0094	<0 0094	<0.00019	<0.0094
	P57-ROX-011422	1/14/2022	0 0037	<0 001	<0.001	<0.001	0.0013 J	<0.005	0 0016 J	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.0002	<0.01
	P57-ROX-041522	4/15/2022	0 0023	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	0.00034	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	P57-ROX-071522	7/15/2022	0 0040	<0 001	<0.001	<0.001	0.0015 J	<0.005	0 0018 J	0.00015 J J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029 H UJ	<0.0095 H UJ	<0.0095 H UJ	<0.00019	<0.0095 H UJ
P-58	P58-ROX-011322	1/13/2022	<1	<1	<1	<1	<5	<5	<10	0.00088	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028 UJ	<0.0095	<0.0095	<0.00019	<0 0095
	P58-ROX-011322-DUP	1/13/2022	<1	<1	<1	<1	<5	<5	<10	0.00094	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.029 UJ	<0.0098	<0.0098	<0.0002	<0 0098
	P58-ROX-041822	4/18/2022	<0.5	<0.5	<0.5	<0 5	<2.5	<2.5	<5	0.00087	0.00042	<0.00019 UJ	0.00023	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0097	<0.0097	0.00028	<0 0097
	P58-ROX-041822-DUP	4/18/2022	<0.5	<0.5	<0.5	<0 5	<2.5	<2.5	<5	0 0007	0.00039	<0.00019 UJ	0.00019	0.00021	<0.00019	<0.00019	<0 00019	<0.029	<0.0097	<0.0097	0.00024	<0 0097
	P58-ROX-071422	7/14/2022	0.75 J	<1	<1	<1	<5	<5	<10	0 0013	0.00069	0.00075	0.00038	0.00039	0 00028	0.00021	<0 00018	<0.028	<0.0092	<0.0092	0.00049	<0 0092
	P58-ROX-071422-DUP	7/14/2022	0.58 J	<1	<1	<1	<5	<5	<10	0 0011	0.00060	0.00072	0.00057	0.00047	0.00023 J	0.00017 J	<0 00037	<0.055	<0 018	<0.018	0.00035 J	<0.018
P-59	P59-ROX-102021	10/20/2021	0.14	<0.02	0.078	0 061	0.21	<0.1	0.22	0 00047 J	<0.0002	<0.0002	<0.0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.03	<0 01	<0.01	<0 0002	<0.01
	P59-ROX-102021-DUP	10/20/2021	0.14	<0.02	0.08	0 063	0.21	<0.1	0.22	<0.0002 UJ	<0.0002	<0.0002	<0.0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.03	<0 01	<0.01	<0 0002	<0.01
	P59-ROX-011322	1/13/2022	0.13	<0 001	0.046	0 048	0.16	0.007	0.16	<0.0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	0.034 J	<0 01	<0.01	<0 0002	<0.01
	P59-ROX-041822	4/18/2022	0.17	<0.02	0.15	0.063	0.3	<0.1	0.31	0.0004	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0 00019	<0.00019	<0.00019	<0 057	<0.019	<0.019	<0.00019	<0.019
	P59-ROX-071422	7/14/2022	0.14	<0.02	0.14	0.064	0.28	<0.1	0.29	0.00046 J	<0.00038	0.00039	0.00025 J	0 00035 J	0.00011 J	<0.00038	<0.00038	<0 056	<0.019	<0.019	<0.00038	<0.019
P-66	P66-ROX-102021	10/20/2021	0.17	<0.01	0.039	0.01	0.57	0.28	0.85	0.0015	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021 UJ	<0 00021	<0.00021	<0.031	<0 01	<0.01	<0.00021	<0.01
	P66-ROX-102021-DUP	10/20/2021	0.18	<0.01	0.039	0.01	0.55	0.27	0.82	0.0013	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002 UJ	<0.0002	<0.0002	<0.03	<0 01	<0.01	<0 0002	<0.01
	P66-ROX-011322	1/13/2022	0.78	<0 005	0.013	0.0042 J	0.22	0.11	0 33	0 0016	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	0 041 J	<0.0096	<0.0096	<0.00019	<0 0096

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs							SVOCs												
			Toluene	Trichlorofluoromethane	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	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine
Screening Values (mg/L)			1.0 [1]	2.1 [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]	0.56 [3]	0.012 [1]	
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-74	P74-ROX-101221	10/12/2021	0 0015	<0 001	0 0009 J	<0.001	0.0032 J	<0.005	0 0036 J	<0 00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0 00018	<0.028	<0.0092	<0 0092	<0.00018	<0 0092
	P74-ROX-011322	1/13/2022	0 0014	<0 001	0.0011	<0.001	0.0031 J	<0.005	0 0036 J	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029 UJ	<0.0095	<0 0095	<0.00019	<0 0095
	P74-ROX-011322-DUP	1/13/2022	0 0012	<0 001	<0.001	<0.001	0.0021 J	<0.005	0 0024 J	<0 00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0 00021	<0.031 UJ	<0.01	<0.01	<0.00021	<0.01
	P74-ROX-041822	4/18/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0097	<0.0097	<0.00019	<0 0097
	P74-ROX-041822-DUP	4/18/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	0.000052 J	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	P74-ROX-071322	7/13/2022	0 0013	<0 001	<0.001	<0.001	0.0011 J	<0.005	<0.01	<0 00019	<0.00019	<0.00019	0.000087 J	0.00017 J	0.000061 J	<0.00019	<0 00019	<0.028	<0.0095	<0 0095	<0.00019	<0 0095
P-93A	P93A-ROX-101921	10/19/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098	<0.0098	<0.0002	<0 0098
	P93A-ROX-011222	1/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	0.03 J	<0.0098	<0.0098	<0.0002	<0 0098
	P93A-ROX-041922	4/19/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0.0002 UJ	<0.0002	0.00014 J	0.00014 J	<0.0002	<0.0002	<0.03	<0.01 H UJ	<0.01	<0.0002	<0.01
	P93A-ROX-071522	7/15/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019 UJ	<0.00019	<0.00019	0.00005 J	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0095	<0 0095	<0.00019	<0 0095
P-93B	P93B-ROX-101921	10/19/2021	0.59 J	<1	<1	<1	<5	<5	<10	<0 0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099	<0.0099	<0.0002	<0 0099
	P93B-ROX-011322	1/13/2022	<5	<5	<5	<5	<25	<25	<50	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.029 UJ	<0.0098	<0.0098	<0.0002	<0 0098
	P93B-ROX-042022	4/20/2022	<5	<5	<5	<5	<25	<25	<50	<0 00021	<0.00021	0.00019 J	0.00013 J	<0.00021	<0.00021	<0.00021 UJ	<0 00021	<0.031	<0.01	<0.01	0.000078 J	<0.01
	P93B-ROX-071522	7/15/2022	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<10 UJ	<20 UJ	<0.00019 UJ	<0.00019	<0.00019	0.000099 J	0.00018 J	0.000051 J J	<0.00019	<0 00019	<0.028	<0.0093	<0 0093	<0.00019	<0 0093
	P93B-ROX-071522-DUP	7/15/2022	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<10 UJ	<20 UJ	0.00035 J	0.00036	0 000046 J	0.000082 J	<0.00018	<0.00018	<0.00018	<0 00018	<0.028	<0.0092	<0 0092	<0.00018	<0 0092
P-93C	P93C-ROX-101221	10/12/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	P93C-ROX-011022	1/10/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0095	<0.0095	<0.00019	<0 0095
	P93C-ROX-041922	4/19/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	0.00013 J	0.00011 J	<0.00019	<0 00019	<0.029	<0.0097	<0.0097	<0.00019	<0 0097
	P93C-ROX-071322	7/13/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0 00021	<0.031	<0 01	<0.01	<0.00021	<0.01
P-93D	P93D-ROX-101821	10/18/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0.0093	<0.00019	<0 0093
	P93D-ROX-011422	1/14/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0097	<0.0097	<0.00019	<0 0097
	P93D-ROX-041922	4/19/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0.0002 UJ	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01 H UJ	<0.0099	<0.0002	<0 0099
	P93D-ROX-071522	7/15/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019 UJ	<0.00019	<0.00019	0.00006 J	0.00015 J	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0 0094	<0.00019	<0 0094
P-114R	P114R-ROX-100821	10/8/2021	<0.001	<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	0.031	<0.0094	<0.0094	<0.00019	<0 0094
	P114R-ROX-011022	1/10/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	P114R-ROX-041422	4/14/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0095	<0.0095	<0.00019	<0 0095
	P114R-ROX-071122	7/11/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	0.00028	<0.00019	<0.00019	<0.00019 U	0 000099 J	0.000096 J	<0.00019	<0 00019	0 018 J	<0.0096 H UJ	<0 0094	<0.00019	<0 0094
ROST-3-MW	ROST3MW-ROX-100821	10/8/2021	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	ROST3MW-ROX-010622	1/6/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	ROST3MW-ROX-041222	4/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	0 000054 J J	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0095	<0 0095	<0.00019	<0 0095
	ROST3MW-ROX-071222	7/12/2022	<0.001	<0 001	<0.001	<0.001	0.0026 J	<0.005	0 0026 J	0 000085 J	0.000057 J	<0.00019	<0.00019 U	0.00011 J	<0.00019 U	<0.00019	<0 00019	<0.029	<0.0096	<0 0096	<0.00019	<0 0096
ROST-4-PZ(C)	ROST4PZC-ROX-101821	10/18/2021	0 0048	<0 001	0.0091	0.002	0.02	0.00073 J	0.021	0 0018	0.00026	0.00035	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0094	<0.0094	<0.00019	<0 0094
	ROST4PZC-ROX-011122	1/11/2022	<0.001	<0 001	0.0091	0.00087 J	0.0093	<0.005	0 0099 J	0 0015	0.00027	0.00032	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0.0096	<0.00019	<0 0096
	ROST4PZC-ROX-041522	4/15/2022	<0.001	<0 001	<0 001	<0.001	<0.005	<0.005	<0.01	0.001	<0.00019	<0.00019 UJ	<0.00019	0 000059 J	<0.00019	<0.00019	<0 00019	<0.029	<0.0095	<0.0095	<0.00019	<0 0095
	ROST4PZ(C)-ROX-071422	7/14/2022	0 0075	<0 001	0.0099	0.0023	0.041	0.0011 J	0.042	0.0015 J	<0.00019	0.00043	0.000082 J	0.00017 J	<0.00019	<0.00019	<0 00019	<0.029	<0.0095	<0 0095	<0.00019	<0 0095
ROST-4-PZ(E)	ROST4PZE-ROX-101821	10/18/2021	0.022	<0 002	0.085	0.016	0.24	0.036	0 28	0 0037	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	0.0014 J	<0.00019	<0 0093
	ROST4PZE-ROX-011222	1/12/2022	0.03	<0 002	0.17	0.032	0.44	0.054	0.49	0 0011	<0.00019	0.00048	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.029 UJ	<0.0096	<0.0096	<0.00019	<0 0096
	ROST4PZE-ROX-011222-DUP	1/12/2022	0.034	<0.002 UJ	0.18	0.037	0.53	0.057	0 59	0 0013	0.00023	0.0006	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098	<0.0098	<0.0002	<0 0098
	ROST4PZ(E)-ROX-071522	7/15/2022	0.025	<0 001	0.16 J	0 024 J	0 27 J	0.033	0.31 J	0.0050 J	0.00065	0.0043 J	0.00022	0 00018 J	0.000059 J J	<0.00019	<0 00019	<0.029	<0.0095 H UJ	<0 0096	0.00032	<0 0096
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	0.02	<0 001	0.12 J	0 018 J	0 21 J	0.026	0.23 J	0.0029 J	0.00033	0.0012 J	0.000095 J	<0.00019	<0.00019	<0.00019	<0 00019	<0.029	<0.0096	<0 0096	<0.00019	<0 0096
ROST-4-PZ(G)	ROST4PZG-ROX-101421	10/14/2021	0 0024	<0 001	<0.001	<0.001	0.0015 J	<0.005	0 0021 J	<0 00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0 00019	<0.028	<0.0093	<0.0093	<0.00019	<0 0093
	ROST4PZG-ROX-011022	1/10/2022	0.00041 J	<0 001	<0.001	<0.001	0.00066 J	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099	<0.0099	<0.0002	<0 0099
	ROST4PZG-ROX-041522	4/15/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	0 000067 J	<0.00019	<0.00019	<0 00019	<0.029	<0.0097	<0.0097	<0.00019	<0 0097
	ROST4PZG-ROX-041522-DUP	4/15/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019 UJ	<0.00019	<0.00019	0.000057 J	<0.00019	<0 00019	<0.029	<0.0095	<0.0095	<0.00019	<0 0095
	ROST4PZ(G)-ROX-071222	7/12/2022	<0.001	<0 001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019	<0.00019	<0.00019	<0.00019 U	0.00011 J J	<0.00019 U	<0.00019	<0 00019	0 016 J	<0.0095	<0 0095	<0.00019	<0 0095

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs							SVOCs													
			Toluene	Trichlorofluoromethane	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	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine
Screening Values (mg/L)			**1.0** [1]	**2.1** [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]	**0.56** [3]	**0.012** [1]	
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																				
T-12	T12-ROX-102021	10/20/2021	0.029	<0.01	<0.01	0 011	0.043 J	<0.05	0 046 J	<0.0002	<0.0002	<0 0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0 01	<0.01	<0 0002	<0.01
	T12-ROX-011422	1/14/2022	0.012	<0 002	<0.002	0 003	0.018	0.0021 J	0.021	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0 0002	<0.0002	<0.0002	0.033	<0 01	<0.01	<0 0002	<0.01
	T12-ROX-042022	4/20/2022	0.026	<0.01	0 01	0.0089 J	0.067	<0.05	0.072 J	<0.0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.0002	<0.0002 UJ	<0.0002	<0.03 UJ	<0.0099	<0.0099	<0.0002	<0 0099
	T12-ROX-071422	7/14/2022	0.03	<0.01	<0 01	0.011	0.067	<0.05	0.067 J	<0 0002 UJ	<0.0002	<0.0002	0.00012 J	0.0002	0.000067 J	<0.0002	<0.0002	<0.03	<0.0098	<0 0098	<0 0002	<0 0098

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-101321	10/13/2021	<0.00019	<0.0094	<0.0094 U	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW1-ROX-011222	1/12/2022	<0.00019	<0.0095	<0.0095	<0.0095	0.003 J	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0 0095 UJ
	MW1-ROX-041322	4/13/2022	<0.00019	<0.0096	<0.0096 U	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096
	MW1-ROX-070822	7/8/2022	<0.00019	<0.0094	<0.0094	<0.0094	0.0038 J	< 0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0 019	<0.00019	<0.0094	<0.00019	<0.0094
MW-02	MW2-ROX-101521	10/15/2021	<0.00019	<0.0093	0.0003 J	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	0.0065	0.0099	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0 0093	<0.00019	<0 0093
	MW2-ROX-011122	1/11/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	0.0096	0.015	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0 0095	<0.00019	<0 0095
	MW2-ROX-041422	4/14/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	0.011	0.017	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096 UJ	<0.00019	<0.0096 UJ
	MW2-ROX-041422-DUP	4/14/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	0.013	0.018	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095 UJ	<0.00019	<0.0095 UJ
	MW2-ROX-071422	7/14/2022	<0.00019	<0.0097	0.00035 J	<0.0097	<0 0097	<0.0097	<0.00019	<0 00019	<0.0097	<0 00019	0.011	0.023	<0.0097	<0.019	<0.0097	<0.019	0.000047 J	<0.0097	<0.00019	<0.0097
MW-03	MW3-ROX-101521	10/15/2021	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	0 00011 J	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW3-ROX-101521-DUP	10/15/2021	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW3-ROX-011022	1/10/2022	<0.00021	<0 01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0 00021	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.021	<0.00021	<0.01	<0.00021	<0.01 UJ
	MW3-ROX-041222	4/12/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096
	MW3-ROX-071422	7/14/2022	<0.00019 UJ	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0.00019 UJ	0.00011 J J	<0.00019	<0.0095	<0.019	<0.0095	<0 019	<0.00019	<0.0095	<0.00019 UJ	<0.0095
MW-04	MW4-ROX-101921	10/19/2021	<0.00019	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	MW4-ROX-011122	1/11/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW4-ROX-041922	4/19/2022	<0.00019	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	0.00017 J	<0 00019	<0.0097	0.00012 J	0.000086 J	<0.00019	<0.0097	<0.019	<0.0097	<0.019	0 00011 J	<0.0097	0.000098 J	<0.0097
	MW4-ROX-071822	7/18/2022	0.00011 J	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	0.000071 J	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0 019	<0.00019	<0 0096	0.000043 J	<0 0096 UJ
MW-05	MW5-ROX-101421	10/14/2021	<0.00019	<0.0094	0.00059 J	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW5-ROX-010722	1/7/2022	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01
	MW5-ROX-041322	4/13/2022	0.00017 J	<0.0096	<0.0096	<0.0096	0.0035 J	<0.0096	<0.00017 U	<0 00019	<0.0096	0.00014 J	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019 U	<0.0096
	MW5-ROX-071122	7/11/2022	<0.00019	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	0.000099 J	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0 019	<0.00019	<0.0093	<0.00019	<0.0093
MW-06A	MW6A-ROX-101121	10/11/2021	<0.00019	<0.0095	<0.0095 UJ	<0.0095 UJ	<0 0095	<0.0095	0.00012 J	<0 00019	<0.0095	<0 00019	0.000089 J	0.00008 J	<0 0095 UJ	<0.019 UJ	<0.0095	<0.019 UJ	<0.00019	<0.0095 UJ	0.000072 J	<0.0095
	MW6A-ROX-010722	1/7/2022	<0.00019	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019	<0 00019	<0.0097	<0 00019	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.019	<0.00019	<0.0097	<0.00019	<0.0097
	MW6A-ROX-041122	4/11/2022	0.00011 J	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	0 0001 J	<0 00019	<0.0094	0.00015 J	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	0.000071 J	<0.0094
	MW6A-ROX-070822	7/8/2022	<0.00020	<0.0099	<0 0099	<0.0099	<0 0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0 0099
MW-06B	MW6B-ROX-101121	10/11/2021	<0.00019	<0.0095	<0.0095 UJ	<0.0095	<0 0095	0.00033 J	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW6B-ROX-010722	1/7/2022	<0 0002	<0.0099	<0 0099	<0.0099	<0 0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.02	<0.0002	<0 0099	<0.0002	<0 0099
	MW6B-ROX-041122	4/11/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	0.004 J	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW6B-ROX-070822	7/8/2022	<0.00019	<0.0096	<0.0096 U	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0 019	<0.00019	<0.0096	<0.00019	<0.0096
MW-06C	MW6C-ROX-101221	10/12/2021	<0.00019	<0.0094	<0.0094 UJ	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW6C-ROX-010622	1/6/2022	<0 0002	<0.0098	<0 0098	<0.0098	<0 0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.02	<0.0002	<0 0098	<0.0002	<0 0098
	MW6C-ROX-041122	4/11/2022	0.000078 J J	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	0.00013 J J	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	MW6C-ROX-070822	7/8/2022	<0 0002	<0.0099	<0 0099	<0.0099	<0 0099	<0.0099	<0.0002	<0.0002	0.0099	<0.0002	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0 0099
MW-06D	MW6D-ROX-101221	10/12/2021	<0.00019	<0.0094	<0.0094 UJ	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW6D-ROX-010622	1/6/2022	<0 0002	<0.0098	<0 0098	<0.0098	<0 0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.02	<0.0002	<0 0098	<0.0002	<0 0098
	MW6D-ROX-041122	4/11/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW6D-ROX-070822	7/8/2022	<0.00019	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
MW-07	MW7-ROX-101921	10/19/2021	<0.00019	<0.0093	<0.0093 UJ	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	0.0023 J	0.0028	<0.0093	0.0011 J	<0.0093	<0.019	<0.00019	0.068 J	<0.00019	<0 0093
	MW7-ROX-101921-DUP	10/19/2021	<0.00019	<0.0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	0.0017 J	0.003	<0.0093	0.0015 J	<0.0093	<0.019	<0.00019	0.14 J	<0.00019	<0 0093
	MW7-ROX-011122	1/11/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019 UJ	0.0031	<0.0096	0.00089 J	<0.0096	<0.019	<0.00019	0.14	<0.00019	<0.0096
	MW7-ROX-011122-DUP	1/11/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	0.0029 J	0.0034	<0.0095	0.00097 J	<0.0095	<0.019	<0.00019	0.12	<0.00019	<0 0095
	MW7-ROX-041922	4/19/2022	<0 0002	<0.0099	0.00069 J	<0.0099	<0 0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	0.0015	0.0023	<0.0099	<0.02	<0.0099	<0.02	0.00021	0 082	0.000091 J	<0 0099
	MW7-ROX-041922-DUP	4/19/2022	<0 0002	<0.0099	<0 0099	<0.0099	<0 0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	0.0016	0.0021	<0.0099	<0.02	<0.0099	<0.02	0.00024	0 084	<0.0002	<0 0099
	MW7-ROX-071822	7/18/2022	<0.00019	<0.0096	<0 0096	<0.0096	<0 0096	<0.0096	<0.00019	0.00020	<0.0096	<0 00019	0.0019	0.0030	<0.0096	<0.019	<0.0096	<0.019	0.00027	0 086	0.000054 J	<0.0096

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-08	MW8-ROX-101921	10/19/2021	<0.00019	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	0.00046	<0.0093	<0 00019	0.012	0.0022	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0 0093	<0.00019	<0 0093
	MW8-ROX-011122	1/11/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	0.00049	<0.0096	<0 00019	0.018	0.0045	<0.0096	<0.019	<0.0096	<0.019	<0.00019	0.39	<0.00019	<0 0096
	MW8-ROX-041922	4/19/2022	<0.00019	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019	<0 00019	<0.0097	<0 00019	0.012	0.0048	<0.0097	<0.019	<0.0097	<0.019	<0.00019	0.26	<0.00019	<0 0097
	MW8-ROX-071822	7/18/2022	<0.00019	<0.0095	<0 0095	<0.0095	<0 0095	<0.0095	<0.00019	0.00032	<0.0095	<0 00019	0.0065	0.00046	<0.0095	<0.019	<0.0095	<0.019	0.000058 J	0.12	<0.00019	<0.0095 UJ
	MW8-ROX-071822-DUP	7/18/2022	<0.00019	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	<0.00019	0.00046	<0.0094	<0 00019	0.0070	0.00041	<0.0094	<0.019	<0.0094	<0.019	0.000071 J	0.1	<0.00019	<0.0094 UJ
MW-09	MW9-ROX-100721	10/7/2021	<0.00019	<0.0094	<0.0094 U	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW9-ROX-010622	1/6/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW9-ROX-040722	4/7/2022	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	0.00008 J	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW9-ROX-071222	7/12/2022	0.00022	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	0.000089 J	<0 00019	<0.0094	0.00021	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
MW-10	MW10-ROX-100721	10/7/2021	<0.00019	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	MW10-ROX-011222	1/12/2022	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0 0094 UJ
	MW10-ROX-041422	4/14/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095 UJ	<0.00019	<0 0095 UJ
	MW10-ROX-070822	7/8/2022	<0.00019	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
MW-11	MW11-ROX-100721	10/7/2021	<0.00019	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	MW11-ROX-010622	1/6/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW11-ROX-040722	4/7/2022	<0 0002	<0.0098	<0 0098	<0.0098	<0 0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.02	<0.0002	<0 0098	<0.0002	<0 0098
	MW11-ROX-070822	7/8/2022	<0.00019	<0.0095	<0 0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
MW-12	MW12-ROX-101521	10/15/2021	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019 U	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW12-ROX-011222	1/12/2022	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	0.000081 J	<0 00019	<0.0094	<0.00019 U	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0 0094 UJ
	MW12-ROX-041222	4/12/2022	<0.00019	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019	<0 00019	<0.0097	<0 00019	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.019	<0.00019	<0.0097	<0.00019	<0.0097
	MW12-ROX-070822	7/8/2022	<0.00019	<0.0095	<0.0095 U	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	0 00048 J	<0 019	<0.00019	<0.0095	<0.00019	<0.0095
MW-13	MW13-ROX-100821	10/8/2021	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	MW13-ROX-011022	1/10/2022	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0 0094 UJ
	MW13-ROX-041422	4/14/2022	<0.00019	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019	<0 00019	<0.0097	<0 00019	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.019	<0.00019	<0.0097 UJ	<0.00019	<0 0097 UJ
	MW13-ROX-071122	7/11/2022	<0.00019	<0.0095	<0 0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
MW-14	MW14-ROX-101321	10/13/2021	<0.00019	<0.0094	<0.0094 U	<0.0094 UJ	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0 0094 UJ	<0.019 UJ	<0.0094	<0 019 UJ	<0.00019	<0.0094 UJ	<0.00019	<0.0094
	MW14-ROX-011322	1/13/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096
	MW14-ROX-040822	4/8/2022	0.0001 J	<0.0096	<0.0096 U	<0.0096	<0 0096	0.0045 J	0.00015 J	<0 00019	<0.0096	0.00017 J	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	0.00012 J	<0.0096
	MW14-ROX-071122	7/11/2022	<0.00019	<0.0095	<0.0095 U	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0 019	<0.00019	<0.0095	<0.00019	<0.0095
MW-16	MW16-ROX-100821	10/8/2021	<0.00019	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	MW16-ROX-010722	1/7/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096
	MW16-ROX-041222	4/12/2022	<0.00019 UJ	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	0.0001 J J	<0 00019	<0.0096 UJ	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	0 000055 J J	<0.0096
	MW16-ROX-071222	7/12/2022	<0.00019	<0.0094	0.0014 J	<0.0094 UJ	<0 0094	<0.0094	0 000075 J J	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0 0094 UJ	<0.019 UJ	<0.0094	<0.019 UJ	0.000046 J J	<0.0094 UJ	<0.00019	<0.0094
MW-22	MW22-ROX-101521	10/15/2021	<0.00019	<0.0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	0.00044	0.00014 J	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	MW22-ROX-011022	1/10/2022	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	0.00083	0.00012 J	<0.01	<0.02	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01 UJ
	MW22-ROX-041522	4/15/2022	<0.00019	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	0.00014 J	<0 00019	<0.0097	0.0001 J	0.0044	0.0051	<0.0097	<0.019	<0.0097	<0.019	<0.00019	<0.0097 UJ	0.000073 J	<0.0097 UJ
	MW22-ROX-071422	7/14/2022	<0.00019	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	0.0042	0 0046 J	<0.0094	<0.019	<0.0094	<0.019	0.000054 J	<0.0094	<0.00019	<0.0094
	MW22-ROX-071422-DUP	7/14/2022	0 000083 J	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	0.000073 J	<0 00019	<0.0095	0.000065 J	0.0051	0.006 J	<0.0095	<0.019	<0.0095	<0.019	0 00011 J	<0 0095	0.000067 J	<0.0095
MW-23	MW23-ROX-101321	10/13/2021	<0.00019	<0.0095	<0.0095 U	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW23-ROX-010722	1/7/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW23-ROX-041222	4/12/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	0 0001 J J	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096
	MW23-ROX-071322	7/13/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0 0095	<0.00019	<0.0095
MW-24	MW24-ROX-100721	10/7/2021	<0.00019	<0.0095	<0.0095 U	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	0 00007 J	0.000057 J	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW24-ROX-010722	1/7/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096
	MW24-ROX-040722	4/7/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096
	MW24-ROX-071122	7/11/2022	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0 0094	<0.00019	<0.0094

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-25	MW25-ROX-101921	10/19/2021	<0.00019	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	MW25-ROX-011122	1/11/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096
	MW25-ROX-041922	4/19/2022	<0 0002	<0 01	0.00061 J	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01
	MW25-ROX-071822	7/18/2022	<0.00019	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0 0094 UJ
MW-26	MW26-ROX-101421	10/14/2021	<0.00019	<0.0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	MW26-ROX-011122	1/11/2022	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01
	MW26-ROX-041122	4/11/2022	0.00023	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	0.00025	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0 0094	<0.00019	<0 0094
	MW26-ROX-071222	7/12/2022	0.00016 J J	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	<0.00019	<0 00019	<0.0095	0.00015 J J	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0 019	<0.00019	<0.0095	<0.00019	<0 0095
MW-27	MW27-ROX-101321	10/13/2021	<0.00019	<0.0093	<0.0093 U	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	0.000058 J	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0 0093
	MW27-ROX-011222	1/12/2022	<0.00019	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094 UJ
	MW27-ROX-040822	4/8/2022	<0.00019	<0.0095	<0 0095	<0.0095	<0 0095	0.0039 J	0.000099 J	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	0.000047 J	<0 0095
	MW27-ROX-071122	7/11/2022	<0.00019	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	0.0002	0.00024	<0.0094	<0.019	<0.0094	<0.019	0.000051 J	<0.0094	<0.00019	<0 0094
MW-28	MW28-ROX-101821	10/18/2021	<0.00019	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0 0094
	MW28-ROX-101821-DUP	10/18/2021	<0.00018	<0.0092	0.00038 J	<0.0092	<0 0092	<0.0092	<0.00018	<0 00018	<0.0092	<0 00018	<0.00018	<0.00018	<0.0092	<0.018	<0.0092	<0.018	<0.00018	<0.0092	<0.00018	<0 0092
	MW28-ROX-011222	1/12/2022	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01
	MW28-ROX-041322	4/13/2022	<0 00019 H UJ	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	0.000087 J H J	<0 00019 H UJ	<0.0095	<0 00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.0095	<0.019	<0.0095	<0 019	0.000055 J H *+ J	<0.0095	<0.00019 H UJ	<0.0095
	MW28-ROX-071222	7/12/2022	<0.00019	<0.0095	0.00031 J	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.0095	0.00014 J J	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0 019	<0.00019	<0.0095	<0.00019	<0 0095
P-54	P54-ROX-101421	10/14/2021	<0.00019	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0 0094
	P54-ROX-011022	1/10/2022	<0.00019	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095 UJ
	P54-ROX-040822	4/8/2022	<0.00019	<0.0096	<0 0096	<0.0096	<0.0096	<0.0096	0.000086 J	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0 0096
	P54-ROX-071222	7/12/2022	0 0002	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	0.000066 J	<0 00019	<0.0094	0.00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0 0094
P-56	P56-ROX-101821	10/18/2021	<0.00019	0.00051 J	0.00025 J	<0.0094	<0.0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	0.016	0.019	<0.0094	<0.019	<0.0094	<0.019	0.0011	<0 0094	<0.00019	<0 0094
	P56-ROX-011222	1/12/2022	<0.00019	<0.0096	<0 0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.00019 UJ	<0.0096	<0 00019	0.01 J	0 0091 J	<0.0096	<0.019	<0.0096	<0.019	0.00076	<0.0096	<0.00019	<0 0096
	P56-ROX-011222-DUP	1/12/2022	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	0.00043 J	<0 01	<0.0002	0.013 J	0 013 J	<0.01	<0.02	<0.01	<0.02	0.00093	<0.01	<0.0002	<0.01
	P56-ROX-042022	4/20/2022	<0 0002	0.00053 J	<0.01	<0.01	<0.01	<0.01	<0.0002	0.00045	<0.01	<0.0002	0.017	0.016	<0.01	<0.02	<0.01	<0.02 UJ	0.001	<0.01	0.000046 J	<0.01 UJ
	P56-ROX-071322	7/13/2022	<0.00018	<0.0092	<0 0092	<0.0092	<0.0092	<0.0092	<0.00018	0.00034	<0.0092	<0 00018	0 01	0.0092	<0.0092	0.0006 J	<0.0092	<0.018	0.00073	<0.0092	0.000045 J	<0 0092
P-57	P57-ROX-101821	10/18/2021	<0.00019	<0.0094	0.00039 J	<0.0094	<0.0094	0.0021 J	<0.00019	0 0007	0.016	<0 00019	0.022	0.02	<0.0094	<0.019	<0.0094	<0.019	<0.00019	0 087	<0.00019	<0 0094
	P57-ROX-011422	1/14/2022	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0 0002	<0 01	<0.0002	0.012	0.0076	<0.01	<0.02	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01 UJ
	P57-ROX-041522	4/15/2022	<0.00019	0.00055 J	<0 0096	<0.0096	<0.0096	<0.0096	0.000099 J	0.00052	<0.0096	<0 00019	0.028	0.029	<0.0096	<0.019	<0.0096	<0.019	0.00036	<0.0096 UJ	<0.00019	<0.0096 UJ
	P57-ROX-071522	7/15/2022	<0.00019	<0.0095 H UJ	<0.0095 H UJ	0.023 H J	<0 0095 H UJ	<0.0095 H UJ	<0.00019	0.00027	<0.0095 H UJ	<0 00019	0.0096	0.012	<0.0095 H UJ	0 0015 H J	<0.0095 H UJ	<0.019 H UJ	0 00018 J	<0 0095 H UJ	<0.00019	<0.0095 H UJ
P-58	P58-ROX-011322	1/13/2022	<0.00019	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019 UJ	<0.0095	<0 00019	0.055	0.024	<0.0095	<0.019	<0.0095	<0.019	0.0015	0.57	<0.00019 UJ	<0 0095
	P58-ROX-011322-DUP	1/13/2022	<0 0002	<0.0098	<0 0098	<0.0098	<0.0098	<0.0098	<0.0002	0.002 J	<0.0098	<0.0002	0.056	0.025	<0.0098	<0.02	<0.0098	<0.02	0.0018	0.45	0.00087 J	<0.0098
	P58-ROX-041822	4/18/2022	<0.00019	0 0014 J	<0 0097	<0.0097	<0.0097	<0.0097	0.00026	0.002	<0.0097	<0 00019	0.081	0.036	<0.0097	<0.019	<0.0097	<0.019	0.0016	0.6	0.00058	<0.0097
	P58-ROX-041822-DUP	4/18/2022	<0.00019	0 0016 J	<0 0097	<0.0097	<0.0097	<0.0097	0.00022	0 0016	<0.0097	<0 00019	0.081	0.035	<0.0097	<0.019	<0.0097	<0.019	0.0014	0.67	0.00053	<0 0097
	P58-ROX-071422	7/14/2022	0.00018	0 0026 J	<0 0092	0.013	<0.0092	<0.0092	0.00025	0.0030 J	<0.0092	0.00017 J	0.071	0.059	0.024	0.018	<0.0092	<0.018	0.0026	0.31 J	0.0011	<0 0092
	P58-ROX-071422-DUP	7/14/2022	0.00014 J	<0.018	<0.018	0 012 J	<0 018	<0.018	0.00029 J	0.0017 J	<0.018	0 000088 J	0.088	0.051	0.023	0 016 J	<0 018	<0.037	0.0024	0.13 J	0.0013	<0.018
P-59	P59-ROX-102021	10/20/2021	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	0 02	0.028	<0.01	<0.02	<0.01	<0.02	<0.0002	0 053	<0.0002	<0.01
	P59-ROX-102021-DUP	10/20/2021	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	0.001 J	<0.0002	0.021	0.028	<0.01	<0.02	<0.01	<0.02	<0.0002	0 041	<0.0002	<0.01
	P59-ROX-011322	1/13/2022	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	0.018	0.025	<0.01	<0.02	<0.01	<0.02	<0.0002	0 059	<0.0002	<0.01
	P59-ROX-041822	4/18/2022	<0.00019	<0.019	<0.019	<0.019	<0 019	<0.019	<0.00019	<0 00019	<0 019	<0 00019	0.019	0.026	<0.019	<0.038	<0 019	<0.038	0.00088	0 028	<0.00019	<0.019
	P59-ROX-071422	7/14/2022	<0.00038	<0.019	<0.019	<0.019	<0 019	<0.019	0.00023 J	0.00044	<0 019	<0 00038	0.014	0.02	<0.019	<0.038	<0 019	<0.038	0.0013	0 023	0.00047	<0.019
P-66	P66-ROX-102021	10/20/2021	<0.00021	0 0014 J	<0.01	<0.01	<0.01	<0.01	<0.00021	0.0011 J	0 0017 J	<0 00021	0.055	0.025	<0.01	0.0025 J	<0.01	<0.021	0 00045 J	0 025	<0.00021	<0.01
	P66-ROX-102021-DUP	10/20/2021	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0 0002 UJ	0 0013 J	<0.0002	0.068	0.032	<0.01	0.0024 J	<0.01	<0.02	<0.0002 UJ	0 021	<0.0002	<0.01
	P66-ROX-011322	1/13/2022	<0.00019	0.00086 J	<0 0096	<0.0096	<0 0096	<0.0096	<0.00019	0 0025	<0.0096	<0 00019	0.082	0.029	0.0062 J	0.01 J	<0.0096	<0.019	<0.00019	0 019	<0.00019	<0 0096

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-74	P74-ROX-101221	10/12/2021	<0.00018	<0.0092	<0.0092 U	<0.0092	<0 0092	<0.0092	<0.00018	<0 00018	<0.0092	<0 00018	0.00035	0.00028	<0.0092	0.00088 J	<0.0092	<0.018	<0.00018	0.02	<0.00018	<0 0092
	P74-ROX-011322	1/13/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	P74-ROX-011322-DUP	1/13/2022	<0.00021	<0 01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0 00021	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.021	<0.00021	0.0032 J	<0.00021	<0.01
	P74-ROX-041822	4/18/2022	<0.00019	<0.0097	0.00033 J	<0.0097	<0 0097	<0.0097	<0.00019	<0 00019	<0.0097	<0 00019	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.019	<0.00019	<0.0097	<0.00019	<0.0097
	P74-ROX-041822-DUP	4/18/2022	<0.00019	<0.0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.019	0.000037 J	<0.0096	<0.00019 U	<0.0096
	P74-ROX-071322	7/13/2022	<0.00019	<0.0095	<0 0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	0.000048 J	<0.0095	0.000069 J	<0.0095
P-93A	P93A-ROX-101921	10/19/2021	<0 0002	<0.0098	<0 0098	<0.0098	<0 0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.02	<0.0002	<0 0098	<0.0002	<0 0098
	P93A-ROX-011222	1/12/2022	<0 0002	<0.0098	<0 0098	<0.0098	<0 0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	0 00019 J	<0.0002	<0.0098	<0.02	<0.0098	<0.02	<0.0002	<0 0098	<0.0002	<0 0098
	P93A-ROX-041922	4/19/2022	0.00016 J	<0 01	<0.01	<0.01	<0.01	<0.01	0.00011 J	<0.0002	<0.01	0.00017 J	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.02	0.000079 J	<0.01	<0.0002	<0.01
	P93A-ROX-071522	7/15/2022	<0.00019	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095 UJ
P-93B	P93B-ROX-101921	10/19/2021	<0 0002	<0.0099	<0 0099	0.0057 J	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0002	<0.0099	0 003 J	<0.0099	<0.02	<0.0002	0.29	<0.0002	<0 0099
	P93B-ROX-011322	1/13/2022	<0 0002	<0.0098	<0 0098	0.0039 J	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0002	<0.0098	0 002 J	<0.0098	<0.02	<0.0002	0.37	<0.0002	<0 0098
	P93B-ROX-042022	4/20/2022	<0.00021	<0 01	<0.01	0.0042 J	<0.01	<0.01	0.00036	<0 00021	<0.01	<0 00021	0 00012 J	0.00012 J	<0.01	0.0025 J	<0.01	<0 021 UJ	0.00043	0.4	0.00026	<0.01
	P93B-ROX-071522	7/15/2022	0 000065 J	<0.0093	<0 0093	0 005 J	<0.0093	<0.0093	<0.00019	<0.00019 UJ	<0.0093	0.000061 J	<0.00019 UJ	0.00012 J J	<0.0093	0.0012 J	<0.0093	<0 019	0.000041 J	0.32	0.00004 J	<0 0093 UJ
	P93B-ROX-071522-DUP	7/15/2022	<0.00018	0.00042 J J	0.0015 J	0.0054 J	<0 0092	<0.0092	<0.00018	0.0004 J	0.0013 J	<0 00018	0.012 J	0.015 J	<0.0092	0.0015 J	<0.0092	<0.018	0.00027	0.3	<0.00018	<0 0092
P-93C	P93C-ROX-101221	10/12/2021	<0.00019	<0.0094	<0.0094 U	<0.0094 UJ	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0 0094 UJ	<0.019 UJ	<0.0094	<0 019 UJ	<0.00019	<0.0094 UJ	<0.00019	<0.0094
	P93C-ROX-011022	1/10/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0 0095 UJ
	P93C-ROX-041922	4/19/2022	0.00013 J	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	0.000093 J	<0 00019	<0.0097	0.00017 J	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.019	0.000045 J	<0.0097	<0.00019	<0.0097
	P93C-ROX-071322	7/13/2022	<0.00021	<0 01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0 00021	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.021	<0.00021	<0.01	<0.00021	<0.01
P-93D	P93D-ROX-101821	10/18/2021	<0.00019	<0.0093	<0.0093	<0.0093	<0 0093	0.0022 J	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	P93D-ROX-011422	1/14/2022	<0.00019	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019	<0 00019	<0.0097	<0 00019	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.019	<0.00019	<0.0097	<0.00019	<0 0097 UJ
	P93D-ROX-041922	4/19/2022	<0 0002	<0.0099	0.00039 J	<0.0099	<0 0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.02	<0.0002	<0 0099	<0.0002	<0 0099
	P93D-ROX-071522	7/15/2022	<0.00019	<0.0094	0.00083 J	<0.0094 UJ	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0 0094 UJ	<0.019 UJ	<0.0094	<0.019 UJ	<0.00019	<0.0094 UJ	0.000039 J	0 0036 J J
P-114R	P114R-ROX-100821	10/8/2021	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	P114R-ROX-011022	1/10/2022	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0 0094 UJ
	P114R-ROX-041422	4/14/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095 UJ	<0.00019	<0 0095 UJ
	P114R-ROX-071122	7/11/2022	0 000096 J	<0.0094	<0 0094	<0.0094	<0 0094	<0.0094	0.000091 J	<0 00019	<0.0094	0.00011 J	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0 019	0.000062 J	<0.0094	<0.00019	<0.0094
ROST-3-MW	ROST3MW-ROX-100821	10/8/2021	<0.00019	<0.0094	<0.0094 U	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094
	ROST3MW-ROX-010622	1/6/2022	<0.00019	<0.0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019	<0 00019	<0.0094	<0 00019	0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.019	<0.00019	<0 0094	<0.00019	<0.0094
	ROST3MW-ROX-041222	4/12/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	0 000041 J J	<0.0095
	ROST3MW-ROX-071222	7/12/2022	<0.00019	<0.0096	0.00052 J	<0.0096 UJ	<0 0096	<0.0096	<0.00019	<0 00019	<0.0096	<0 00019	0 00016 J	0.000063 J	<0 0096 UJ	<0.019 UJ	<0.0096	<0.019 UJ	<0.00019	<0.0096 UJ	<0.00019	<0.0096
ROST-4-PZ(C)	ROST4PZC-ROX-101821	10/18/2021	<0.00019	0.00091 J	0.00067 J	<0.0094	<0 0094	<0.0094	<0.00019	0 0013	<0.0094	<0 00019	0.041	0.0086	<0.0094	<0.019	<0.0094	0.0014 J	0.0033	<0 0094	0.0001 J	<0 0094
	ROST4PZC-ROX-011122	1/11/2022	<0.00019	0.00046 J	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019	0 0011	<0.0096	<0 00019	0.032	0.0029	<0.0096	<0.019	<0.0096	<0.019	0.0031	<0 0096	0.000084 J	<0 0096
	ROST4PZC-ROX-041522	4/15/2022	<0.00019	0.00082 J	<0.0095 U	<0.0095	<0 0095	<0.0095	0.00012 J	0.001	<0.0095	0.00005 J	0.0056	<0.00019	<0.0095	<0.019	<0.0095	<0.019	0.0028	<0.0095 UJ	0.000098 J	<0.0095 UJ
	ROST4PZ(C)-ROX-071422	7/14/2022	<0.00019	0.00077 J	<0.0095	<0.0095	<0 0095	<0.0095	0.000075 J	0 0011	<0.0095	<0 00019	0.034	0.011	<0.0095	0.00066 J	<0.0095	<0.019	0.0030	<0.0095	0.00015 J	<0.0095
ROST-4-PZ(E)	ROST4PZE-ROX-101821	10/18/2021	<0.00019	<0.0093	0.00076 J	<0.0093	<0 0093	<0.0093	<0.00019	0 0023	0.0041 J	<0 00019	0.11	0.13	<0.0093	<0.019	<0.0093	<0.019	0.0088	<0 0093	0.00029	<0 0093
	ROST4PZE-ROX-011222	1/12/2022	<0.00019	0.00039 J	<0.0096	<0.0096 UJ	<0 0096	<0.0096	<0.00019	0.001 J	0.0023 J	<0 00019	0.038	0.035	<0 0096 UJ	<0.019 UJ	<0.0096	<0 019 UJ	0.0024	<0.0096 UJ	<0.00019	<0.0096
	ROST4PZE-ROX-011222-DUP	1/12/2022	<0 0002	0.00089 J	<0 0098	<0.0098	<0 0098	<0.0098	<0.0002	0.0013 J	0.0031 J	<0.0002	0.041	0.04	<0.0098	<0.02	<0.0098	<0.02	0.0023	<0 0098	0.00012 J	<0.0098 UJ
	ROST4PZ(E)-ROX-071522	7/15/2022	<0.00019	0 0036 J	<0 0096	0.024	<0 0096	<0.0096	0.00072 J	0.0046 J	<0.0096	<0 00019	0.077	0.075 J	<0.0096	0.0021 J	<0.0096	<0.019	0.019 J	0.0026 J	0.0017 J	<0.0096 UJ
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	<0.00019	0 0020 J	<0 0096	0.019	<0 0096	<0.0096	0.00017 J J	0.0024 J	0 0032 J	<0 00019	0.066	0.058 J	<0.0096	0.0017 J	<0.0096	<0.019	0.0054 J	<0.0096	0.00042 J	<0 0096 UJ
ROST-4-PZ(G)	ROST4PZG-ROX-101421	10/14/2021	<0.00019	<0.0093	0.00046 J	<0.0093	<0 0093	<0.0093	<0.00019	<0 00019	<0.0093	<0 00019	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093
	ROST4PZG-ROX-011022	1/10/2022	<0 0002	<0.0099	<0 0099	<0.0099	<0 0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.02	<0.0002	<0 0099	<0.0002	<0.0099 UJ
	ROST4PZG-ROX-041522	4/15/2022	<0.00019	<0.0097	<0.0097	<0.0097	<0 0097	<0.0097	0.000088 J	<0 00019	<0.0097	<0 00019	<0.00019	0.00009 J	<0.0097	<0.019	<0.0097	<0.019	<0.00019	<0.0097 UJ	0.000051 J	<0 0097 UJ
	ROST4PZG-ROX-041522-DUP	4/15/2022	<0.00019	<0.0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	<0 00019	<0.00019	0.000063 J	<0.0095	<0.019	<0.0095	<0.019	0.000055 J	<0.0095 UJ	<0.00019	<0 0095 UJ
	ROST4PZ(G)-ROX-071222	7/12/2022	0.00017 J J	<0.0095	0.00043 J	<0.0095	<0 0095	<0.0095	<0.00019	<0 00019	<0.0095	0.00016 J J	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0 019	0.000044 J J	<0 0095	<0.00019	<0.0095

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Nitrobenzene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.014 [1]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
T-12	T12-ROX-102021	10/20/2021	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	0 0023 J	<0.0002	0.0058	0.0027	<0.01	0.0013 J	<0.01	<0.02	<0.0002	0.14	<0.0002	<0.01
	T12-ROX-011422	1/14/2022	<0 0002	<0 01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.02	<0.0002	0 036	<0.0002	<0.01 UJ
	T12-ROX-042022	4/20/2022	<0 0002	<0.0099	<0.0099	<0.0099 UJ	<0 0099	<0.0099	<0.0002	<0.0002	0.0016 J	<0.0002	<0.0002	<0.0002	<0 0099 UJ	<0.02 UJ	<0.0099	<0.02 UJ	<0.0002	0.0076 J J	<0.0002	<0.0099 UJ
	T12-ROX-071422	7/14/2022	0 000063 J	<0.0098	<0 0098	0 006 J	<0 0098	<0.0098	0.00007 J	<0.0002	0 0031 J	0.000042 J	<0.0002	<0.00020	<0.0098	0.00062 J	<0.0098	<0.02	<0.0002	0.13	0.000084 J	<0.0098

Notes

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

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

3 Denotes screening criteria source from L EPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables).

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

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

Indicates a historical exceedance of screening criteria.

Indicates a current exceedance of screening criteria.

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

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

LABORATORY QUALIFIERS

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

H = Analyzed or extracted out of holding time criteria.

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

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

*1 = LCS/LCSD RPD is outside contol limit

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

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Figures

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

MVS Descriptions and Assumptions:

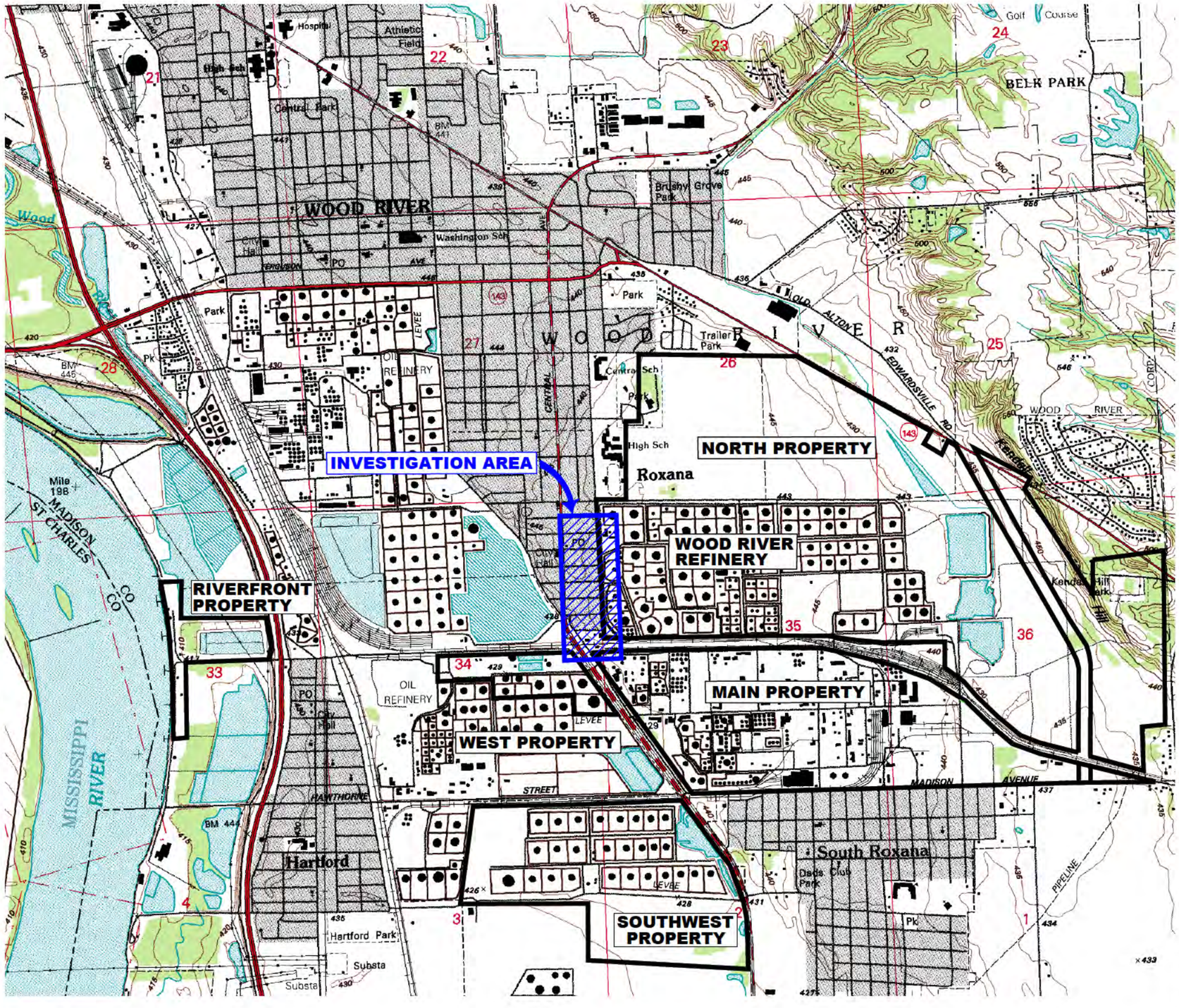
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

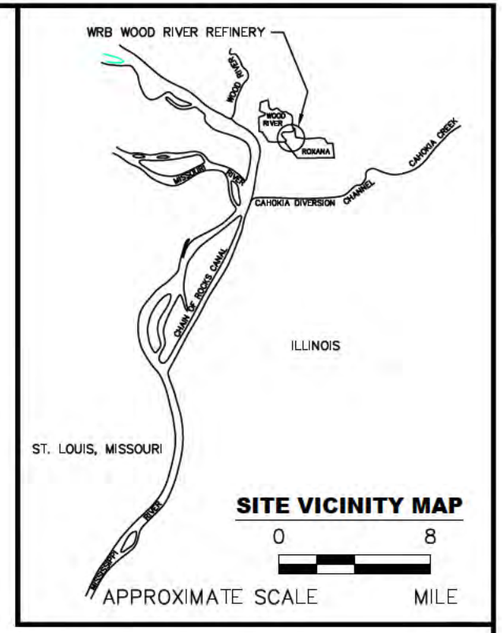
Inward Kriging / Boundary Cut-off – This method of Kriging limits the horizontal extent of data modeling to the extent of the data on the x/y plane in a convex hull.

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

Duplicate Samples – In locations and depths where duplication samples were collected, the higher concentration was used.

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





LEGEND

WOOD RIVER REFINERY PROPERTY BOUNDARY

INVESTIGATION AREA

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

0 2000

APPROXIMATE SCALE FEET

N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381
AECOM	
DRN. BY:gds October 2022 DSGN. BY: mar CHKD. BY: wmp	Investigation Area Location Map
	FIG. NO. 1

File: C:\USERS\PDPSDCUV\ACOM\005 GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\60674381-005.5-CENTRAL_AFE-ROXANA-IL\ROXANA 2022.GIF (MJP) 14.09.2022 - PMT: J:\WORKSPACE\FIGURE 1 INVESTIGATION AREA LOCATION MAP.DWG Last edited: 09/19/22 @ 4:57 PM @ WCC-ST.LOUIS

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00686-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 3Q22 GW RPT\14.09.2022 - PART 2\WORKSPACE\FIGURE 2 GROUNDWATER MONITORING WELL SAMPLING LOCATIONS.DWG Last edited: Sep. 19, 22 @ 4:58 PM by: lorente

LEGEND

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

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

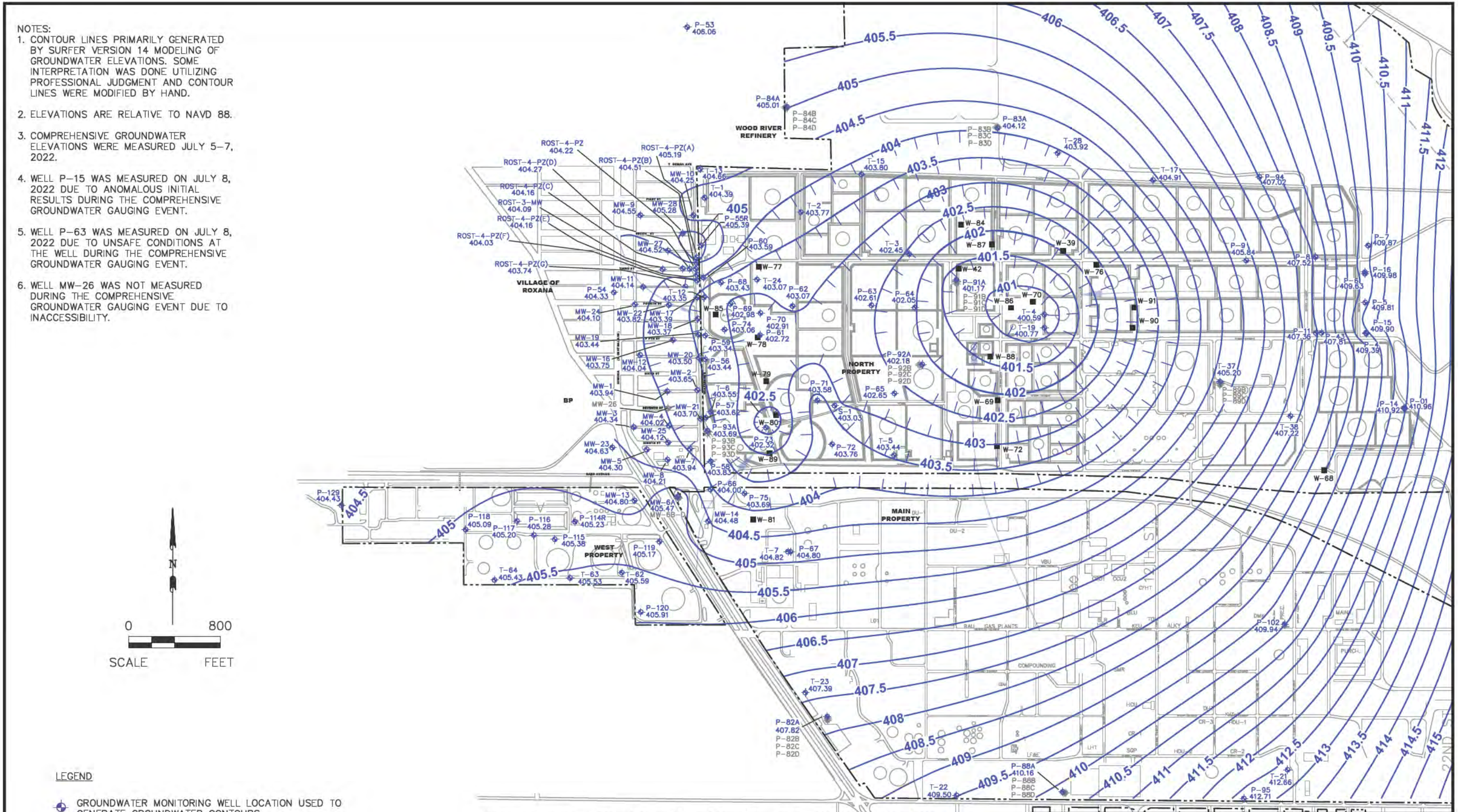
PZ-1(101)
PZ-1(85)
MW-9 *
MW-10 *
MW-28 *
MW-27 *
ROST-4-PZ(A)
ROST-4-PZ(B)
ROST-4-PZ(C) *
ROST-4-PZ
P-60-11
ROST-3-MW *
ROST-4-PZ(D)
P-60-S
P-60-12
ROST-4-PZ(E) *
ROST-4-PZ(F)
P-60
P-68 *
P-60-13
ROST-4-PZ(G) *
MW-11 *
P-54 *
MW-17
T-12 *
MW-24 *
MW-22 *
P-69
MW-18
P-70
P-74 *
MW-19
P-59 *
P-61
MW-16 *
GP-9-PZ
PZ-2(84)
PZ-2(70.5)
MW-12 *
MW-20
P-56 *
MW-2 *
MW-1 *
MW-26 *
MW-21
T-6
P-57 *
MW-4 *
MW-3 *
P-93A *
P-93B *
P-93C *
P-93D *
P-73
MW-25 *
MW-5 *
MW-7 *
MW-23 *
MW-8 *
P-58 *
MW-13 *
MW-6A
MW-6B *
MW-6C *
MW-6D *
P-66 *
P-75
MW-14 *
P-114R *

A-28
A-27
T-24

0 200
SCALE FEET
N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60674381
AECOM		
DRN. BY:gds October 2022 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 JULY 5–7, 2022.
4. WELL P–15 WAS MEASURED ON JULY 8, 2022 DUE TO ANOMALOUS INITIAL RESULTS DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.
5. WELL P–63 WAS MEASURED ON JULY 8, 2022 DUE TO UNSAFE CONDITIONS AT THE WELL DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.
6. WELL MW–26 WAS NOT MEASURED DURING THE GROUNDWATER GAUGING EVENT DUE TO INACCESSIBILITY.



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. 60674381

AECOM

DRN. BY:gds October 2022
DSGN. BY:gds
CHKD. BY:mr/bh

Groundwater Contours
3Q22

FIG. NO. 3a

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES – DCS AMERICAS\SHELL\ILLINOIS\USF00666–900_S_CENTRAL_AVE–ROXANA–IL\ROXANA 3Q22 GW RPT\14.09.2022 – PART 2\WORKSPACE\FIGURE 3A ROX 3Q22 CONTOUR MAP (800 SCALE).DWG Last edited: Sep. 26, 22 @ 11:29 AM by: lorente

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 3Q22 GW RPT\14.09.2022 - PART 2\WORKSPACE\FIGURE 3B GW CONTOURS 3Q22 WF.DWG Last edited: Sep. 26, 22 @ 11:31 AM by: lorenle

LEGEND

- GROUNDWATER MONITORING WELL LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER MONITORING WELL LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- WRR GROUNDWATER PRODUCTION WELL
- —405— 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 JULY 5-7, 2022.
4. WELL MW-26 WAS NOT MEASURED DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT DUE TO INACCESSIBILITY.

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
BP
PUBLIC WORKS YARD
NORTH PROPERTY
WEST PROPERTY
MAIN PROPERTY
WOOD RIVER REFINERY
1986 APPROXIMATE BENZENE RELEASE SITE RAND AVENUE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

T-13 404 66
T-1 404 39
T-2 403.77
MW-10 404 25
MW-9 404.55
MW-28 405.28
ROST-4-PZ(A) 405.19
ROST-4-PZ(B) 404.51
MW-27 404.52
P-55R 405 39
ROST-4-PZ(D) 404 27
ROST-4-PZ(C) 404.16
ROST-4-PZ 404.22
ROST-3-MW 404 09
ROST-4-PZ(E) 404.16
P-60 403.59
ROST-4-PZ(F) 404.03
ROST-4-PZ(G) 403.74
P-68 403.43
MW-11 404.14
P-54 404.33
MW-17 403.39
T-12 403.35
P-69 402.98
MW-24 404.10
MW-22 403 82
W-85
MW-18 403 37
P-74 403 06
MW-19 403.44
P-59 403.34
P-61 402.72
W-78
MW-16 403.75
MW-12 404.04
MW-20 403 50
P-56 403.44
W-79
MW-2 403 65
MW-1 403.94
T-6 403 55
MW-26
MW-21 403.70
P-57 403.62
MW-4 404 02
MW-3 404.34
P-93A 403.69
P-93B
P-93C
P-93D
MW-25 404.12
MW-7 403.94
MW-5 404 30
MW-23 404.63
MW-8 404.21
P-58 403.83
W-89
P-75 403.69
P-66 404.00
MW-6A 405.47
MW-6B
MW-6C
MW-6D
MW-13 404.80
W-81
MW-14 404.48
P-117 405 20
P-114R 405 23
P-116 405.28
P-115 405 38
P-119 405.17
P-67 404 80
T-7 404.82
T-64 405.43
T-63 405.53
T-62 405.59
W-77
T-24 403.07
P-62 403.07
P-70 402.91
S-1 403.03
P-71 403.58
P-73 402.32
P-72 403.76

404.5
404
403.5
403
402.5
405
405.5

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

0 300
SCALE FEET
N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60674381
AECOM		
DRN. BY:gds October 2022 DSGN. BY:gds CHKD. BY:mr/bh	Groundwater Contours 3Q22– West Fenceline	FIG. NO. 3b

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00888-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 3Q22 GW RPT\14.09.2022 - PART 2\WORKSPACE\FIGURE 4A THICKNESS OF LNAPL (WEST FENCLINE) 3Q22.DWG Last saved: Sep. 15, 22 @ 3:24 PM by: lorenb

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 5-7, 2022.

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
RAND AVENUE
NORTH PROPERTY
MAIN PROPERTY
WEST PROPERTY
WOOD RIVER REFINERY
PUBLIC WORKS YARD
BP
1986 APPROXIMATE BENZENE RELEASE SITE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

P-84A P-84B P-84C P-84D
T-13 T-1 T-2 T-24 T-12 T-6 T-7
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-8 MW-23 MW-13 MW-14 MW-6
P-54 P-55R P-56 P-57 P-58 P-59 P-60 P-61 P-62 P-66 P-67 P-68 P-69 P-70 P-71 P-72 P-73 P-74 P-75 P-93A P-93B P-93C P-93D P-114R P-115 P-116 P-117 P-119
R-77 W-77 R-78 W-78 R-79 W-79 R-80 W-80 R-81 W-81 R-89 W-89 W-85
A-28 A-33 A-27
0.01 0.09* 0.1 0.12* 0.01 0.02* 0.01 0.04 0.01 0.03*

SCALE 0 300 FEET

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

PROJECT NO. 60674381

AECOM

DRN. BY:gds October 2022
DSGN. BY:mr
CHKD. BY:bh

3Q22 Thickness of LNAPL - West Fenceline

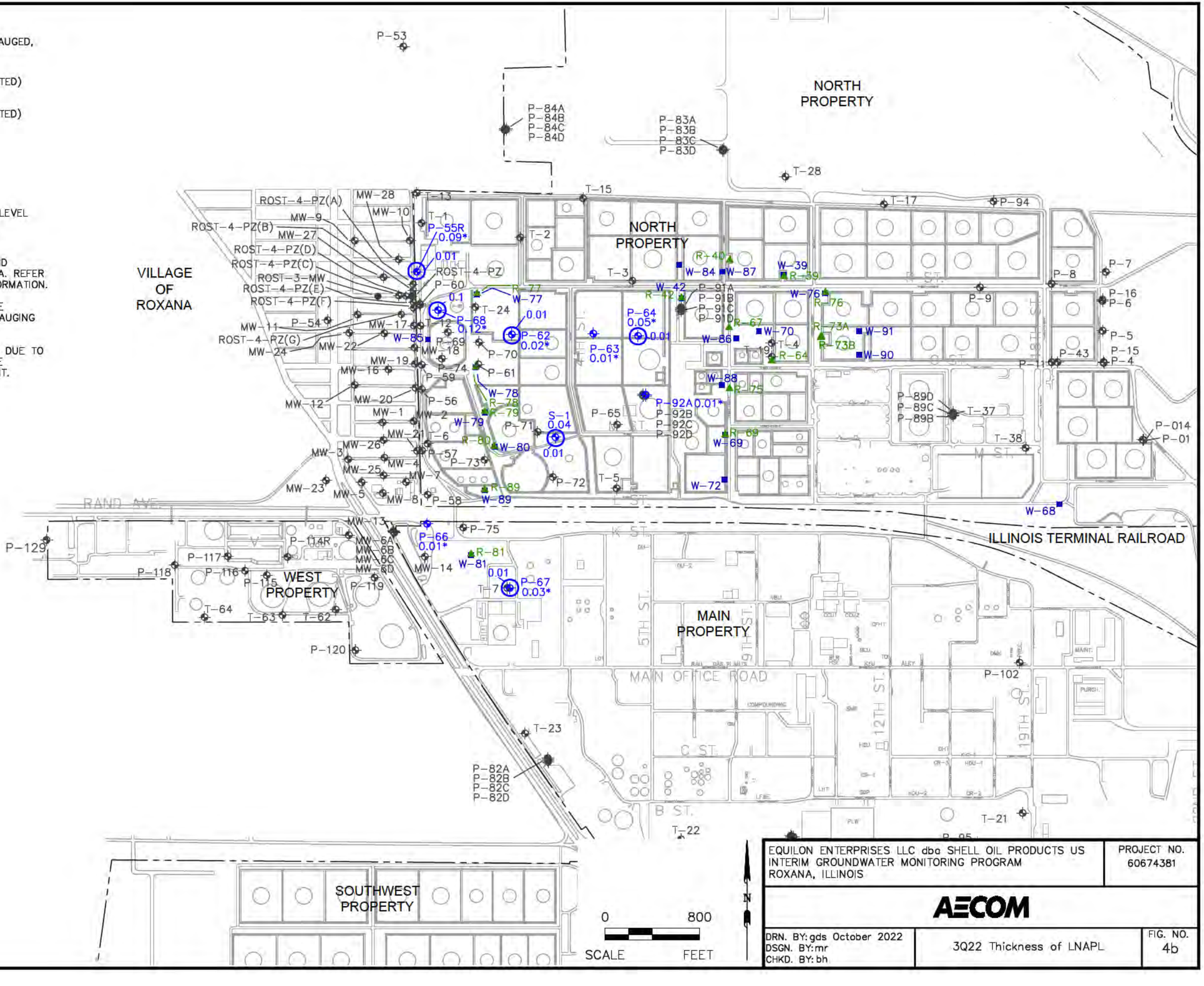
FIG. NO. 4a

LEGEND

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

NOTES:

1. THIS MAP DEPICTS THE ESTIMATED EXTENT AND THICKNESS OF LNAPL BENEATH THE WRR AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON JULY 5–7, 2022.
3. WELL P–63 WAS MEASURED ON JULY 8, 2022 DUE TO UNSAFE CONDITIONS AT THE WELL DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.



EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381
AECOM	
DRN. BY: gds October 2022 DSGN. BY: mr CHKD. BY: bh	3Q22 Thickness of LNAPL
	FIG. NO. 4b

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00666-900 S CENTRAL AVE-ROXANA-IL\ROXANA 3Q22 GW RPT\14.09.2022 - PART 2\WORKSPACE\FIGURE 5 3Q22 GROUNDWATER ANALYTICAL RESULTS SUMMARY.DWG Last edited: Sep. 28, 22 @ 10:23 AM by: lorente

LEGEND

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

NOTES:

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

Analyte	Screening Criteria (mg/L)
Benzene	0.005
Naphthalene	0.14
1,2,4-Trimethylbenzene	0.07
Benzo(a)anthracene	0.00013
Benzo(a)pyrene	0.0002
Benzo(b)fluoranthene	0.00018
2-Methylnaphthalene	0.028
Phenol	0.1

3. J = THE RESULT IS ESTIMATED.
4. MULTIPLE RESULTS (e.g., 1100 / 1100) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
5. WELLS IDENTIFIED IN BLUE WITH NO DATA BOX INDICATE THE RESULTS DID NOT EXCEED SCREENING CRITERIA.
6. WELLS P-55R, P-66 AND P-68 WERE NOT SAMPLED DURING 3Q22 DUE TO THE PRESENCE OF LNAPL.

MW-9 MW-10 MW-28 MW-27 ROST-4-PZ(A) ROST-4-PZ(B) ROST-4-PZ(C) ROST-4-PZ ROST-4-PZ(D) ROST-4-PZ(E) ROST-4-PZ(F) ROST-4-PZ(G) ROST-3-MW MW-11 MW-17 MW-24 MW-22 MW-18 MW-19 MW-16 MW-12 MW-20 MW-1 MW-2 MW-26 MW-21 MW-4 MW-3 MW-25 MW-5 MW-7 MW-8 MW-23 MW-13 MW-6A MW-6B MW-6C MW-6D MW-14

P-55R P-54 P-60 T-12 P-69 P-70 P-74 P-61 P-59 P-56 P-57 P-93A P-93B P-93C P-93D P-58 P-66 P-75 P-114R

SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
RAND AVENUE

HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
1ST STREET
2ND STREET

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

1986 APPROXIMATE BENZENE RELEASE SITE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

A-34 A-33 A-27 F-78 A-22

Sample Location	ROST-4-PZ(E)
Sampled 7/15/2022	Result (mg/L)
Benzene	0.021 / 0.017
1,2,4-Trimethylbenzene	0.16 J / 0.12 J
Benzo(a)anthracene	**0.0022** / 0.000095 J
2-Methylnaphthalene	0.075 J / 0.058 J

Sample Location	T-12
Sampled 7/14/2022	Result (mg/L)
Benzene	1.3
Phenol	0.13

Sample Location	MW-22
Sampled 7/14/2022	Result (mg/L)
1,2,4-Trimethylbenzene	0.15 / 0.18

Sample Location	P-74
Sampled 7/13/2022	Result (mg/L)
Benzene	0.041

Sample Location	P-59
Sampled 7/14/2022	Result (mg/L)
Benzene	1.9
1,2,4-Trimethylbenzene	0.14
Benzo(a)anthracene	0.00025 J
Benzo(a)pyrene	0.00035 J

Sample Location	MW-2
Sampled 7/14/2022	Result (mg/L)
1,2,4-Trimethylbenzene	0.092

Sample Location	P-57
Sampled 7/15/2022	Result (mg/L)
Benzene	0.014

Sample Location	MW-7
Sampled 7/18/22	Result (mg/L)
Benzene	560

Sample Location	P-93B
Sampled 7/15/2022	Result (mg/L)
Benzene	1100 / 1100
Phenol	0.32 / 0.3

Sample Location	MW-25
Sampled 7/18/2022	Result (mg/L)
Benzene	0.014

Sample Location	P-58
Sampled 7/14/2022	Result (mg/L)
Benzene	230 / 230
Benzo(a)anthracene	0.00038 / 0.00057
Benzo(a)pyrene	0.00039 / 0.00047
Benzo(b)fluoranthene	0.00028 / 0.00023 J
2-Methylnaphthalene	0.059 / 0.051
Phenol	0.31 J / 0.13 J

Sample Location	MW-8
Sampled 7/18/2022	Result (mg/L)
Benzene	13 / 13
Phenol	**0.12** / 0.1

0 200
SCALE FEET

N

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

PROJECT NO. 60674381

AECOM

DRN. BY:gds October 2022
DSGN. BY:mr
CHKD. BY:bh

3Q22 Groundwater Monitoring Well Analytical Exceedances

FIG. NO. 5

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES – DCS AMERICAS\SHELL\ILLINOIS\USF00668-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 3Q22 GW RPT\14.09.2022 – PART 2\WORKSPACE\FIGURE 6 3Q22 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GROUNDWATER.DWG Last edited: Sep. 26, 22 @ 12:00 PM by: lorente

LEGEND

- GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION NOT SAMPLED
- GROUNDWATER MONITORING WELL, LNAPL THICKNESS IN FEET
- GROUNDWATER PIEZOMETER LOCATION NOT SAMPLED
- GROUNDWATER PIEZOMETER, LNAPL THICKNESS IN FEET
- OIL RECOVERY WELL
- WATER PRODUCTION WELL

LNAPL THICKNESS (FEET)

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

EXTENT OF MVS MODEL DATA SET

50.0 GROUNDWATER CONCENTRATION BENZENE (mg/L)

NOTES:

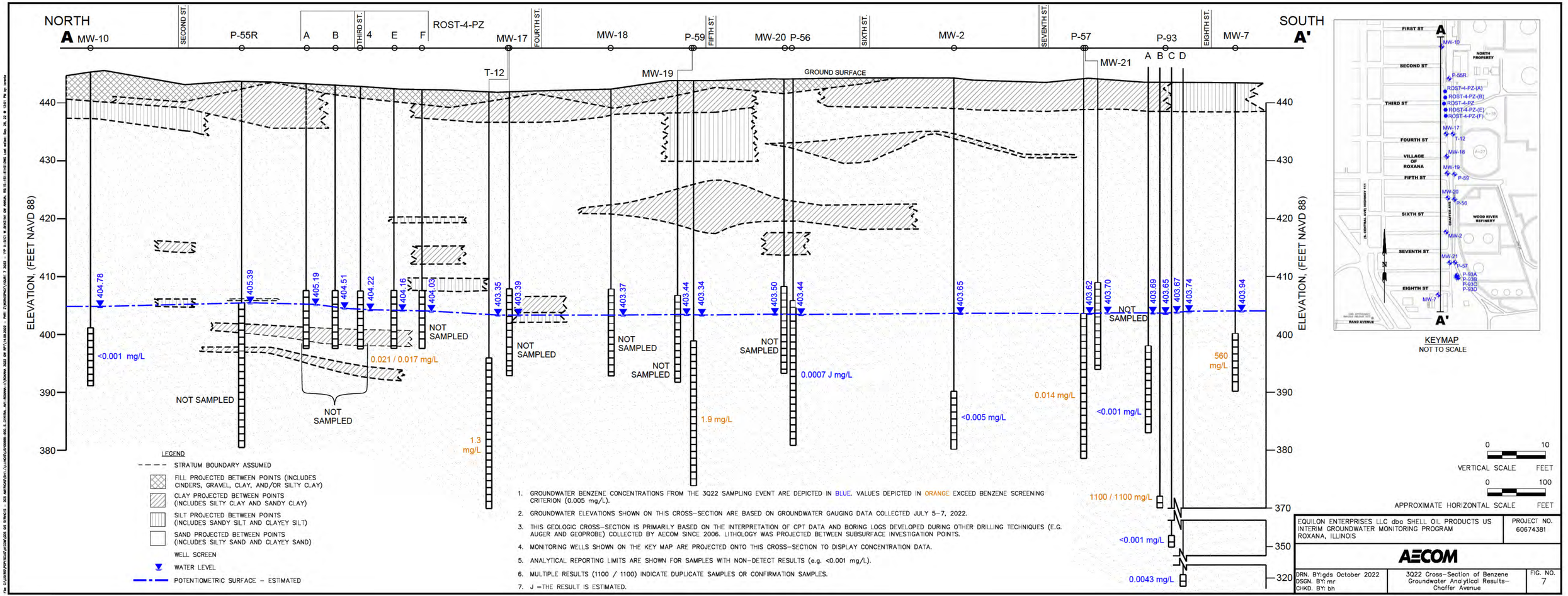
1. IMAGES GENERATED UTILIZING CTECH MINING VISUALIZATION SYSTEM MODELING SOFTWARE. CONCENTRATIONS BETWEEN KNOWN DATA POINTS (E.G. GROUNDWATER MONITORING WELLS) ARE INTERPOLATIONS AND EXTRAPOLATIONS OF THE MEASURED DATA. SOME INTERPRETATION WAS COMPLETED UTILIZING PROFESSIONAL JUDGEMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
2. ALL RESULTS SHOWN IN mg/L.
3. ANALYTICAL REPORTING LIMITS ARE SHOWN FOR SAMPLES WITH NON-DETECT RESULTS (e.g., <0.001 mg/L).
4. NON-DETECT VALUES ARE MODELED AT HALF THE REPORTING LIMIT.
5. MULTIPLE RESULTS (e.g. 1100 / 1100) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
6. CONTOUR LINES IN AREA OF P-55R AND P-66 ADJUSTED BASED ON AVAILABLE 3Q22 AND HISTORICAL ANALYTICAL DATA FROM WELLS IN THE AREA.
7. J = THE RESULT IS ESTIMATED.
8. AT WELL CLUSTER LOCATIONS, THE HIGHEST VALUE WAS USED FOR CONTOURING PURPOSES.

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

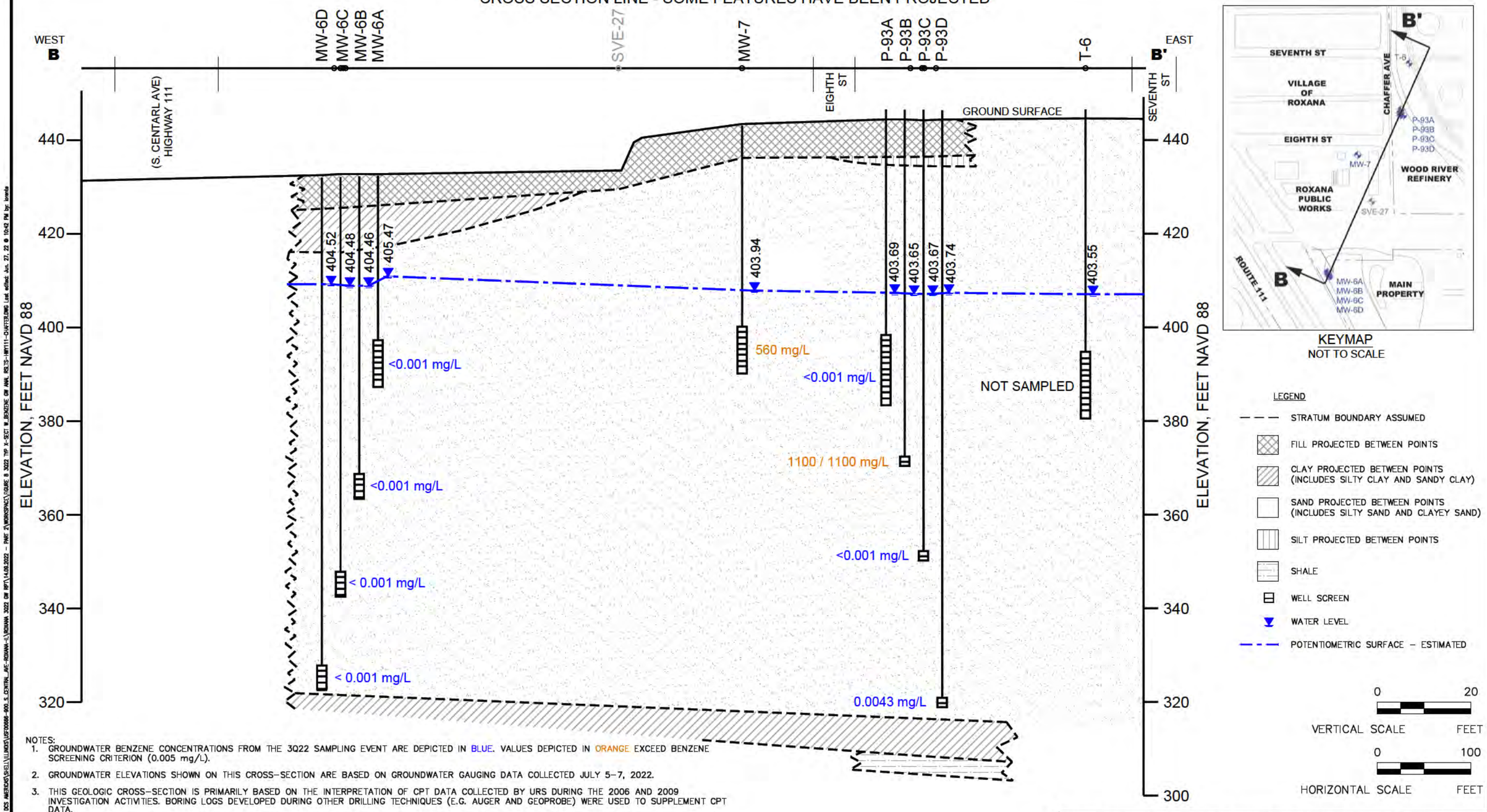
PZ-1(101) PZ-1(85) MW-9 <0.001 MW-10 <0.001 MW-28 <0.001 MW-27 <0.001 ROST-4-PZ(A) ROST-4-PZ(B) ROST-4-PZ(C) 0.0029 ROST-3-MW <0.001 ROST-4-PZ(D) ROST-4-PZ(E) 0.021 / 0.017 ROST-4-PZ(F) ROST-4-PZ(G) 0.00033 J MW-11 <0.001 P-54 <0.001 MW-24 <0.001 MW-22 0.0026 / 0.0024 MW-18 MW-16 <0.001 MW-19 MW-12 <0.001 PZ-2(84) PZ-2(70.5) MW-20 P-56 0.0007 J MW-2 <0.005 MW-01 <0.001 MW-26 <0.001 P-57 0.014 MW-21 MW-4 <0.001 MW-3 <0.001 MW-25 0.014 MW-5 <0.001 MW-23 <0.001 MW-7 560 MW-8 13 / 13 P-58 230 / 230 MW-13 <0.001 MW-6A <0.001 MW-6B <0.001 MW-6C <0.001 MW-6D <0.001 P-114R <0.001 MW-14 <0.001 P-66 0.01* P-115 P-59 1.9 P-74 0.041 P-55R 0.09* 0.01 P-60-11 ROST-4-PZ P-60-S P-60 P-60-12 P-60-13 P-68 0.12* 0.1 MW-17 T-12 1.3 R-85 W-85 P-69 P-70 P-61 R-78 W-78 R-77 W-77 T-24 R-79 W-79 R-80 W-80 R-81 W-81 R-89 W-89 P-73 P-75 A-34 A-33 A-28 A-27 A-22 F-76 F-77 F-78 F-73 F-74 F-75 T-6 0.5 0.05 0.005 0.005 0.05 0.5 5 50 500

0 200 SCALE FEET N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381
AECOM	
DRN. BY:gds October 2022 DSGN. BY:mr CHKD. BY:bh	3Q22 Dissolved Phase Benzene Concentrations in Groundwater — FIG. NO. 6


NORTH
A
MW-10
SECOND ST.
P-55R
A
B
THIRD ST.
4
E
F
ROST-4-PZ
MW-17
FOURTH ST.
MW-18
P-59
FIFTH ST.
MW-20
P-56
SIXTH ST.
MW-2
SEVENTH ST.
P-57
P-93
EIGHTH ST.
MW-7
SOUTH
A'
T-12
MW-19
GROUND SURFACE
MW-21
A B C D
ELEVATION, (FEET NAVD 88)
440
430
420
410
400
390
380
370
350
320
404.78
405.39
405.19
404.51
404.22
404.16
404.03
403.35
403.39
403.37
403.44
403.34
403.50
403.44
403.65
403.62
403.70
403.69
403.65
403.67
403.74
403.94
<0.001 mg/L
NOT SAMPLED
0.021 / 0.017 mg/L
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
1.3 mg/L
1.9 mg/L
0.0007 J mg/L
<0.005 mg/L
0.014 mg/L
NOT SAMPLED
<0.001 mg/L
560 mg/L
1100 / 1100 mg/L
<0.001 mg/L
0.0043 mg/L
LEGEND
STRATUM BOUNDARY ASSUMED
FILL PROJECTED BETWEEN POINTS (INCLUDES CINDERS, GRAVEL, CLAY, AND/OR SILTY CLAY)
CLAY PROJECTED BETWEEN POINTS (INCLUDES SILTY CLAY AND SANDY CLAY)
SILT PROJECTED BETWEEN POINTS (INCLUDES SANDY SILT AND CLAYEY SILT)
SAND PROJECTED BETWEEN POINTS (INCLUDES SILTY SAND AND CLAYEY SAND)
WELL SCREEN
WATER LEVEL
POTENTIOMETRIC SURFACE – ESTIMATED
1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 3Q22 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 JULY 5-7, 2022.
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 (1100 / 1100) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
7. J =THE RESULT IS ESTIMATED.
FIRST ST
SECOND ST
THIRD ST
FOURTH ST
VILLAGE OF ROXANA
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
NORTH PROPERTY
WOOD RIVER REFINERY
CHAFFEE AVE
RAND AVENUE
MW-10
P-55R
ROST-4-PZ-(A)
ROST-4-PZ-(B)
ROST-4-PZ
ROST-4-PZ-(E)
ROST-4-PZ-(F)
MW-17
T-12
MW-18
MW-19
P-59
MW-20
P-56
MW-2
MW-21
P-57
P-93A
P-93B
P-93C
P-93D
MW-7
KEYMAP
NOT TO SCALE
0
10
VERTICAL SCALE FEET
0
100
APPROXIMATE HORIZONTAL SCALE FEET
EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS
PROJECT NO. 60674381
AECOM
DRN. BY: gds October 2022
DSGN. BY: mr
CHKD. BY: bh
3Q22 Cross-Section of Benzene Groundwater Analytical Results– Chaffee 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 3Q22 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 JULY 5-7, 2022.
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 (1100 / 1100) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381
AECOM	
DRN. BY:gds October 2022 DSGN. BY:mr CHKD. BY:bh	3Q22 Cross-Section of Benzene Groundwater Analytical Results-Roxana Public Works Yard
	FIG. NO. 8

File: C:\USERS\VDPC3GVS\ACCDATA\DESKTOP\ROXANA_3Q22_GW_RPT\V1.4.09.2022 - PMP_ZV\WORKSPACE\ROXANA 3Q22 GW RPT X-SECT W_BENZENE ON ANAL RSLTS-HW111-CHAFFER.DWG Last edited: Jan. 27, 23 @ 10:42 PM by: brenta

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).

Appendix B

Low Flow Groundwater Sampling Data Sheets

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW | PROJECT NUMBER: 60674381 - 3,3.1/2/3 | FIELD PERSONNEL: J. Mayer S. Nichols

DATE: 7.8.2022 | WEATHER: 95° Partly Cloudy

MONITORING WELL ID: MW-1 | SAMPLE ID: MW1-ROX-070822

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 53.80 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 59.13 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 38.97 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 48.80 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 20.16 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	1308	38.95	Clear	None	21.8	1.11	1.014 mS/cm uS/cm	7.35	43.34	22.79
300	1309	↓	↓	↓	22.0	0.84	1.027 mS/cm uS/cm	7.14	37.17	19.93
600	1310				21.7	0.70	1.040 mS/cm uS/cm	7.05	32.66	21.70
900	1311				21.7	0.58	1.040 mS/cm uS/cm	7.01	28.56	23.86
1200	1312				21.7	~~0.57~~ 0.54	1.041 mS/cm uS/cm	6.99	22.47	28.11
1500	1313				21.6	0.51	1.042 mS/cm uS/cm	6.98	20.50	30.53
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1308 | Elapsed Time (min): 5 | Water Quality Meter ID & SN: YSI ProDSS - 46861/34563

Stop Time: 1313 | Average Purge Rate (mL/min): 300 | Date Calibrated: 7.8.2022

SAMPLING DATA

Sample Date: 7.8.22 | Sample Time: 1315 | 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: JM

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: S. Mayer S. Nichols

DATE: 7-14-2022 WEATHER: 95° Clear

MONITORING WELL ID: MW-2 SAMPLE ID: MW2-Rox-071422

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): 40.42 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): NE ft			
Depth to Top of Screen (btoc): 49.87 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 20.4 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 19.78 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	1157	40.46	Clear	Moderate	21.3	2.23	0.973 mS/cm uS/cm	8.14	-82.82	3.61
300	1158	↓	↓	↓	21.2	1.28	0.971 mS/cm uS/cm	7.58	-97.66	6.55
600	1159				21.5	0.97	0.968 mS/cm uS/cm	7.32	-108.54	10.63
1500	1202				21.8	0.62	0.967 mS/cm uS/cm	7.16	-128.31	22.09
1800	1203				22.0	0.54	0.966 mS/cm uS/cm	7.14	-132.99	25.68
2100	1204				21.8	0.49	0.970 mS/cm uS/cm	7.14	-135.98	32.37
2400	1205				21.7	0.42	0.971 mS/cm uS/cm	7.13	-138.23	5.37
2700	1206				21.6	0.40	0.968 mS/cm uS/cm	7.13	-140.55	2.87
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1157 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS - 16861 / 34503

Stop Time: 1206 Average Purge Rate (mL/min): 300 Date Calibrated: 7.14-22

SAMPLING DATA

Sample Date: 7-14-22 Sample Time: 1210 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: JM

COMMENTS:

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

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW | PROJECT NUMBER: 60674381 - 3.3.1/2/3 | FIELD PERSONNEL: J. Mayer S. Nichols

DATE: 7.14.2022 | WEATHER: 95° Clear

MONITORING WELL ID: MW-3 | SAMPLE ID: MW3-Rox-071422

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 39.67 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 45.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
'6.11 Depth to Water (btoc): ~~26.02~~ ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 34.67 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): 18.89 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	0853	26.17	clear	none	19.8	1.62	1.295 mS/cm uS/cm	6.55	-51.77	4.93
600	0855				20.3	0.67	1.365 mS/cm uS/cm	6.63	-97.75	5.26
900	0856				20.6	0.57	1.397 mS/cm uS/cm	6.65	-113.01	2.58
1200	0857				20.7	0.51	1.417 mS/cm uS/cm	6.67	-124.85	2.68
1500	0858				20.6	0.46	1.435 mS/cm uS/cm	6.68	-129.91	3.20
1800	0859				20.4	0.40	1.456 mS/cm uS/cm	6.68	-134.48	3.53
2100	0900				20.4	0.34	1.461 mS/cm uS/cm	6.68	-137.78	3.56
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0853 | Elapsed Time (min): ~~4~~ JM 7 | Water Quality Meter ID & SN: YSI ProDSS - 46861 / 34563

Stop Time: 0900 | Average Purge Rate (mL/min): 300 | Date Calibrated: 7.14.22

SAMPLING DATA

Sample Date: 7.14.22 | Sample Time: ~~1050~~ JM 0905 | 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: JM

COMMENTS:

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

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW | PROJECT NUMBER: 60674381 - 3.3.1/2/3 | FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-18-22 | WEATHER: 78° Clear

MONITORING WELL ID: MW-4 | SAMPLE ID: MW4-ROX-071822

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): 37.40 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): NE ft		
Depth to Top of Screen (btoc): 45.06 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 18.01 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	0926	37.51	Clear	Strong	19.6	1.98	1.162 mS/cm uS/cm	6.83	9.84	9.61
300	0927				20.0	0.92	1.169 mS/cm uS/cm	6.74	-26.02	10.53
600	0928				20.2	0.64	1.174 mS/cm uS/cm	6.71	-46.53	11.56
900	0929				20.2	0.54	1.178 mS/cm uS/cm	6.71	-64.78	11.88
1200	0930				20.3	0.48	1.177 mS/cm uS/cm	6.71	-76.60	13.49
1500	0931				20.5	0.43	1.173 mS/cm uS/cm	6.72	-86.01	16.01
1800	0932				20.7	0.39	1.169 mS/cm uS/cm	6.71	-92.70	17.85
2100	0933				20.6	0.37	1.177 mS/cm uS/cm	6.71	-98.44	20.19
2400	0934				20.6	0.34	1.172 mS/cm uS/cm	6.72	-103.54	22.16
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0926 | Elapsed Time (min): 8 | Water Quality Meter ID & SN: YSI ProDSS - 16861/14563

Stop Time: 0934 | Average Purge Rate (mL/min): 300 | Date Calibrated: 7-18-22

SAMPLING DATA

Sample Date: 7-18-22 | Sample Time: 0940 | Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

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

Estimated Total Purge Volume: 2400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heintz M. Massa

DATE: 7/11/2022 WEATHER: 80° clear

MONITORING WELL ID: MW-5 SAMPLE ID: MW5 - ROX - 071122

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 33.97 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): 25.72 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 33.97 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): 18.53 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	

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	0850	25.75	Clear	Slight	20.11	3.01	1.15 mS/cm uS/cm	10.61	-11.45	10.15
300	0857				20.03	2.12	1.15 mS/cm uS/cm	10.61	-26.18	5.52
600	0858				20.05	1.94	1.14 mS/cm uS/cm	10.62	-34.29	3.75
900	0859				20.34	1.63	1.14 mS/cm uS/cm	10.63	-52.57	10.25
1200	0900				20.17	1.43	1.14 mS/cm uS/cm	10.65	-64.91	8.97
1500	0901				20.14	1.27	1.13 mS/cm uS/cm	10.67	-75.53	10.73
1800	0902				20.19	1.19	1.13 mS/cm uS/cm	10.68	-82.64	10.88
2100	0903				20.33	1.11	1.13 mS/cm uS/cm	10.69	-90.25	11.86
2400	0904				20.37	1.08	1.13 mS/cm uS/cm	10.69	-93.57	10.55
2700	0905				20.48	1.05	1.13 mS/cm uS/cm	10.70	-97.12	9.95
3000	0906				20.59	1.01	1.13 mS/cm uS/cm	10.70	-100.89	9.98
							mS/cm uS/cm			
				AMM			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0850 Elapsed Time (min): 10 Water Quality Meter ID & SN: YSI ProDSS -- 43915 / 46386

Stop Time: 0906 Average Purge Rate (mL/min): 300 Date Calibrated: 7/11/2022

SAMPLING DATA

Sample Date: 7/11/2022 Sample Time: 0910 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace: ☒ Initials: AMM

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heintz M. Massa

DATE: 7/8/2022 WEATHER: sunny 85°

MONITORING WELL ID: MW-6A SAMPLE ID: MW6A - ROX 070822

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.35 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): 27.89 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): — 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 (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.6 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 16.29 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (STABLE: over 4 readings)	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)
300	1255	27.94	cloudy	none	22.960	2.34	6.84 mS/cm uS/cm	6.78	50.13	47.98
600	1256				22.19	1.79	0.85 mS/cm uS/cm	6.75	37.61	85.69
900	1257				22.38	1.51	0.85 mS/cm uS/cm	6.74	20.74	76.26
1200	1258				22.02	1.35	0.87 mS/cm uS/cm	6.73	10.14	77.67
1500	1259				22.71	1.20	0.89 mS/cm uS/cm	6.73	-11.53	84.57
3000	1304		clear		22.34	1.08	0.94 mS/cm uS/cm	6.78	-57.22	45.95
3300	1305				22.96	1.05	0.94 mS/cm uS/cm	6.79	-64.85	38.62
3600	1306				22.30	1.04	0.95 mS/cm uS/cm	6.80	-67.92	37.55
3900	1307				22.51	1.02	0.96 mS/cm uS/cm	6.80	-72.96	32.29
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1255 Elapsed Time (min): 12 Water Quality Meter ID & SN: YSI ProDSS -- 4391S/463860

Stop Time: 1307 Average Purge Rate (mL/min): 300 Date Calibrated: 7/8/2022

SAMPLING DATA

Sample Date: 7/8/2022 Sample Time: 1315 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: MH

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M Heintz M Massey

DATE: 7/8/2022 WEATHER: 82° partly cloudy

MONITORING WELL ID: MW-6B SAMPLE ID: MW 6B - ROX - 070822

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): 27.94 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): — 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 (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 1.1 ppm	
Screen Length: 5 ft			
Water Column Height (not including NAPL): 41.44 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (STABLE: over 4 readings; Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
300	1203	27.97	clear	none	21.39	2.21	0.76 mS/cm uS/cm	7.07	-20.84	59.07
600	1204				21.43	1.60	mS/cm uS/cm	7.08	-48.36	22.88
900	1205				21.76	1.33	mS/cm uS/cm	7.10	-65.11	18.07
1200	1206				21.80	1.20	mS/cm uS/cm	7.10	-74.17	15.17
1500	1207				21.84	1.05	mS/cm uS/cm	7.12	-84.02	12.06
1800	1208				21.84	0.98	mS/cm uS/cm	7.13	-89.89	10.58
2100	1209				21.71	0.94	mS/cm uS/cm	7.13	-93.03	9.607
2400	1210				21.71	0.91	mS/cm uS/cm	7.14	-96.07	8.30
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1203 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 23915/16386

Stop Time: 1210 Average Purge Rate (mL/min): 300 Date Calibrated: 7/8/22

SAMPLING DATA

Sample Date: 7/8/2022 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: MH

COMMENTS:

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

Estimated Total Purge Volume: mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Massa. M Heintz

DATE: 7/8/22 WEATHER: 82° partly cloudy

MONITORING WELL ID: MW-6C SAMPLE ID: MW6C-ROX-070822

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ~87.45 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 90.28 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 27.75 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): NC ft		
Depth to Top of Screen (btoc): 84.95 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 1.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 62.56 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	1118	27.77	clear	none	21.22	3.06	0.73 mS/cm uS/cm	7.24	2.19	7.85
300	1119				20.90	2.46	0.75 mS/cm uS/cm	7.14	-38.14	5.51
600	1120				20.89	1.76	0.75 mS/cm uS/cm	7.11	-65.17	4.42
900	1121				20.89	1.46	0.75 mS/cm uS/cm	7.11	-76.27	3.60
1200	1122				20.96	1.33	0.76 mS/cm uS/cm	7.11	-84.25	2.90
1500	1123				21.12	1.15	0.76 mS/cm uS/cm	7.11	-93.66	2.64
1800	1124				21.00	1.06	0.76 mS/cm uS/cm	7.11	-99.50	2.48
2100	1125				21.11	0.98	0.76 mS/cm uS/cm	7.12	-104.84	2.30
2400	1126				21.06	0.95	0.76 mS/cm uS/cm	7.12	-107.02	2.09
2700	1127				21.08	0.92	0.76 mS/cm uS/cm	7.12	-108.45	2.03
3000	1128				21.07	0.88	0.79 mS/cm uS/cm	7.12	-111.87	1.92
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1118 Elapsed Time (min): 10 Water Quality Meter ID & SN: YSI ProDSS -- 43915/463886

Stop Time: 1128 Average Purge Rate (mL/min): 300 Date Calibrated: 7/8/2022

SAMPLING DATA

Sample Date: 7/8/22 Sample Time: 1130 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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Massa M. Heintz

DATE: 7/8/2022 WEATHER: 80° overcast

MONITORING WELL ID: MW-6D SAMPLE ID: MW6D - ROX - 070822

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): 27.32 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): NE ft		
Depth to Top of Screen (btoc): 104.72 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 82.73 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	27.83	cloudy	none	20.19	3.07	0.99 mS/cm uS/cm	6.96	0.74	124.68
300	1034				20.63	2.07	0.99 mS/cm uS/cm	6.97	-23.19	105.02
600	1035				20.51	1.69	0.99 mS/cm uS/cm	6.92	-30.82	98.32
900	1036				20.42	1.38	0.99 mS/cm uS/cm	6.93	-52.15	91.60
1200	1037				20.36	1.25	mS/cm uS/cm	6.93	-60.39	82.19
1500	1038				20.42	1.10	mS/cm uS/cm	6.95	-71.41	71.19
1800	1039		clear		20.35	1.04	mS/cm uS/cm	6.96	-70.89	61.71
2100	1040				20.37	1.01	mS/cm uS/cm	6.96	-79.94	56.61
2400	1041				20.35	0.95	mS/cm uS/cm	6.97	-86.20	49.59
2700	1042				20.27	0.91	mS/cm uS/cm	6.98	-90.03	41.28
3000	1043				20.38	0.87	mS/cm uS/cm	6.99	-94.98	36.30
3300	1044	↓	↓	↓	20.22	0.84	↓ mS/cm uS/cm	7.00	-98.35	33.11
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1033 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS -- U3915/16386

Stop Time: 1044 Average Purge Rate (mL/min): 300 Date Calibrated: 7/8/2022

SAMPLING DATA

Sample Date: 7/8/2022 Sample Time: 1045 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: MM

COMMENTS:

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

Estimated Total Purge Volume: ~ 3300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer S. Nichols

DATE: 7-18-2022 WEATHER: 85° Cloudy

MONITORING WELL ID: MW-7 SAMPLE ID: MW7-ROX-071822

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): 39.50 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 42.92 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 13.42 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	

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	1228	39.54	Clear	Slight	21.9	1.54	1.398 mS/cm uS/cm	7.49	-25.52	4.93
300	1229				22.0	0.68	1.394 mS/cm uS/cm	6.98	-43.80	5.59
600	1230				22.0	0.58	1.387 mS/cm uS/cm	6.88	-49.44	5.40
900	1231				22.2	0.47	1.365 mS/cm uS/cm	6.80	-57.19	5.51
1200	1232				22.4	0.42	1.346 mS/cm uS/cm	6.78	-64.66	5.91
1500	1233				22.5	0.36	1.319 mS/cm uS/cm	6.78	-69.87	6.70
1800	1234				22.5	0.32	1.296 mS/cm uS/cm	6.78	-75.06	7.48
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1228 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS - 16861/34563

Stop Time: 1234 Average Purge Rate (mL/min): 300 Date Calibrated: 7-18-22

SAMPLING DATA

Sample Date: 7-18-22 Sample Time: 1240 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

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

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-18-2022 WEATHER: 80° Cloudy

MONITORING WELL ID: MW-8 SAMPLE ID: MW8-ROX-071822

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.60 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 43.60 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 30.36 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 33.60 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): 13.24 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	1133	30.41	Clear	Slight	22.0	0.85	1.415 mS/cm uS/cm	7.10	-104.77	4.01
300	1134				22.2	0.61	1.417 mS/cm uS/cm	6.96	-124.61	3.64
600	1135				22.0	0.48	1.424 mS/cm uS/cm	6.91	-134.74	5.83
900	1136				21.7	0.41	1.417 mS/cm uS/cm	6.90	-139.16	5.49
1200	1137				22.1	0.34	1.394 mS/cm uS/cm	6.87	-143.39	4.69
1500	1138				22.2	0.32	1.393 mS/cm uS/cm	6.86	-145.30	4.69
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1133 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS 16861/34563

Stop Time: 1138 Average Purge Rate (mL/min): 300 Date Calibrated: 7-18-22

SAMPLING DATA

Sample Date: 7-18-22 Sample Time: 1145 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

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

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Meyer J. Nichols

DATE: 7-12-2022 WEATHER: 77° Clear

MONITORING WELL ID: MW-9 SAMPLE ID: MW9-ROX-071222

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): 40.80 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft			
Depth to Top of Screen (btoc): 46.04 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 15.57 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

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

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0913	40.85	Clear	None	19.23	1.03	1.088 mS/cm uS/cm	6.47	-13.86	27.59
300	0914	↓	↓	↓	19.51	0.84	1.090 mS/cm uS/cm	6.50	-27.03	17.32
600	0915				19.65	0.69	1.096 mS/cm uS/cm	6.52	-38.06	12.27
900	0916				19.79	0.59	1.098 mS/cm uS/cm	6.53	-46.38	9.96
1200	0917				19.95	0.53	1.099 mS/cm uS/cm	6.55	-53.13	7.95
1500	0918				20.05	0.47	1.099 mS/cm uS/cm	6.56	-57.98	7.26
1800	0919				20.08	0.44	1.102 mS/cm uS/cm	6.58	-61.82	6.32
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0913 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS - 16861 / 14563

Stop Time: 0919 Average Purge Rate (mL/min): 300 Date Calibrated: 7-12-22

SAMPLING DATA

Sample Date: 7-12-22 Sample Time: 0930 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

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

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7.8.2022 WEATHER: 85° Cloudy

MONITORING WELL ID: MW-10 SAMPLE ID: MW10-ROX-070822

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
Total Well Depth (btoc): 54.76 ft	
Depth to Water (btoc): 40.83 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 44.43 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 13.93 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

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	1100	40.84	clear	none	21.0	1.67	2.005 mS/cm uS/cm	7.03	-124.89	44.28
300	1101	40.86	↓	↓	20.8	0.81	2084 mS/cm uS/cm	6.98	-134.33	31.03
600	1103	40.86			20.8	0.58	2.104 mS/cm uS/cm	6.96	-137.90	28.78
900	1103	40.86			21.2	0.53	2.104 mS/cm uS/cm	6.96	-139.44	28.38
1200	1104	40.86			21.6	0.49	2.103 mS/cm uS/cm	6.94	-140.76	29.86
1500	1105	40.86			21.4	0.45	2.106 mS/cm uS/cm	6.94	-138.37	31.71
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1100 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 4686 / 34563

Stop Time: 1105 Average Purge Rate (mL/min): 300 Date Calibrated: 7.8.22

SAMPLING DATA

Sample Date: 7.8.2022 Sample Time: 1110 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

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

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-8-2022 WEATHER: 79°F Cloudy

MONITORING WELL ID: MW-11 SAMPLE ID: MW11-ROX-070822

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
Total Well Depth (btoc): 51.99 ft	
Depth to Water (btoc): 38.31 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 41.66 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 13.68 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc

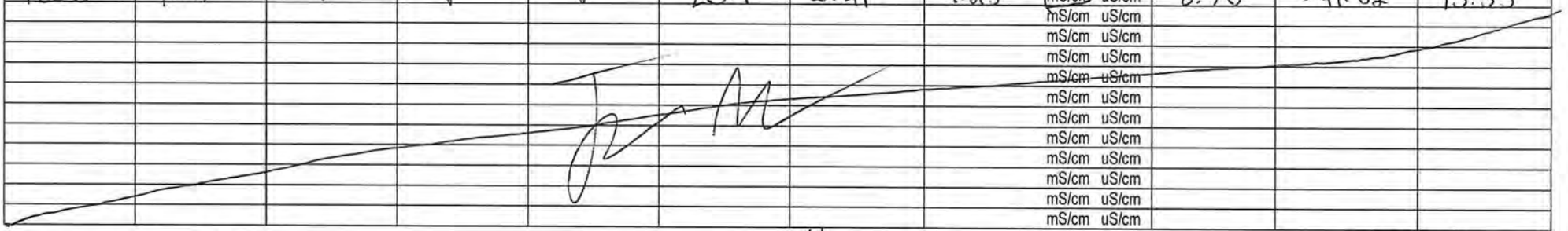
Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

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	1013	38.33	Clear	None	20.2	0.65	1.640 mS/cm uS/cm	6.68	-81.42	10.13
300	1014	↓	↓	↓	20.2	0.57	1.636 mS/cm uS/cm	6.68	-84.65	10.48
600	1015				20.2	0.49	1.629 mS/cm uS/cm	6.69	-87.56	11.23
900	1016				20.1	0.44	1.619 mS/cm uS/cm	6.69	-89.48	12.01
1200	1017				20.1	0.41	1.615 mS/cm uS/cm	6.70	-91.02	13.33
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			



Start Time: 1013 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS - 46861 / 34563

Stop Time: 1017 Average Purge Rate (mL/min): 300 Date Calibrated: 7-8-2022

SAMPLING DATA

Sample Date: 7.8.22 Sample Time: 1025 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

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

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7.8.2022 WEATHER: 95° Partly Cloudy

MONITORING WELL ID: MW-12 SAMPLE ID: MW12-ROX-070822

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 46.92 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 52.25 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 38.84 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 41.92 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 13.41 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	

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	1218	38.66	Clear	None	20.5	0.73	0.931 mS/cm uS/cm	7.21	65.30	2.08
300	1219	↓	↓	↓	20.9	0.57	0.936 mS/cm uS/cm	7.11	69.05	4.47
600	1220				21.0	0.49	0.936 mS/cm uS/cm	7.06	71.84	5.26
900	1221				21.0	0.46	0.938 mS/cm uS/cm	7.04	74.04	8.03
1200	1222				21.1	2.45	0.937 mS/cm uS/cm	7.03	74.63	8.62
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1218 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS - 16861/34563

Stop Time: 1222 Average Purge Rate (mL/min): 300 Date Calibrated: 7-8-22

SAMPLING DATA

Sample Date: 7.8.22 Sample Time: 1230 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

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

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW | PROJECT NUMBER: 60674381 - 3.3.1/2/3 | FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-11-2022 | WEATHER: 90° Clear

MONITORING WELL ID: MW-13 | SAMPLE ID: MW13-ROX-071122

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 35.05 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 25.48 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 30.27 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 24.80 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 6.5 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.57 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

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

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1054	25.5	Clear	None	23.0	0.46	0.879 mS/cm uS/cm	6.56	-17.38	81.8
300	1055	↓	↓	↓	23.3	0.41	0.908 mS/cm uS/cm	6.53	-36.36	82.30
600	1056				23.6	0.35	0.939 mS/cm uS/cm	6.49	-54.68	87.09
900	1057				23.8	0.32	0.944 mS/cm uS/cm	6.52	-62.81	91.43
1200	1058				24.0	0.28	0.951 mS/cm uS/cm	6.53	-72.38	88.38
4500	1109				23.5	3.69	1.012 mS/cm uS/cm	6.61	-89.65	53.68
6000	1114				23.4	0.17	1.010 mS/cm uS/cm	6.61	-120.33	27.04
6300	1115				23.5	0.15	1.007 mS/cm uS/cm	6.600	-122.17	26.56
6600	1116				23.7	0.15	1.001 mS/cm uS/cm	6.60	-123.97	24.32
6900	1117				23.9	0.14	1.009 mS/cm uS/cm	6.59	-125.76	19.65
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1054 | Elapsed Time (min): 23 | Water Quality Meter ID & SN: YSI ProDSS - 16861/34563

Stop Time: 1117 | Average Purge Rate (mL/min): 300 | Date Calibrated: 7-11-2022

SAMPLING DATA

Sample Date: 1120 | Sample Time: 1120 | 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: SM

COMMENTS:

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

Estimated Total Purge Volume: 6900 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heintz M. Massa

DATE: 7/11/2022 WEATHER: 95° sunny

MONITORING WELL ID: MW-14 SAMPLE ID: MW14 - ROX -071122

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.42 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 44.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 30.07 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): NG ft		
Depth to Top of Screen (btoc): 33.42 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 53.4 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 13.93 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	1323	30.09	cloudy	Slight	23.41	1.65	1.19 mS/cm uS/cm	6.64	-65.5	185.02
1800	1329				21.71	2.16	1.20 mS/cm uS/cm	6.68	-78.42	119.78
2100	1340				21.36	1.38	1.20 mS/cm uS/cm	6.65	-77.14	109.69
2400	1341				21.22	1.16	mS/cm uS/cm	6.65	-77.14-77.06	107.88
2700	1342				21.35	0.94	mS/cm uS/cm	6.64	-77.00	92.03
3000	1343				21.35	0.88	mS/cm uS/cm	6.64	-77.00-78.17	79.58
3300	1344				21.16	0.82	mS/cm uS/cm	6.65	-78.17-78.02	72.58
3600	1345				20.92	0.77	mS/cm uS/cm	6.65	-78.02-80.06	65.15
3900	1346				20.78	0.75	mS/cm uS/cm	6.65	-80.06-81.57	60.64
4200	1347				21.06	0.72	mS/cm uS/cm	6.66	-81.62	52.30
4500	1348				20.77	0.69	mS/cm uS/cm	6.66	-82.82	46.35
4800	1349				20.81	0.69	mS/cm uS/cm	6.66	-83.40	44.00
5100	1350				20.84	0.68	mS/cm uS/cm	6.66	-83.92	40.68
5400	1351				20.80	0.663	mS/cm uS/cm	6.67	-84.68	36.29
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1323 Elapsed Time (min): ~18 Water Quality Meter ID & SN: YSI ProDSS -- 13915/16386

Stop Time: 1351 Average Purge Rate (mL/min): 300 Date Calibrated: 7/11/2022

SAMPLING DATA

Sample Date: 7/11/2022 Sample Time: 1400 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: ~5400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-12-2022 WEATHER: 88° Clear

MONITORING WELL ID: MW-16 SAMPLE ID: MW16-ROX-07122

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): 39.92 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.84 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 37.50 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 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	1139	39.98	Clear	None	20.8	0.92	0.871 mS/cm uS/cm	6.80	27.69	30.19
300	1140	↓	↓	↓	20.6	0.83	0.875 mS/cm uS/cm	6.77	15.58	21.88
600	1141				21.0	0.71	0.871 mS/cm uS/cm	6.73	2.96	25.94
900	1142				21.2	0.68	0.872 mS/cm uS/cm	6.73	-2.59	34.62
1200	1143				21.0	0.65	0.876 mS/cm uS/cm	6.73	-8.98	26.71
1500	1144				21.1	0.63	0.873 mS/cm uS/cm	6.73	-14.60	25.62
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1139 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS - 16861/34563

Stop Time: 1144 Average Purge Rate (mL/min): 300 Date Calibrated: 7-12-22

SAMPLING DATA

Sample Date: 7-12-2022 Sample Time: 1150 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SM

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer S. Nichols

DATE: 7/14-2022 WEATHER: 95° Clear

MONITORING WELL ID: MW-22 SAMPLE ID: MW22-ROX-071422

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): 38.70 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.69 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 38.43 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 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)
0	1245	38.73	Clear	Slight	22.8	0.92	1.065 mS/cm uS/cm	7.42	-90.64	8.10
300	1246				22.6	0.69	1.064 mS/cm uS/cm	7.06	-84.89	7.74
600	1247				22.6	0.60	1.064 mS/cm uS/cm	7.03	-91.54	8.36
900	1248				22.6	0.52	1.066 mS/cm uS/cm	7.02	-96.74	9.16
1200	1249				22.7	0.49	1.060 mS/cm uS/cm	7.00	-100.68	9.47
1500	1250				22.7	0.45	1.064 mS/cm uS/cm	6.99	-104.09	9.92
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1245 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 16861/34563

Stop Time: 1250 Average Purge Rate (mL/min): 300 Date Calibrated: 7-14-22

SAMPLING DATA

Sample Date: 7-14-22 Sample Time: 1255 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: JM

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-13-22 WEATHER: 85° Clear

MONITORING WELL ID: MW-23 SAMPLE ID: MW23-ROX-071322

INITIAL DATA

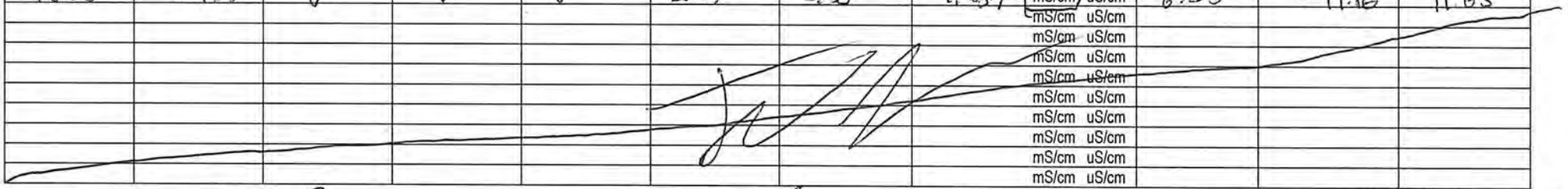
Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 34.02 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 39.27 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 27.08 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NS ft		
Depth to Top of Screen (btoc): 29.02 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.19 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	0927	27.10	clear	slight	20.2	0.80	1.053 mS/cm uS/cm	6.46	-37.32	13.62
300	0928	↓	↓	↓	20.3	0.61	1.062 mS/cm uS/cm	6.49	-55.42	9.50
600	0929				20.7	0.52	1.065 mS/cm uS/cm	6.50	-71.01	10.43
900	0930				~~20.3~~ 21.3	0.46	1.059 mS/cm uS/cm	6.51	-83.42	9.79
1200	0931				~~20.2~~ 21.2	0.43	1.065 mS/cm uS/cm	6.52	-90.80	10.45
1500	0932				21.3	0.39	1.062 mS/cm uS/cm	6.52	-96.14	11.02
1800	0933	↓	↓	↓	21.7	0.36	1.057 mS/cm uS/cm	6.53	-99.86	11.65
							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			



Start Time: 0927 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS - 16861/34563

Stop Time: 0933 Average Purge Rate (mL/min): 300 Date Calibrated: 7-13-22

SAMPLING DATA

Sample Date: 7-13-22 Sample Time: 0940 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 309 QA/QCSamples: none

VOA Vials, No Headspace [X] Initials: JM

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-11-2022 WEATHER: 80° Clear

MONITORING WELL ID: MW-24 SAMPLE ID: MW24-ROX-071122

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 44.61 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): 39.55 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): 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): 10.31 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

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

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0905	39.56	Clear	None	20.7	2.41	1.585 mS/cm uS/cm	7.14	150.05	25.35
300	0906				20.2	1.21	1.591 mS/cm uS/cm	6.87	146.77	19.99
600	0907				20.3	0.96	1.595 mS/cm uS/cm	6.80	145.83	18.98
900	0908				20.1	0.77	1.601 mS/cm uS/cm	6.74	144.44	14.58
1200	0909				19.8	0.62	1.606 mS/cm uS/cm	6.71	143.11	10.82
1500	0910				19.7	0.54	1.609 mS/cm uS/cm	6.69	141.73	8.98
1800	0911				19.6	0.47	1.615 mS/cm uS/cm	6.67	140.68	6.46
2100	0912				19.4	0.42	1.617 mS/cm uS/cm	6.64	140.30	5.35
2400	0913				19.4	0.38	1.618 mS/cm uS/cm	6.62	142.04	4.61
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0905 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS - 34686 / 34563

Stop Time: ~~0918~~ 1M 0913 Average Purge Rate (mL/min): 300 Date Calibrated: 7.11.2022

SAMPLING DATA

Sample Date: 7-11-2022 Sample Time: 0920 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: SM

COMMENTS:

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

Estimated Total Purge Volume: 2400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-18-2022 WEATHER: 80° Clear

MONITORING WELL ID: MW-25 SAMPLE ID: MW25-RoX-071822

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 40.59 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): 34.58 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): 35.59 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 16.4 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 10.26 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	1018	34.64	Clear	Slight	21.5	1.37	1.100 mS/cm uS/cm	7.10	-76.91	10.30
300	1019	↓	↓	↓	21.7	0.76	1.092 mS/cm uS/cm	6.99	-93.57	11.00
600	1020				22.1	0.62	1.088 mS/cm uS/cm	6.93	-106.91	10.83
900	1021				22.4	0.53	1.087 mS/cm uS/cm	6.91	-117.08	12.53
1200	1022				22.4	0.47	1.092 mS/cm uS/cm	6.91	-122.78	13.89
1500	1023				22.5	0.41	1.089 mS/cm uS/cm	6.91	-127.19	14.14
1800	1024				22.6	0.38	1.087 mS/cm uS/cm	6.91	-129.92	13.94
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1018 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS - 46861/34563

Stop Time: 1024 Average Purge Rate (mL/min): 300 Date Calibrated: 7-18-22

SAMPLING DATA

Sample Date: 7-18-22 Sample Time: 1030 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heintz M. Massa

DATE: 7/12/2022 WEATHER: 80° sunny

MONITORING WELL ID: MW-26 SAMPLE ID: MW26 - ROX - 071222

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 43.15 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): ~37.40 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: – ft btoc	Ambient PID/FID Reading: 0.6 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: 1.7 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 11 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: – ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): – 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	0901	37.41	clear	none	20.01	3.81	1.39 mS/cm uS/cm	6.42	100.26	6.42
300	0902				20.02	2.47	1.35 mS/cm uS/cm	6.45	151.71	4.07
600	0903				20.07	1.88	1.34 mS/cm uS/cm	6.47	140.35	3.12
900	0904				20.11	1.50	1.33 mS/cm uS/cm	6.50	141.14	2.60
1200	0905				20.22	1.40	1.33 mS/cm uS/cm	6.51	139.50	2.12
1500	0906				20.30	1.33	1.32 mS/cm uS/cm	6.53	135.94	1.710
1800	0907				20.31	1.15	1.32 mS/cm uS/cm	6.54	133.91	1.57
2100	0908				20.35	1.10	1.32 mS/cm uS/cm	6.55	132.47	1.34
2400	0909				20.42	1.02	1.31 mS/cm uS/cm	6.57	129.98	1.14
2700	0910				20.40	0.99	1.31 mS/cm uS/cm	6.57	129.60	1.11
3000	0911				20.50	0.93	1.31 mS/cm uS/cm	6.58	127.26	1.06
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0901 Elapsed Time (min): 10 Water Quality Meter ID & SN: YSI ProDSS -- 13915/16358

Stop Time: 0911 Average Purge Rate (mL/min): 300 Date Calibrated: 7/12/2022

SAMPLING DATA

Sample Date: 7/12/2022 Sample Time: 0915 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: NW

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heintz M. Massa

DATE: 7/11/2022 WEATHER: 82° Clear

MONITORING WELL ID: MW-27 SAMPLE ID: MW27-BOX-071122

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ~44.79 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 50.04 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.03 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: – ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NC 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 (WHICHEVER IS DEEPER): – ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 11.02 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	1017	39.18	Cloudy	none	19.03	4.77	0.85 mS/cm uS/cm	7.08	39.00	48.42
300	1018		Cloudy		19.53	3.56	0.86 mS/cm uS/cm	6.89	47.70	30.48
600	1019		Clear		19.41	2.97	0.86 mS/cm uS/cm	6.82	51.77	36.23
900	1020				19.52	2.53	0.86 mS/cm uS/cm	6.79	53.70	28.15
1200	1021				19.47	2.40	mS/cm uS/cm	6.78	53.72	24.32
1500	1022				19.41	2.23	mS/cm uS/cm		53.03	22.93
1800	1023				19.46	2.09	mS/cm uS/cm		51.20	19.83
2100	1024				19.53	2.02	mS/cm uS/cm		50.02	18.05
2400	1025				19.49	1.95	mS/cm uS/cm		48.93	15.76
2700	1026				19.50	1.87	mS/cm uS/cm		46.44	14.89
3000	1027				19.41	1.82	mS/cm uS/cm	6.77	43.91	14.08
3300	1038				19.48	1.78	mS/cm uS/cm	6.77	41.14	13.27
3600	1039				19.72	1.72	mS/cm uS/cm	6.77	38.15	11.48
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1017 Elapsed Time (min): 12 Water Quality Meter ID & SN: YSI ProDSS -- 439715/463886

Stop Time: 1029 Average Purge Rate (mL/min): 300 Date Calibrated: 7/11/2022

SAMPLING DATA

Sample Date: 7/11/2022 Sample Time: 1030 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: MH

COMMENTS:

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

Estimated Total Purge Volume: ~ 3600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW | PROJECT NUMBER: 60674381 - 3.3.1/2/3 | FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-12-2022 | WEATHER: 90° clear

MONITORING WELL ID: MW-28 | SAMPLE ID: MW28-ROX-071222

INITIAL DATA

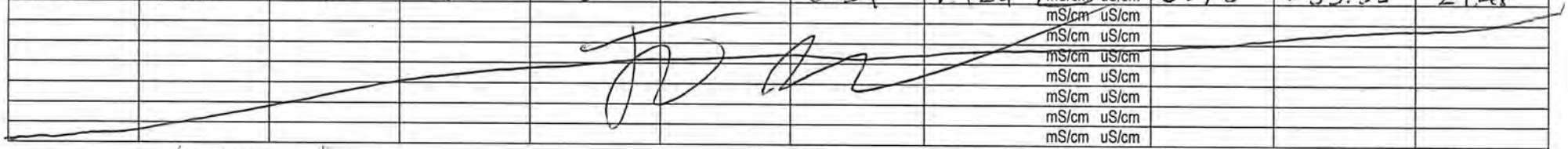
Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell: 320* mL	
Total Well Depth (btoc): 43.86 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 38.31 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 41.09 ft btoc	Ambient PID/FID Reading: 0.10 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft		Wellbore 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 (WHICHEVER IS DEEPER): ft btoc		
Screen Length: 10 ft			
Water Column Height (not including NAPL): 5.56 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% | Spec. Cond. +/-5% or +/-2 uS/cm | pH +/-0.2 mg/L | ORP +/-20 mV | Turb Monitor 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	1243	38.35	Cloudy	None	21.8	1.24	1.084 mS/cm uS/cm	7.46	8.98	92.76
300	1244				21.7	0.87	1.089 mS/cm uS/cm	7.08	0.89	132.13
600	1245				21.3	0.80	1.088 mS/cm uS/cm	6.92	-6.84	100.02
2100	1250				20.8	1.56	1.105 mS/cm uS/cm	6.79	-31.68	62.19
2400	1251				20.7	0.61	1.113 mS/cm uS/cm	6.75	-37.80	46.71
2700	1252				20.8	0.49	~~1.113~~ mS/cm uS/cm	6.74	-41.25	38.84
3000	1253				21.2	0.41	~~1.121~~ 1.119 mS/cm uS/cm	6.73	-46.00	33.63
3300	1254				21.3	0.37	~~1.124~~ 1.121 mS/cm uS/cm	6.73	-49.98	32.11
3600	1255				21.2	0.34	1.124 mS/cm uS/cm	6.73	-53.55	29.48
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			



Start Time: 1243 | Elapsed Time (min): 12 | Water Quality Meter ID & SN: YSI ProDSS - 46861/345633

Stop Time: 1255 | Average Purge Rate (mL/min): 300 | Date Calibrated: 7-12-22

SAMPLING DATA

Sample Date: 7-12-22 | Sample Time: 1300 | 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: SM

COMMENTS:

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

Estimated Total Purge Volume: 3600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-12-2022 WEATHER: 86° Clear

MONITORING WELL ID: P-54 SAMPLE ID: MS/MSD P54-ROX-071222

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 63.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 38.30 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 38.00 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 43.30 ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 24.70 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	1041	38.32	Clear	None	20.5	6.11	0.972 mS/cm uS/cm	7.03	76.32	19.50
300	1042				21.1	5.60	0.970 mS/cm uS/cm	6.89	77.14	16.45
600	1043				21.5	5.39	0.968 mS/cm uS/cm	6.86	77.39	16.39
900	1044				21.4	5.13	0.994 mS/cm uS/cm	6.83	78.07	16.57
1200	1045				21.4	4.75	1.006 mS/cm uS/cm	6.81	78.31	17.35
1500	1046				21.4	4.36	1.015 mS/cm uS/cm	6.80	78.61	14.53
3300	1052				21.5	2.89	1.056 mS/cm uS/cm	6.77	80.76	11.11
3600	1053				21.5	2.64	1.059 mS/cm uS/cm	6.76	81.16	10.39
3900	1054				21.5	2.36	1.062 mS/cm uS/cm	6.75	81.55	9.50
4200	1055				21.6	2.31	1.067 mS/cm uS/cm	6.75	81.89	9.35
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1041 Elapsed Time (min): 14 Water Quality Meter ID & SN: YSI ProDSS - 4686/34563

Stop Time: 1055 Average Purge Rate (mL/min): 300 Date Calibrated: 7-12-2022

SAMPLING DATA

Sample Date: 7-12-2022 Sample Time: 1100 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: JM

COMMENTS:

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

Estimated Total Purge Volume: 4200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: MMassa TJones

DATE: 7/15/22 WEATHER: partly cloudy 82°

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): 38.87 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): 38.30 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: 193.7 / 219.2 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 11.81 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)
							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			

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

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

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

SAMPLING DATA

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

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

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

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

NOT sampled due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M Heintz M Massa

DATE: 7/13/22 WEATHER: 85 sunny

MONITORING WELL ID: P56 SAMPLE ID: P56 - ROX - 071322

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): 42.99 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 40.82 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 47.99 ft btoc	Wellbore PID/FID Reading: 78.7 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 22.83 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	1200	43.04	CLOUDY	MODERATE	27.03	3.87	1.050 mS/cm uS/cm	10.89	-34.16	25.83
300	1201		CLOUDY		24.26	1.05	1.07 mS/cm uS/cm	6.94	-65.91	21.31
600	1203		CLOUDY		23.05	0.52	1.07 mS/cm uS/cm	6.99	-89.02	17.15
900	1205		CLOUDY		23.03	0.45	1.06 mS/cm uS/cm	7.03	-104.37	13.27
1200	1206		CLEAR		22.67	0.39	1.06 mS/cm uS/cm	7.05	-109.51	12.87
1500	1208				23.50	0.35	1.06 mS/cm uS/cm	7.07	-115.82	12.43
1800	1209				23.08	0.32	1.06 mS/cm uS/cm	7.09	-120.96	11.21
2100	1207				23.58	0.30	1.06 mS/cm uS/cm	7.10	-124.28	9.95
2400	1208				23.78	0.29	1.06 mS/cm uS/cm	7.11	-127.13	9.39
2700	1209				23.09	0.28	1.05 mS/cm uS/cm	7.12	-129.54	9.99
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1200 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS 23190 21703

Stop Time: 1209 Average Purge Rate (mL/min): 300 Date Calibrated: 7/13/2022

SAMPLING DATA

Sample Date: 7/13/2022 Sample Time: 1210 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: ~2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Meyer J. Nichols

DATE: 7-15-2022 WEATHER: 90° overcast

MONITORING WELL ID: P-57 SAMPLE ID: P57-ROX-071522

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 49.19 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): 43.67 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~ ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 44.19 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ~ ft btoc	Wellbore PID/FID Reading: 32.9 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 10.52 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	44.02	clear	slight	21.7	0.77	1.083 mS/cm uS/cm	6.86	-97.8	0.51
300	1034	43.98			21.8	0.67	1.093 mS/cm uS/cm	6.84	-110.6	0.85
600	1035	43.95			21.8	0.60	1.095 mS/cm uS/cm	6.84	-120.4	0.55
900	1036	43.98			22.1	0.52	1.103 mS/cm uS/cm	6.84	-126.0	0.36
1200	1037	44.01			21.9	0.47	1.104 mS/cm uS/cm	6.84	-131.4	0.56
1500	1038	43.98	↓	↓	22.1	0.43	1.104 mS/cm uS/cm	6.85	-134.5	0.47
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1033 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS - 16861/34563

Stop Time: 1038 Average Purge Rate (mL/min): 300 Date Calibrated: 7-15-22

SAMPLING DATA

Sample Date: 7-15-22 Sample Time: 1045 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: [X] Initials: JM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL Duplicate was taken as backup for Rost-4-PZ(E). Since Rost-4-PZ(E) was sampleable, P57 Dup was discarded

Estimated Total Purge Volume: 1,500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heinle M. Massey

DATE: 7/14/2022 WEATHER: sunny 90°

MONITORING WELL ID: P-58 SAMPLE ID: PS8 - ROX - 071422 ; PS8 - ROX - 071422 - DUP

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): 65.21 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.40 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): NE 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 (WHICHEVER IS DEEPER): 40.96 ft btoc	Wellbore PID/FID Reading: 0.5 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 23.75 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

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

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1135	41.80	cloudy	strong	24.81	0.33	1.47 mS/cm uS/cm	6.70	-134.08	76.28
300	1136				24.40	0.29	1.47 mS/cm uS/cm		-138.15	to 9.32
600	1137				23.85	0.24	1.46 mS/cm uS/cm	6.71	-142.20	69.87
900	1138				23.72	0.22	1.46 mS/cm uS/cm	6.72	-143.52	59.41
1200	1139				23.42	0.22	1.46 mS/cm uS/cm	6.72	-144.16	48.93
1500	1140				23.44	0.20	1.46 mS/cm uS/cm	6.72	-145.56	56.93
1800	1141				23.50	0.20	1.45 mS/cm uS/cm	6.72	-145.81	51.50
2100	1142				23.49	0.20	1.45 mS/cm uS/cm	6.72	-146.31	50.89
2400	1143				23.36	0.19	1.45 mS/cm uS/cm	6.72	-146.84	45.01
2700	1144				23.49	0.18	1.45 mS/cm uS/cm	6.71	-147.26	43.24
3000	1145				23.31	0.18	1.45 mS/cm uS/cm	6.71	-147.63	44.64
3300	1146				23.15	0.17	1.45 mS/cm uS/cm	6.72	~~410~~ -148.08	43.78
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1135 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS -- 43916 / 37703

Stop Time: 1146 Average Purge Rate (mL/min): 300 Date Calibrated: 7/14/2022

SAMPLING DATA

Sample Date: 7/14/2022 Sample Time: ~~1155~~ 1150 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: mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heintz M. Marsh

DATE: 7/14/2022 WEATHER: 830 sunny

MONITORING WELL ID: P-59 SAMPLE ID: P59 - BOX - 071422

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 72.91 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 43.88 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): 47.91 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 52.91 ft btoc	Wellbore PID/FID Reading: 265.7 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 25.03 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): 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)
0	1014	43.90	clear	strong	24.44	0.97	1.35 mS/cm uS/cm	6.44	-78.47	5.51
300	1018				24.95	0.57	1.35 mS/cm uS/cm	6.46	-88.03	5.14
600	1010				24.74	0.36	1.34 mS/cm uS/cm	6.48	-98.23	4.35
900	1017				24.62	0.32	1.33 mS/cm uS/cm	6.48	-100.79	3.61
1200	1018				24.09	0.29	1.32 mS/cm uS/cm	6.50	-105.39	3.53
1500	1019				24.24	0.29	1.32 mS/cm uS/cm	6.51	-108.32	3.50
1800	1020				24.39	0.30	1.31 mS/cm uS/cm	6.51	-109.86	3.58
2100	1021				24.71	0.28	1.32 mS/cm uS/cm	6.52	-111.30	3.95
							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)

Start Time: 1014 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS - 23916/37703

Stop Time: 1021 Average Purge Rate (mL/min): 300 Date Calibrated: 7/14/2022

SAMPLING DATA

Sample Date: 7/14/2022 Sample Time: 1030 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: DUP 7/14 MM 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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: Marissa Jones

DATE: 7/15/22 WEATHER: partly cloudy 82°

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): 33.08 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): 33.07 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 (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 142.5 / 181.1 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 26.64 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

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

Marissa Jones 7/15/22

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/QC Samples: —

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: MMassa TJones

DATE: 7/15/22 WEATHER: cloudy 81°

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): 42.08 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): 42.02 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 (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 236.6 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 26.68 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

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

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

7/15/22

MMassa

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/QC Samples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

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

Well Not Sampled due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M Heinz M Massa

DATE: 7/13/2022 WEATHER: Clear 82°

MONITORING WELL ID: P-74 SAMPLE ID: P74 - EOX - 071322

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): 39.91 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 43.83 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 48.83 ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 28.92 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	1015	42.30	Clear	Moderate	22.45	0.80	0.20 mS/cm uS/cm	10.17	19.88	10.22
300	1010	42.30			22.57	0.63	0.19 mS/cm uS/cm	10.25	3.69	9.53
600	1017	42.30			22.52	0.51	0.19 mS/cm uS/cm	10.30	-9.98	9.74
900	1018	42.30			22.60	0.47	mS/cm uS/cm	10.32	-14.68	9.00
1200	1019	42.32			22.49	0.45	mS/cm uS/cm	10.34	-20.27	9.19
1500	1020	42.34			22.47	0.46	mS/cm uS/cm		-24.08	8.94
1810	1021				22.54	0.36	mS/cm uS/cm		-28.09	8.11
2100	1022				22.39	0.34	mS/cm uS/cm		-30.18	8.29
2400	1023	↓	↓	↓	22.44	0.33	↓ mS/cm uS/cm	↓	-31.81	7.58
							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			

N/A

Start Time: 1015 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 431916/377113

Stop Time: 1023 Average Purge Rate (mL/min): 300 Date Calibrated: 7/13/2022

SAMPLING DATA

Sample Date: 7/13/2022 Sample Time: 1036 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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayr J. Nichols

DATE: 7-15-2022 WEATHER: 90° overcast

MONITORING WELL ID: P-93A SAMPLE ID: P93A-Rox-071522

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 48.07 ft btoc
Total Well Depth (btoc): 53.07 ft	
Depth to Water (btoc): 41.83 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 43.07 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 11.24 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

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	0942	41.89	Clear	None	20.4	1.59	1.251 mS/cm uS/cm	6.43	129.1	0.0
300	0943	41.89	↓	↓	21.1	0.96	1.260 mS/cm uS/cm	6.44	125.1	0.0
600	0944	41.86			21.5	0.85	1.255 mS/cm uS/cm	6.43	123.0	0.0
900	0945	41.86			21.7	0.77	1.253 mS/cm uS/cm	6.43	121.2	0.0
1200	0946	41.84			21.6	0.74	1.265 mS/cm uS/cm	6.43	119.3	0.0
1500	0947	41.86			21.5	0.68	1.272 mS/cm uS/cm	6.43	114.9	0.0
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0942 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS - 16861/34565

Stop Time: 0947 Average Purge Rate (mL/min): 300 Date Calibrated: 7-15-22

SAMPLING DATA

Sample Date: 7-15-22 Sample Time: 0950 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: J.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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: MMassa TJones

DATE: 7/15/22 WEATHER: cloudy 79

MONITORING WELL ID: P-93B SAMPLE ID: P93B-ROX-071522

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): 43.00 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): NE ft			
Depth to Top of Screen (btoc): 74.78 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ___ ft btoc	Wellbore PID/FID Reading: 0.2 ppm	
Screen Length: 2 ft			
Water Column Height (not including NAPL): 33.58 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): 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	0949	43.22	clear	Benzene/ moderate HC	20.6	2.43	1.247 mS/cm uS/cm	6.34	37.60	6.50
300	0950	43.22			20.1	1.26	1.277 mS/cm uS/cm	6.44	-1.21	4.47
600	0951	43.22			20.0	0.86	1.290 mS/cm uS/cm	6.46	-22.91	3.54
900	0952				20.2	0.69	1.294 mS/cm uS/cm	6.52	-38.62	3.16
1200	0953				20.4	0.60	1.297 mS/cm uS/cm	6.54	-49.32	3.04
1500	0954				20.7	0.56	1.299 mS/cm uS/cm	6.56	-58.42	3.16
1800	0955				20.4	0.54	1.302 mS/cm uS/cm	6.57	-64.08	3.12
2100	0956	↓	↓	↓	19.7	0.45	1.301 mS/cm uS/cm	6.59	-68.25	3.18
							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			

MMassa 7/15/22

Start Time: 0949 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 43916/ 377013

Stop Time: 0956 Average Purge Rate (mL/min): 300 Date Calibrated: 7/15/22

SAMPLING DATA

Sample Date: 7/15/22 Sample Time: 1000 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 TJ

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 3Q22 GW **PROJECT NUMBER:** 60674381 - 3.3.1/2/3 **FIELD PERSONNEL:** M. Heintz M. Massa

DATE: 7/13/2022 **WEATHER:** 87° clear

MONITORING WELL ID: P-93C **SAMPLE ID:** P93C - ROX - 071322

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 97.88 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 42.92 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 92.88 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 2 ft		
Water Column Height (not including NAPL): 54.96 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): 93.58 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	1310	43.00	clear	moderate	21.67	2.87	0.95 mS/cm uS/cm	7.25	-68.67	~~2.20~~ 2.20
300	1311	↓	↓	↓	20.61	0.94	0.96 mS/cm uS/cm	7.02	-96.15	1.78
600	1312				20.79	0.68	0.97 mS/cm uS/cm	6.98	-100.67	1.71
900	1313				20.69	0.50	0.99 mS/cm uS/cm	6.96	-103.78	1.98
1200	1314				20.57	0.49	0.99 mS/cm uS/cm	6.96	-104.35	1.96
1500	1315				20.59	0.44	1.01 mS/cm uS/cm	6.95	-104.84	3.31
1800	1316				20.61	0.39	1.03 mS/cm uS/cm	6.93	-105.18	3.75
2100	1317				20.43	0.36	1.05 mS/cm uS/cm	6.93	-105.15	4.27
2400	1318				20.36	0.35	1.06 mS/cm uS/cm	6.92	-105.26	4.50
2700	1319				20.48	0.33	1.07 mS/cm uS/cm	6.92	-105.41	5.27
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MH

Start Time: 1310 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS - 431910/37707

Stop Time: 1319 Average Purge Rate (mL/min): 300 Date Calibrated: 7/13/2022

SAMPLING DATA

Sample Date: 7/13/2022 Sample Time: 1320 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: MH

COMMENTS:

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

Estimated Total Purge Volume: mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: Mnasea T.Jones

DATE: 7/15/22 WEATHER: cloudy 81°

MONITORING WELL ID: P-93D SAMPLE ID: D93D-ROX-071522

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): 43.39 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): 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: 0.3 ppm	
Screen Length: 2 ft			
Water Column Height (not including NAPL): 84.52 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ___ ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): 126.66 ft btoc		

PURGE DATA

Pump Type: Dedicated Well Wizard

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

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1040	43.39	clear	Slight HC	19.7	2.21	1.122 mS/cm uS/cm	7.11	50.07	4.57
300	1041	↓	↓	↓	19.3	0.96	1.116 mS/cm uS/cm	7.04	27.85	4.52
600	1042				19.2	0.74	1.116 mS/cm uS/cm	6.99	11.22	4.44
900	1043				19.3	0.56	1.113 mS/cm uS/cm	6.96	-9.44	4.71
1200	1044				19.1	0.44	1.114 mS/cm uS/cm	6.96	-23.68	5.34
1500	1045				19.1	0.39	1.111 mS/cm uS/cm	6.95	-32.48	5.11
1800	1046				19.2	0.35	1.110 mS/cm uS/cm	6.96	-38.86	6.50
2100	1047				19.2	0.33	1.111 mS/cm uS/cm	6.96	-42.94	3.15
2400	1048				19.2	0.31	1.110 mS/cm uS/cm	6.96	-47.87	3.27
							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			

Mnasea 7/15/22

Start Time: 1040 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 7/15 439116/3770

Stop Time: 1048 Average Purge Rate (mL/min): 300 Date Calibrated: 7/15/22

SAMPLING DATA

Sample Date: 7/15/22 Sample Time: 1050 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: MMTJ

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 3Q22 GW | PROJECT NUMBER: 60674381 - 3.3.1/2/3 | FIELD PERSONNEL: J. Mayer J. Nichols

DATE: 7-11-2022 | WEATHER: 95° Clear

MONITORING WELL ID: P-114R | SAMPLE ID: P114R-ROX-071122

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 33.31 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 24.26 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 28.79 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 23.01 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 72.9 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.05 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

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	1210	24.32	Clear	Moderate	23.8	1.17	0.898 mS/cm uS/cm	7.06	-107.23	54.92
300	1211	↓	↓	↓	24.6	0.68	0.884 mS/cm uS/cm	6.72	-125.14	49.67
600	1212				25.2	0.56	0.885 mS/cm uS/cm	6.60	-131.55	45.21
900	1213				25.4	0.49	0.889 mS/cm uS/cm	6.53	-138.31	42.60
1200	1214				25.6	0.43	0.884 mS/cm uS/cm	6.52	-140.54	42.38
1500	1215				25.5	0.40	0.893 mS/cm uS/cm	6.51	-142.13	39.65
							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			

Start Time: 1210 | Elapsed Time (min): 5 | Water Quality Meter ID & SN: YSI ProDSS 16861 / 14563

Stop Time: 1215 | Average Purge Rate (mL/min): 300 | Date Calibrated: 7-11-2022

SAMPLING DATA

Sample Date: 7-11-2022 | Sample Time: 1220 | Lab Analysis: VOC, SVOC, PAH

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

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

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 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heintz M. Massa

DATE: 7/12/2022 WEATHER: 85° Sunny

MONITORING WELL ID: ROST-3-MW SAMPLE ID: ROST 3MW - RO2 - 071222

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): 38.53 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.30 ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE 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 (WHICHEVER IS DEEPER): ~ ft btoc	Wellbore PID/FID Reading: 3.4 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 9.53 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		

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	1017	38.62	clear	Moderate	19.97	3.79	1.12 mS/cm uS/cm	10.69	9.68	8.82
300	1018				19.31	2.92	1.13 mS/cm uS/cm	10.62	-28.38	9.01
600	1019				19.15	2.30	1.13 mS/cm uS/cm	10.62	-45.70	9.36
900	1020				19.07	1.79	mS/cm uS/cm	10.62	-61.09	9.36
1200	1021				19.22	1.52	mS/cm uS/cm	10.63	-69.82	8.39
1500	1022				19.11	1.35	mS/cm uS/cm	10.64	-70.14	7.29
1800	1023				18.94	1.22	mS/cm uS/cm	10.65	-81.30	6.80
2100	1024				18.79	1.07	mS/cm uS/cm	10.66	-87.18	5.15
2400	1025				18.79	1.04	mS/cm uS/cm	10.67	-89.02	5.18
2700	1026				18.74	1.01	mS/cm uS/cm		-90.17	4.96
3000	1027				18.68	0.95	1.14 mS/cm uS/cm		-92.72	4.28
3300	1028				18.68	0.89	mS/cm uS/cm		-95.69	3.70
3600	1029				18.70	0.87	mS/cm uS/cm		-96.98	3.83
3900	1030				18.68	0.83	mS/cm uS/cm		-98.35	3.65
4200	1031				18.71	0.80	mS/cm uS/cm		-99.94	2.55
							mS/cm uS/cm			

Start Time: 1017 Elapsed Time (min): 14 Water Quality Meter ID & SN: YSI ProDSS - 23915 | 16386

Stop Time: 1031 Average Purge Rate (mL/min): 300 Date Calibrated: 7/12/22

SAMPLING DATA

Sample Date: 7/12/2022 Sample Time: 1035 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: ~4200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer S. Nichols

DATE: 7-14-2022 WEATHER: 95° Clear

MONITORING WELL ID: ROST-4-PZ(C) SAMPLE ID: ROST4PZC-ROX-071422

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ___ ft btoc	Volume of Flow Through Cell: 320* mL	
Total Well Depth (btoc): 45.20 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 38.86 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.03 ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft			
Depth to Top of Screen (btoc): 34.95 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ___ ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 6.34 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	0941	39.17	Cloudy	Slight	21.3	0.69	1.244	mS/cm uS/cm	7.01	-87.53	26.30
300	0942	39.15			21.4	0.56	1.263	mS/cm uS/cm	7.00	-94.90	22.78
600	0943	39.12			21.7	0.49	1.251	mS/cm uS/cm	7.00	-100.38	21.55
900	0944	39.11			21.3	8.44	1.247	mS/cm uS/cm	6.99	-104.85	21.49
1200	0945	39.11	↓	↓	22.3	8.42	1.255	mS/cm uS/cm	6.99	-108.20	19.62
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			

Start Time: 0941 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS - 46861/34563

Stop Time: 0945 Average Purge Rate (mL/min): 300 Date Calibrated: 7-14-22

SAMPLING DATA

Sample Date: 7-14-22 Sample Time: 0950 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

COMMENTS:

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

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: J. Mayer S. Nichols

DATE: 7-15-22 WEATHER: 90° overcast

MONITORING WELL ID: ROST-4-PZ(E) SAMPLE ID: ROST4PZE-ROX-071522

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 45.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 37.85 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 41.42 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 34.75 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 7.15 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (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	1232	38.08	Clear	Moderate	21.6	0.46	1.705 mS/cm uS/cm	6.84	-99.13	5.75
300	1233	↓	↓	↓	21.3	0.41	1.707 mS/cm uS/cm	6.85	-102.77	5.73
600	1234				21.3	0.36	1.710 mS/cm uS/cm	6.84	-106.03	5.68
900	1235				21.3	0.33	1.719 mS/cm uS/cm	6.84	-108.33	4.68
1200	1236				21.1	0.30	1.725 mS/cm uS/cm	6.84	-110.72	3.93
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1232 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 46861/364563

Stop Time: 1236 Average Purge Rate (mL/min): 300 Date Calibrated: 7-15-22

SAMPLING DATA

Sample Date: 7-15-22 Sample Time: 1240 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 ~~X~~ Initials: SM

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 3Q22 GW **PROJECT NUMBER:** 60674381 - 3.3.1/2/3 **FIELD PERSONNEL:** M. Heintz M. Massa

DATE: 7/12/22 **WEATHER:** 85° sunny

MONITORING WELL ID: ROST-4-PZ(G) **SAMPLE ID:** ~~ROST-4~~ ROST4PZ(G) - ROX - 071222

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): 38.61 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~41.57 ft btoc	
Depth to LNAPL/DNAPL (btoc): NE ft		Ambient PID/FID Reading: 0.0 ppm
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	
Screen Length: 10 ft		Wellbore PID/FID Reading: 0.3 ppm
Water Column Height (not including NAPL): 5.92 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

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
					STABLE: (over 4 readings)	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1258	38.66	cloudy	Moderate	21.16	2.65	1.13 mS/cm uS/cm	6.81	-113.57	39.72
300	1259	38.66			20.66	1.87	1.12 mS/cm uS/cm	6.82	-123.79	37.76
600	1300				20.56	1.56	1.12 mS/cm uS/cm	6.82	-128.83	33.87
900	1301				20.74	1.32	1.12 mS/cm uS/cm	6.82	-133.05	32.56
1200	1302				20.94	1.23	1.12 mS/cm uS/cm	6.82	-134.87	33.18
1500	1303				20.90	1.15	1.13 mS/cm uS/cm	6.83	-136.83	32.12
1800	1304				20.90	1.08	1.13 mS/cm uS/cm	6.83	-138.33	29.77
2100	1305				21.04	1.00	1.13 mS/cm uS/cm	6.83	-139.92	23.71
2400	1306				20.88	0.96	1.14 mS/cm uS/cm	6.84	-141.03	23.81
2700	1307	~~[illegible]~~	clear		21.06	0.91	1.15 mS/cm uS/cm	6.84	-141.91	21.34
3000	1308				20.78	0.86	1.15 mS/cm uS/cm	6.84	-142.54	20.66
3300	1309				20.76	0.84	1.16 mS/cm uS/cm	6.85	-143.21	20.69
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1258 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS - 43915/46388

Stop Time: 1309 Average Purge Rate (mL/min): 300 Date Calibrated: 7/12/2022

SAMPLING DATA

Sample Date: 7/12/2022 Sample Time: 1310 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: ~3300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 3Q22 GW PROJECT NUMBER: 60674381 - 3.3.1/2/3 FIELD PERSONNEL: M. Heintz M. Massa

DATE: 7/14/2022 WEATHER: clear 82°

MONITORING WELL ID: T-12 SAMPLE ID: T12 - ROX - 071422

INITIAL DATA

Well Diameter: 6 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 72.83 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.77 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 46.83 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 51.83 ft btoc	Wellbore PID/FID Reading: 10.9 ppm
Screen Length: 26 ft		
Water Column Height (not including NAPL): 31.06 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

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

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0917	41.80	clear	moderate	23.41	1.91	1.56 mS/cm uS/cm	6.50	-51.55	3.48
300	0918				23.17	1.66	1.57 mS/cm uS/cm	6.54	-62.08	2.95
600	0919				22.75	0.83	mS/cm uS/cm	6.64	-83.87	2.36
900	0920				22.63	0.56	mS/cm uS/cm	6.71	-99.60	3.17
1200	0921				22.74	0.46	mS/cm uS/cm	6.75	-111.34	3.38
1500	0922				22.59	0.41	mS/cm uS/cm	6.78	-118.89	3.98
1800	0923				22.52	0.39	mS/cm uS/cm	6.77	-122.8	3.76
2100	0924				22.53	0.38	mS/cm uS/cm	6.80	-127.03	4.19
2400	0925				22.60	0.34	mS/cm uS/cm	6.82	-131.17	4.24
2700	0926				22.59	0.33	mS/cm uS/cm	6.83	-134.45	5.24
3000	0927				22.65	0.30	mS/cm uS/cm	6.83	-137.14	4.80
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0917 Elapsed Time (min): 10 Water Quality Meter ID & SN: YSI ProDSS - 439100/37703

Stop Time: 0927 Average Purge Rate (mL/min): 300 Date Calibrated: 7/14/2022

SAMPLING DATA

Sample Date: 7/14/2022 Sample Time: 0930 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: ~ 3000 mL

Appendix C

Data Review Forms and Laboratory Analytical Reports

Roxana Groundwater Quarterly – 3rd Quarter 2022 Data Review

Laboratory SDG: 400-222676-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Andreia Vladimirescu

Date Reviewed: 9/12/2022

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

Sample Identification	Sample Identification
TB-ROX-070822-8260-A	TB-ROX-070822-8011-A
MW11-ROX-070822-EB	MW11-ROX-070822
MW10-ROX-070822	MW12-ROX-070822
MW1-ROX-070822	TB-ROX-070822-8260-B
TB-ROX-070822-8011-B	MW6D-ROX-070822-EB
MW6D-ROX-070822	MW6C-ROX-070822
MW6B-ROX-070822	MW6A-ROX-070822

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 bis(2-ethylhexyl) phthalate in several samples was re-extracted outside of the extraction time criteria. Diethyl phthalate was detected in equipment blank MW6D-ROX-070822-EB, and diethyl phthalate and benzo[a]anthracene were detected in the method blank. LCS/LCSD recoveries for 3,3'-dichlorobenzidine and benzenethiol, and the LCS/LCSD RPD for benzenethiol, were outside evaluation criteria. Surrogate recoveries for PAH terphenyl-d_{14} and SVOC 2-fluorophenol in several investigative and quality control samples were outside criteria. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (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 several samples was re-extracted 5 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. Analytical data requiring qualification is summarized in the table below.

Sample ID	Parameter	Analyte	Qualification
MW12-ROX-070822 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**UJ**
MW6C-ROX-070822 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-070822 – 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
MW6D-ROX-070822-EB	SVOCs	Diethyl phthalate	0.34 µg/L
MB 400-584922/1-A	SVOCs	Diethyl phthalate	0.287 µg/L
MB 400-584922/1-A	PAHs	Benzo[a]anthracene	0.0567 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
MW10-ROX-070822	PAHs	Benzo[a]anthracene	-	**U**
MW12-ROX-070822	SVOCs	Diethyl phthalate	-	**U**
MW6B-ROX-070822	SVOCs	Diethyl phthalate	-	**U**
MW6A-ROX-070822	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 400-584922/2-A	SVOCs	3,3'-Dichlorobenzidine	**148**	NA	36-132
LCS/LCSD 400-584922/3-A/4-A	SVOCs	Benzenethiol	**5/4**	**37**	10-120/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW11-ROX-070822	SVOCs	Benzenethiol	**UJ**
MW10-ROX-070822	SVOCs	Benzenethiol	**UJ**
MW12-ROX-070822	SVOCs	Benzenethiol	**UJ**
MW1-ROX-070822	SVOCs	Benzenethiol	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW6D-ROX-070822	SVOCs	Benzenethiol	**UJ**
MW6C-ROX-070822	SVOCs	Benzenethiol	**UJ**
MW6B-ROX-070822	SVOCs	Benzenethiol	**UJ**
MW6A-ROX-070822	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW11-ROX-070822-EB	PAHs	Terphenyl-d_{14}	**147**	33-138
MW11-ROX-070822	PAHs	Terphenyl-d_{14}	**151**	33-138
MW10-ROX-070822	PAHs	Terphenyl-d_{14}	**145**	33-138
MW12-ROX-070822	PAHs	Terphenyl-d_{14}	**145**	33-138
MW1-ROX-070822	PAHs	Terphenyl-d_{14}	**146**	33-138
MW6D-ROX-070822-EB	PAHs	Terphenyl-d_{14}	**152**	33-138
MW6D-ROX-070822	PAHs	Terphenyl-d_{14}	**151**	33-138
MW6C-ROX-070822	PAHs	Terphenyl-d_{14}	**150**	33-138
MW6B-ROX-070822	PAHs	Terphenyl-d_{14}	**162**	33-138
MW6B-ROX-070822	SVOCs	2-Fluorophenol	**7**	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 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?

No

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-222676-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
7/29/2022 10:32:57 AM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Sample Summary 5
Detection Summary 6
Client Sample Results 8
Definitions 54
Surrogate Summary 55
Method Summary 58
Chronicle 59
QC Association 66
QC Sample Results 69
Chain of Custody 82
Receipt Checklists 84
Certification Summary 85

Job ID: 400-222676-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-222676-1

Comments
No additional comments.

Receipt
The samples were received on 7/9/2022 9:57 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.1º C.

GC/MS VOA
Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-582407 was outside method criteria for the following analyte(s): Dichlorodifluoromethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-070822-8260-A (400-222676-1), MW11-ROX-070822-EB (400-222676-3), MW11-ROX-070822 (400-222676-4), MW10-ROX-070822 (400-222676-5), MW12-ROX-070822 (400-222676-6), MW1-ROX-070822 (400-222676-7), TB-ROX-070822-8260-B (400-222676-8), MW6D-ROX-070822-EB (400-222676-10), MW6D-ROX-070822 (400-222676-11), MW6C-ROX-070822 (400-222676-12), MW6B-ROX-070822 (400-222676-13) and MW6A-ROX-070822 (400-222676-14). 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 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-584922 and analytical batch 400-585184 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-584922 and analytical batch 400-585184 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-584922 and analytical batch 400-585184 recovered outside control limits for the following analyte(s): 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The method blank for preparation batch 400-584922 and analytical batch 400-585184 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: 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: MW6B-ROX-070822 (400-222676-13). These results have been reported and qualified.

Method 8270D: The surrogate recovery for the MS associated with preparation batch 400-584922 and analytical batch 400-585184 was outside the control limits. However, the surrogate recovery in the samples are within acceptance limits; therefore, the data have been reported.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch

Job ID: 400-222676-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: 4-Chloroaniline.

Method 8270D: 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): 400-222762-H-5-B, 400-222676--G-6-B, 400-222676-H-12-B, and 400-222676-H-14-B.. Samples were re-prepared and/or re-analyzed outside holding time, and both sets of data have been reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW11-ROX-070822-EB (400-222676-3), MW11-ROX-070822 (400-222676-4), MW10-ROX-070822 (400-222676-5), MW12-ROX-070822 (400-222676-6), MW1-ROX-070822 (400-222676-7), MW6D-ROX-070822-EB (400-222676-10), MW6D-ROX-070822 (400-222676-11), MW6C-ROX-070822 (400-222676-12) and MW6B-ROX-070822 (400-222676-13). These results have been reported and qualified.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-585193 recovered above the upper control limit for Benzo[k]fluoranthene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The method blank for preparation batch 400-584922 and analytical batch 400-585193 contained Benzo[a]anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-584894 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.

Organic Prep

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

VOA Prep

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

Sample Summary

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

Job ID: 400-222676-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-222676-1	TB-ROX-070822-8260-A	Water	07/08/22 12:00	07/09/22 09:57
400-222676-2	TB-ROX-070822-8011-A	Water	07/08/22 12:00	07/09/22 09:57
400-222676-3	MW11-ROX-070822-EB	Water	07/08/22 08:35	07/09/22 09:57
400-222676-4	MW11-ROX-070822	Water	07/08/22 10:25	07/09/22 09:57
400-222676-5	MW10-ROX-070822	Water	07/08/22 11:10	07/09/22 09:57
400-222676-6	MW12-ROX-070822	Water	07/08/22 12:30	07/09/22 09:57
400-222676-7	MW1-ROX-070822	Water	07/08/22 13:15	07/09/22 09:57
400-222676-8	TB-ROX-070822-8260-B	Water	07/08/22 12:00	07/09/22 09:57
400-222676-9	TB-ROX-070822-8011-B	Water	07/08/22 12:00	07/09/22 09:57
400-222676-10	MW6D-ROX-070822-EB	Water	07/08/22 08:30	07/09/22 09:57
400-222676-11	MW6D-ROX-070822	Water	07/08/22 10:45	07/09/22 09:57
400-222676-12	MW6C-ROX-070822	Water	07/08/22 11:30	07/09/22 09:57
400-222676-13	MW6B-ROX-070822	Water	07/08/22 12:15	07/09/22 09:57
400-222676-14	MW6A-ROX-070822	Water	07/08/22 13:10	07/09/22 09:57

Detection Summary

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

Job ID: 400-222676-1

Client Sample ID: TB-ROX-070822-8260-A — Lab Sample ID: 400-222676-1

No Detections.

Client Sample ID: TB-ROX-070822-8011-A — Lab Sample ID: 400-222676-2

No Detections.

Client Sample ID: MW11-ROX-070822-EB — Lab Sample ID: 400-222676-3

No Detections.

Client Sample ID: MW11-ROX-070822 — Lab Sample ID: 400-222676-4

No Detections.

Client Sample ID: MW10-ROX-070822 — Lab Sample ID: 400-222676-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.044	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW12-ROX-070822 — Lab Sample ID: 400-222676-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	11		9.5	4.7	ug/L	1		8270D	Total/NA
Dibenz[a,h]acridine	4.6	J	9.5	0.95	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.27	J B U	9.5	0.23	ug/L	1		8270D	Total/NA
Nitrobenzene	0.48	J	9.5	0.12	ug/L	1		8270D	Total/NA

Client Sample ID: MW1-ROX-070822 — Lab Sample ID: 400-222676-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	3.8	J	9.4	2.5	ug/L	1		8270D	Total/NA

Client Sample ID: TB-ROX-070822-8260-B — Lab Sample ID: 400-222676-8

No Detections.

Client Sample ID: TB-ROX-070822-8011-B — Lab Sample ID: 400-222676-9

No Detections.

Client Sample ID: MW6D-ROX-070822-EB — Lab Sample ID: 400-222676-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	0.34	J B	9.2	0.22	ug/L	1		8270D	Total/NA

Client Sample ID: MW6D-ROX-070822 — Lab Sample ID: 400-222676-11

No Detections.

Client Sample ID: MW6C-ROX-070822 — Lab Sample ID: 400-222676-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.31	J	1.0	0.22	ug/L	1		8260B	Total/NA
Bis(2-ethylhexyl) phthalate	6.1	J	9.9	4.9	ug/L	1		8270D	Total/NA

Client Sample ID: MW6B-ROX-070822 — Lab Sample ID: 400-222676-13

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		8260B	Total/NA
Diethyl phthalate	0.28	J B U	9.6	0.23	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Pensacola

Detection Summary

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

Job ID: 400-222676-1

Client Sample ID: MW6A-ROX-070822

Lab Sample ID: 400-222676-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.38	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.060	J B U	0.20	0.045	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	16		9.9	4.9	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-222676-1

Client Sample ID: TB-ROX-070822-8260-A
Date Collected: 07/08/22 12:00
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/18/22 08:43	1
Acrolein	ND		20	3.3	ug/L			07/18/22 08:43	1
Acrylonitrile	ND		10	2.8	ug/L			07/18/22 08:43	1
Benzene	ND		1.0	0.13	ug/L			07/18/22 08:43	1
Bromobenzene	ND		1.0	0.54	ug/L			07/18/22 08:43	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/18/22 08:43	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/18/22 08:43	1
Bromoform	ND		5.0	0.25	ug/L			07/18/22 08:43	1
Bromomethane	ND		1.0	0.98	ug/L			07/18/22 08:43	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/18/22 08:43	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/18/22 08:43	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/18/22 08:43	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/18/22 08:43	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/18/22 08:43	1
Chloroethane	ND		1.0	0.76	ug/L			07/18/22 08:43	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 08:43	1
Chloroform	ND		1.0	1.0	ug/L			07/18/22 08:43	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/18/22 08:43	1
Chloromethane	ND		1.0	0.32	ug/L			07/18/22 08:43	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/18/22 08:43	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/18/22 08:43	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/18/22 08:43	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/18/22 08:43	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/18/22 08:43	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/18/22 08:43	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/18/22 08:43	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/18/22 08:43	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 08:43	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:43	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:43	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:43	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/18/22 08:43	1
Ethy benzene	ND		1.0	0.50	ug/L			07/18/22 08:43	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/18/22 08:43	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/18/22 08:43	1
2-Hexanone	ND		25	1.4	ug/L			07/18/22 08:43	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/18/22 08:43	1
Methylene bromide	ND		5.0	0.22	ug/L			07/18/22 08:43	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/18/22 08:43	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/18/22 08:43	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/18/22 08:43	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/18/22 08:43	1
Naphthalene	ND		5.0	3.0	ug/L			07/18/22 08:43	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/18/22 08:43	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/18/22 08:43	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/18/22 08:43	1
o-Xylene	ND		5.0	0.60	ug/L			07/18/22 08:43	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/18/22 08:43	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/18/22 08:43	1

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

Job ID: 400-222676-1

Client Sample ID: TB-ROX-070822-8260-A
Date Collected: 07/08/22 12:00
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/18/22 08:43	1
Styrene	ND		1.0	1.0	ug/L			07/18/22 08:43	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/18/22 08:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/18/22 08:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/18/22 08:43	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/18/22 08:43	1
Toluene	ND		1.0	0.41	ug/L			07/18/22 08:43	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 08:43	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/18/22 08:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/18/22 08:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/18/22 08:43	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/18/22 08:43	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/18/22 08:43	1
Trichloroethene	ND		1.0	0.15	ug/L			07/18/22 08:43	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/18/22 08:43	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/18/22 08:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/18/22 08:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/18/22 08:43	1
Vinyl acetate	ND		25	0.93	ug/L			07/18/22 08:43	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/18/22 08:43	1
Xylenes, Total	ND		10	1.6	ug/L			07/18/22 08:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/18/22 08:43*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/18/22 08:43*	*1*
Toluene-d8 (Surr)	*92*		*64 - 132*		*07/18/22 08:43*	*1*

Client Sample Results

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

Job ID: 400-222676-1

Client Sample ID: TB-ROX-070822-8011-A

Date Collected: 07/08/22 12:00
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-2

Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.017	ug/L		07/14/22 11:58	07/14/22 18:48	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/14/22 11:58	07/14/22 18:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*78*		*51 - 149*	*07/14/22 11:58*	*07/14/22 18:48*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW11-ROX-070822-EB
Date Collected: 07/08/22 08:35
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 16:14	1
Acrolein	ND		20	3.3	ug/L			07/15/22 16:14	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 16:14	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 16:14	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 16:14	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 16:14	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 16:14	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 16:14	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 16:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 16:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 16:14	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 16:14	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 16:14	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 16:14	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 16:14	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 16:14	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 16:14	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 16:14	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 16:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 16:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 16:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 16:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 16:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 16:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 16:14	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 16:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 16:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 16:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 16:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 16:14	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 16:14	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 16:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 16:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 16:14	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 16:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 16:14	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 16:14	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 16:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 16:14	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/15/22 16:14	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 16:14	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 16:14	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 16:14	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 16:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 16:14	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 16:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 16:14	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 16:14	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 16:14	1

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

Job ID: 400-222676-1

Client Sample ID: MW11-ROX-070822-EB
Date Collected: 07/08/22 08:35
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 16:14	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 16:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 16:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 16:14	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 16:14	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 16:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 16:14	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 16:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 16:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 16:14	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 16:14	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 16:14	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 16:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 16:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 16:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 16:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 16:14	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 16:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 16:14	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/15/22 16:14*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*07/15/22 16:14*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/15/22 16:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 09:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*07/18/22 09:35*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/18/22 09:35*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*07/18/22 09:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.033	ug/L		07/15/22 08:55	07/18/22 16:37	1
Acenaphthylene	ND		0.20	0.046	ug/L		07/15/22 08:55	07/18/22 16:37	1
Anthracene	ND		0.20	0.033	ug/L		07/15/22 08:55	07/18/22 16:37	1
Benzo[a]anthracene	ND		0.20	0.047	ug/L		07/15/22 08:55	07/18/22 16:37	1
Benzo[a]pyrene	ND		0.20	0.043	ug/L		07/15/22 08:55	07/18/22 16:37	1
Benzo[b]fluoranthene	ND		0.20	0.035	ug/L		07/15/22 08:55	07/18/22 16:37	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/15/22 08:55	07/18/22 16:37	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/15/22 08:55	07/18/22 16:37	1
Chrysene	ND		0.20	0.076	ug/L		07/15/22 08:55	07/18/22 16:37	1
D benz(a,h)anthracene	ND		0.20	0.051	ug/L		07/15/22 08:55	07/18/22 16:37	1
Fluoranthene	ND		0.20	0.070	ug/L		07/15/22 08:55	07/18/22 16:37	1
Fluorene	ND		0.20	0.11	ug/L		07/15/22 08:55	07/18/22 16:37	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.044	ug/L		07/15/22 08:55	07/18/22 16:37	1

Client Sample ID: MW11-ROX-070822-EB
Date Collected: 07/08/22 08:35
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.076	ug/L		07/15/22 08:55	07/18/22 16:37	1
2-Methylnaphthalene	ND		0.20	0.061	ug/L		07/15/22 08:55	07/18/22 16:37	1
Phenanthrene	ND		0.20	0.037	ug/L		07/15/22 08:55	07/18/22 16:37	1
Pyrene	ND		0.20	0.041	ug/L		07/15/22 08:55	07/18/22 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*106*		*15 - 122*	*07/15/22 08:55*	*07/18/22 16:37*	*1*
Nitrobenzene-d5	*101*		*19 - 130*	*07/15/22 08:55*	*07/18/22 16:37*	*1*
Terphenyl-d14	*147*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 16:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		07/15/22 08:55	07/18/22 18:22	1
Benzenethiol	ND	*- *1	10	1.7	ug/L		07/15/22 08:55	07/18/22 18:22	1
Benzoic acid	ND		31	7.5	ug/L		07/15/22 08:55	07/18/22 18:22	1
Benzyl alcohol	ND		10	2.0	ug/L		07/15/22 08:55	07/18/22 18:22	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/15/22 08:55	07/18/22 18:22	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		07/15/22 08:55	07/18/22 18:22	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/15/22 08:55	07/18/22 18:22	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		07/15/22 08:55	07/18/22 18:22	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/15/22 08:55	07/18/22 18:22	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/15/22 08:55	07/18/22 18:22	1
4-Chloroaniline	ND		10	3.5	ug/L		07/15/22 08:55	07/18/22 18:22	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		07/15/22 08:55	07/18/22 18:22	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/15/22 08:55	07/18/22 18:22	1
2-Chlorophenol	ND		10	2.3	ug/L		07/15/22 08:55	07/18/22 18:22	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/15/22 08:55	07/18/22 18:22	1
D benz[a,h]acridine	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 18:22	1
D benzofuran	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 18:22	1
3,3'-Dichlorobenzidine	ND	*+	10	2.7	ug/L		07/15/22 08:55	07/18/22 18:22	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		07/15/22 08:55	07/18/22 18:22	1
Diethyl phthalate	ND		10	0.25	ug/L		07/15/22 08:55	07/18/22 18:22	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		07/15/22 08:55	07/18/22 18:22	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 18:22	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		07/15/22 08:55	07/18/22 18:22	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/15/22 08:55	07/18/22 18:22	1
2,4-Dinitrophenol	ND		31	3.5	ug/L		07/15/22 08:55	07/18/22 18:22	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/15/22 08:55	07/18/22 18:22	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/15/22 08:55	07/18/22 18:22	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 18:22	1
1,4-Dioxane	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 18:22	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 18:22	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 18:22	1
Hexachlorocyclopentadiene	ND		20	2.7	ug/L		07/15/22 08:55	07/18/22 18:22	1
Hexachloroethane	ND		10	4.3	ug/L		07/15/22 08:55	07/18/22 18:22	1
Indene	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 18:22	1
Isophorone	ND		10	0.14	ug/L		07/15/22 08:55	07/18/22 18:22	1
2-Methylphenol	ND		10	1.8	ug/L		07/15/22 08:55	07/18/22 18:22	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		07/15/22 08:55	07/18/22 18:22	1

Client Sample ID: MW11-ROX-070822-EB
Date Collected: 07/08/22 08:35
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		10	2.3	ug/L		07/15/22 08:55	07/18/22 18:22	1
3-Nitroaniline	ND		10	1.8	ug/L		07/15/22 08:55	07/18/22 18:22	1
4-Nitroaniline	ND		10	1.5	ug/L		07/15/22 08:55	07/18/22 18:22	1
Nitrobenzene	ND		10	0.13	ug/L		07/15/22 08:55	07/18/22 18:22	1
2-Nitrophenol	ND		10	5.3	ug/L		07/15/22 08:55	07/18/22 18:22	1
4-Nitrophenol	ND		10	2.1	ug/L		07/15/22 08:55	07/18/22 18:22	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		07/15/22 08:55	07/18/22 18:22	1
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		07/15/22 08:55	07/18/22 18:22	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/15/22 08:55	07/18/22 18:22	1
Pentachlorophenol	ND		20	1.4	ug/L		07/15/22 08:55	07/18/22 18:22	1
Phenol	ND		10	2.7	ug/L		07/15/22 08:55	07/18/22 18:22	1
Pyridine	ND		10	3.3	ug/L		07/15/22 08:55	07/18/22 18:22	1
Quinoline	ND		10	4.6	ug/L		07/15/22 08:55	07/18/22 18:22	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		07/15/22 08:55	07/18/22 18:22	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		07/15/22 08:55	07/18/22 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*07/15/22 08:55*	*07/18/22 18:22*	*1*
2-Fluorophenol	*14*		*13 - 113*	*07/15/22 08:55*	*07/18/22 18:22*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*07/15/22 08:55*	*07/18/22 18:22*	*1*
Phenol-d5	*50*		*17 - 127*	*07/15/22 08:55*	*07/18/22 18:22*	*1*
Terphenyl-d14	*97*		*44 - 149*	*07/15/22 08:55*	*07/18/22 18:22*	*1*
2,4,6-Tribromophenol	*82*		*26 - 150*	*07/15/22 08:55*	*07/18/22 18:22*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/14/22 11:58	07/14/22 19:09	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/14/22 11:58	07/14/22 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*07/14/22 11:58*	*07/14/22 19:09*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW11-ROX-070822
Date Collected: 07/08/22 10:25
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 16:40	1
Acrolein	ND		20	3.3	ug/L			07/15/22 16:40	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 16:40	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 16:40	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 16:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 16:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 16:40	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 16:40	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 16:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 16:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 16:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 16:40	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 16:40	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 16:40	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 16:40	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 16:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 16:40	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 16:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 16:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 16:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 16:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 16:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 16:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 16:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 16:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 16:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 16:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 16:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 16:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 16:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 16:40	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 16:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 16:40	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 16:40	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 16:40	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 16:40	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 16:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 16:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 16:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/15/22 16:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 16:40	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 16:40	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 16:40	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 16:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 16:40	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 16:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 16:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 16:40	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 16:40	1

Client Sample ID: MW11-ROX-070822
Date Collected: 07/08/22 10:25
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 16:40	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 16:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 16:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 16:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 16:40	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 16:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 16:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 16:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 16:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 16:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 16:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 16:40	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 16:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 16:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 16:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 16:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 16:40	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 16:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 16:40	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 16:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*07/15/22 16:40*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*07/15/22 16:40*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/15/22 16:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 10:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*07/18/22 10:00*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*07/18/22 10:00*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*07/18/22 10:00*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		07/15/22 08:55	07/18/22 16:53	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/15/22 08:55	07/18/22 16:53	1
Anthracene	ND		0.19	0.031	ug/L		07/15/22 08:55	07/18/22 16:53	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		07/15/22 08:55	07/18/22 16:53	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 16:53	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/15/22 08:55	07/18/22 16:53	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 16:53	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/15/22 08:55	07/18/22 16:53	1
Chrysene	ND		0.19	0.071	ug/L		07/15/22 08:55	07/18/22 16:53	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/15/22 08:55	07/18/22 16:53	1
Fluoranthene	ND		0.19	0.065	ug/L		07/15/22 08:55	07/18/22 16:53	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 16:53	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/15/22 08:55	07/18/22 16:53	1

Client Sample ID: MW11-ROX-070822
Date Collected: 07/08/22 10:25
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.071	ug/L		07/15/22 08:55	07/18/22 16:53	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/15/22 08:55	07/18/22 16:53	1
Phenanthrene	ND		0.19	0.034	ug/L		07/15/22 08:55	07/18/22 16:53	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*111*		*15 - 122*	*07/15/22 08:55*	*07/18/22 16:53*	*1*
Nitrobenzene-d5	*106*		*19 - 130*	*07/15/22 08:55*	*07/18/22 16:53*	*1*
Terphenyl-d14	*151*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 16:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/15/22 08:55	07/18/22 18:45	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/15/22 08:55	07/18/22 18:45	1
Benzoic acid	ND		29	7.0	ug/L		07/15/22 08:55	07/18/22 18:45	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/15/22 08:55	07/18/22 18:45	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/15/22 08:55	07/18/22 18:45	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/15/22 08:55	07/18/22 18:45	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/15/22 08:55	07/18/22 18:45	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		07/15/22 08:55	07/18/22 18:45	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/15/22 08:55	07/18/22 18:45	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/15/22 08:55	07/18/22 18:45	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/15/22 08:55	07/18/22 18:45	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/15/22 08:55	07/18/22 18:45	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/15/22 08:55	07/18/22 18:45	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/15/22 08:55	07/18/22 18:45	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/15/22 08:55	07/18/22 18:45	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 18:45	1
D benzofuran	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 18:45	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/15/22 08:55	07/18/22 18:45	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		07/15/22 08:55	07/18/22 18:45	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/15/22 08:55	07/18/22 18:45	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 18:45	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 18:45	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/15/22 08:55	07/18/22 18:45	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/15/22 08:55	07/18/22 18:45	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		07/15/22 08:55	07/18/22 18:45	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/15/22 08:55	07/18/22 18:45	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/15/22 08:55	07/18/22 18:45	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 18:45	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 18:45	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 18:45	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 18:45	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/15/22 08:55	07/18/22 18:45	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/15/22 08:55	07/18/22 18:45	1
Indene	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 18:45	1
Isophorone	ND		9.5	0.13	ug/L		07/15/22 08:55	07/18/22 18:45	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/15/22 08:55	07/18/22 18:45	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 18:45	1

Client Sample ID: MW11-ROX-070822
Date Collected: 07/08/22 10:25
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-4
Matrix: Water

Method: 8270D - 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		07/15/22 08:55	07/18/22 18:45	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/15/22 08:55	07/18/22 18:45	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/15/22 08:55	07/18/22 18:45	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/15/22 08:55	07/18/22 18:45	1
2-Nitrophenol	ND		9.5	5.0	ug/L		07/15/22 08:55	07/18/22 18:45	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/15/22 08:55	07/18/22 18:45	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 18:45	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/15/22 08:55	07/18/22 18:45	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/15/22 08:55	07/18/22 18:45	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 18:45	1
Phenol	ND		9.5	2.5	ug/L		07/15/22 08:55	07/18/22 18:45	1
Pyridine	ND		9.5	3.1	ug/L		07/15/22 08:55	07/18/22 18:45	1
Quinoline	ND		9.5	4.3	ug/L		07/15/22 08:55	07/18/22 18:45	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/15/22 08:55	07/18/22 18:45	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*07/15/22 08:55*	*07/18/22 18:45*	*1*
2-Fluorophenol	*37*		*13 - 113*	*07/15/22 08:55*	*07/18/22 18:45*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*07/15/22 08:55*	*07/18/22 18:45*	*1*
Phenol-d5	*68*		*17 - 127*	*07/15/22 08:55*	*07/18/22 18:45*	*1*
Terphenyl-d14	*106*		*44 - 149*	*07/15/22 08:55*	*07/18/22 18:45*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*07/15/22 08:55*	*07/18/22 18:45*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.034	0.019	ug/L		07/14/22 11:58	07/14/22 19:30	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		07/14/22 11:58	07/14/22 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*69*		*51 - 149*	*07/14/22 11:58*	*07/14/22 19:30*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW10-ROX-070822
Date Collected: 07/08/22 11:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 17:06	1
Acrolein	ND		20	3.3	ug/L			07/15/22 17:06	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 17:06	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 17:06	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 17:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 17:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 17:06	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 17:06	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 17:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 17:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 17:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 17:06	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 17:06	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 17:06	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 17:06	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 17:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 17:06	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 17:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 17:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 17:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 17:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 17:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 17:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 17:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 17:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 17:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 17:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 17:06	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 17:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 17:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 17:06	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 17:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 17:06	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 17:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 17:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 17:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/15/22 17:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 17:06	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 17:06	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 17:06	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 17:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 17:06	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 17:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 17:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 17:06	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 17:06	1

Client Sample ID: MW10-ROX-070822
Date Collected: 07/08/22 11:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 17:06	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 17:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 17:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 17:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 17:06	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 17:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 17:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 17:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 17:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 17:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 17:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 17:06	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 17:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 17:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 17:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 17:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 17:06	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 17:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 17:06	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 17:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*72 - 119*		*07/15/22 17:06*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*07/15/22 17:06*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/15/22 17:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 10:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*07/18/22 10:26*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/18/22 10:26*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*07/18/22 10:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 17:08	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/15/22 08:55	07/18/22 17:08	1
Anthracene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 17:08	1
Benzo[a]anthracene	**0.044**	**J B** U	0.19	0.043	ug/L		07/15/22 08:55	07/18/22 17:08	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		07/15/22 08:55	07/18/22 17:08	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/15/22 08:55	07/18/22 17:08	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 17:08	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/15/22 08:55	07/18/22 17:08	1
Chrysene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 17:08	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/15/22 08:55	07/18/22 17:08	1
Fluoranthene	ND		0.19	0.064	ug/L		07/15/22 08:55	07/18/22 17:08	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 17:08	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 17:08	1

Client Sample ID: MW10-ROX-070822
Date Collected: 07/08/22 11:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 17:08	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		07/15/22 08:55	07/18/22 17:08	1
Phenanthrene	ND		0.19	0.034	ug/L		07/15/22 08:55	07/18/22 17:08	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*106*		*15 - 122*	*07/15/22 08:55*	*07/18/22 17:08*	*1*
Nitrobenzene-d5	*102*		*19 - 130*	*07/15/22 08:55*	*07/18/22 17:08*	*1*
Terphenyl-d14	*145*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 17:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 19:08	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/15/22 08:55	07/18/22 19:08	1
Benzoic acid	ND		28	6.9	ug/L		07/15/22 08:55	07/18/22 19:08	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 19:08	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 19:08	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/15/22 08:55	07/18/22 19:08	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 19:08	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/15/22 08:55	07/18/22 19:08	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/15/22 08:55	07/18/22 19:08	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/15/22 08:55	07/18/22 19:08	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/15/22 08:55	07/18/22 19:08	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 19:08	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 19:08	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 19:08	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 19:08	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 19:08	1
D benzofuran	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 19:08	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.4	ug/L		07/15/22 08:55	07/18/22 19:08	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/15/22 08:55	07/18/22 19:08	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/15/22 08:55	07/18/22 19:08	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 19:08	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 19:08	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/15/22 08:55	07/18/22 19:08	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/15/22 08:55	07/18/22 19:08	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/15/22 08:55	07/18/22 19:08	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 19:08	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 19:08	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 19:08	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 19:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 19:08	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 19:08	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/15/22 08:55	07/18/22 19:08	1
Hexachloroethane	ND		9.4	3.9	ug/L		07/15/22 08:55	07/18/22 19:08	1
Indene	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 19:08	1
Isophorone	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 19:08	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 19:08	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 19:08	1

Client Sample ID: MW10-ROX-070822
Date Collected: 07/08/22 11:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 19:08	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 19:08	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/15/22 08:55	07/18/22 19:08	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/15/22 08:55	07/18/22 19:08	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/15/22 08:55	07/18/22 19:08	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/15/22 08:55	07/18/22 19:08	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 19:08	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		07/15/22 08:55	07/18/22 19:08	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/15/22 08:55	07/18/22 19:08	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 19:08	1
Phenol	ND		9.4	2.4	ug/L		07/15/22 08:55	07/18/22 19:08	1
Pyridine	ND		9.4	3.0	ug/L		07/15/22 08:55	07/18/22 19:08	1
Quinoline	ND		9.4	4.2	ug/L		07/15/22 08:55	07/18/22 19:08	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/15/22 08:55	07/18/22 19:08	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*07/15/22 08:55*	*07/18/22 19:08*	*1*
2-Fluorophenol	*34*		*13 - 113*	*07/15/22 08:55*	*07/18/22 19:08*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*07/15/22 08:55*	*07/18/22 19:08*	*1*
Phenol-d5	*62*		*17 - 127*	*07/15/22 08:55*	*07/18/22 19:08*	*1*
Terphenyl-d14	*103*		*44 - 149*	*07/15/22 08:55*	*07/18/22 19:08*	*1*
2,4,6-Tribromophenol	*84*		*26 - 150*	*07/15/22 08:55*	*07/18/22 19:08*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		07/14/22 11:58	07/14/22 19:51	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/14/22 11:58	07/14/22 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*07/14/22 11:58*	*07/14/22 19:51*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW12-ROX-070822
Date Collected: 07/08/22 12:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 17:33	1
Acrolein	ND		20	3.3	ug/L			07/15/22 17:33	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 17:33	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 17:33	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 17:33	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 17:33	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 17:33	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 17:33	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 17:33	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 17:33	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 17:33	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 17:33	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 17:33	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 17:33	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 17:33	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 17:33	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 17:33	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 17:33	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 17:33	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 17:33	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 17:33	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 17:33	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 17:33	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 17:33	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 17:33	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 17:33	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 17:33	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:33	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:33	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:33	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 17:33	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 17:33	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 17:33	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 17:33	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 17:33	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 17:33	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 17:33	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 17:33	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 17:33	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/15/22 17:33	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 17:33	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 17:33	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 17:33	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 17:33	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 17:33	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 17:33	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 17:33	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 17:33	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 17:33	1

Client Sample ID: MW12-ROX-070822
Date Collected: 07/08/22 12:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 17:33	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 17:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 17:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 17:33	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 17:33	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 17:33	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 17:33	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 17:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 17:33	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 17:33	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 17:33	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 17:33	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 17:33	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 17:33	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 17:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 17:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 17:33	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 17:33	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 17:33	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 17:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*07/15/22 17:33*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*07/15/22 17:33*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/15/22 17:33*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 10:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*07/18/22 10:52*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*07/18/22 10:52*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*07/18/22 10:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 17:24	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/15/22 08:55	07/18/22 17:24	1
Anthracene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 17:24	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		07/15/22 08:55	07/18/22 17:24	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 17:24	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/15/22 08:55	07/18/22 17:24	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 17:24	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/15/22 08:55	07/18/22 17:24	1
Chrysene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 17:24	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/15/22 08:55	07/18/22 17:24	1
Fluoranthene	ND		0.19	0.065	ug/L		07/15/22 08:55	07/18/22 17:24	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 17:24	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/15/22 08:55	07/18/22 17:24	1

Client Sample ID: MW12-ROX-070822
Date Collected: 07/08/22 12:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 17:24	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/15/22 08:55	07/18/22 17:24	1
Phenanthrene	ND		0.19	0.034	ug/L		07/15/22 08:55	07/18/22 17:24	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 17:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*108*		*15 - 122*	*07/15/22 08:55*	*07/18/22 17:24*	*1*
Nitrobenzene-d5	*103*		*19 - 130*	*07/15/22 08:55*	*07/18/22 17:24*	*1*
Terphenyl-d14	*145*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 17:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/15/22 08:55	07/18/22 19:32	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/15/22 08:55	07/18/22 19:32	1
Benzoic acid	ND		28	6.9	ug/L		07/15/22 08:55	07/18/22 19:32	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/15/22 08:55	07/18/22 19:32	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/15/22 08:55	07/18/22 19:32	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/15/22 08:55	07/18/22 19:32	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/15/22 08:55	07/18/22 19:32	1
Bis(2-ethylhexyl) phthalate	**11**		9.5	4.7	ug/L		07/15/22 08:55	07/18/22 19:32	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/15/22 08:55	07/18/22 19:32	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/15/22 08:55	07/18/22 19:32	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/15/22 08:55	07/18/22 19:32	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/15/22 08:55	07/18/22 19:32	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/15/22 08:55	07/18/22 19:32	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/15/22 08:55	07/18/22 19:32	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/15/22 08:55	07/18/22 19:32	1
Dibenz[a,h]acridine	**4.6**	**J**	9.5	0.95	ug/L		07/15/22 08:55	07/18/22 19:32	1
D benzofuran	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 19:32	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/15/22 08:55	07/18/22 19:32	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/15/22 08:55	07/18/22 19:32	1
Diethyl phthalate	**0.27**	**J B** U	9.5	0.23	ug/L		07/15/22 08:55	07/18/22 19:32	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 19:32	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 19:32	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/15/22 08:55	07/18/22 19:32	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/15/22 08:55	07/18/22 19:32	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/15/22 08:55	07/18/22 19:32	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/15/22 08:55	07/18/22 19:32	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/15/22 08:55	07/18/22 19:32	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 19:32	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 19:32	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 19:32	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 19:32	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/15/22 08:55	07/18/22 19:32	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/15/22 08:55	07/18/22 19:32	1
Indene	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 19:32	1
Isophorone	ND		9.5	0.13	ug/L		07/15/22 08:55	07/18/22 19:32	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/15/22 08:55	07/18/22 19:32	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 19:32	1

Client Sample ID: MW12-ROX-070822

Date Collected: 07/08/22 12:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-6

Matrix: Water

Method: 8270D - 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		07/15/22 08:55	07/18/22 19:32	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/15/22 08:55	07/18/22 19:32	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/15/22 08:55	07/18/22 19:32	1
Nitrobenzene	**0.48**	**J**	9.5	0.12	ug/L		07/15/22 08:55	07/18/22 19:32	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/15/22 08:55	07/18/22 19:32	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/15/22 08:55	07/18/22 19:32	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 19:32	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/15/22 08:55	07/18/22 19:32	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/15/22 08:55	07/18/22 19:32	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 19:32	1
Phenol	ND		9.5	2.5	ug/L		07/15/22 08:55	07/18/22 19:32	1
Pyridine	ND		9.5	3.0	ug/L		07/15/22 08:55	07/18/22 19:32	1
Quinoline	ND		9.5	4.3	ug/L		07/15/22 08:55	07/18/22 19:32	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/15/22 08:55	07/18/22 19:32	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 19:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*07/15/22 08:55*	*07/18/22 19:32*	*1*
2-Fluorophenol	*21*		*13 - 113*	*07/15/22 08:55*	*07/18/22 19:32*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*07/15/22 08:55*	*07/18/22 19:32*	*1*
Phenol-d5	*58*		*17 - 127*	*07/15/22 08:55*	*07/18/22 19:32*	*1*
Terphenyl-d14	*103*		*44 - 149*	*07/15/22 08:55*	*07/18/22 19:32*	*1*
2,4,6-Tribromophenol	*73*		*26 - 150*	*07/15/22 08:55*	*07/18/22 19:32*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.5	4.7	ug/L		07/20/22 15:41	07/25/22 10:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*07/20/22 15:41*	*07/25/22 10:56*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*07/20/22 15:41*	*07/25/22 10:56*	*1*
Terphenyl-d14	*100*		*44 - 149*	*07/20/22 15:41*	*07/25/22 10:56*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		07/14/22 11:58	07/14/22 20:12	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/14/22 11:58	07/14/22 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*77*		*51 - 149*	*07/14/22 11:58*	*07/14/22 20:12*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW1-ROX-070822
Date Collected: 07/08/22 13:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 17:59	1
Acrolein	ND		20	3.3	ug/L			07/15/22 17:59	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 17:59	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 17:59	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 17:59	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 17:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 17:59	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 17:59	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 17:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 17:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 17:59	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 17:59	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 17:59	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 17:59	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 17:59	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 17:59	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 17:59	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 17:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 17:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 17:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 17:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 17:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 17:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 17:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 17:59	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 17:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 17:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:59	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 17:59	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 17:59	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 17:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 17:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 17:59	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 17:59	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 17:59	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 17:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 17:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 17:59	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/15/22 17:59	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 17:59	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 17:59	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 17:59	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 17:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 17:59	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 17:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 17:59	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 17:59	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 17:59	1

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

Job ID: 400-222676-1

Client Sample ID: MW1-ROX-070822
Date Collected: 07/08/22 13:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 17:59	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 17:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 17:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 17:59	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 17:59	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 17:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 17:59	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 17:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 17:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 17:59	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 17:59	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 17:59	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 17:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 17:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 17:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 17:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 17:59	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 17:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 17:59	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*07/15/22 17:59*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*07/15/22 17:59*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*07/15/22 17:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 11:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*07/18/22 11:18*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/18/22 11:18*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*07/18/22 11:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 17:40	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/15/22 08:55	07/18/22 17:40	1
Anthracene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 17:40	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		07/15/22 08:55	07/18/22 17:40	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		07/15/22 08:55	07/18/22 17:40	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/15/22 08:55	07/18/22 17:40	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 17:40	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/15/22 08:55	07/18/22 17:40	1
Chrysene	ND		0.19	0.069	ug/L		07/15/22 08:55	07/18/22 17:40	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/15/22 08:55	07/18/22 17:40	1
Fluoranthene	ND		0.19	0.064	ug/L		07/15/22 08:55	07/18/22 17:40	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 17:40	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 17:40	1

Client Sample ID: MW1-ROX-070822
Date Collected: 07/08/22 13:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.069	ug/L		07/15/22 08:55	07/18/22 17:40	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		07/15/22 08:55	07/18/22 17:40	1
Phenanthrene	ND		0.19	0.034	ug/L		07/15/22 08:55	07/18/22 17:40	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*07/15/22 08:55*	*07/18/22 17:40*	*1*
Nitrobenzene-d5	*103*		*19 - 130*	*07/15/22 08:55*	*07/18/22 17:40*	*1*
Terphenyl-d14	*146*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 17:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 19:55	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/15/22 08:55	07/18/22 19:55	1
Benzoic acid	ND		28	6.8	ug/L		07/15/22 08:55	07/18/22 19:55	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 19:55	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 19:55	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/15/22 08:55	07/18/22 19:55	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 19:55	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/15/22 08:55	07/18/22 19:55	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/15/22 08:55	07/18/22 19:55	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/15/22 08:55	07/18/22 19:55	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/15/22 08:55	07/18/22 19:55	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 19:55	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 19:55	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 19:55	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 19:55	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 19:55	1
D benzofuran	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 19:55	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.4	ug/L		07/15/22 08:55	07/18/22 19:55	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/15/22 08:55	07/18/22 19:55	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/15/22 08:55	07/18/22 19:55	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 19:55	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 19:55	1
Di-n-butyl phthalate	**3.8**	**J**	9.4	2.5	ug/L		07/15/22 08:55	07/18/22 19:55	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/15/22 08:55	07/18/22 19:55	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/15/22 08:55	07/18/22 19:55	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 19:55	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 19:55	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 19:55	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 19:55	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 19:55	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 19:55	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/15/22 08:55	07/18/22 19:55	1
Hexachloroethane	ND		9.4	3.9	ug/L		07/15/22 08:55	07/18/22 19:55	1
Indene	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 19:55	1
Isophorone	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 19:55	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 19:55	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 19:55	1

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

Job ID: 400-222676-1

Client Sample ID: MW1-ROX-070822
Date Collected: 07/08/22 13:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 19:55	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 19:55	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/15/22 08:55	07/18/22 19:55	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/15/22 08:55	07/18/22 19:55	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/15/22 08:55	07/18/22 19:55	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/15/22 08:55	07/18/22 19:55	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 19:55	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		07/15/22 08:55	07/18/22 19:55	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/15/22 08:55	07/18/22 19:55	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 19:55	1
Phenol	ND		9.4	2.4	ug/L		07/15/22 08:55	07/18/22 19:55	1
Pyridine	ND		9.4	3.0	ug/L		07/15/22 08:55	07/18/22 19:55	1
Quinoline	ND		9.4	4.2	ug/L		07/15/22 08:55	07/18/22 19:55	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/15/22 08:55	07/18/22 19:55	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*07/15/22 08:55*	*07/18/22 19:55*	*1*
2-Fluorophenol	*30*		*13 - 113*	*07/15/22 08:55*	*07/18/22 19:55*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/15/22 08:55*	*07/18/22 19:55*	*1*
Phenol-d5	*61*		*17 - 127*	*07/15/22 08:55*	*07/18/22 19:55*	*1*
Terphenyl-d14	*99*		*44 - 149*	*07/15/22 08:55*	*07/18/22 19:55*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*07/15/22 08:55*	*07/18/22 19:55*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		07/14/22 11:58	07/14/22 20:32	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/14/22 11:58	07/14/22 20:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*72*		*51 - 149*	*07/14/22 11:58*	*07/14/22 20:32*	*1*

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

Job ID: 400-222676-1

Client Sample ID: TB-ROX-070822-8260-B
Date Collected: 07/08/22 12:00
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/18/22 09:09	1
Acrolein	ND		20	3.3	ug/L			07/18/22 09:09	1
Acrylonitrile	ND		10	2.8	ug/L			07/18/22 09:09	1
Benzene	ND		1.0	0.13	ug/L			07/18/22 09:09	1
Bromobenzene	ND		1.0	0.54	ug/L			07/18/22 09:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/18/22 09:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/18/22 09:09	1
Bromoform	ND		5.0	0.25	ug/L			07/18/22 09:09	1
Bromomethane	ND		1.0	0.98	ug/L			07/18/22 09:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/18/22 09:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/18/22 09:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/18/22 09:09	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/18/22 09:09	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/18/22 09:09	1
Chloroethane	ND		1.0	0.76	ug/L			07/18/22 09:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 09:09	1
Chloroform	ND		1.0	1.0	ug/L			07/18/22 09:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/18/22 09:09	1
Chloromethane	ND		1.0	0.32	ug/L			07/18/22 09:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/18/22 09:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/18/22 09:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/18/22 09:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/18/22 09:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/18/22 09:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/18/22 09:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/18/22 09:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/18/22 09:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 09:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 09:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 09:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 09:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/18/22 09:09	1
Ethy benzene	ND		1.0	0.50	ug/L			07/18/22 09:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/18/22 09:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/18/22 09:09	1
2-Hexanone	ND		25	1.4	ug/L			07/18/22 09:09	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/18/22 09:09	1
Methylene bromide	ND		5.0	0.22	ug/L			07/18/22 09:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/18/22 09:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/18/22 09:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/18/22 09:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/18/22 09:09	1
Naphthalene	ND		5.0	3.0	ug/L			07/18/22 09:09	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/18/22 09:09	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/18/22 09:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/18/22 09:09	1
o-Xylene	ND		5.0	0.60	ug/L			07/18/22 09:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/18/22 09:09	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/18/22 09:09	1

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

Job ID: 400-222676-1

Client Sample ID: TB-ROX-070822-8260-B
Date Collected: 07/08/22 12:00
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/18/22 09:09	1
Styrene	ND		1.0	1.0	ug/L			07/18/22 09:09	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/18/22 09:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/18/22 09:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/18/22 09:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/18/22 09:09	1
Toluene	ND		1.0	0.41	ug/L			07/18/22 09:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 09:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/18/22 09:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/18/22 09:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/18/22 09:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/18/22 09:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/18/22 09:09	1
Trichloroethene	ND		1.0	0.15	ug/L			07/18/22 09:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/18/22 09:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/18/22 09:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/18/22 09:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/18/22 09:09	1
Vinyl acetate	ND		25	0.93	ug/L			07/18/22 09:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/18/22 09:09	1
Xylenes, Total	ND		10	1.6	ug/L			07/18/22 09:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*07/18/22 09:09*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/18/22 09:09*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*07/18/22 09:09*	*1*

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

Job ID: 400-222676-1

Client Sample ID: TB-ROX-070822-8011-B
Date Collected: 07/08/22 12:00
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-9
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		07/14/22 11:58	07/14/22 20:53	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/14/22 11:58	07/14/22 20:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*07/14/22 11:58*	*07/14/22 20:53*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW6D-ROX-070822-EB
Date Collected: 07/08/22 08:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 18:26	1
Acrolein	ND		20	3.3	ug/L			07/15/22 18:26	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 18:26	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 18:26	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 18:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 18:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 18:26	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 18:26	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 18:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 18:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 18:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 18:26	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 18:26	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 18:26	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 18:26	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 18:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 18:26	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 18:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 18:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 18:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 18:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 18:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 18:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 18:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 18:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 18:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 18:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 18:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 18:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 18:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 18:26	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 18:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 18:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 18:26	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 18:26	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 18:26	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 18:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 18:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 18:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/15/22 18:26	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 18:26	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 18:26	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 18:26	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 18:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 18:26	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 18:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 18:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 18:26	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 18:26	1

Client Sample ID: MW6D-ROX-070822-EB
Date Collected: 07/08/22 08:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 18:26	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 18:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 18:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 18:26	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 18:26	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 18:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 18:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 18:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 18:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 18:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 18:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 18:26	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 18:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 18:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 18:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 18:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 18:26	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 18:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 18:26	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*07/15/22 18:26*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*07/15/22 18:26*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/15/22 18:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 14:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*07/18/22 14:39*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/18/22 14:39*	*1*
Toluene-d8 (Surr)	*92*		*64 - 132*		*07/18/22 14:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.029	ug/L		07/15/22 08:55	07/18/22 17:55	1
Acenaphthylene	ND		0.18	0.041	ug/L		07/15/22 08:55	07/18/22 17:55	1
Anthracene	ND		0.18	0.029	ug/L		07/15/22 08:55	07/18/22 17:55	1
Benzo[a]anthracene	ND		0.18	0.042	ug/L		07/15/22 08:55	07/18/22 17:55	1
Benzo[a]pyrene	ND		0.18	0.038	ug/L		07/15/22 08:55	07/18/22 17:55	1
Benzo[b]fluoranthene	ND		0.18	0.031	ug/L		07/15/22 08:55	07/18/22 17:55	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		07/15/22 08:55	07/18/22 17:55	1
Benzo[k]fluoranthene	ND		0.18	0.092	ug/L		07/15/22 08:55	07/18/22 17:55	1
Chrysene	ND		0.18	0.068	ug/L		07/15/22 08:55	07/18/22 17:55	1
D benz(a,h)anthracene	ND		0.18	0.046	ug/L		07/15/22 08:55	07/18/22 17:55	1
Fluoranthene	ND		0.18	0.062	ug/L		07/15/22 08:55	07/18/22 17:55	1
Fluorene	ND		0.18	0.10	ug/L		07/15/22 08:55	07/18/22 17:55	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.039	ug/L		07/15/22 08:55	07/18/22 17:55	1

Client Sample ID: MW6D-ROX-070822-EB
Date Collected: 07/08/22 08:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.18	0.068	ug/L		07/15/22 08:55	07/18/22 17:55	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		07/15/22 08:55	07/18/22 17:55	1
Phenanthrene	ND		0.18	0.033	ug/L		07/15/22 08:55	07/18/22 17:55	1
Pyrene	ND		0.18	0.037	ug/L		07/15/22 08:55	07/18/22 17:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*07/15/22 08:55*	*07/18/22 17:55*	*1*
Nitrobenzene-d5	*106*		*19 - 130*	*07/15/22 08:55*	*07/18/22 17:55*	*1*
Terphenyl-d14	*152*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 17:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		07/15/22 08:55	07/18/22 20:19	1
Benzenethiol	ND	*- *1	9.2	1.6	ug/L		07/15/22 08:55	07/18/22 20:19	1
Benzoic acid	ND		27	6.7	ug/L		07/15/22 08:55	07/18/22 20:19	1
Benzyl alcohol	ND		9.2	1.8	ug/L		07/15/22 08:55	07/18/22 20:19	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		07/15/22 08:55	07/18/22 20:19	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		07/15/22 08:55	07/18/22 20:19	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		07/15/22 08:55	07/18/22 20:19	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		07/15/22 08:55	07/18/22 20:19	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		07/15/22 08:55	07/18/22 20:19	1
Butyl benzyl phthalate	ND		9.2	0.17	ug/L		07/15/22 08:55	07/18/22 20:19	1
4-Chloroaniline	ND		9.2	3.1	ug/L		07/15/22 08:55	07/18/22 20:19	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		07/15/22 08:55	07/18/22 20:19	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		07/15/22 08:55	07/18/22 20:19	1
2-Chlorophenol	ND		9.2	2.0	ug/L		07/15/22 08:55	07/18/22 20:19	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		07/15/22 08:55	07/18/22 20:19	1
D benz[a,h]acridine	ND		9.2	0.92	ug/L		07/15/22 08:55	07/18/22 20:19	1
D benzofuran	ND		9.2	0.16	ug/L		07/15/22 08:55	07/18/22 20:19	1
3,3'-Dichlorobenzidine	ND	*+	9.2	2.4	ug/L		07/15/22 08:55	07/18/22 20:19	1
2,4-Dichlorophenol	ND		9.2	2.7	ug/L		07/15/22 08:55	07/18/22 20:19	1
Diethyl phthalate	**0.34**	**J B**	9.2	0.22	ug/L		07/15/22 08:55	07/18/22 20:19	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		07/15/22 08:55	07/18/22 20:19	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		07/15/22 08:55	07/18/22 20:19	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		07/15/22 08:55	07/18/22 20:19	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		07/15/22 08:55	07/18/22 20:19	1
2,4-Dinitrophenol	ND		27	3.1	ug/L		07/15/22 08:55	07/18/22 20:19	1
2,4-Dinitrotoluene	ND		9.2	1.7	ug/L		07/15/22 08:55	07/18/22 20:19	1
2,6-Dinitrotoluene	ND		9.2	1.7	ug/L		07/15/22 08:55	07/18/22 20:19	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		07/15/22 08:55	07/18/22 20:19	1
1,4-Dioxane	ND		9.2	0.92	ug/L		07/15/22 08:55	07/18/22 20:19	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		07/15/22 08:55	07/18/22 20:19	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		07/15/22 08:55	07/18/22 20:19	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		07/15/22 08:55	07/18/22 20:19	1
Hexachloroethane	ND		9.2	3.8	ug/L		07/15/22 08:55	07/18/22 20:19	1
Indene	ND		9.2	0.92	ug/L		07/15/22 08:55	07/18/22 20:19	1
Isophorone	ND		9.2	0.13	ug/L		07/15/22 08:55	07/18/22 20:19	1
2-Methylphenol	ND		9.2	1.6	ug/L		07/15/22 08:55	07/18/22 20:19	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		07/15/22 08:55	07/18/22 20:19	1

Client Sample ID: MW6D-ROX-070822-EB
Date Collected: 07/08/22 08:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.2	2.0	ug/L		07/15/22 08:55	07/18/22 20:19	1
3-Nitroaniline	ND		9.2	1.6	ug/L		07/15/22 08:55	07/18/22 20:19	1
4-Nitroaniline	ND		9.2	1.4	ug/L		07/15/22 08:55	07/18/22 20:19	1
Nitrobenzene	ND		9.2	0.12	ug/L		07/15/22 08:55	07/18/22 20:19	1
2-Nitrophenol	ND		9.2	4.8	ug/L		07/15/22 08:55	07/18/22 20:19	1
4-Nitrophenol	ND		9.2	1.9	ug/L		07/15/22 08:55	07/18/22 20:19	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		07/15/22 08:55	07/18/22 20:19	1
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		07/15/22 08:55	07/18/22 20:19	1
N-Nitrosodiphenylamine	ND		9.2	0.16	ug/L		07/15/22 08:55	07/18/22 20:19	1
Pentachlorophenol	ND		18	1.3	ug/L		07/15/22 08:55	07/18/22 20:19	1
Phenol	ND		9.2	2.4	ug/L		07/15/22 08:55	07/18/22 20:19	1
Pyridine	ND		9.2	2.9	ug/L		07/15/22 08:55	07/18/22 20:19	1
Quinoline	ND		9.2	4.1	ug/L		07/15/22 08:55	07/18/22 20:19	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		07/15/22 08:55	07/18/22 20:19	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		07/15/22 08:55	07/18/22 20:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*07/15/22 08:55*	*07/18/22 20:19*	*1*
2-Fluorophenol	*46*		*13 - 113*	*07/15/22 08:55*	*07/18/22 20:19*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*07/15/22 08:55*	*07/18/22 20:19*	*1*
Phenol-d5	*70*		*17 - 127*	*07/15/22 08:55*	*07/18/22 20:19*	*1*
Terphenyl-d14	*102*		*44 - 149*	*07/15/22 08:55*	*07/18/22 20:19*	*1*
2,4,6-Tribromophenol	*85*		*26 - 150*	*07/15/22 08:55*	*07/18/22 20:19*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.032	0.018	ug/L		07/14/22 11:58	07/14/22 21:35	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/14/22 11:58	07/14/22 21:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*69*		*51 - 149*	*07/14/22 11:58*	*07/14/22 21:35*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW6D-ROX-070822
Date Collected: 07/08/22 10:45
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 18:52	1
Acrolein	ND		20	3.3	ug/L			07/15/22 18:52	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 18:52	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 18:52	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 18:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 18:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 18:52	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 18:52	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 18:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 18:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 18:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 18:52	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 18:52	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 18:52	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 18:52	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 18:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 18:52	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 18:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 18:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 18:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 18:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 18:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 18:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 18:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 18:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 18:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 18:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 18:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 18:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 18:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 18:52	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 18:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 18:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 18:52	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 18:52	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 18:52	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 18:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 18:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 18:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/15/22 18:52	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 18:52	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 18:52	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 18:52	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 18:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 18:52	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 18:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 18:52	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 18:52	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 18:52	1

Client Sample ID: MW6D-ROX-070822
Date Collected: 07/08/22 10:45
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 18:52	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 18:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 18:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 18:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 18:52	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 18:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 18:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 18:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 18:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 18:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 18:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 18:52	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 18:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 18:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 18:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 18:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 18:52	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 18:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 18:52	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/15/22 18:52*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*07/15/22 18:52*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/15/22 18:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 15:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*07/18/22 15:04*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/18/22 15:04*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*07/18/22 15:04*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 18:11	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/15/22 08:55	07/18/22 18:11	1
Anthracene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 18:11	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		07/15/22 08:55	07/18/22 18:11	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		07/15/22 08:55	07/18/22 18:11	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/15/22 08:55	07/18/22 18:11	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 18:11	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/15/22 08:55	07/18/22 18:11	1
Chrysene	ND		0.19	0.069	ug/L		07/15/22 08:55	07/18/22 18:11	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/15/22 08:55	07/18/22 18:11	1
Fluoranthene	ND		0.19	0.064	ug/L		07/15/22 08:55	07/18/22 18:11	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 18:11	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 18:11	1

Client Sample ID: MW6D-ROX-070822
Date Collected: 07/08/22 10:45
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.069	ug/L		07/15/22 08:55	07/18/22 18:11	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		07/15/22 08:55	07/18/22 18:11	1
Phenanthrene	ND		0.19	0.034	ug/L		07/15/22 08:55	07/18/22 18:11	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*07/15/22 08:55*	*07/18/22 18:11*	*1*
Nitrobenzene-d5	*101*		*19 - 130*	*07/15/22 08:55*	*07/18/22 18:11*	*1*
Terphenyl-d14	*151*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 18:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 20:43	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/15/22 08:55	07/18/22 20:43	1
Benzoic acid	ND		28	6.8	ug/L		07/15/22 08:55	07/18/22 20:43	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 20:43	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 20:43	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/15/22 08:55	07/18/22 20:43	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 20:43	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/15/22 08:55	07/18/22 20:43	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/15/22 08:55	07/18/22 20:43	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/15/22 08:55	07/18/22 20:43	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/15/22 08:55	07/18/22 20:43	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 20:43	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 20:43	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 20:43	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 20:43	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 20:43	1
D benzofuran	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 20:43	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.4	ug/L		07/15/22 08:55	07/18/22 20:43	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/15/22 08:55	07/18/22 20:43	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/15/22 08:55	07/18/22 20:43	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 20:43	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 20:43	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/15/22 08:55	07/18/22 20:43	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/15/22 08:55	07/18/22 20:43	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/15/22 08:55	07/18/22 20:43	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 20:43	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 20:43	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 20:43	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 20:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 20:43	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 20:43	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/15/22 08:55	07/18/22 20:43	1
Hexachloroethane	ND		9.4	3.9	ug/L		07/15/22 08:55	07/18/22 20:43	1
Indene	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 20:43	1
Isophorone	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 20:43	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 20:43	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 20:43	1

Client Sample ID: MW6D-ROX-070822
Date Collected: 07/08/22 10:45
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 20:43	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 20:43	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/15/22 08:55	07/18/22 20:43	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/15/22 08:55	07/18/22 20:43	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/15/22 08:55	07/18/22 20:43	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/15/22 08:55	07/18/22 20:43	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 20:43	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		07/15/22 08:55	07/18/22 20:43	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/15/22 08:55	07/18/22 20:43	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 20:43	1
Phenol	ND		9.4	2.4	ug/L		07/15/22 08:55	07/18/22 20:43	1
Pyridine	ND		9.4	3.0	ug/L		07/15/22 08:55	07/18/22 20:43	1
Quinoline	ND		9.4	4.2	ug/L		07/15/22 08:55	07/18/22 20:43	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/15/22 08:55	07/18/22 20:43	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*07/15/22 08:55*	*07/18/22 20:43*	*1*
2-Fluorophenol	*34*		*13 - 113*	*07/15/22 08:55*	*07/18/22 20:43*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*07/15/22 08:55*	*07/18/22 20:43*	*1*
Phenol-d5	*61*		*17 - 127*	*07/15/22 08:55*	*07/18/22 20:43*	*1*
Terphenyl-d14	*92*		*44 - 149*	*07/15/22 08:55*	*07/18/22 20:43*	*1*
2,4,6-Tribromophenol	*86*		*26 - 150*	*07/15/22 08:55*	*07/18/22 20:43*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.032	0.018	ug/L		07/14/22 11:58	07/14/22 21:56	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/14/22 11:58	07/14/22 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*72*		*51 - 149*	*07/14/22 11:58*	*07/14/22 21:56*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW6C-ROX-070822
Date Collected: 07/08/22 11:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 19:18	1
Acrolein	ND		20	3.3	ug/L			07/15/22 19:18	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 19:18	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 19:18	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 19:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 19:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 19:18	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 19:18	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 19:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 19:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 19:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 19:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 19:18	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 19:18	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 19:18	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 19:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 19:18	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 19:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 19:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 19:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 19:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 19:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 19:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 19:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 19:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 19:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 19:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 19:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 19:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 19:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 19:18	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 19:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 19:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 19:18	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 19:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 19:18	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 19:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 19:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 19:18	1
Methyl tert-butyl ether	**0.31**	**J**	1.0	0.22	ug/L			07/15/22 19:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 19:18	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 19:18	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 19:18	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 19:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 19:18	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 19:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 19:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 19:18	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 19:18	1

Client Sample ID: MW6C-ROX-070822
Date Collected: 07/08/22 11:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 19:18	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 19:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 19:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 19:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 19:18	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 19:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 19:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 19:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 19:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 19:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 19:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 19:18	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 19:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 19:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 19:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 19:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 19:18	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 19:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 19:18	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/15/22 19:18*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*07/15/22 19:18*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/15/22 19:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*07/18/22 15:28*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/18/22 15:28*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/18/22 15:28*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/15/22 08:55	07/18/22 18:27	1
Acenaphthylene	ND		0.20	0.044	ug/L		07/15/22 08:55	07/18/22 18:27	1
Anthracene	ND		0.20	0.032	ug/L		07/15/22 08:55	07/18/22 18:27	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		07/15/22 08:55	07/18/22 18:27	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		07/15/22 08:55	07/18/22 18:27	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/15/22 08:55	07/18/22 18:27	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/15/22 08:55	07/18/22 18:27	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		07/15/22 08:55	07/18/22 18:27	1
Chrysene	ND		0.20	0.073	ug/L		07/15/22 08:55	07/18/22 18:27	1
D benz(a,h)anthracene	ND		0.20	0.049	ug/L		07/15/22 08:55	07/18/22 18:27	1
Fluoranthene	ND		0.20	0.067	ug/L		07/15/22 08:55	07/18/22 18:27	1
Fluorene	ND		0.20	0.11	ug/L		07/15/22 08:55	07/18/22 18:27	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		07/15/22 08:55	07/18/22 18:27	1

Client Sample ID: MW6C-ROX-070822
Date Collected: 07/08/22 11:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.073	ug/L		07/15/22 08:55	07/18/22 18:27	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		07/15/22 08:55	07/18/22 18:27	1
Phenanthrene	ND		0.20	0.036	ug/L		07/15/22 08:55	07/18/22 18:27	1
Pyrene	ND		0.20	0.039	ug/L		07/15/22 08:55	07/18/22 18:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*111*		*15 - 122*	*07/15/22 08:55*	*07/18/22 18:27*	*1*
Nitrobenzene-d5	*104*		*19 - 130*	*07/15/22 08:55*	*07/18/22 18:27*	*1*
Terphenyl-d14	*150*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 18:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		07/15/22 08:55	07/18/22 21:06	1
Benzenethiol	ND	*- *1 UJ	9.9	1.7	ug/L		07/15/22 08:55	07/18/22 21:06	1
Benzoic acid	ND		30	7.2	ug/L		07/15/22 08:55	07/18/22 21:06	1
Benzyl alcohol	ND		9.9	2.0	ug/L		07/15/22 08:55	07/18/22 21:06	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		07/15/22 08:55	07/18/22 21:06	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		07/15/22 08:55	07/18/22 21:06	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		07/15/22 08:55	07/18/22 21:06	1
Bis(2-ethylhexyl) phthalate	**6.1**	**J**	9.9	4.9	ug/L		07/15/22 08:55	07/18/22 21:06	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		07/15/22 08:55	07/18/22 21:06	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		07/15/22 08:55	07/18/22 21:06	1
4-Chloroaniline	ND		9.9	3.4	ug/L		07/15/22 08:55	07/18/22 21:06	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		07/15/22 08:55	07/18/22 21:06	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		07/15/22 08:55	07/18/22 21:06	1
2-Chlorophenol	ND		9.9	2.2	ug/L		07/15/22 08:55	07/18/22 21:06	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		07/15/22 08:55	07/18/22 21:06	1
D benz[a,h]acridine	ND		9.9	0.99	ug/L		07/15/22 08:55	07/18/22 21:06	1
D benzofuran	ND		9.9	0.17	ug/L		07/15/22 08:55	07/18/22 21:06	1
3,3'-Dichlorobenzidine	ND	*+	9.9	2.6	ug/L		07/15/22 08:55	07/18/22 21:06	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		07/15/22 08:55	07/18/22 21:06	1
Diethyl phthalate	ND		9.9	0.24	ug/L		07/15/22 08:55	07/18/22 21:06	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		07/15/22 08:55	07/18/22 21:06	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		07/15/22 08:55	07/18/22 21:06	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		07/15/22 08:55	07/18/22 21:06	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		07/15/22 08:55	07/18/22 21:06	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/15/22 08:55	07/18/22 21:06	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		07/15/22 08:55	07/18/22 21:06	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		07/15/22 08:55	07/18/22 21:06	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		07/15/22 08:55	07/18/22 21:06	1
1,4-Dioxane	ND		9.9	0.99	ug/L		07/15/22 08:55	07/18/22 21:06	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		07/15/22 08:55	07/18/22 21:06	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		07/15/22 08:55	07/18/22 21:06	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/15/22 08:55	07/18/22 21:06	1
Hexachloroethane	ND		9.9	4.1	ug/L		07/15/22 08:55	07/18/22 21:06	1
Indene	ND		9.9	0.99	ug/L		07/15/22 08:55	07/18/22 21:06	1
Isophorone	ND		9.9	0.14	ug/L		07/15/22 08:55	07/18/22 21:06	1
2-Methylphenol	ND		9.9	1.8	ug/L		07/15/22 08:55	07/18/22 21:06	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		07/15/22 08:55	07/18/22 21:06	1

Client Sample ID: MW6C-ROX-070822
Date Collected: 07/08/22 11:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.9	2.2	ug/L		07/15/22 08:55	07/18/22 21:06	1
3-Nitroaniline	ND		9.9	1.8	ug/L		07/15/22 08:55	07/18/22 21:06	1
4-Nitroaniline	ND		9.9	1.5	ug/L		07/15/22 08:55	07/18/22 21:06	1
Nitrobenzene	ND		9.9	0.13	ug/L		07/15/22 08:55	07/18/22 21:06	1
2-Nitrophenol	ND		9.9	5.1	ug/L		07/15/22 08:55	07/18/22 21:06	1
4-Nitrophenol	ND		9.9	2.1	ug/L		07/15/22 08:55	07/18/22 21:06	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		07/15/22 08:55	07/18/22 21:06	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		07/15/22 08:55	07/18/22 21:06	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		07/15/22 08:55	07/18/22 21:06	1
Pentachlorophenol	ND		20	1.4	ug/L		07/15/22 08:55	07/18/22 21:06	1
Phenol	ND		9.9	2.6	ug/L		07/15/22 08:55	07/18/22 21:06	1
Pyridine	ND		9.9	3.2	ug/L		07/15/22 08:55	07/18/22 21:06	1
Quinoline	ND		9.9	4.4	ug/L		07/15/22 08:55	07/18/22 21:06	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		07/15/22 08:55	07/18/22 21:06	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		07/15/22 08:55	07/18/22 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*07/15/22 08:55*	*07/18/22 21:06*	*1*
2-Fluorophenol	*32*		*13 - 113*	*07/15/22 08:55*	*07/18/22 21:06*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/15/22 08:55*	*07/18/22 21:06*	*1*
Phenol-d5	*64*		*17 - 127*	*07/15/22 08:55*	*07/18/22 21:06*	*1*
Terphenyl-d14	*98*		*44 - 149*	*07/15/22 08:55*	*07/18/22 21:06*	*1*
2,4,6-Tribromophenol	*91*		*26 - 150*	*07/15/22 08:55*	*07/18/22 21:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.6	4.8	ug/L		07/20/22 15:41	07/25/22 11:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*07/20/22 15:41*	*07/25/22 11:17*	*1*
Nitrobenzene-d5	*85*		*36 - 126*	*07/20/22 15:41*	*07/25/22 11:17*	*1*
Terphenyl-d14	*105*		*44 - 149*	*07/20/22 15:41*	*07/25/22 11:17*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/14/22 11:58	07/14/22 22:16	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/14/22 11:58	07/14/22 22:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*60*	*p*	*51 - 149*	*07/14/22 11:58*	*07/14/22 22:16*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW6B-ROX-070822
Date Collected: 07/08/22 12:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 19:44	1
Acrolein	ND		20	3.3	ug/L			07/15/22 19:44	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 19:44	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 19:44	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 19:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 19:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 19:44	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 19:44	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 19:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 19:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 19:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 19:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 19:44	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 19:44	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 19:44	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 19:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 19:44	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 19:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 19:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 19:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 19:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 19:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 19:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 19:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 19:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 19:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 19:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 19:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 19:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 19:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 19:44	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 19:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 19:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 19:44	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 19:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 19:44	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 19:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 19:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 19:44	1
Methyl tert-butyl ether	**0.33**	**J**	1.0	0.22	ug/L			07/15/22 19:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 19:44	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 19:44	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 19:44	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 19:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 19:44	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 19:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 19:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 19:44	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 19:44	1

Client Sample ID: MW6B-ROX-070822
Date Collected: 07/08/22 12:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 19:44	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 19:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 19:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 19:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 19:44	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 19:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 19:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 19:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 19:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 19:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 19:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 19:44	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 19:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 19:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 19:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 19:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 19:44	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 19:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 19:44	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*07/15/22 19:44*	*1*
Dibromofluoromethane	*114*		*75 - 126*		*07/15/22 19:44*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/15/22 19:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 15:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*07/18/22 15:53*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/18/22 15:53*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/18/22 15:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		07/15/22 08:55	07/18/22 18:42	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/15/22 08:55	07/18/22 18:42	1
Anthracene	ND		0.19	0.031	ug/L		07/15/22 08:55	07/18/22 18:42	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		07/15/22 08:55	07/18/22 18:42	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 18:42	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		07/15/22 08:55	07/18/22 18:42	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 18:42	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		07/15/22 08:55	07/18/22 18:42	1
Chrysene	ND		0.19	0.071	ug/L		07/15/22 08:55	07/18/22 18:42	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/15/22 08:55	07/18/22 18:42	1
Fluoranthene	ND		0.19	0.065	ug/L		07/15/22 08:55	07/18/22 18:42	1
Fluorene	ND		0.19	0.11	ug/L		07/15/22 08:55	07/18/22 18:42	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/15/22 08:55	07/18/22 18:42	1

Client Sample ID: MW6B-ROX-070822
Date Collected: 07/08/22 12:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.071	ug/L		07/15/22 08:55	07/18/22 18:42	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/15/22 08:55	07/18/22 18:42	1
Phenanthrene	ND		0.19	0.034	ug/L		07/15/22 08:55	07/18/22 18:42	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 18:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*117*		*15 - 122*	*07/15/22 08:55*	*07/18/22 18:42*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*07/15/22 08:55*	*07/18/22 18:42*	*1*
Terphenyl-d14	*162*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 18:42*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		07/15/22 08:55	07/18/22 21:30	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		07/15/22 08:55	07/18/22 21:30	1
Benzoic acid	ND		29	7.0	ug/L		07/15/22 08:55	07/18/22 21:30	1
Benzyl alcohol	ND		9.6	1.9	ug/L		07/15/22 08:55	07/18/22 21:30	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		07/15/22 08:55	07/18/22 21:30	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		07/15/22 08:55	07/18/22 21:30	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		07/15/22 08:55	07/18/22 21:30	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		07/15/22 08:55	07/18/22 21:30	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		07/15/22 08:55	07/18/22 21:30	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		07/15/22 08:55	07/18/22 21:30	1
4-Chloroaniline	ND		9.6	3.3	ug/L		07/15/22 08:55	07/18/22 21:30	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		07/15/22 08:55	07/18/22 21:30	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		07/15/22 08:55	07/18/22 21:30	1
2-Chlorophenol	ND		9.6	2.1	ug/L		07/15/22 08:55	07/18/22 21:30	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		07/15/22 08:55	07/18/22 21:30	1
D benz[a,h]acridine	ND		9.6	0.96	ug/L		07/15/22 08:55	07/18/22 21:30	1
D benzofuran	ND		9.6	0.16	ug/L		07/15/22 08:55	07/18/22 21:30	1
3,3'-Dichlorobenzidine	ND	*+	9.6	2.5	ug/L		07/15/22 08:55	07/18/22 21:30	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		07/15/22 08:55	07/18/22 21:30	1
Diethyl phthalate	**0.28**	**J B** U	9.6	0.23	ug/L		07/15/22 08:55	07/18/22 21:30	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		07/15/22 08:55	07/18/22 21:30	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		07/15/22 08:55	07/18/22 21:30	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		07/15/22 08:55	07/18/22 21:30	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		07/15/22 08:55	07/18/22 21:30	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		07/15/22 08:55	07/18/22 21:30	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		07/15/22 08:55	07/18/22 21:30	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		07/15/22 08:55	07/18/22 21:30	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		07/15/22 08:55	07/18/22 21:30	1
1,4-Dioxane	ND		9.6	0.96	ug/L		07/15/22 08:55	07/18/22 21:30	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		07/15/22 08:55	07/18/22 21:30	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		07/15/22 08:55	07/18/22 21:30	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/15/22 08:55	07/18/22 21:30	1
Hexachloroethane	ND		9.6	4.0	ug/L		07/15/22 08:55	07/18/22 21:30	1
Indene	ND		9.6	0.96	ug/L		07/15/22 08:55	07/18/22 21:30	1
Isophorone	ND		9.6	0.13	ug/L		07/15/22 08:55	07/18/22 21:30	1
2-Methylphenol	ND		9.6	1.7	ug/L		07/15/22 08:55	07/18/22 21:30	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 21:30	1

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

Job ID: 400-222676-1

Client Sample ID: MW6B-ROX-070822
Date Collected: 07/08/22 12:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-13
Matrix: Water

Method: 8270D - 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		07/15/22 08:55	07/18/22 21:30	1
3-Nitroaniline	ND		9.6	1.7	ug/L		07/15/22 08:55	07/18/22 21:30	1
4-Nitroaniline	ND		9.6	1.4	ug/L		07/15/22 08:55	07/18/22 21:30	1
Nitrobenzene	ND		9.6	0.12	ug/L		07/15/22 08:55	07/18/22 21:30	1
2-Nitrophenol	ND		9.6	5.0	ug/L		07/15/22 08:55	07/18/22 21:30	1
4-Nitrophenol	ND		9.6	2.0	ug/L		07/15/22 08:55	07/18/22 21:30	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		07/15/22 08:55	07/18/22 21:30	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		07/15/22 08:55	07/18/22 21:30	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		07/15/22 08:55	07/18/22 21:30	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 21:30	1
Phenol	ND		9.6	2.5	ug/L		07/15/22 08:55	07/18/22 21:30	1
Pyridine	ND		9.6	3.1	ug/L		07/15/22 08:55	07/18/22 21:30	1
Quinoline	ND		9.6	4.3	ug/L		07/15/22 08:55	07/18/22 21:30	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		07/15/22 08:55	07/18/22 21:30	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		07/15/22 08:55	07/18/22 21:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*07/15/22 08:55*	*07/18/22 21:30*	*1*
2-Fluorophenol	*7*	*S1-*	*13 - 113*	*07/15/22 08:55*	*07/18/22 21:30*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*07/15/22 08:55*	*07/18/22 21:30*	*1*
Phenol-d5	*30*		*17 - 127*	*07/15/22 08:55*	*07/18/22 21:30*	*1*
Terphenyl-d14	*91*		*44 - 149*	*07/15/22 08:55*	*07/18/22 21:30*	*1*
2,4,6-Tribromophenol	*70*		*26 - 150*	*07/15/22 08:55*	*07/18/22 21:30*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/14/22 11:58	07/15/22 08:47	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/14/22 11:58	07/15/22 08:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*51 - 149*	*07/14/22 11:58*	*07/15/22 08:47*	*1*

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

Job ID: 400-222676-1

Client Sample ID: MW6A-ROX-070822
Date Collected: 07/08/22 13:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/15/22 20:11	1
Acrolein	ND		20	3.3	ug/L			07/15/22 20:11	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 20:11	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 20:11	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 20:11	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 20:11	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 20:11	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 20:11	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 20:11	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 20:11	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 20:11	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 20:11	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 20:11	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/15/22 20:11	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 20:11	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 20:11	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 20:11	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 20:11	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 20:11	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 20:11	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 20:11	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 20:11	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 20:11	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 20:11	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 20:11	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 20:11	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 20:11	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 20:11	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 20:11	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 20:11	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 20:11	1
Ethy benzene	ND		1.0	0.50	ug/L			07/15/22 20:11	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 20:11	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 20:11	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 20:11	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/15/22 20:11	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 20:11	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 20:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 20:11	1
Methyl tert-butyl ether	**0.38**	**J**	1.0	0.22	ug/L			07/15/22 20:11	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 20:11	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 20:11	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/15/22 20:11	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/15/22 20:11	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 20:11	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 20:11	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 20:11	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 20:11	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 20:11	1

Client Sample ID: MW6A-ROX-070822
Date Collected: 07/08/22 13:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/15/22 20:11	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/15/22 20:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 20:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 20:11	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 20:11	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 20:11	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 20:11	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 20:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 20:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 20:11	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 20:11	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 20:11	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 20:11	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 20:11	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 20:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/15/22 20:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/15/22 20:11	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 20:11	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 20:11	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 20:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*07/15/22 20:11*	*1*
Dibromofluoromethane	*113*		*75 - 126*		*07/15/22 20:11*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/15/22 20:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*07/18/22 16:18*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*07/18/22 16:18*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/18/22 16:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/15/22 08:55	07/18/22 18:58	1
Acenaphthylene	ND		0.20	0.044	ug/L		07/15/22 08:55	07/18/22 18:58	1
Anthracene	ND		0.20	0.032	ug/L		07/15/22 08:55	07/18/22 18:58	1
Benzo[a]anthracene	**0.060**	**J B** U	0.20	0.045	ug/L		07/15/22 08:55	07/18/22 18:58	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		07/15/22 08:55	07/18/22 18:58	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/15/22 08:55	07/18/22 18:58	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/15/22 08:55	07/18/22 18:58	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		07/15/22 08:55	07/18/22 18:58	1
Chrysene	ND		0.20	0.073	ug/L		07/15/22 08:55	07/18/22 18:58	1
D benz(a,h)anthracene	ND		0.20	0.049	ug/L		07/15/22 08:55	07/18/22 18:58	1
Fluoranthene	ND		0.20	0.067	ug/L		07/15/22 08:55	07/18/22 18:58	1
Fluorene	ND		0.20	0.11	ug/L		07/15/22 08:55	07/18/22 18:58	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		07/15/22 08:55	07/18/22 18:58	1

Client Sample ID: MW6A-ROX-070822
Date Collected: 07/08/22 13:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.20	0.073	ug/L		07/15/22 08:55	07/18/22 18:58	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		07/15/22 08:55	07/18/22 18:58	1
Phenanthrene	ND		0.20	0.036	ug/L		07/15/22 08:55	07/18/22 18:58	1
Pyrene	ND		0.20	0.039	ug/L		07/15/22 08:55	07/18/22 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*15 - 122*	*07/15/22 08:55*	*07/18/22 18:58*	*1*
Nitrobenzene-d5	*90*		*19 - 130*	*07/15/22 08:55*	*07/18/22 18:58*	*1*
Terphenyl-d14	*123*		*33 - 138*	*07/15/22 08:55*	*07/18/22 18:58*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		07/15/22 08:55	07/18/22 21:54	1
Benzenethiol	ND	*- *1 UJ	9.9	1.7	ug/L		07/15/22 08:55	07/18/22 21:54	1
Benzoic acid	ND		30	7.2	ug/L		07/15/22 08:55	07/18/22 21:54	1
Benzyl alcohol	ND		9.9	2.0	ug/L		07/15/22 08:55	07/18/22 21:54	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		07/15/22 08:55	07/18/22 21:54	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		07/15/22 08:55	07/18/22 21:54	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		07/15/22 08:55	07/18/22 21:54	1
Bis(2-ethylhexyl) phthalate	**16**		9.9	4.9	ug/L		07/15/22 08:55	07/18/22 21:54	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		07/15/22 08:55	07/18/22 21:54	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		07/15/22 08:55	07/18/22 21:54	1
4-Chloroaniline	ND		9.9	3.4	ug/L		07/15/22 08:55	07/18/22 21:54	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		07/15/22 08:55	07/18/22 21:54	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		07/15/22 08:55	07/18/22 21:54	1
2-Chlorophenol	ND		9.9	2.2	ug/L		07/15/22 08:55	07/18/22 21:54	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		07/15/22 08:55	07/18/22 21:54	1
D benz[a,h]acridine	ND		9.9	0.99	ug/L		07/15/22 08:55	07/18/22 21:54	1
D benzofuran	ND		9.9	0.17	ug/L		07/15/22 08:55	07/18/22 21:54	1
3,3'-Dichlorobenzidine	ND	*+	9.9	2.6	ug/L		07/15/22 08:55	07/18/22 21:54	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		07/15/22 08:55	07/18/22 21:54	1
Diethyl phthalate	ND		9.9	0.24	ug/L		07/15/22 08:55	07/18/22 21:54	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		07/15/22 08:55	07/18/22 21:54	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		07/15/22 08:55	07/18/22 21:54	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		07/15/22 08:55	07/18/22 21:54	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		07/15/22 08:55	07/18/22 21:54	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/15/22 08:55	07/18/22 21:54	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		07/15/22 08:55	07/18/22 21:54	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		07/15/22 08:55	07/18/22 21:54	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		07/15/22 08:55	07/18/22 21:54	1
1,4-Dioxane	ND		9.9	0.99	ug/L		07/15/22 08:55	07/18/22 21:54	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		07/15/22 08:55	07/18/22 21:54	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		07/15/22 08:55	07/18/22 21:54	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/15/22 08:55	07/18/22 21:54	1
Hexachloroethane	ND		9.9	4.1	ug/L		07/15/22 08:55	07/18/22 21:54	1
Indene	ND		9.9	0.99	ug/L		07/15/22 08:55	07/18/22 21:54	1
Isophorone	ND		9.9	0.14	ug/L		07/15/22 08:55	07/18/22 21:54	1
2-Methylphenol	ND		9.9	1.8	ug/L		07/15/22 08:55	07/18/22 21:54	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		07/15/22 08:55	07/18/22 21:54	1

Client Sample ID: MW6A-ROX-070822
Date Collected: 07/08/22 13:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-14
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.9	2.2	ug/L		07/15/22 08:55	07/18/22 21:54	1
3-Nitroaniline	ND		9.9	1.8	ug/L		07/15/22 08:55	07/18/22 21:54	1
4-Nitroaniline	ND		9.9	1.5	ug/L		07/15/22 08:55	07/18/22 21:54	1
Nitrobenzene	ND		9.9	0.13	ug/L		07/15/22 08:55	07/18/22 21:54	1
2-Nitrophenol	ND		9.9	5.1	ug/L		07/15/22 08:55	07/18/22 21:54	1
4-Nitrophenol	ND		9.9	2.1	ug/L		07/15/22 08:55	07/18/22 21:54	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		07/15/22 08:55	07/18/22 21:54	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		07/15/22 08:55	07/18/22 21:54	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		07/15/22 08:55	07/18/22 21:54	1
Pentachlorophenol	ND		20	1.4	ug/L		07/15/22 08:55	07/18/22 21:54	1
Phenol	ND		9.9	2.6	ug/L		07/15/22 08:55	07/18/22 21:54	1
Pyridine	ND		9.9	3.2	ug/L		07/15/22 08:55	07/18/22 21:54	1
Quinoline	ND		9.9	4.4	ug/L		07/15/22 08:55	07/18/22 21:54	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		07/15/22 08:55	07/18/22 21:54	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		07/15/22 08:55	07/18/22 21:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*46 - 124*	*07/15/22 08:55*	*07/18/22 21:54*	*1*
2-Fluorophenol	*18*		*13 - 113*	*07/15/22 08:55*	*07/18/22 21:54*	*1*
Nitrobenzene-d5	*58*		*36 - 126*	*07/15/22 08:55*	*07/18/22 21:54*	*1*
Phenol-d5	*39*		*17 - 127*	*07/15/22 08:55*	*07/18/22 21:54*	*1*
Terphenyl-d14	*76*		*44 - 149*	*07/15/22 08:55*	*07/18/22 21:54*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*07/15/22 08:55*	*07/18/22 21:54*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.7	4.9	ug/L		07/20/22 15:41	07/25/22 11:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*46 - 124*	*07/20/22 15:41*	*07/25/22 11:38*	*1*
Nitrobenzene-d5	*89*		*36 - 126*	*07/20/22 15:41*	*07/25/22 11:38*	*1*
Terphenyl-d14	*110*		*44 - 149*	*07/20/22 15:41*	*07/25/22 11:38*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/14/22 11:58	07/15/22 09:08	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/14/22 11:58	07/15/22 09:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*66*	*p*	*51 - 149*	*07/14/22 11:58*	*07/15/22 09:08*	*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.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
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: 400-222676-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-222676-1	TB-ROX-070822-8260-A	94	109	92
400-222676-3	MW11-ROX-070822-EB	94	111	97
400-222676-3 - RA	MW11-ROX-070822-EB	96	107	90
400-222676-4	MW11-ROX-070822	92	112	97
400-222676-4 - RA	MW11-ROX-070822	95	110	90
400-222676-5	MW10-ROX-070822	89	113	98
400-222676-5 - RA	MW10-ROX-070822	97	109	91
400-222676-6	MW12-ROX-070822	91	113	97
400-222676-6 - RA	MW12-ROX-070822	96	108	90
400-222676-7	MW1-ROX-070822	93	113	96
400-222676-7 - RA	MW1-ROX-070822	95	107	90
400-222676-8	TB-ROX-070822-8260-B	97	109	91
400-222676-10	MW6D-ROX-070822-EB	92	113	98
400-222676-10 - RA	MW6D-ROX-070822-EB	96	107	92
400-222676-11	MW6D-ROX-070822	94	112	97
400-222676-11 - RA	MW6D-ROX-070822	98	107	95
400-222676-12	MW6C-ROX-070822	94	112	98
400-222676-12 - RA	MW6C-ROX-070822	96	104	97
400-222676-13	MW6B-ROX-070822	92	114	99
400-222676-13 - RA	MW6B-ROX-070822	97	106	98
400-222676-14	MW6A-ROX-070822	92	113	98
400-222676-14 - RA	MW6A-ROX-070822	95	101	98
LCS 400-584912/1002	Lab Control Sample	89	99	97
LCS 400-585109/1002	Lab Control Sample	98	115	90
MB 400-584912/4	Method Blank	91	110	97
MB 400-585109/5	Method Blank	96	107	91

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-222676-3	MW11-ROX-070822-EB	74	14	67	50	97	82
400-222676-4	MW11-ROX-070822	82	37	76	68	106	69
400-222676-5	MW10-ROX-070822	79	34	72	62	103	84
400-222676-6	MW12-ROX-070822	80	21	74	58	103	73
400-222676-6 - RERA	MW12-ROX-070822	82		80		100	
400-222676-7	MW1-ROX-070822	77	30	70	61	99	79
400-222676-10	MW6D-ROX-070822-EB	78	46	71	70	102	85
400-222676-11	MW6D-ROX-070822	72	34	65	61	92	86
400-222676-12	MW6C-ROX-070822	78	32	70	64	98	91
400-222676-12 - RERA	MW6C-ROX-070822	87		85		105	
400-222676-13	MW6B-ROX-070822	73	7 S1-	64	30	91	70
400-222676-14	MW6A-ROX-070822	61	18	58	39	76	77

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-222676-14 - RERA	MW6A-ROX-070822	91		89		110	
LCS 400-584922/2-A	Lab Control Sample	78	49	75	71	95	101
LCS 400-584922/3-A	Lab Control Sample	84	48	74	75	104	82
LCS 400-585529/2-A	Lab Control Sample	81		83		95	
LCSD 400-584922/4-A	Lab Control Sample Dup	81	52	73	73	97	83
LCSD 400-585529/3-A	Lab Control Sample Dup	81		84		96	
MB 400-584922/1-A	Method Blank	77	20	68	55	99	73
MB 400-585529/1-A	Method Blank	72		70		84	

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
Lab Sample ID	Client Sample ID	FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-222676-3	MW11-ROX-070822-EB	106	101	147 S1+
400-222676-4	MW11-ROX-070822	111	106	151 S1+
400-222676-5	MW10-ROX-070822	106	102	145 S1+
400-222676-6	MW12-ROX-070822	108	103	145 S1+
400-222676-7	MW1-ROX-070822	109	103	146 S1+
400-222676-10	MW6D-ROX-070822-EB	112	106	152 S1+
400-222676-11	MW6D-ROX-070822	109	101	151 S1+
400-222676-12	MW6C-ROX-070822	111	104	150 S1+
400-222676-13	MW6B-ROX-070822	117	108	162 S1+
400-222676-14	MW6A-ROX-070822	90	90	123
LCS 400-584922/2-A	Lab Control Sample	97	59	101
MB 400-584922/1-A	Method Blank	47	40	64

Surrogate Legend

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

Method: 8011 - EDB and DBCP in Water by Microextraction

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB1 (51-149)
400-222676-2	TB-ROX-070822-8011-A	78
400-222676-3	MW11-ROX-070822-EB	74
400-222676-4	MW11-ROX-070822	69
400-222676-5	MW10-ROX-070822	86
400-222676-6	MW12-ROX-070822	77

Surrogate Summary

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

Job ID: 400-222676-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)						
		BFB1						
Lab Sample ID	Client Sample ID	(51-149)						
400-222676-7	MW1-ROX-070822	72						
400-222676-9	TB-ROX-070822-8011-B	81						
400-222676-10	MW6D-ROX-070822-EB	69						
400-222676-11	MW6D-ROX-070822	72						
400-222676-12	MW6C-ROX-070822	60 p						
400-222676-13	MW6B-ROX-070822	84						
400-222676-14	MW6A-ROX-070822	66 p						
LCS 400-584784/2-A	Lab Control Sample	71 p						
LCSD 400-584784/3-A	Lab Control Sample Dup	73 p						
MB 400-584784/1-A	Method Blank	71						

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-222676-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL 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:

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

Client Sample ID: TB-ROX-070822-8260-A

Lab Sample ID: 400-222676-1

Date Collected: 07/08/22 12:00

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 08:43	WPD	TAL PEN

Client Sample ID: TB-ROX-070822-8011-A

Lab Sample ID: 400-222676-2

Date Collected: 07/08/22 12:00

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.2 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 18:48	JAW	TAL PEN

Client Sample ID: MW11-ROX-070822-EB

Lab Sample ID: 400-222676-3

Date Collected: 07/08/22 08:35

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 09:35	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 16:14	AGW	TAL PEN
Total/NA	Prep	3520C			244.2 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 18:22	S1B	TAL PEN
Total/NA	Prep	3520C			244.2 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 16:37	PP1	TAL PEN
Total/NA	Prep	8011			34.8 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 19:09	JAW	TAL PEN

Client Sample ID: MW11-ROX-070822

Lab Sample ID: 400-222676-4

Date Collected: 07/08/22 10:25

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 10:00	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 16:40	AGW	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 18:45	S1B	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 16:53	PP1	TAL PEN
Total/NA	Prep	8011			31.2 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 19:30	JAW	TAL PEN

Client Sample ID: MW10-ROX-070822

Lab Sample ID: 400-222676-5

Date Collected: 07/08/22 11:10

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 10:26	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 17:06	AGW	TAL PEN

Client Sample ID: MW10-ROX-070822

Lab Sample ID: 400-222676-5

Date Collected: 07/08/22 11:10

Matrix: Water

Date Received: 07/09/22 09:57

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 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 19:08	S1B	TAL PEN
Total/NA	Prep	3520C			266 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 17:08	PP1	TAL PEN
Total/NA	Prep	8011			33.9 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 19:51	JAW	TAL PEN

Client Sample ID: MW12-ROX-070822

Lab Sample ID: 400-222676-6

Date Collected: 07/08/22 12:30

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 10:52	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 17:33	AGW	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 19:32	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		263.6 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D	RERA	1			585995	07/25/22 10:56	VC1	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 17:24	PP1	TAL PEN
Total/NA	Prep	8011			33.9 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 20:12	JAW	TAL PEN

Client Sample ID: MW1-ROX-070822

Lab Sample ID: 400-222676-7

Date Collected: 07/08/22 13:15

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 11:18	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 17:59	AGW	TAL PEN
Total/NA	Prep	3520C			266.6 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 19:55	S1B	TAL PEN
Total/NA	Prep	3520C			266.6 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 17:40	PP1	TAL PEN
Total/NA	Prep	8011			33.5 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 20:32	JAW	TAL PEN

Client Sample ID: TB-ROX-070822-8260-B

Lab Sample ID: 400-222676-8

Date Collected: 07/08/22 12:00

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 09:09	WPD	TAL PEN

Client Sample ID: TB-ROX-070822-8011-B

Lab Sample ID: 400-222676-9

Date Collected: 07/08/22 12:00

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.7 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 20:53	JAW	TAL PEN

Client Sample ID: MW6D-ROX-070822-EB

Lab Sample ID: 400-222676-10

Date Collected: 07/08/22 08:30

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 14:39	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 18:26	AGW	TAL PEN
Total/NA	Prep	3520C			272.8 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 20:19	S1B	TAL PEN
Total/NA	Prep	3520C			272.8 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 17:55	PP1	TAL PEN
Total/NA	Prep	8011			33.2 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 21:35	JAW	TAL PEN

Client Sample ID: MW6D-ROX-070822

Lab Sample ID: 400-222676-11

Date Collected: 07/08/22 10:45

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 15:04	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 18:52	AGW	TAL PEN
Total/NA	Prep	3520C			266.6 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 20:43	S1B	TAL PEN
Total/NA	Prep	3520C			266.6 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 18:11	PP1	TAL PEN
Total/NA	Prep	8011			33.1 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 21:56	JAW	TAL PEN

Client Sample ID: MW6C-ROX-070822

Lab Sample ID: 400-222676-12

Date Collected: 07/08/22 11:30

Matrix: Water

Date Received: 07/09/22 09:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 15:28	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 19:18	AGW	TAL PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 21:06	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		261.6 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D	RERA	1			585995	07/25/22 11:17	VC1	TAL PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 18:27	PP1	TAL PEN

Lab Chronicle

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

Job ID: 400-222676-1

Client Sample ID: MW6C-ROX-070822
Date Collected: 07/08/22 11:30
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-12
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			34.5 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 22:16	JAW	TAL PEN

Client Sample ID: MW6B-ROX-070822
Date Collected: 07/08/22 12:15
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 15:53	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 19:44	AGW	TAL PEN
Total/NA	Prep	3520C			261 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 21:30	S1B	TAL PEN
Total/NA	Prep	3520C			261 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 18:42	PP1	TAL PEN
Total/NA	Prep	8011			35 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/15/22 08:47	JAW	TAL PEN

Client Sample ID: MW6A-ROX-070822
Date Collected: 07/08/22 13:10
Date Received: 07/09/22 09:57

Lab Sample ID: 400-222676-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585109	07/18/22 16:18	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 20:11	AGW	TAL PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 21:54	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		257.6 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D	RERA	1			585995	07/25/22 11:38	VC1	TAL PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 18:58	PP1	TAL PEN
Total/NA	Prep	8011			35.4 mL	35 mL	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/15/22 09:08	JAW	TAL PEN

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

Lab Sample ID: MB 400-584784/1-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	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 17:45	JAW	TAL PEN

Lab Chronicle

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

Job ID: 400-222676-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-584912/4
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 10:56	AGW	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-584922/1-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	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 14:46	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 14:34	PP1	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585109/5
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 08:18	WPD	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585529/1-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:25	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-584784/2-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	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 18:06	JAW	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-584912/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	584912	07/15/22 09:54	AGW	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-584922/2-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	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 15:49	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		5			585193	07/18/22 14:49	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-584922/3-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	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 15:07	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585109/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 07:02	WPD	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585529/2-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:46	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-584784/3-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	584784	07/14/22 11:58	JAW	TAL PEN
Total/NA	Analysis	8011		1			584894	07/14/22 18:27	JAW	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-584922/4-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	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 15:28	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-222676-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585529/3-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:07	S1B	TAL PEN

Laboratory References:

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

GC/MS VOA

Analysis Batch: 584912

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-3	MW11-ROX-070822-EB	Total/NA	Water	8260B	
400-222676-4	MW11-ROX-070822	Total/NA	Water	8260B	
400-222676-5	MW10-ROX-070822	Total/NA	Water	8260B	
400-222676-6	MW12-ROX-070822	Total/NA	Water	8260B	
400-222676-7	MW1-ROX-070822	Total/NA	Water	8260B	
400-222676-10	MW6D-ROX-070822-EB	Total/NA	Water	8260B	
400-222676-11	MW6D-ROX-070822	Total/NA	Water	8260B	
400-222676-12	MW6C-ROX-070822	Total/NA	Water	8260B	
400-222676-13	MW6B-ROX-070822	Total/NA	Water	8260B	
400-222676-14	MW6A-ROX-070822	Total/NA	Water	8260B	
MB 400-584912/4	Method Blank	Total/NA	Water	8260B	
LCS 400-584912/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 585109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-1	TB-ROX-070822-8260-A	Total/NA	Water	8260B	
400-222676-3 - RA	MW11-ROX-070822-EB	Total/NA	Water	8260B	
400-222676-4 - RA	MW11-ROX-070822	Total/NA	Water	8260B	
400-222676-5 - RA	MW10-ROX-070822	Total/NA	Water	8260B	
400-222676-6 - RA	MW12-ROX-070822	Total/NA	Water	8260B	
400-222676-7 - RA	MW1-ROX-070822	Total/NA	Water	8260B	
400-222676-8	TB-ROX-070822-8260-B	Total/NA	Water	8260B	
400-222676-10 - RA	MW6D-ROX-070822-EB	Total/NA	Water	8260B	
400-222676-11 - RA	MW6D-ROX-070822	Total/NA	Water	8260B	
400-222676-12 - RA	MW6C-ROX-070822	Total/NA	Water	8260B	
400-222676-13 - RA	MW6B-ROX-070822	Total/NA	Water	8260B	
400-222676-14 - RA	MW6A-ROX-070822	Total/NA	Water	8260B	
MB 400-585109/5	Method Blank	Total/NA	Water	8260B	
LCS 400-585109/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 584922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-3	MW11-ROX-070822-EB	Total/NA	Water	3520C	
400-222676-4	MW11-ROX-070822	Total/NA	Water	3520C	
400-222676-5	MW10-ROX-070822	Total/NA	Water	3520C	
400-222676-6	MW12-ROX-070822	Total/NA	Water	3520C	
400-222676-7	MW1-ROX-070822	Total/NA	Water	3520C	
400-222676-10	MW6D-ROX-070822-EB	Total/NA	Water	3520C	
400-222676-11	MW6D-ROX-070822	Total/NA	Water	3520C	
400-222676-12	MW6C-ROX-070822	Total/NA	Water	3520C	
400-222676-13	MW6B-ROX-070822	Total/NA	Water	3520C	
400-222676-14	MW6A-ROX-070822	Total/NA	Water	3520C	
MB 400-584922/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-584922/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-584922/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-584922/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

GC/MS Semi VOA

Analysis Batch: 585184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-3	MW11-ROX-070822-EB	Total/NA	Water	8270D	584922
400-222676-4	MW11-ROX-070822	Total/NA	Water	8270D	584922
400-222676-5	MW10-ROX-070822	Total/NA	Water	8270D	584922
400-222676-6	MW12-ROX-070822	Total/NA	Water	8270D	584922
400-222676-7	MW1-ROX-070822	Total/NA	Water	8270D	584922
400-222676-10	MW6D-ROX-070822-EB	Total/NA	Water	8270D	584922
400-222676-11	MW6D-ROX-070822	Total/NA	Water	8270D	584922
400-222676-12	MW6C-ROX-070822	Total/NA	Water	8270D	584922
400-222676-13	MW6B-ROX-070822	Total/NA	Water	8270D	584922
400-222676-14	MW6A-ROX-070822	Total/NA	Water	8270D	584922
MB 400-584922/1-A	Method Blank	Total/NA	Water	8270D	584922
LCS 400-584922/2-A	Lab Control Sample	Total/NA	Water	8270D	584922
LCS 400-584922/3-A	Lab Control Sample	Total/NA	Water	8270D	584922
LCSD 400-584922/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	584922

Analysis Batch: 585193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-3	MW11-ROX-070822-EB	Total/NA	Water	8270D LL	584922
400-222676-4	MW11-ROX-070822	Total/NA	Water	8270D LL	584922
400-222676-5	MW10-ROX-070822	Total/NA	Water	8270D LL	584922
400-222676-6	MW12-ROX-070822	Total/NA	Water	8270D LL	584922
400-222676-7	MW1-ROX-070822	Total/NA	Water	8270D LL	584922
400-222676-10	MW6D-ROX-070822-EB	Total/NA	Water	8270D LL	584922
400-222676-11	MW6D-ROX-070822	Total/NA	Water	8270D LL	584922
400-222676-12	MW6C-ROX-070822	Total/NA	Water	8270D LL	584922
400-222676-13	MW6B-ROX-070822	Total/NA	Water	8270D LL	584922
400-222676-14	MW6A-ROX-070822	Total/NA	Water	8270D LL	584922
MB 400-584922/1-A	Method Blank	Total/NA	Water	8270D LL	584922
LCS 400-584922/2-A	Lab Control Sample	Total/NA	Water	8270D LL	584922

Prep Batch: 585529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-6 - RERA	MW12-ROX-070822	Total/NA	Water	3520C	
400-222676-12 - RERA	MW6C-ROX-070822	Total/NA	Water	3520C	
400-222676-14 - RERA	MW6A-ROX-070822	Total/NA	Water	3520C	
MB 400-585529/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 585828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-585529/1-A	Method Blank	Total/NA	Water	8270D	585529
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	8270D	585529
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	585529

Analysis Batch: 585995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-6 - RERA	MW12-ROX-070822	Total/NA	Water	8270D	585529
400-222676-12 - RERA	MW6C-ROX-070822	Total/NA	Water	8270D	585529
400-222676-14 - RERA	MW6A-ROX-070822	Total/NA	Water	8270D	585529

GC Semi VOA

Prep Batch: 584784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-2	TB-ROX-070822-8011-A	Total/NA	Water	8011	
400-222676-3	MW11-ROX-070822-EB	Total/NA	Water	8011	
400-222676-4	MW11-ROX-070822	Total/NA	Water	8011	
400-222676-5	MW10-ROX-070822	Total/NA	Water	8011	
400-222676-6	MW12-ROX-070822	Total/NA	Water	8011	
400-222676-7	MW1-ROX-070822	Total/NA	Water	8011	
400-222676-9	TB-ROX-070822-8011-B	Total/NA	Water	8011	
400-222676-10	MW6D-ROX-070822-EB	Total/NA	Water	8011	
400-222676-11	MW6D-ROX-070822	Total/NA	Water	8011	
400-222676-12	MW6C-ROX-070822	Total/NA	Water	8011	
400-222676-13	MW6B-ROX-070822	Total/NA	Water	8011	
400-222676-14	MW6A-ROX-070822	Total/NA	Water	8011	
MB 400-584784/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-584784/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-584784/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 584894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222676-2	TB-ROX-070822-8011-A	Total/NA	Water	8011	584784
400-222676-3	MW11-ROX-070822-EB	Total/NA	Water	8011	584784
400-222676-4	MW11-ROX-070822	Total/NA	Water	8011	584784
400-222676-5	MW10-ROX-070822	Total/NA	Water	8011	584784
400-222676-6	MW12-ROX-070822	Total/NA	Water	8011	584784
400-222676-7	MW1-ROX-070822	Total/NA	Water	8011	584784
400-222676-9	TB-ROX-070822-8011-B	Total/NA	Water	8011	584784
400-222676-10	MW6D-ROX-070822-EB	Total/NA	Water	8011	584784
400-222676-11	MW6D-ROX-070822	Total/NA	Water	8011	584784
400-222676-12	MW6C-ROX-070822	Total/NA	Water	8011	584784
400-222676-13	MW6B-ROX-070822	Total/NA	Water	8011	584784
400-222676-14	MW6A-ROX-070822	Total/NA	Water	8011	584784
MB 400-584784/1-A	Method Blank	Total/NA	Water	8011	584784
LCS 400-584784/2-A	Lab Control Sample	Total/NA	Water	8011	584784
LCSD 400-584784/3-A	Lab Control Sample Dup	Total/NA	Water	8011	584784

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

Lab Sample ID: MB 400-584912/4
Matrix: Water
Analysis Batch: 584912

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			07/15/22 10:56	1
Acrolein	ND		20	3.3	ug/L			07/15/22 10:56	1
Acrylonitrile	ND		10	2.8	ug/L			07/15/22 10:56	1
Benzene	ND		1.0	0.13	ug/L			07/15/22 10:56	1
Bromobenzene	ND		1.0	0.54	ug/L			07/15/22 10:56	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/15/22 10:56	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/15/22 10:56	1
Bromoform	ND		5.0	0.25	ug/L			07/15/22 10:56	1
Bromomethane	ND		1.0	0.98	ug/L			07/15/22 10:56	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/15/22 10:56	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/15/22 10:56	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/15/22 10:56	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/15/22 10:56	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/15/22 10:56	1
Chloroethane	ND		1.0	0.76	ug/L			07/15/22 10:56	1
Chloroform	ND		1.0	1.0	ug/L			07/15/22 10:56	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/15/22 10:56	1
Chloromethane	ND		1.0	0.32	ug/L			07/15/22 10:56	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/15/22 10:56	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/15/22 10:56	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/15/22 10:56	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/15/22 10:56	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/15/22 10:56	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/15/22 10:56	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/15/22 10:56	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/15/22 10:56	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 10:56	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 10:56	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 10:56	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/15/22 10:56	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/15/22 10:56	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/15/22 10:56	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/15/22 10:56	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/15/22 10:56	1
2-Hexanone	ND		25	1.4	ug/L			07/15/22 10:56	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/15/22 10:56	1
Methylene bromide	ND		5.0	0.22	ug/L			07/15/22 10:56	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/15/22 10:56	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/15/22 10:56	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/15/22 10:56	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/15/22 10:56	1
Naphthalene	ND		5.0	3.0	ug/L			07/15/22 10:56	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/15/22 10:56	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/15/22 10:56	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/15/22 10:56	1
o-Xylene	ND		5.0	0.60	ug/L			07/15/22 10:56	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/15/22 10:56	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/15/22 10:56	1

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

Lab Sample ID: MB 400-584912/4
Matrix: Water
Analysis Batch: 584912

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/15/22 10:56	1
Styrene	ND		1.0	1.0	ug/L			07/15/22 10:56	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/15/22 10:56	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/15/22 10:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/15/22 10:56	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/15/22 10:56	1
Toluene	ND		1.0	0.41	ug/L			07/15/22 10:56	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/15/22 10:56	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/15/22 10:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/15/22 10:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/15/22 10:56	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/15/22 10:56	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/15/22 10:56	1
Trichloroethene	ND		1.0	0.15	ug/L			07/15/22 10:56	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/15/22 10:56	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/15/22 10:56	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/15/22 10:56	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/15/22 10:56	1
Vinyl acetate	ND		25	0.93	ug/L			07/15/22 10:56	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/15/22 10:56	1
Xylenes, Total	ND		10	1.6	ug/L			07/15/22 10:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*07/15/22 10:56*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*07/15/22 10:56*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/15/22 10:56*	*1*

Lab Sample ID: LCS 400-584912/1002
Matrix: Water
Analysis Batch: 584912

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	185		ug/L		92	43 - 160
Acrolein	500	508		ug/L		102	38 - 160
Acrylonitrile	500	493		ug/L		99	64 - 142
Benzene	50.0	51.8		ug/L		104	70 - 130
Bromobenzene	50.0	46.0		ug/L		92	70 - 132
Bromochloromethane	50.0	51.2		ug/L		102	70 - 130
Bromodichloromethane	50.0	47.9		ug/L		96	67 - 133
Bromoform	50.0	44.1		ug/L		88	57 - 140
Bromomethane	50.0	64.2		ug/L		128	10 - 160
2-Butanone (MEK)	200	191		ug/L		95	61 - 145
Carbon disulfide	50.0	50.4		ug/L		101	61 - 137
Carbon tetrachloride	50.0	47.6		ug/L		95	61 - 137
Chlorobenzene	50.0	52.3		ug/L		105	70 - 130
Dibromochloromethane	50.0	48.6		ug/L		97	67 - 135
Chloroethane	50.0	50.6		ug/L		101	55 - 141
Chloroform	50.0	49.2		ug/L		98	69 - 130

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

Lab Sample ID: LCS 400-584912/1002
Matrix: Water
Analysis Batch: 584912

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Chlorohexane	50.0	50.2		ug/L		100	69 - 130
Chloromethane	50.0	46.0		ug/L		92	58 - 137
cis-1,2-Dichloroethene	50.0	48.6		ug/L		97	68 - 130
cis-1,3-Dichloropropene	50.0	45.9		ug/L		92	69 - 132
1,2-Dichlorobenzene	50.0	47.6		ug/L		95	67 - 130
1,3-Dichlorobenzene	50.0	48.3		ug/L		97	70 - 130
1,4-Dichlorobenzene	50.0	47.7		ug/L		95	70 - 130
Dichlorodifluoromethane	50.0	32.4		ug/L		65	41 - 146
1,1-Dichloroethane	50.0	49.6		ug/L		99	70 - 130
1,2-Dichloroethane	50.0	45.6		ug/L		91	69 - 130
1,1-Dichloroethene	50.0	47.4		ug/L		95	63 - 134
1,2-Dichloropropane	50.0	51.0		ug/L		102	70 - 130
1,3-Dichloropropane	50.0	49.8		ug/L		100	70 - 130
2,2-Dichloropropane	50.0	43.2		ug/L		86	52 - 135
1,1-Dichloropropene	50.0	49.9		ug/L		100	70 - 130
Ethylbenzene	50.0	50.7		ug/L		101	70 - 130
Ethyl methacrylate	50.0	43.4		ug/L		87	68 - 130
Hexachlorobutadiene	50.0	53.5		ug/L		107	53 - 140
2-Hexanone	200	171		ug/L		86	65 - 137
Isopropy benzene	50.0	50.3		ug/L		101	70 - 130
Methylene bromide	50.0	49.3		ug/L		99	70 - 130
Methylene Chloride	50.0	49.2		ug/L		98	66 - 135
4-Methyl-2-pentanone (MIBK)	200	177		ug/L		89	69 - 138
Methyl tert-butyl ether	50.0	43.3		ug/L		87	66 - 130
m-Xylene & p-Xylene	50.0	48.7		ug/L		97	70 - 130
Naphthalene	50.0	37.9		ug/L		76	47 - 149
n-Butylbenzene	50.0	50.6		ug/L		101	67 - 130
N-Propylbenzene	50.0	49.5		ug/L		99	70 - 130
o-Chlorotoluene	50.0	47.6		ug/L		95	70 - 130
o-Xylene	50.0	48.3		ug/L		97	70 - 130
p-Chlorotoluene	50.0	46.8		ug/L		94	70 - 130
p-Isopropyltoluene	50.0	47.7		ug/L		95	65 - 130
sec-Butylbenzene	50.0	48.8		ug/L		98	66 - 130
Styrene	50.0	50.2		ug/L		100	70 - 130
tert-Butylbenzene	50.0	45.5		ug/L		91	64 - 139
1,1,1,2-Tetrachloroethane	50.0	48.9		ug/L		98	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.1		ug/L		90	70 - 131
Tetrachloroethene	50.0	50.8		ug/L		102	65 - 130
Toluene	50.0	48.4		ug/L		97	70 - 130
trans-1,2-Dichloroethene	50.0	50.5		ug/L		101	70 - 130
trans-1,3-Dichloropropene	50.0	45.1		ug/L		90	63 - 130
1,2,3-Trichlorobenzene	50.0	44.1		ug/L		88	60 - 138
1,2,4-Trichlorobenzene	50.0	43.8		ug/L		88	60 - 140
1,1,1-Trichloroethane	50.0	47.3		ug/L		95	68 - 130
1,1,2-Trichloroethane	50.0	50.1		ug/L		100	70 - 130
Trichloroethene	50.0	51.8		ug/L		104	70 - 130
Trichlorofluoromethane	50.0	46.0		ug/L		92	65 - 138
1,2,3-Trichloropropane	50.0	44.1		ug/L		88	70 - 130
1,2,4-Trimethy benzene	50.0	48.4		ug/L		97	70 - 130

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

Lab Sample ID: LCS 400-584912/1002
Matrix: Water
Analysis Batch: 584912

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethy benzene	50.0	47.7		ug/L		95	69 - 130
Vinyl acetate	100	90.1		ug/L		90	26 - 160
Vinyl chloride	50.0	44.7		ug/L		89	59 - 136
Xylenes, Total	100	97.0		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Lab Sample ID: MB 400-585109/5
Matrix: Water
Analysis Batch: 585109

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			07/18/22 08:18	1
Acrolein	ND		20	3.3	ug/L			07/18/22 08:18	1
Acrylonitrile	ND		10	2.8	ug/L			07/18/22 08:18	1
Benzene	ND		1.0	0.13	ug/L			07/18/22 08:18	1
Bromobenzene	ND		1.0	0.54	ug/L			07/18/22 08:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/18/22 08:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Bromoform	ND		5.0	0.25	ug/L			07/18/22 08:18	1
Bromomethane	ND		1.0	0.98	ug/L			07/18/22 08:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/18/22 08:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/18/22 08:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/18/22 08:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/18/22 08:18	1
Chloroethane	ND		1.0	0.76	ug/L			07/18/22 08:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 08:18	1
Chloroform	ND		1.0	1.0	ug/L			07/18/22 08:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/18/22 08:18	1
Chloromethane	ND		1.0	0.32	ug/L			07/18/22 08:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/18/22 08:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/18/22 08:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/18/22 08:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/18/22 08:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/18/22 08:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/18/22 08:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/18/22 08:18	1

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

Lab Sample ID: MB 400-585109/5
Matrix: Water
Analysis Batch: 585109

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/18/22 08:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/18/22 08:18	1
2-Hexanone	ND		25	1.4	ug/L			07/18/22 08:18	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/18/22 08:18	1
Methylene bromide	ND		5.0	0.22	ug/L			07/18/22 08:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/18/22 08:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/18/22 08:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/18/22 08:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/18/22 08:18	1
Naphthalene	ND		5.0	3.0	ug/L			07/18/22 08:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/18/22 08:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/18/22 08:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/18/22 08:18	1
o-Xylene	ND		5.0	0.60	ug/L			07/18/22 08:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/18/22 08:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/18/22 08:18	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/18/22 08:18	1
Styrene	ND		1.0	1.0	ug/L			07/18/22 08:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/18/22 08:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/18/22 08:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/18/22 08:18	1
Toluene	ND		1.0	0.41	ug/L			07/18/22 08:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/18/22 08:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/18/22 08:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/18/22 08:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/18/22 08:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/18/22 08:18	1
Trichloroethene	ND		1.0	0.15	ug/L			07/18/22 08:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/18/22 08:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/18/22 08:18	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/18/22 08:18	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/18/22 08:18	1
Vinyl acetate	ND		25	0.93	ug/L			07/18/22 08:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Xylenes, Total	ND		10	1.6	ug/L			07/18/22 08:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*07/18/22 08:18*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/18/22 08:18*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*07/18/22 08:18*	*1*

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

Lab Sample ID: LCS 400-585109/1002
Matrix: Water
Analysis Batch: 585109

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	243		ug/L		122	43 - 160
Acrolein	500	564		ug/L		113	38 - 160
Acrylonitrile	500	594		ug/L		119	64 - 142
Benzene	50.0	47.3		ug/L		95	70 - 130
Bromobenzene	50.0	42.2		ug/L		84	70 - 132
Bromochloromethane	50.0	51.5		ug/L		103	70 - 130
Bromodichloromethane	50.0	50.7		ug/L		101	67 - 133
Bromoform	50.0	49.7		ug/L		99	57 - 140
Bromomethane	50.0	43.1		ug/L		86	10 - 160
2-Butanone (MEK)	200	240		ug/L		120	61 - 145
Carbon disulfide	50.0	51.8		ug/L		104	61 - 137
Carbon tetrachloride	50.0	46.7		ug/L		93	61 - 137
Chlorobenzene	50.0	42.8		ug/L		86	70 - 130
Dibromochloromethane	50.0	47.6		ug/L		95	67 - 135
Chloroethane	50.0	60.8		ug/L		122	55 - 141
2-Chloroethyl vinyl ether	50.0	68.4		ug/L		137	10 - 160
Chloroform	50.0	46.5		ug/L		93	69 - 130
1-Chlorohexane	50.0	43.9		ug/L		88	69 - 130
Chloromethane	50.0	50.9		ug/L		102	58 - 137
cis-1,2-Dichloroethene	50.0	47.6		ug/L		95	68 - 130
cis-1,3-Dichloropropene	50.0	50.3		ug/L		101	69 - 132
1,2-Dichlorobenzene	50.0	44.3		ug/L		89	67 - 130
1,3-Dichlorobenzene	50.0	43.9		ug/L		88	70 - 130
1,4-Dichlorobenzene	50.0	43.8		ug/L		88	70 - 130
Dichlorodifluoromethane	50.0	37.3		ug/L		75	41 - 146
1,1-Dichloroethane	50.0	47.1		ug/L		94	70 - 130
1,2-Dichloroethane	50.0	52.0		ug/L		104	69 - 130
1,1-Dichloroethene	50.0	45.6		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	49.1		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	46.1		ug/L		92	70 - 130
2,2-Dichloropropane	50.0	36.0		ug/L		72	52 - 135
1,1-Dichloropropene	50.0	47.7		ug/L		95	70 - 130
Ethylbenzene	50.0	42.5		ug/L		85	70 - 130
Ethyl methacrylate	50.0	50.6		ug/L		101	68 - 130
Hexachlorobutadiene	50.0	45.2		ug/L		90	53 - 140
2-Hexanone	200	235		ug/L		118	65 - 137
Isopropy benzene	50.0	44.9		ug/L		90	70 - 130
Methylene bromide	50.0	53.8		ug/L		108	70 - 130
Methylene Chloride	50.0	47.8		ug/L		96	66 - 135
4-Methyl-2-pentanone (MIBK)	200	269		ug/L		134	69 - 138
Methyl tert-butyl ether	50.0	52.4		ug/L		105	66 - 130
m-Xylene & p-Xylene	50.0	43.4		ug/L		87	70 - 130
Naphthalene	50.0	51.2		ug/L		102	47 - 149
n-Butylbenzene	50.0	45.5		ug/L		91	67 - 130
N-Propylbenzene	50.0	43.1		ug/L		86	70 - 130
o-Chlorotoluene	50.0	41.4		ug/L		83	70 - 130
o-Xylene	50.0	43.8		ug/L		88	70 - 130
p-Chlorotoluene	50.0	42.7		ug/L		85	70 - 130

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

Lab Sample ID: LCS 400-585109/1002
Matrix: Water
Analysis Batch: 585109

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	44.2		ug/L		88	65 - 130
sec-Butylbenzene	50.0	44.5		ug/L		89	66 - 130
Styrene	50.0	44.3		ug/L		89	70 - 130
tert-Butylbenzene	50.0	42.9		ug/L		86	64 - 139
1,1,1,2-Tetrachloroethane	50.0	43.9		ug/L		88	67 - 131
1,1,2,2-Tetrachloroethane	50.0	50.9		ug/L		102	70 - 131
Tetrachloroethene	50.0	41.6		ug/L		83	65 - 130
Toluene	50.0	40.9		ug/L		82	70 - 130
trans-1,2-Dichloroethene	50.0	46.6		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	42.3		ug/L		85	63 - 130
1,2,3-Trichlorobenzene	50.0	47.5		ug/L		95	60 - 138
1,2,4-Trichlorobenzene	50.0	47.0		ug/L		94	60 - 140
1,1,1-Trichloroethane	50.0	44.7		ug/L		89	68 - 130
1,1,2-Trichloroethane	50.0	46.2		ug/L		92	70 - 130
Trichloroethene	50.0	47.5		ug/L		95	70 - 130
Trichlorofluoromethane	50.0	50.5		ug/L		101	65 - 138
1,2,3-Trichloropropane	50.0	50.6		ug/L		101	70 - 130
1,2,4-Trimethy benzene	50.0	43.2		ug/L		86	70 - 130
1,3,5-Trimethy benzene	50.0	42.4		ug/L		85	69 - 130
Vinyl acetate	100	117		ug/L		117	26 - 160
Vinyl chloride	50.0	45.7		ug/L		91	59 - 136
Xylenes, Total	100	87.2		ug/L		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 119*
Dibromofluoromethane	*115*		*75 - 126*
Toluene-d8 (Surr)	*90*		*64 - 132*

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

Lab Sample ID: MB 400-584922/1-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/15/22 08:55	07/18/22 14:46	1
Benzenethiol	ND		10	1.7	ug/L		07/15/22 08:55	07/18/22 14:46	1
Benzoic acid	ND		30	7.3	ug/L		07/15/22 08:55	07/18/22 14:46	1
Benzyl alcohol	ND		10	2.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/15/22 08:55	07/18/22 14:46	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/15/22 08:55	07/18/22 14:46	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/15/22 08:55	07/18/22 14:46	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/15/22 08:55	07/18/22 14:46	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Chloroaniline	ND		10	3.4	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Chlorophenol	ND		10	2.2	ug/L		07/15/22 08:55	07/18/22 14:46	1

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

Lab Sample ID: MB 400-584922/1-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Dibenzofuran	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 14:46	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Diethyl phthalate	0.287	J	10	0.24	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/15/22 08:55	07/18/22 14:46	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 14:46	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/15/22 08:55	07/18/22 14:46	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/15/22 08:55	07/18/22 14:46	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 14:46	1
1,4-Dioxane	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 14:46	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/15/22 08:55	07/18/22 14:46	1
Hexachloroethane	ND		10	4.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
Indene	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Isophorone	ND		10	0.14	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Methylphenol	ND		10	1.8	ug/L		07/15/22 08:55	07/18/22 14:46	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Nitroaniline	ND		10	2.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
3-Nitroaniline	ND		10	1.8	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Nitroaniline	ND		10	1.5	ug/L		07/15/22 08:55	07/18/22 14:46	1
Nitrobenzene	ND		10	0.13	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Nitrophenol	ND		10	5.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Nitrophenol	ND		10	2.1	ug/L		07/15/22 08:55	07/18/22 14:46	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/15/22 08:55	07/18/22 14:46	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/15/22 08:55	07/18/22 14:46	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/15/22 08:55	07/18/22 14:46	1
Pentachlorophenol	ND		20	1.4	ug/L		07/15/22 08:55	07/18/22 14:46	1
Phenol	ND		10	2.6	ug/L		07/15/22 08:55	07/18/22 14:46	1
Pyridine	ND		10	3.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
Quinoline	ND		10	4.5	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/15/22 08:55	07/18/22 14:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*07/15/22 08:55*	*07/18/22 14:46*	*1*
2-Fluorophenol	*20*		*13 - 113*	*07/15/22 08:55*	*07/18/22 14:46*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*07/15/22 08:55*	*07/18/22 14:46*	*1*
Phenol-d5	*55*		*17 - 127*	*07/15/22 08:55*	*07/18/22 14:46*	*1*
Terphenyl-d14	*99*		*44 - 149*	*07/15/22 08:55*	*07/18/22 14:46*	*1*
2,4,6-Tribromophenol	*73*		*26 - 150*	*07/15/22 08:55*	*07/18/22 14:46*	*1*

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

Lab Sample ID: LCS 400-584922/2-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	87.8		ug/L		73	21 - 120
Benzoic acid	513	313		ug/L		61	10 - 144
Benzyl alcohol	120	93.4		ug/L		78	28 - 120
Bis(2-chloroethoxy)methane	120	85.6		ug/L		71	47 - 120
Bis(2-chloroethyl)ether	120	88.7		ug/L		74	44 - 120
bis (2-chloroisopropyl) ether	120	78.2		ug/L		65	33 - 121
Bis(2-ethylhexyl) phthalate	120	109		ug/L		91	52 - 147
4-Bromophenyl phenyl ether	120	115		ug/L		95	54 - 122
Butyl benzyl phthalate	120	105		ug/L		88	54 - 133
4-Chloroaniline	120	80.1		ug/L		67	26 - 120
4-Chloro-3-methylphenol	120	102		ug/L		85	48 - 131
2-Chloronaphthalene	120	98.4		ug/L		82	52 - 121
2-Chlorophenol	120	89.2		ug/L		74	40 - 120
4-Chlorophenyl phenyl ether	120	105		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	113		ug/L		95	31 - 150
Dibenzofuran	120	102		ug/L		85	56 - 122
3,3'-Dichlorobenzidine	160	237	*+	ug/L		148	36 - 132
2,4-Dichlorophenol	120	98.8		ug/L		82	49 - 120
Diethyl phthalate	120	104		ug/L		87	50 - 137
2,4-Dimethylphenol	120	93.3		ug/L		78	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	119		ug/L		99	58 - 126
4,6-Dinitro-ortho-cresol	240	216		ug/L		90	23 - 148
2,4-Dinitrophenol	240	222		ug/L		93	10 - 150
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142
2,6-Dinitrotoluene	120	101		ug/L		84	55 - 130
Di-n-octyl phthalate	120	103		ug/L		86	57 - 138
1,4-Dioxane	120	66.9		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	91.2		ug/L		76	45 - 124
Hexachlorobenzene	120	115		ug/L		96	52 - 129
Hexachlorocyclopentadiene	120	84.4		ug/L		70	10 - 134
Hexachloroethane	120	72.0		ug/L		60	20 - 120
Indene	120	99.5		ug/L		83	49 - 120
Isophorone	120	88.9		ug/L		74	48 - 120
2-Methylphenol	120	94.4		ug/L		79	46 - 124
3 & 4 Methylphenol	120	90.8		ug/L		76	45 - 120
2-Nitroaniline	120	87.3		ug/L		73	51 - 145
3-Nitroaniline	120	95.2		ug/L		79	37 - 127
4-Nitroaniline	120	94.9		ug/L		79	36 - 137
Nitrobenzene	120	80.1		ug/L		67	45 - 120
2-Nitrophenol	120	76.8		ug/L		64	40 - 124
4-Nitrophenol	240	192		ug/L		80	23 - 146
N-Nitrosodimethylamine	120	83.2		ug/L		69	29 - 137
N-Nitrosodi-n-propylamine	120	88.1		ug/L		73	45 - 120
N-Nitrosodiphenylamine	119	107		ug/L		89	54 - 120
Pentachlorophenol	240	216		ug/L		90	31 - 130
Phenol	120	81.9		ug/L		68	11 - 120
Pyridine	240	139		ug/L		58	16 - 120

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

Lab Sample ID: LCS 400-584922/2-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

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	112		ug/L		94	51 - 136
2,4,6-Trichlorophenol	120	114		ug/L		95	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*71*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*101*		*26 - 150*

Lab Sample ID: LCS 400-584922/3-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	6.30	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*82*		*26 - 150*

Lab Sample ID: LCSD 400-584922/4-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	4.32	J *- *1	ug/L		4	10 - 120	37	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*97*		*44 - 149*
2,4,6-Tribromophenol	*83*		*26 - 150*

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/20/22 15:41	07/22/22 16:25	1

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		46 - 124	07/20/22 15:41	07/22/22 16:25	1
Nitrobenzene-d5	70		36 - 126	07/20/22 15:41	07/22/22 16:25	1
Terphenyl-d14	84		44 - 149	07/20/22 15:41	07/22/22 16:25	1

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bis(2-ethylhexyl) phthalate			120	110		ug/L		92	52 - 147		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	81		46 - 124
Nitrobenzene-d5	83		36 - 126
Terphenyl-d14	95		44 - 149

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			120	119		ug/L		99	52 - 147	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	81		46 - 124
Nitrobenzene-d5	84		36 - 126
Terphenyl-d14	96		44 - 149

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

Lab Sample ID: MB 400-584922/1-A
Matrix: Water
Analysis Batch: 585193

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/15/22 08:55	07/18/22 14:34	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/15/22 08:55	07/18/22 14:34	1
Anthracene	ND		0.20	0.032	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[a]anthracene	0.0567	J	0.20	0.046	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/15/22 08:55	07/18/22 14:34	1
Chrysene	ND		0.20	0.074	ug/L		07/15/22 08:55	07/18/22 14:34	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/15/22 08:55	07/18/22 14:34	1
Fluoranthene	ND		0.20	0.068	ug/L		07/15/22 08:55	07/18/22 14:34	1
Fluorene	ND		0.20	0.11	ug/L		07/15/22 08:55	07/18/22 14:34	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/15/22 08:55	07/18/22 14:34	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/15/22 08:55	07/18/22 14:34	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/15/22 08:55	07/18/22 14:34	1
Phenanthrene	ND		0.20	0.036	ug/L		07/15/22 08:55	07/18/22 14:34	1

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

Lab Sample ID: MB 400-584922/1-A
Matrix: Water
Analysis Batch: 585193

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.20	0.040	ug/L		07/15/22 08:55	07/18/22 14:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*47*		*15 - 122*	*07/15/22 08:55*	*07/18/22 14:34*	*1*
Nitrobenzene-d5	*40*		*19 - 130*	*07/15/22 08:55*	*07/18/22 14:34*	*1*
Terphenyl-d14	*64*		*33 - 138*	*07/15/22 08:55*	*07/18/22 14:34*	*1*

Lab Sample ID: LCS 400-584922/2-A
Matrix: Water
Analysis Batch: 585193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	129		ug/L		107	41 - 120
Acenaphthylene	120	113		ug/L		95	44 - 120
Anthracene	120	129		ug/L		108	49 - 120
Benzo[a]anthracene	120	122		ug/L		101	61 - 135
Benzo[a]pyrene	120	124		ug/L		104	52 - 120
Benzo[b]fluoranthene	120	131		ug/L		109	53 - 134
Benzo[g,h,i]perylene	120	103		ug/L		86	47 - 133
Benzo[k]fluoranthene	120	134		ug/L		112	57 - 134
Chrysene	120	116		ug/L		97	55 - 122
Dibenz(a,h)anthracene	120	123		ug/L		103	48 - 146
Fluoranthene	120	138		ug/L		115	54 - 128
Fluorene	120	132		ug/L		110	45 - 125
Indeno[1,2,3-cd]pyrene	120	117		ug/L		97	43 - 142
1-Methylnaphthalene	120	89.6		ug/L		75	41 - 120
2-Methylnaphthalene	120	88.1		ug/L		73	32 - 124
Phenanthrene	120	126		ug/L		105	48 - 120
Pyrene	120	130		ug/L		108	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*97*		*15 - 122*
Nitrobenzene-d5	*59*		*19 - 130*
Terphenyl-d14	*101*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-584784/1-A
Matrix: Water
Analysis Batch: 584894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584784

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/14/22 11:58	07/14/22 17:45	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		07/14/22 11:58	07/14/22 17:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*71*		*51 - 149*	*07/14/22 11:58*	*07/14/22 17:45*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-584784/2-A
Matrix: Water
Analysis Batch: 584894

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584784

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.132	p	ug/L		131	60 - 140		
1,2-D bromoethane			0.101	0.0885	p	ug/L		88	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*71*	*p*	*51 - 149*

Lab Sample ID: LCSD 400-584784/3-A
Matrix: Water
Analysis Batch: 584894

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 584784

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.135	p	ug/L		134	60 - 140	2	30
1,2-D bromoethane			0.101	0.0901	p	ug/L		89	60 - 140	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*73*	*p*	*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)

☐ CALSCIENCE (_____)

☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))

☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG | ☐ PIPELINE | ☐ RETAIL

☐ CHEMICALS | ☐ CONSULTANT | ☐ LUBES

☐ TRANSPORTATION | ☑ OTHER _ENV. SERVICES_____

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 7/8/2022
PO #	**GSAP Project ID**	PAGE: 1 of 2
60674381 – 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 Quarterly GW 60674381 – 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, Bob Billman - please see special instructions	314-802-1207; 314-802-1122	melissa.remiger@aecom.com; bob.billman@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

TELEPHONE	FAX	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

SAMPLER NAME(S) (Print): J. Mayer, J. Nichols

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 :

Please include "J" values on Reports.

Please provide sample receipt upon login.

Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES

☐ STATE REIMBURSEMENT RATE APPLIES

☐ EDD NOT NEEDED

☑ RECEIPT VERIFICATION REQUESTED

☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

60674381 – 3.3.2

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-070822-8260-A	7/8/2022	0000	Water	2					2	x			
	TB-ROX-070822-8011-A	7/8/2022	0000	Water	2					2		x		
	MW11-ROX-070822-EB	7/8/2022	0835	Water	6			2		8	x	x	x	x
	MW11-ROX-070822	7/8/2022	1025	Water	6			2		8	x	x	x	x
	MW10-ROX-070822	7/8/2022	1110	Water	6			2		8	x	x	x	x
	MW12-ROX-070822	7/8/2022	1230	Water	6			2		8	x	x	x	x
	MW1-ROX-070822	7/8/2022	1315	Water	6			2		8	x	x	x	x

400-222676 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

2.1°C IR9

Container PID Readings or Laboratory Notes

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Joe Mayer	FEDEX: 5564 3930 5383, 5564 3930 5372	7/8/2022	1600
		7/8/22	957.

Version 14Jan22

CUSTODY SEALS: 979456, 979457, 979458, 979459

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: 7/8/2022
PO #	**GSAP Project ID**	PAGE: 2 of 2
60674381 – 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 60674381 – 3.3.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions

PHONE NO.: 314-802-1207; 314-802-1122

E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com

AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

SAMPLER NAME(S) (Print): M. Massa; M. Heintz

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 :

Please include "J" values on Reports.

Please provide sample receipt upon login.

Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES

☐ STATE REIMBURSEMENT RATE APPLIES

☐ EDD NOT NEEDED

☑ RECEIPT VERIFICATION REQUESTED

☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS

60674381 – 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-070822-8260-B	7/8/2022	0000	Water	X					2	X			
	TB-ROX-070822-8011-B	7/8/2022	0000	Water	X					2		X		
	MW6D-ROX-070822-EB	7/8/2022	0830	Water	X			X		8	X	x	x	x
	MW6D-ROX-070822	7/8/2022	1045	Water	x			x		8	x	x	x	x
	MW6C-ROX-070822	7/8/2022	1130	Water	x			x		8	x	x	x	x
	MW6B-ROX-070822	7/8/2022	1215	Water	x			x		8	x	x	x	x
	MW6A-ROX-070822	7/8/2022	1310	Water	x			x		8	x	x	x	x

7/8/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: See page 1	7/8/2022	1600
		7/8/22	957

Version: 14Jan22

CUSTODY SEALS: See page 1

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-222676-1

Login Number: 222676
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1°C IR9
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: 400-222676-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 3rd Quarter 2022 Data Review

Laboratory SDG: 400-222762-1-Rev.1

Data Reviewer: Melissa Remiger

Peer Reviewer: Andreia Vladimirescu

Date Reviewed: 9/12/2022

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

Sample Identification	Sample Identification
TB-ROX-071122-8260-A	TB-ROX-071122-8011-A
MW24-ROX-071122	MW13-ROX-071122
P114R-ROX-071122	TB-ROX-071122-8260-B
TB-ROX-071122-8011-B	MW5-ROX-071122
MW27-ROX-071122	MW14-ROX-071122

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 bis(2-ethylhexyl) phthalate in sample P114R-ROX-071122 was re-extracted outside of the extraction time criteria. Diethyl phthalate and benzo[a]anthracene were detected in the method blank. LCS/LCSD recoveries, and/or LCS/LCSD RPDs, for 3,3'-dichlorobenzidine, benzenethiol, and 1,2-dibromo-3-chloropropane, were outside evaluation criteria. Surrogate recoveries for PAH terphenyl-d_{14} in samples MW27-ROX-071122 and MW14-ROX-071122, and several SVOCs in matrix spike MW5-ROX-071122 MS, were outside criteria. Several VOC and SVOC MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in samples MW24-ROX-071122 and MW5-ROX-071122. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on July 29, 2022 to correctly report SVOC reanalysis for sample P114R-ROX-071122.

Three of 69 (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 P114R-ROX-071122 was re-extracted 2 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. Analytical data requiring qualification is summarized in the table below.

Sample ID	Parameter	Analyte	Qualification
P114R-ROX-071122 – 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 400-584922/1-A	SVOCs	Diethyl phthalate	0.287 µg/L
MB 400-584922/1-A	PAHs	Benzo[a]anthracene	0.0567 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
P114R-ROX-071122	PAHs	Benzo[a]anthracene	-	**U**
MW5-ROX-071122	PAHs	Benzo[a]anthracene	-	**U**
MW5-ROX-071122	SVOCs	Diethyl phthalate	-	**U**
MW14-ROX-071122	PAHs	Benzo[a]anthracene	-	**U**
MW14-ROX-071122	SVOCs	Diethyl phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-584619/2-A	SVOCs	3,3'-Dichlorobenzidine	**162**	NA	36-132
LCS/LCSD 400-584619/3-A/4-A	SVOCs	Benzenethiol	**2/2**	23	10-120/30
LCS 400-584922/2-A	SVOCs	3,3'-Dichlorobenzidine	**148**	NA	36-132
LCS/LCSD 400-584922/3-A/4-A	SVOCs	Benzenethiol	**5/4**	**37**	10-120/30
LCS/LCSD 400-585213/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	136/**147**	8	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW24-ROX-071122	SVOCs	Benzenethiol	**UJ**
MW13-ROX-071122	SVOCs	Benzenethiol	**UJ**
P114R-ROX-071122	SVOCs	Benzenethiol	**UJ**
MW5-ROX-071122	SVOCs	Benzenethiol	**UJ**
MW27-ROX-071122	SVOCs	Benzenethiol	**UJ**
MW14-ROX-071122	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW27-ROX-071122	PAHs	Terphenyl-d_{14}	**150**	33-138
MW14-ROX-071122	PAHs	Terphenyl-d_{14}	**147**	33-138
MW5-ROX-071122 MS	SVOCs	2-Fluorophenol	**3**	13-113
MW5-ROX-071122 MS	SVOCs	Phenol-d_5	**15**	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. Matrix spikes 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, samples MW24-ROX-071122 and MW5-ROX-071122 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
MW24-ROX-071122 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**5/0**	NC	10-150/50
MW24-ROX-071122 MS/MSD	SVOCs	3,3'-Dichlorobenzidine	**148/154**	5	10-120/58
MW24-ROX-071122 MS/MSD	SVOCs	1,4-Dioxane	**49**/51	5	50-150/40
MW5-ROX-071122 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW5-ROX-071122 MS/MSD	SVOCs	Benzoic acid	39/79	**64**	10-149/49
MW5-ROX-071122 MS/MSD	SVOCs	2-Chlorophenol	**9**/53	**145**	25-120/42
MW5-ROX-071122 MS/MSD	SVOCs	3,3'-Dichlorobenzidine	**123**/40	**101**	10-120/58

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW5-ROX-071122 MS/MSD	SVOCs	2,4-Dichlorophenol	**24**/74	**102**	31-120/43
MW5-ROX-071122 MS/MSD	SVOCs	4,6-Dinitro-ortho-cresol	64/104	**49**	25-120/42
MW5-ROX-071122 MS/MSD	SVOCs	2,4-Dinitrophenol	64/110	**54**	15-140/36
MW5-ROX-071122 MS/MSD	SVOCs	1,4-Dioxane	**42**/54	26	50-150/40
MW5-ROX-071122 MS/MSD	SVOCs	2-Methylphenol	37/74	**67**	28-120/47
MW5-ROX-071122 MS/MSD	SVOCs	3 & 4 Methylphenol	32/70	**74**	31-120/47
MW5-ROX-071122 MS/MSD	SVOCs	2-Nitrophenol	**12**/59	**132**	33-120/43
MW5-ROX-071122 MS/MSD	SVOCs	Phenol	13/55	**122**	10-150/52
MW5-ROX-071122 MS/MSD	SVOCs	2,4,5-Trichlorophenol	48/92	**63**	34-120/42
MW5-ROX-071122 MS/MSD	SVOCs	2,4,6-Trichlorophenol	36/90	**86**	33-120/44

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
MW24-ROX-071122	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW24-ROX-071122	SVOCs	1,4-Dioxane	**UJ**
MW5-ROX-071122	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW5-ROX-071122	SVOCs	2-Chlorophenol	**UJ**
MW5-ROX-071122	SVOCs	2,4-Dichlorophenol	**UJ**
MW5-ROX-071122	SVOCs	1,4-Dioxane	**UJ**
MW5-ROX-071122	SVOCs	2-Nitrophenol	**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?

No

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-222762-1
Client Project/Site: ROXANA QUARTERLY GW
Revision: 1

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
7/29/2022 10:19:52 AM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS

Review your project results through myEOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Sample Summary 5
Detection Summary 6
Client Sample Results 8
Definitions 38
Surrogate Summary 40
Method Summary 43
Chronicle 44
QC Association 52
QC Sample Results 56
Chain of Custody 91
Receipt Checklists 93
Certification Summary 94

Job ID: 400-222762-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-222762-1

Comments
Revised Report
Report revised to correct SVOC re-analysis reporting for P114R-ROX-071122 (400-222762-5).
Supersedes report dated 7-26-2022.

Receipt
The samples were received on 7/12/2022 9:08 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 2.7º C and 3.7º C.

GC/MS VOA
Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-071122-8260-A (400-222762-1), MW24-ROX-071122 (400-222762-3), MW13-ROX-071122 (400-222762-4), P114R-ROX-071122 (400-222762-5), TB-ROX-071122-8260-B (400-222762-6), MW5-ROX-071122 (400-222762-8), MW27-ROX-071122 (400-222762-9) and MW14-ROX-071122 (400-222762-10). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-585095 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-585095 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 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-584619 and analytical batch 400-584968 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-584619 and analytical batch 400-584968 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-584619 and analytical batch 400-584968 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-584922 and analytical batch 400-585184 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-584922 and analytical batch 400-585184 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-584922 and analytical batch 400-585184 recovered outside control limits for the following analyte(s): 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The matrix spike (MS) recoveries for preparation batch 400-584922 and analytical batch 400-585184 were outside control

Job ID: 400-222762-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 400-584922 and analytical batch 400-585184 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8270D: The method blank for preparation batch 400-584922 and analytical batch 400-585184 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The surrogate recovery for the MS associated with preparation batch 400-584922 and analytical batch 400-585184 was outside the control limits. However, the surrogate recovery in the samples are within acceptance limits; therefore, the data have been reported.

Method 8270D: 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): P114R-ROX-071122 (400-222762-5). Samples were re-prepared and/or re-analyzed outside holding time, and both sets of data have been reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW27-ROX-071122 (400-222762-9) and MW14-ROX-071122 (400-222762-10). These results have been reported and qualified.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-585193 recovered above the upper control limit for Benzo[k]fluoranthene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The method blank for preparation batch 400-584922 and analytical batch 400-585193 contained Benzo[a]anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-585254 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample duplicate (LCSD) for preparation batch 400-585213 and analytical batch 400-585254 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

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

Job ID: 400-222762-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-222762-1	TB-ROX-071122-8260-A	Water	07/11/22 12:00	07/12/22 09:08
400-222762-2	TB-ROX-071122-8011-A	Water	07/11/22 12:00	07/12/22 09:08
400-222762-3	MW24-ROX-071122	Water	07/11/22 09:20	07/12/22 09:08
400-222762-4	MW13-ROX-071122	Water	07/11/22 11:20	07/12/22 09:08
400-222762-5	P114R-ROX-071122	Water	07/11/22 12:20	07/12/22 09:08
400-222762-6	TB-ROX-071122-8260-B	Water	07/11/22 12:00	07/12/22 09:08
400-222762-7	TB-ROX-071122-8011-B	Water	07/11/22 12:00	07/12/22 09:08
400-222762-8	MW5-ROX-071122	Water	07/11/22 09:10	07/12/22 09:08
400-222762-9	MW27-ROX-071122	Water	07/11/22 10:30	07/12/22 09:08
400-222762-10	MW14-ROX-071122	Water	07/11/22 14:00	07/12/22 09:08

Detection Summary

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

Job ID: 400-222762-1

Client Sample ID: TB-ROX-071122-8260-A — Lab Sample ID: 400-222762-1

No Detections.

Client Sample ID: TB-ROX-071122-8011-A — Lab Sample ID: 400-222762-2

No Detections.

Client Sample ID: MW24-ROX-071122 — Lab Sample ID: 400-222762-3

No Detections.

Client Sample ID: MW13-ROX-071122 — Lab Sample ID: 400-222762-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.69	J	1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: P114R-ROX-071122 — Lab Sample ID: 400-222762-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.3		1.0	0.22	ug/L	1		8260B	Total/NA
Acenaphthene	0.28		0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.060	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.099	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.096	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.096	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.091	J	0.19	0.064	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.11	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.062	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Benzoic acid	18	J	28	6.9	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	8.4	J	9.4	4.7	ug/L	1		8270D	Total/NA

Client Sample ID: TB-ROX-071122-8260-B — Lab Sample ID: 400-222762-6

No Detections.

Client Sample ID: TB-ROX-071122-8011-B — Lab Sample ID: 400-222762-7

No Detections.

Client Sample ID: MW5-ROX-071122 — Lab Sample ID: 400-222762-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.0		1.0	0.22	ug/L	1		8260B	Total/NA
tert-Butylbenzene	2.2		1.0	0.63	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.079	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.11	J	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.078	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.099	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzoic acid	16	J F2	28	6.8	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	5.3	J	9.3	4.6	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.23	J B U	9.3	0.22	ug/L	1		8270D	Total/NA

Client Sample ID: MW27-ROX-071122 — Lab Sample ID: 400-222762-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	0.15	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.18	J	0.19	0.042	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	0.20		0.19	0.070	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW27-ROX-071122 (Continued)

Lab Sample ID: 400-222762-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.24		0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.051	J	0.19	0.034	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW14-ROX-071122

Lab Sample ID: 400-222762-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.059	J B U	0.19	0.044	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.43	J B U	9.5	0.23	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-222762-1

Client Sample ID: TB-ROX-071122-8260-A
Date Collected: 07/11/22 12:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/16/22 13:08	1
Acrolein	ND		20	3.3	ug/L			07/16/22 13:08	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 13:08	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 13:08	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 13:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 13:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 13:08	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 13:08	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 13:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 13:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 13:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 13:08	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 13:08	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/16/22 13:08	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 13:08	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 13:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 13:08	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 13:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 13:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 13:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 13:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 13:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 13:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 13:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 13:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 13:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 13:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 13:08	1
Ethy benzene	ND		1.0	0.50	ug/L			07/16/22 13:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 13:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 13:08	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 13:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/16/22 13:08	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 13:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 13:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 13:08	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/16/22 13:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 13:08	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 13:08	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/16/22 13:08	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/16/22 13:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 13:08	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 13:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 13:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 13:08	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 13:08	1

Client Sample ID: TB-ROX-071122-8260-A
Date Collected: 07/11/22 12:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/16/22 13:08	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/16/22 13:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 13:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 13:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 13:08	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 13:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 13:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 13:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 13:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 13:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 13:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 13:08	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 13:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 13:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 13:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/16/22 13:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/16/22 13:08	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 13:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 13:08	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 13:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*07/16/22 13:08*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/16/22 13:08*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/16/22 13:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 10:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/20/22 10:33*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*07/20/22 10:33*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/20/22 10:33*	*1*

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

Job ID: 400-222762-1

Client Sample ID: TB-ROX-071122-8011-A
Date Collected: 07/11/22 12:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		07/18/22 14:46	07/18/22 19:28	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/18/22 14:46	07/18/22 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*07/18/22 14:46*	*07/18/22 19:28*	*1*

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

Job ID: 400-222762-1

Client Sample ID: MW24-ROX-071122
Date Collected: 07/11/22 09:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/16/22 11:19	1
Acrolein	ND		20	3.3	ug/L			07/16/22 11:19	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 11:19	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 11:19	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 11:19	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 11:19	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 11:19	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 11:19	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 11:19	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 11:19	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 11:19	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 11:19	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 11:19	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/16/22 11:19	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 11:19	1
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			07/16/22 11:19	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 11:19	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 11:19	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 11:19	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 11:19	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 11:19	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 11:19	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 11:19	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 11:19	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 11:19	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 11:19	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 11:19	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 11:19	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 11:19	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 11:19	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 11:19	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 11:19	1
Ethy benzene	ND		1.0	0.50	ug/L			07/16/22 11:19	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 11:19	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 11:19	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 11:19	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/16/22 11:19	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 11:19	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 11:19	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 11:19	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/16/22 11:19	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 11:19	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 11:19	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/16/22 11:19	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/16/22 11:19	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 11:19	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 11:19	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 11:19	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 11:19	1

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

Job ID: 400-222762-1

Client Sample ID: MW24-ROX-071122
Date Collected: 07/11/22 09:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 11:19	1
Styrene	ND		1.0	1.0	ug/L			07/16/22 11:19	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/16/22 11:19	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 11:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 11:19	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 11:19	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 11:19	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 11:19	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 11:19	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 11:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 11:19	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 11:19	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 11:19	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 11:19	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 11:19	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 11:19	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/16/22 11:19	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/16/22 11:19	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 11:19	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 11:19	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 11:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*72 - 119*		*07/16/22 11:19*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*07/16/22 11:19*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*07/16/22 11:19*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/13/22 11:46	07/15/22 14:20	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/13/22 11:46	07/15/22 14:20	1
Anthracene	ND		0.19	0.030	ug/L		07/13/22 11:46	07/15/22 14:20	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		07/13/22 11:46	07/15/22 14:20	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		07/13/22 11:46	07/15/22 14:20	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/13/22 11:46	07/15/22 14:20	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/13/22 11:46	07/15/22 14:20	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/13/22 11:46	07/15/22 14:20	1
Chrysene	ND		0.19	0.069	ug/L		07/13/22 11:46	07/15/22 14:20	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/13/22 11:46	07/15/22 14:20	1
Fluoranthene	ND		0.19	0.064	ug/L		07/13/22 11:46	07/15/22 14:20	1
Fluorene	ND		0.19	0.10	ug/L		07/13/22 11:46	07/15/22 14:20	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		07/13/22 11:46	07/15/22 14:20	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		07/13/22 11:46	07/15/22 14:20	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		07/13/22 11:46	07/15/22 14:20	1
Phenanthrene	ND		0.19	0.034	ug/L		07/13/22 11:46	07/15/22 14:20	1
Pyrene	ND		0.19	0.037	ug/L		07/13/22 11:46	07/15/22 14:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*107*		*15 - 122*	*07/13/22 11:46*	*07/15/22 14:20*	*1*
Nitrobenzene-d5	*102*		*19 - 130*	*07/13/22 11:46*	*07/15/22 14:20*	*1*

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

Job ID: 400-222762-1

Client Sample ID: MW24-ROX-071122

Date Collected: 07/11/22 09:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-3

Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*135*		*33 - 138*	*07/13/22 11:46*	*07/15/22 14:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/13/22 11:46	07/15/22 19:24	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		07/13/22 11:46	07/15/22 19:24	1
Benzoic acid	ND		28	6.8	ug/L		07/13/22 11:46	07/15/22 19:24	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/13/22 11:46	07/15/22 19:24	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/13/22 11:46	07/15/22 19:24	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/13/22 11:46	07/15/22 19:24	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/13/22 11:46	07/15/22 19:24	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/13/22 11:46	07/15/22 19:24	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/13/22 11:46	07/15/22 19:24	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/13/22 11:46	07/15/22 19:24	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/13/22 11:46	07/15/22 19:24	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/13/22 11:46	07/15/22 19:24	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/13/22 11:46	07/15/22 19:24	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/13/22 11:46	07/15/22 19:24	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/13/22 11:46	07/15/22 19:24	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/13/22 11:46	07/15/22 19:24	1
D benzofuran	ND		9.4	0.16	ug/L		07/13/22 11:46	07/15/22 19:24	1
3,3'-Dichlorobenzidine	ND	F1 *+	9.4	2.4	ug/L		07/13/22 11:46	07/15/22 19:24	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/13/22 11:46	07/15/22 19:24	1
Diethyl phthalate	ND		9.4	0.22	ug/L		07/13/22 11:46	07/15/22 19:24	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/13/22 11:46	07/15/22 19:24	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/13/22 11:46	07/15/22 19:24	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/13/22 11:46	07/15/22 19:24	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/13/22 11:46	07/15/22 19:24	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/13/22 11:46	07/15/22 19:24	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/13/22 11:46	07/15/22 19:24	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/13/22 11:46	07/15/22 19:24	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/13/22 11:46	07/15/22 19:24	1
1,4-Dioxane	ND	F1 UJ	9.4	0.94	ug/L		07/13/22 11:46	07/15/22 19:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/13/22 11:46	07/15/22 19:24	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/13/22 11:46	07/15/22 19:24	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/13/22 11:46	07/15/22 19:24	1
Hexachloroethane	ND		9.4	3.9	ug/L		07/13/22 11:46	07/15/22 19:24	1
Indene	ND		9.4	0.94	ug/L		07/13/22 11:46	07/15/22 19:24	1
Isophorone	ND		9.4	0.13	ug/L		07/13/22 11:46	07/15/22 19:24	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/13/22 11:46	07/15/22 19:24	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/13/22 11:46	07/15/22 19:24	1
2-Nitroaniline	ND		9.4	2.1	ug/L		07/13/22 11:46	07/15/22 19:24	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/13/22 11:46	07/15/22 19:24	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/13/22 11:46	07/15/22 19:24	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/13/22 11:46	07/15/22 19:24	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/13/22 11:46	07/15/22 19:24	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/13/22 11:46	07/15/22 19:24	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/13/22 11:46	07/15/22 19:24	1

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

Job ID: 400-222762-1

Client Sample ID: MW24-ROX-071122

Date Collected: 07/11/22 09:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-3

Matrix: Water

Method: 8270D - 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		07/13/22 11:46	07/15/22 19:24	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/13/22 11:46	07/15/22 19:24	1
Pentachlorophenol	ND		19	1.3	ug/L		07/13/22 11:46	07/15/22 19:24	1
Phenol	ND		9.4	2.4	ug/L		07/13/22 11:46	07/15/22 19:24	1
Pyridine	ND		9.4	3.0	ug/L		07/13/22 11:46	07/15/22 19:24	1
Quinoline	ND		9.4	4.2	ug/L		07/13/22 11:46	07/15/22 19:24	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/13/22 11:46	07/15/22 19:24	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/13/22 11:46	07/15/22 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*46 - 124*	*07/13/22 11:46*	*07/15/22 19:24*	*1*
2-Fluorophenol	*67*		*13 - 113*	*07/13/22 11:46*	*07/15/22 19:24*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*07/13/22 11:46*	*07/15/22 19:24*	*1*
Phenol-d5	*80*		*17 - 127*	*07/13/22 11:46*	*07/15/22 19:24*	*1*
Terphenyl-d14	*103*		*44 - 149*	*07/13/22 11:46*	*07/15/22 19:24*	*1*
2,4,6-Tribromophenol	*84*		*26 - 150*	*07/13/22 11:46*	*07/15/22 19:24*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	F2 *+	0.030	0.017	ug/L		07/18/22 14:46	07/18/22 19:51	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/18/22 14:46	07/18/22 19:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*51 - 149*	*07/18/22 14:46*	*07/18/22 19:51*	*1*

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

Job ID: 400-222762-1

Client Sample ID: MW13-ROX-071122
Date Collected: 07/11/22 11:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/16/22 15:34	1
Acrolein	ND		20	3.3	ug/L			07/16/22 15:34	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 15:34	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 15:34	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 15:34	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 15:34	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 15:34	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 15:34	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 15:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 15:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 15:34	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 15:34	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 15:34	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/16/22 15:34	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 15:34	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 15:34	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 15:34	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 15:34	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 15:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 15:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 15:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 15:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 15:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 15:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 15:34	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 15:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 15:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 15:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 15:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 15:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 15:34	1
Ethy benzene	ND		1.0	0.50	ug/L			07/16/22 15:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 15:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 15:34	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 15:34	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/16/22 15:34	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 15:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 15:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 15:34	1
Methyl tert-butyl ether	**0.69**	**J**	1.0	0.22	ug/L			07/16/22 15:34	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 15:34	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 15:34	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/16/22 15:34	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/16/22 15:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 15:34	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 15:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 15:34	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 15:34	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 15:34	1

Client Sample ID: MW13-ROX-071122
Date Collected: 07/11/22 11:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/16/22 15:34	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/16/22 15:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 15:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 15:34	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 15:34	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 15:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 15:34	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 15:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 15:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 15:34	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 15:34	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 15:34	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 15:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 15:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 15:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/16/22 15:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/16/22 15:34	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 15:34	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 15:34	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 15:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*07/16/22 15:34*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*07/16/22 15:34*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*07/16/22 15:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/20/22 14:02*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/20/22 14:02*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/20/22 14:02*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/13/22 11:46	07/15/22 14:36	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/13/22 11:46	07/15/22 14:36	1
Anthracene	ND		0.19	0.030	ug/L		07/13/22 11:46	07/15/22 14:36	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		07/13/22 11:46	07/15/22 14:36	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/13/22 11:46	07/15/22 14:36	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/13/22 11:46	07/15/22 14:36	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/13/22 11:46	07/15/22 14:36	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/13/22 11:46	07/15/22 14:36	1
Chrysene	ND		0.19	0.070	ug/L		07/13/22 11:46	07/15/22 14:36	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/13/22 11:46	07/15/22 14:36	1
Fluoranthene	ND		0.19	0.064	ug/L		07/13/22 11:46	07/15/22 14:36	1
Fluorene	ND		0.19	0.10	ug/L		07/13/22 11:46	07/15/22 14:36	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/13/22 11:46	07/15/22 14:36	1

Client Sample ID: MW13-ROX-071122
Date Collected: 07/11/22 11:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/13/22 11:46	07/15/22 14:36	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/13/22 11:46	07/15/22 14:36	1
Phenanthrene	ND		0.19	0.034	ug/L		07/13/22 11:46	07/15/22 14:36	1
Pyrene	ND		0.19	0.038	ug/L		07/13/22 11:46	07/15/22 14:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*15 - 122*	*07/13/22 11:46*	*07/15/22 14:36*	*1*
Nitrobenzene-d5	*88*		*19 - 130*	*07/13/22 11:46*	*07/15/22 14:36*	*1*
Terphenyl-d14	*109*		*33 - 138*	*07/13/22 11:46*	*07/15/22 14:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/13/22 11:46	07/15/22 19:45	1
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		07/13/22 11:46	07/15/22 19:45	1
Benzoic acid	ND		28	6.9	ug/L		07/13/22 11:46	07/15/22 19:45	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/13/22 11:46	07/15/22 19:45	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/13/22 11:46	07/15/22 19:45	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/13/22 11:46	07/15/22 19:45	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/13/22 11:46	07/15/22 19:45	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		07/13/22 11:46	07/15/22 19:45	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/13/22 11:46	07/15/22 19:45	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/13/22 11:46	07/15/22 19:45	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/13/22 11:46	07/15/22 19:45	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/13/22 11:46	07/15/22 19:45	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/13/22 11:46	07/15/22 19:45	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/13/22 11:46	07/15/22 19:45	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/13/22 11:46	07/15/22 19:45	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/13/22 11:46	07/15/22 19:45	1
D benzofuran	ND		9.5	0.16	ug/L		07/13/22 11:46	07/15/22 19:45	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/13/22 11:46	07/15/22 19:45	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/13/22 11:46	07/15/22 19:45	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/13/22 11:46	07/15/22 19:45	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/13/22 11:46	07/15/22 19:45	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/13/22 11:46	07/15/22 19:45	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/13/22 11:46	07/15/22 19:45	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/13/22 11:46	07/15/22 19:45	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/13/22 11:46	07/15/22 19:45	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/13/22 11:46	07/15/22 19:45	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/13/22 11:46	07/15/22 19:45	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/13/22 11:46	07/15/22 19:45	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/13/22 11:46	07/15/22 19:45	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/13/22 11:46	07/15/22 19:45	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/13/22 11:46	07/15/22 19:45	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/13/22 11:46	07/15/22 19:45	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/13/22 11:46	07/15/22 19:45	1
Indene	ND		9.5	0.95	ug/L		07/13/22 11:46	07/15/22 19:45	1
Isophorone	ND		9.5	0.13	ug/L		07/13/22 11:46	07/15/22 19:45	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/13/22 11:46	07/15/22 19:45	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/13/22 11:46	07/15/22 19:45	1

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

Job ID: 400-222762-1

Client Sample ID: MW13-ROX-071122
Date Collected: 07/11/22 11:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-4
Matrix: Water

Method: 8270D - 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		07/13/22 11:46	07/15/22 19:45	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/13/22 11:46	07/15/22 19:45	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/13/22 11:46	07/15/22 19:45	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/13/22 11:46	07/15/22 19:45	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/13/22 11:46	07/15/22 19:45	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/13/22 11:46	07/15/22 19:45	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/13/22 11:46	07/15/22 19:45	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/13/22 11:46	07/15/22 19:45	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/13/22 11:46	07/15/22 19:45	1
Pentachlorophenol	ND		19	1.3	ug/L		07/13/22 11:46	07/15/22 19:45	1
Phenol	ND		9.5	2.5	ug/L		07/13/22 11:46	07/15/22 19:45	1
Pyridine	ND		9.5	3.0	ug/L		07/13/22 11:46	07/15/22 19:45	1
Quinoline	ND		9.5	4.3	ug/L		07/13/22 11:46	07/15/22 19:45	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/13/22 11:46	07/15/22 19:45	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/13/22 11:46	07/15/22 19:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*07/13/22 11:46*	*07/15/22 19:45*	*1*
2-Fluorophenol	*63*		*13 - 113*	*07/13/22 11:46*	*07/15/22 19:45*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*07/13/22 11:46*	*07/15/22 19:45*	*1*
Phenol-d5	*80*		*17 - 127*	*07/13/22 11:46*	*07/15/22 19:45*	*1*
Terphenyl-d14	*102*		*44 - 149*	*07/13/22 11:46*	*07/15/22 19:45*	*1*
2,4,6-Tribromophenol	*114*		*26 - 150*	*07/13/22 11:46*	*07/15/22 19:45*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		07/18/22 14:46	07/18/22 21:00	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/18/22 14:46	07/18/22 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*69*		*51 - 149*	*07/18/22 14:46*	*07/18/22 21:00*	*1*

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

Job ID: 400-222762-1

Client Sample ID: P114R-ROX-071122
Date Collected: 07/11/22 12:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/16/22 15:55	1
Acrolein	ND		20	3.3	ug/L			07/16/22 15:55	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 15:55	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 15:55	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 15:55	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 15:55	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 15:55	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 15:55	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 15:55	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 15:55	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 15:55	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 15:55	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 15:55	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/16/22 15:55	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 15:55	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 15:55	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 15:55	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 15:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 15:55	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 15:55	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 15:55	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 15:55	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 15:55	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 15:55	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 15:55	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 15:55	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 15:55	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 15:55	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 15:55	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 15:55	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 15:55	1
Ethy benzene	ND		1.0	0.50	ug/L			07/16/22 15:55	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 15:55	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 15:55	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 15:55	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/16/22 15:55	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 15:55	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 15:55	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 15:55	1
Methyl tert-butyl ether	**1.3**		1.0	0.22	ug/L			07/16/22 15:55	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 15:55	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 15:55	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/16/22 15:55	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/16/22 15:55	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 15:55	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 15:55	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 15:55	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 15:55	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 15:55	1

Client Sample ID: P114R-ROX-071122
Date Collected: 07/11/22 12:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/16/22 15:55	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/16/22 15:55	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 15:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 15:55	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 15:55	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 15:55	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 15:55	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 15:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 15:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 15:55	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 15:55	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 15:55	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 15:55	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 15:55	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 15:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/16/22 15:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/16/22 15:55	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 15:55	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 15:55	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*07/16/22 15:55*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*07/16/22 15:55*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/16/22 15:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 14:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*72 - 119*		*07/20/22 14:27*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/20/22 14:27*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/20/22 14:27*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.28**		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 15:51	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/15/22 08:55	07/18/22 15:51	1
Anthracene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 15:51	1
Benzo[a]anthracene	**0.060**	**J B** U	0.19	0.043	ug/L		07/15/22 08:55	07/18/22 15:51	1
Benzo[a]pyrene	**0.099**	**J**	0.19	0.040	ug/L		07/15/22 08:55	07/18/22 15:51	1
Benzo[b]fluoranthene	**0.096**	**J**	0.19	0.032	ug/L		07/15/22 08:55	07/18/22 15:51	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 15:51	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/15/22 08:55	07/18/22 15:51	1
Chrysene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 15:51	1
Dibenz(a,h)anthracene	**0.096**	**J**	0.19	0.047	ug/L		07/15/22 08:55	07/18/22 15:51	1
Fluoranthene	**0.091**	**J**	0.19	0.064	ug/L		07/15/22 08:55	07/18/22 15:51	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 15:51	1
Indeno[1,2,3-cd]pyrene	**0.11**	**J**	0.19	0.041	ug/L		07/15/22 08:55	07/18/22 15:51	1

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

Job ID: 400-222762-1

Client Sample ID: P114R-ROX-071122
Date Collected: 07/11/22 12:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 15:51	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/15/22 08:55	07/18/22 15:51	1
Phenanthrene	**0.062**	**J**	0.19	0.034	ug/L		07/15/22 08:55	07/18/22 15:51	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*15 - 122*	*07/15/22 08:55*	*07/18/22 15:51*	*1*
Nitrobenzene-d5	*86*		*19 - 130*	*07/15/22 08:55*	*07/18/22 15:51*	*1*
Terphenyl-d14	*56*		*33 - 138*	*07/15/22 08:55*	*07/18/22 15:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 17:14	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/15/22 08:55	07/18/22 17:14	1
Benzoic acid	**18**	**J**	28	6.9	ug/L		07/15/22 08:55	07/18/22 17:14	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 17:14	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 17:14	1
Bis(2-chloroethyl)ether	ND		9.4	2.6	ug/L		07/15/22 08:55	07/18/22 17:14	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 17:14	1
Bis(2-ethylhexyl) phthalate	**8.4**	**J**	9.4	4.7	ug/L		07/15/22 08:55	07/18/22 17:14	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/15/22 08:55	07/18/22 17:14	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/15/22 08:55	07/18/22 17:14	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/15/22 08:55	07/18/22 17:14	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 17:14	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 17:14	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 17:14	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 17:14	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 17:14	1
D benzofuran	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 17:14	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		07/15/22 08:55	07/18/22 17:14	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/15/22 08:55	07/18/22 17:14	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/15/22 08:55	07/18/22 17:14	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 17:14	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 17:14	1
Di-n-butyl phthalate	ND		9.4	2.6	ug/L		07/15/22 08:55	07/18/22 17:14	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/15/22 08:55	07/18/22 17:14	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/15/22 08:55	07/18/22 17:14	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 17:14	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 17:14	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 17:14	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 17:14	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 17:14	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 17:14	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/15/22 08:55	07/18/22 17:14	1
Hexachloroethane	ND		9.4	4.0	ug/L		07/15/22 08:55	07/18/22 17:14	1
Indene	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 17:14	1
Isophorone	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 17:14	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 17:14	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 17:14	1

Client Sample ID: P114R-ROX-071122
Date Collected: 07/11/22 12:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 17:14	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 17:14	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/15/22 08:55	07/18/22 17:14	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/15/22 08:55	07/18/22 17:14	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/15/22 08:55	07/18/22 17:14	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/15/22 08:55	07/18/22 17:14	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 17:14	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		07/15/22 08:55	07/18/22 17:14	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/15/22 08:55	07/18/22 17:14	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 17:14	1
Phenol	ND		9.4	2.5	ug/L		07/15/22 08:55	07/18/22 17:14	1
Pyridine	ND		9.4	3.0	ug/L		07/15/22 08:55	07/18/22 17:14	1
Quinoline	ND		9.4	4.3	ug/L		07/15/22 08:55	07/18/22 17:14	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/15/22 08:55	07/18/22 17:14	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*07/15/22 08:55*	*07/18/22 17:14*	*1*
2-Fluorophenol	*47*		*13 - 113*	*07/15/22 08:55*	*07/18/22 17:14*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*07/15/22 08:55*	*07/18/22 17:14*	*1*
Phenol-d5	*66*		*17 - 127*	*07/15/22 08:55*	*07/18/22 17:14*	*1*
Terphenyl-d14	*50*		*44 - 149*	*07/15/22 08:55*	*07/18/22 17:14*	*1*
2,4,6-Tribromophenol	*97*		*26 - 150*	*07/15/22 08:55*	*07/18/22 17:14*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.6	4.8	ug/L		07/20/22 15:41	07/25/22 10:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*46 - 124*	*07/20/22 15:41*	*07/25/22 10:35*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*07/20/22 15:41*	*07/25/22 10:35*	*1*
Terphenyl-d14	*103*		*44 - 149*	*07/20/22 15:41*	*07/25/22 10:35*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		07/18/22 14:46	07/18/22 21:23	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/18/22 14:46	07/18/22 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*75*		*51 - 149*	*07/18/22 14:46*	*07/18/22 21:23*	*1*

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

Job ID: 400-222762-1

Client Sample ID: TB-ROX-071122-8260-B
Date Collected: 07/11/22 12:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/16/22 13:29	1
Acrolein	ND		20	3.3	ug/L			07/16/22 13:29	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 13:29	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 13:29	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 13:29	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 13:29	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 13:29	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 13:29	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 13:29	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 13:29	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 13:29	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 13:29	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 13:29	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/16/22 13:29	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 13:29	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 13:29	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 13:29	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 13:29	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 13:29	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 13:29	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 13:29	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 13:29	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 13:29	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 13:29	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 13:29	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 13:29	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 13:29	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:29	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:29	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:29	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 13:29	1
Ethy benzene	ND		1.0	0.50	ug/L			07/16/22 13:29	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 13:29	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 13:29	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 13:29	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/16/22 13:29	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 13:29	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 13:29	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 13:29	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/16/22 13:29	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 13:29	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 13:29	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/16/22 13:29	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/16/22 13:29	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 13:29	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 13:29	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 13:29	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 13:29	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 13:29	1

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

Job ID: 400-222762-1

Client Sample ID: TB-ROX-071122-8260-B
Date Collected: 07/11/22 12:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/16/22 13:29	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/16/22 13:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 13:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 13:29	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 13:29	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 13:29	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 13:29	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 13:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 13:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 13:29	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 13:29	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 13:29	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 13:29	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 13:29	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 13:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/16/22 13:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/16/22 13:29	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 13:29	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 13:29	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*07/16/22 13:29*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*07/16/22 13:29*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/16/22 13:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 13:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/20/22 13:39*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*07/20/22 13:39*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*07/20/22 13:39*	*1*

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

Job ID: 400-222762-1

Client Sample ID: TB-ROX-071122-8011-B
Date Collected: 07/11/22 12:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-7
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/18/22 14:46	07/18/22 21:46	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/18/22 14:46	07/18/22 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*07/18/22 14:46*	*07/18/22 21:46*	*1*

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

Job ID: 400-222762-1

Client Sample ID: MW5-ROX-071122
Date Collected: 07/11/22 09:10
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/16/22 13:50	1
Acrolein	ND		20	3.3	ug/L			07/16/22 13:50	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 13:50	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 13:50	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 13:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 13:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 13:50	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 13:50	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 13:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 13:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 13:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 13:50	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 13:50	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/16/22 13:50	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 13:50	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 13:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 13:50	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 13:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 13:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 13:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 13:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 13:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 13:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 13:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 13:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 13:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 13:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 13:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 13:50	1
Ethy benzene	ND		1.0	0.50	ug/L			07/16/22 13:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 13:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 13:50	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 13:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/16/22 13:50	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 13:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 13:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 13:50	1
Methyl tert-butyl ether	**3.0**		1.0	0.22	ug/L			07/16/22 13:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 13:50	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 13:50	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/16/22 13:50	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/16/22 13:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 13:50	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 13:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 13:50	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 13:50	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 13:50	1

Client Sample ID: MW5-ROX-071122

Date Collected: 07/11/22 09:10
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/16/22 13:50	1
tert-Butylbenzene	**2.2**		1.0	0.63	ug/L			07/16/22 13:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 13:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 13:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 13:50	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 13:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 13:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 13:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 13:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 13:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 13:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 13:50	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 13:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 13:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 13:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/16/22 13:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/16/22 13:50	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 13:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 13:50	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 13:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*07/16/22 13:50*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*07/16/22 13:50*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/16/22 13:50*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			07/20/22 10:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/20/22 10:56*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/20/22 10:56*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/20/22 10:56*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 15:35	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/15/22 08:55	07/18/22 15:35	1
Anthracene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 15:35	1
Benzo[a]anthracene	**0.079**	**J B** U	0.19	0.043	ug/L		07/15/22 08:55	07/18/22 15:35	1
Benzo[a]pyrene	**0.11**	**J**	0.19	0.039	ug/L		07/15/22 08:55	07/18/22 15:35	1
Benzo[b]fluoranthene	**0.078**	**J**	0.19	0.032	ug/L		07/15/22 08:55	07/18/22 15:35	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 15:35	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		07/15/22 08:55	07/18/22 15:35	1
Chrysene	ND		0.19	0.069	ug/L		07/15/22 08:55	07/18/22 15:35	1
D benz(a,h)anthracene	ND		0.19	0.046	ug/L		07/15/22 08:55	07/18/22 15:35	1
Fluoranthene	ND		0.19	0.063	ug/L		07/15/22 08:55	07/18/22 15:35	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 15:35	1
Indeno[1,2,3-cd]pyrene	**0.099**	**J**	0.19	0.040	ug/L		07/15/22 08:55	07/18/22 15:35	1

Client Sample ID: MW5-ROX-071122
Date Collected: 07/11/22 09:10
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.069	ug/L		07/15/22 08:55	07/18/22 15:35	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		07/15/22 08:55	07/18/22 15:35	1
Phenanthrene	ND		0.19	0.033	ug/L		07/15/22 08:55	07/18/22 15:35	1
Pyrene	ND		0.19	0.037	ug/L		07/15/22 08:55	07/18/22 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*111*		*15 - 122*	*07/15/22 08:55*	*07/18/22 15:35*	*1*
Nitrobenzene-d5	*86*		*19 - 130*	*07/15/22 08:55*	*07/18/22 15:35*	*1*
Terphenyl-d14	*107*		*33 - 138*	*07/15/22 08:55*	*07/18/22 15:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.3	3.5	ug/L		07/15/22 08:55	07/18/22 16:52	1
Benzenethiol	ND	*- *1 UJ	9.3	1.6	ug/L		07/15/22 08:55	07/18/22 16:52	1
Benzoic acid	**16**	**J F2**	28	6.8	ug/L		07/15/22 08:55	07/18/22 16:52	1
Benzyl alcohol	ND		9.3	1.9	ug/L		07/15/22 08:55	07/18/22 16:52	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		07/15/22 08:55	07/18/22 16:52	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		07/15/22 08:55	07/18/22 16:52	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		07/15/22 08:55	07/18/22 16:52	1
Bis(2-ethylhexyl) phthalate	**5.3**	**J**	9.3	4.6	ug/L		07/15/22 08:55	07/18/22 16:52	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		07/15/22 08:55	07/18/22 16:52	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		07/15/22 08:55	07/18/22 16:52	1
4-Chloroaniline	ND		9.3	3.2	ug/L		07/15/22 08:55	07/18/22 16:52	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		07/15/22 08:55	07/18/22 16:52	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		07/15/22 08:55	07/18/22 16:52	1
2-Chlorophenol	ND	F2 F1 UJ	9.3	2.0	ug/L		07/15/22 08:55	07/18/22 16:52	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		07/15/22 08:55	07/18/22 16:52	1
D benz[a,h]acridine	ND		9.3	0.93	ug/L		07/15/22 08:55	07/18/22 16:52	1
D benzofuran	ND		9.3	0.16	ug/L		07/15/22 08:55	07/18/22 16:52	1
3,3'-Dichlorobenzidine	ND	F2 F1 *+	9.3	2.4	ug/L		07/15/22 08:55	07/18/22 16:52	1
2,4-Dichlorophenol	ND	F2 F1 UJ	9.3	2.8	ug/L		07/15/22 08:55	07/18/22 16:52	1
Diethyl phthalate	**0.23**	**J B** U	9.3	0.22	ug/L		07/15/22 08:55	07/18/22 16:52	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		07/15/22 08:55	07/18/22 16:52	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		07/15/22 08:55	07/18/22 16:52	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		07/15/22 08:55	07/18/22 16:52	1
4,6-Dinitro-ortho-cresol	ND	F2	9.3	1.5	ug/L		07/15/22 08:55	07/18/22 16:52	1
2,4-Dinitrophenol	ND	F2	28	3.2	ug/L		07/15/22 08:55	07/18/22 16:52	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		07/15/22 08:55	07/18/22 16:52	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		07/15/22 08:55	07/18/22 16:52	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		07/15/22 08:55	07/18/22 16:52	1
1,4-Dioxane	ND	F1 UJ	9.3	0.93	ug/L		07/15/22 08:55	07/18/22 16:52	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		07/15/22 08:55	07/18/22 16:52	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		07/15/22 08:55	07/18/22 16:52	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/15/22 08:55	07/18/22 16:52	1
Hexachloroethane	ND		9.3	3.9	ug/L		07/15/22 08:55	07/18/22 16:52	1
Indene	ND		9.3	0.93	ug/L		07/15/22 08:55	07/18/22 16:52	1
Isophorone	ND		9.3	0.13	ug/L		07/15/22 08:55	07/18/22 16:52	1
2-Methylphenol	ND	F2	9.3	1.7	ug/L		07/15/22 08:55	07/18/22 16:52	1
3 & 4 Methylphenol	ND	F2	19	0.36	ug/L		07/15/22 08:55	07/18/22 16:52	1

Client Sample ID: MW5-ROX-071122
Date Collected: 07/11/22 09:10
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.3	2.0	ug/L		07/15/22 08:55	07/18/22 16:52	1
3-Nitroaniline	ND		9.3	1.7	ug/L		07/15/22 08:55	07/18/22 16:52	1
4-Nitroaniline	ND		9.3	1.4	ug/L		07/15/22 08:55	07/18/22 16:52	1
Nitrobenzene	ND		9.3	0.12	ug/L		07/15/22 08:55	07/18/22 16:52	1
2-Nitrophenol	ND	F2 F1 UJ	9.3	4.8	ug/L		07/15/22 08:55	07/18/22 16:52	1
4-Nitrophenol	ND		9.3	2.0	ug/L		07/15/22 08:55	07/18/22 16:52	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		07/15/22 08:55	07/18/22 16:52	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		07/15/22 08:55	07/18/22 16:52	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		07/15/22 08:55	07/18/22 16:52	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 16:52	1
Phenol	ND	F2	9.3	2.4	ug/L		07/15/22 08:55	07/18/22 16:52	1
Pyridine	ND		9.3	3.0	ug/L		07/15/22 08:55	07/18/22 16:52	1
Quinoline	ND		9.3	4.2	ug/L		07/15/22 08:55	07/18/22 16:52	1
2,4,5-Trichlorophenol	ND	F2	9.3	3.4	ug/L		07/15/22 08:55	07/18/22 16:52	1
2,4,6-Trichlorophenol	ND	F2	9.3	3.3	ug/L		07/15/22 08:55	07/18/22 16:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*07/15/22 08:55*	*07/18/22 16:52*	*1*
2-Fluorophenol	*33*		*13 - 113*	*07/15/22 08:55*	*07/18/22 16:52*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*07/15/22 08:55*	*07/18/22 16:52*	*1*
Phenol-d5	*63*		*17 - 127*	*07/15/22 08:55*	*07/18/22 16:52*	*1*
Terphenyl-d14	*77*		*44 - 149*	*07/15/22 08:55*	*07/18/22 16:52*	*1*
2,4,6-Tribromophenol	*98*		*26 - 150*	*07/15/22 08:55*	*07/18/22 16:52*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		07/18/22 14:46	07/18/22 22:32	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/18/22 14:46	07/18/22 22:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*07/18/22 14:46*	*07/18/22 22:32*	*1*

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

Job ID: 400-222762-1

Client Sample ID: MW27-ROX-071122
Date Collected: 07/11/22 10:30
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/16/22 16:16	1
Acrolein	ND		20	3.3	ug/L			07/16/22 16:16	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 16:16	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 16:16	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 16:16	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 16:16	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 16:16	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 16:16	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 16:16	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 16:16	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 16:16	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 16:16	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 16:16	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/16/22 16:16	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 16:16	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 16:16	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 16:16	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 16:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 16:16	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 16:16	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 16:16	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 16:16	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 16:16	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 16:16	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 16:16	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 16:16	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 16:16	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 16:16	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 16:16	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 16:16	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 16:16	1
Ethy benzene	ND		1.0	0.50	ug/L			07/16/22 16:16	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 16:16	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 16:16	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 16:16	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/16/22 16:16	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 16:16	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 16:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 16:16	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/16/22 16:16	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 16:16	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 16:16	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/16/22 16:16	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/16/22 16:16	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 16:16	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 16:16	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 16:16	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 16:16	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 16:16	1

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

Job ID: 400-222762-1

Client Sample ID: MW27-ROX-071122
Date Collected: 07/11/22 10:30
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/16/22 16:16	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/16/22 16:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 16:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 16:16	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 16:16	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 16:16	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 16:16	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 16:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 16:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 16:16	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 16:16	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 16:16	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 16:16	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 16:16	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 16:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/16/22 16:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/16/22 16:16	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 16:16	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 16:16	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*07/16/22 16:16*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*07/16/22 16:16*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*07/16/22 16:16*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*87*		*72 - 119*		*07/20/22 14:52*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/20/22 14:52*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/20/22 14:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.15**	**J**	0.19	0.030	ug/L		07/15/22 08:55	07/18/22 16:06	1
Acenaphthylene	**0.18**	**J**	0.19	0.042	ug/L		07/15/22 08:55	07/18/22 16:06	1
Anthracene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 16:06	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		07/15/22 08:55	07/18/22 16:06	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 16:06	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/15/22 08:55	07/18/22 16:06	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 16:06	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/15/22 08:55	07/18/22 16:06	1
Chrysene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 16:06	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/15/22 08:55	07/18/22 16:06	1
Fluoranthene	ND		0.19	0.064	ug/L		07/15/22 08:55	07/18/22 16:06	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 16:06	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 16:06	1

Client Sample ID: MW27-ROX-071122
Date Collected: 07/11/22 10:30
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.20		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 16:06	1
2-Methylnaphthalene	0.24		0.19	0.056	ug/L		07/15/22 08:55	07/18/22 16:06	1
Phenanthrene	0.051	J	0.19	0.034	ug/L		07/15/22 08:55	07/18/22 16:06	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*07/15/22 08:55*	*07/18/22 16:06*	*1*
Nitrobenzene-d5	*105*		*19 - 130*	*07/15/22 08:55*	*07/18/22 16:06*	*1*
Terphenyl-d14	*150*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 16:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 17:37	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/15/22 08:55	07/18/22 17:37	1
Benzoic acid	ND		28	6.9	ug/L		07/15/22 08:55	07/18/22 17:37	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 17:37	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 17:37	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/15/22 08:55	07/18/22 17:37	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/15/22 08:55	07/18/22 17:37	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/15/22 08:55	07/18/22 17:37	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/15/22 08:55	07/18/22 17:37	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/15/22 08:55	07/18/22 17:37	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/15/22 08:55	07/18/22 17:37	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/15/22 08:55	07/18/22 17:37	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 17:37	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 17:37	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/15/22 08:55	07/18/22 17:37	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 17:37	1
D benzofuran	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 17:37	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.4	ug/L		07/15/22 08:55	07/18/22 17:37	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/15/22 08:55	07/18/22 17:37	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/15/22 08:55	07/18/22 17:37	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 17:37	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 17:37	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/15/22 08:55	07/18/22 17:37	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/15/22 08:55	07/18/22 17:37	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/15/22 08:55	07/18/22 17:37	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 17:37	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/15/22 08:55	07/18/22 17:37	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 17:37	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 17:37	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 17:37	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/15/22 08:55	07/18/22 17:37	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/15/22 08:55	07/18/22 17:37	1
Hexachloroethane	ND		9.4	4.0	ug/L		07/15/22 08:55	07/18/22 17:37	1
Indene	ND		9.4	0.94	ug/L		07/15/22 08:55	07/18/22 17:37	1
Isophorone	ND		9.4	0.13	ug/L		07/15/22 08:55	07/18/22 17:37	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 17:37	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 17:37	1

Client Sample ID: MW27-ROX-071122
Date Collected: 07/11/22 10:30
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.4	2.1	ug/L		07/15/22 08:55	07/18/22 17:37	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/15/22 08:55	07/18/22 17:37	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/15/22 08:55	07/18/22 17:37	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/15/22 08:55	07/18/22 17:37	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/15/22 08:55	07/18/22 17:37	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/15/22 08:55	07/18/22 17:37	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 17:37	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		07/15/22 08:55	07/18/22 17:37	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/15/22 08:55	07/18/22 17:37	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 17:37	1
Phenol	ND		9.4	2.4	ug/L		07/15/22 08:55	07/18/22 17:37	1
Pyridine	ND		9.4	3.0	ug/L		07/15/22 08:55	07/18/22 17:37	1
Quinoline	ND		9.4	4.2	ug/L		07/15/22 08:55	07/18/22 17:37	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/15/22 08:55	07/18/22 17:37	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/15/22 08:55	07/18/22 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*07/15/22 08:55*	*07/18/22 17:37*	*1*
2-Fluorophenol	*14*		*13 - 113*	*07/15/22 08:55*	*07/18/22 17:37*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/15/22 08:55*	*07/18/22 17:37*	*1*
Phenol-d5	*46*		*17 - 127*	*07/15/22 08:55*	*07/18/22 17:37*	*1*
Terphenyl-d14	*97*		*44 - 149*	*07/15/22 08:55*	*07/18/22 17:37*	*1*
2,4,6-Tribromophenol	*83*		*26 - 150*	*07/15/22 08:55*	*07/18/22 17:37*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/18/22 14:46	07/18/22 23:40	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/18/22 14:46	07/18/22 23:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*73*		*51 - 149*	*07/18/22 14:46*	*07/18/22 23:40*	*1*

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

Job ID: 400-222762-1

Client Sample ID: MW14-ROX-071122
Date Collected: 07/11/22 14:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/16/22 16:37	1
Acrolein	ND		20	3.3	ug/L			07/16/22 16:37	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 16:37	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 16:37	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 16:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 16:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 16:37	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 16:37	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 16:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 16:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 16:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 16:37	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 16:37	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/16/22 16:37	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 16:37	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 16:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 16:37	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 16:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 16:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 16:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 16:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 16:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 16:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 16:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 16:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 16:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 16:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 16:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 16:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 16:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 16:37	1
Ethy benzene	ND		1.0	0.50	ug/L			07/16/22 16:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 16:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 16:37	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 16:37	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/16/22 16:37	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 16:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 16:37	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 16:37	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/16/22 16:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 16:37	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 16:37	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/16/22 16:37	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/16/22 16:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 16:37	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 16:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 16:37	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 16:37	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 16:37	1

Client Sample ID: MW14-ROX-071122

Date Collected: 07/11/22 14:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-10

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			07/16/22 16:37	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/16/22 16:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 16:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 16:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 16:37	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 16:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 16:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 16:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 16:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 16:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 16:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 16:37	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 16:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 16:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 16:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/16/22 16:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/16/22 16:37	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 16:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 16:37	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 16:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*07/16/22 16:37*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*07/16/22 16:37*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*07/16/22 16:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 15:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/20/22 15:20*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*07/20/22 15:20*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/20/22 15:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 16:22	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/15/22 08:55	07/18/22 16:22	1
Anthracene	ND		0.19	0.030	ug/L		07/15/22 08:55	07/18/22 16:22	1
Benzo[a]anthracene	**0.059**	**J B** U	0.19	0.044	ug/L		07/15/22 08:55	07/18/22 16:22	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/15/22 08:55	07/18/22 16:22	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/15/22 08:55	07/18/22 16:22	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/15/22 08:55	07/18/22 16:22	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/15/22 08:55	07/18/22 16:22	1
Chrysene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 16:22	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/15/22 08:55	07/18/22 16:22	1
Fluoranthene	ND		0.19	0.064	ug/L		07/15/22 08:55	07/18/22 16:22	1
Fluorene	ND		0.19	0.10	ug/L		07/15/22 08:55	07/18/22 16:22	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/15/22 08:55	07/18/22 16:22	1

Client Sample ID: MW14-ROX-071122
Date Collected: 07/11/22 14:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/15/22 08:55	07/18/22 16:22	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/15/22 08:55	07/18/22 16:22	1
Phenanthrene	ND		0.19	0.034	ug/L		07/15/22 08:55	07/18/22 16:22	1
Pyrene	ND		0.19	0.038	ug/L		07/15/22 08:55	07/18/22 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*07/15/22 08:55*	*07/18/22 16:22*	*1*
Nitrobenzene-d5	*107*		*19 - 130*	*07/15/22 08:55*	*07/18/22 16:22*	*1*
Terphenyl-d14	*147*	*S1+*	*33 - 138*	*07/15/22 08:55*	*07/18/22 16:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/15/22 08:55	07/18/22 17:59	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/15/22 08:55	07/18/22 17:59	1
Benzoic acid	ND		28	6.9	ug/L		07/15/22 08:55	07/18/22 17:59	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/15/22 08:55	07/18/22 17:59	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/15/22 08:55	07/18/22 17:59	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/15/22 08:55	07/18/22 17:59	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/15/22 08:55	07/18/22 17:59	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		07/15/22 08:55	07/18/22 17:59	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/15/22 08:55	07/18/22 17:59	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/15/22 08:55	07/18/22 17:59	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/15/22 08:55	07/18/22 17:59	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/15/22 08:55	07/18/22 17:59	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/15/22 08:55	07/18/22 17:59	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/15/22 08:55	07/18/22 17:59	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/15/22 08:55	07/18/22 17:59	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 17:59	1
D benzofuran	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 17:59	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/15/22 08:55	07/18/22 17:59	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/15/22 08:55	07/18/22 17:59	1
Diethyl phthalate	**0.43**	**J B** U	9.5	0.23	ug/L		07/15/22 08:55	07/18/22 17:59	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 17:59	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 17:59	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/15/22 08:55	07/18/22 17:59	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/15/22 08:55	07/18/22 17:59	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/15/22 08:55	07/18/22 17:59	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/15/22 08:55	07/18/22 17:59	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/15/22 08:55	07/18/22 17:59	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 17:59	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 17:59	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 17:59	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/15/22 08:55	07/18/22 17:59	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/15/22 08:55	07/18/22 17:59	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/15/22 08:55	07/18/22 17:59	1
Indene	ND		9.5	0.95	ug/L		07/15/22 08:55	07/18/22 17:59	1
Isophorone	ND		9.5	0.13	ug/L		07/15/22 08:55	07/18/22 17:59	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/15/22 08:55	07/18/22 17:59	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/15/22 08:55	07/18/22 17:59	1

Client Sample ID: MW14-ROX-071122
Date Collected: 07/11/22 14:00
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-10
Matrix: Water

Method: 8270D - 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		07/15/22 08:55	07/18/22 17:59	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/15/22 08:55	07/18/22 17:59	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/15/22 08:55	07/18/22 17:59	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/15/22 08:55	07/18/22 17:59	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/15/22 08:55	07/18/22 17:59	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/15/22 08:55	07/18/22 17:59	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 17:59	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/15/22 08:55	07/18/22 17:59	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/15/22 08:55	07/18/22 17:59	1
Pentachlorophenol	ND		19	1.3	ug/L		07/15/22 08:55	07/18/22 17:59	1
Phenol	ND		9.5	2.5	ug/L		07/15/22 08:55	07/18/22 17:59	1
Pyridine	ND		9.5	3.0	ug/L		07/15/22 08:55	07/18/22 17:59	1
Quinoline	ND		9.5	4.3	ug/L		07/15/22 08:55	07/18/22 17:59	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/15/22 08:55	07/18/22 17:59	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/15/22 08:55	07/18/22 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*07/15/22 08:55*	*07/18/22 17:59*	*1*
2-Fluorophenol	*35*		*13 - 113*	*07/15/22 08:55*	*07/18/22 17:59*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*07/15/22 08:55*	*07/18/22 17:59*	*1*
Phenol-d5	*66*		*17 - 127*	*07/15/22 08:55*	*07/18/22 17:59*	*1*
Terphenyl-d14	*99*		*44 - 149*	*07/15/22 08:55*	*07/18/22 17:59*	*1*
2,4,6-Tribromophenol	*95*		*26 - 150*	*07/15/22 08:55*	*07/18/22 17:59*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		07/18/22 14:46	07/19/22 00:03	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/18/22 14:46	07/19/22 00:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*73*		*51 - 149*	*07/18/22 14:46*	*07/19/22 00:03*	*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.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F2	MS/MSD RPD exceeds control limits
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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: 400-222762-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-222762-1	TB-ROX-071122-8260-A	99	104	100
400-222762-1 - RA	TB-ROX-071122-8260-A	84	105	98
400-222762-3	MW24-ROX-071122	111	100	106
400-222762-3 MS	MW24-ROX-071122	86	103	102
400-222762-3 MSD	MW24-ROX-071122	107	100	102
400-222762-4	MW13-ROX-071122	104	98	104
400-222762-4 - RA	MW13-ROX-071122	85	107	100
400-222762-5	P114R-ROX-071122	100	102	100
400-222762-5 - RA	P114R-ROX-071122	80	109	97
400-222762-6	TB-ROX-071122-8260-B	102	103	99
400-222762-6 - RA	TB-ROX-071122-8260-B	85	108	101
400-222762-8	MW5-ROX-071122	103	103	99
400-222762-8 - RA	MW5-ROX-071122	84	107	100
400-222762-8 MS	MW5-ROX-071122	95	101	99
400-222762-8 MS - RA	MW5-ROX-071122	87	100	101
400-222762-8 MSD	MW5-ROX-071122	96	101	103
400-222762-8 MSD - RA	MW5-ROX-071122	89	104	101
400-222762-9	MW27-ROX-071122	104	103	102
400-222762-9 - RA	MW27-ROX-071122	87	109	99
400-222762-10	MW14-ROX-071122	104	102	102
400-222762-10 - RA	MW14-ROX-071122	84	108	97
LCS 400-585077/1002	Lab Control Sample	95	99	98
LCS 400-585095/1002	Lab Control Sample	87	101	98
LCS 400-585405/1002	Lab Control Sample	89	98	102
MB 400-585077/5	Method Blank	101	101	98
MB 400-585095/10	Method Blank	113	102	101
MB 400-585405/5	Method Blank	83	106	99

Surrogate Legend

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

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-222762-3	MW24-ROX-071122	86	67	81	80	103	84
400-222762-3 MS	MW24-ROX-071122	80	56	81	76	96	102
400-222762-3 MSD	MW24-ROX-071122	86	66	85	83	105	108
400-222762-4	MW13-ROX-071122	83	63	78	80	102	114
400-222762-5	P114R-ROX-071122	72	47	67	66	50	97
400-222762-5 - RERA	P114R-ROX-071122	85		84		103	
400-222762-8	MW5-ROX-071122	79	33	72	63	77	98
400-222762-8 MS	MW5-ROX-071122	80	3 S1-	76	15 S1-	99	62
400-222762-8 MSD	MW5-ROX-071122	77	23	74	59	94	102
400-222762-9	MW27-ROX-071122	78	14	70	46	97	83
400-222762-10	MW14-ROX-071122	79	35	71	66	99	95

Surrogate Summary

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

Job ID: 400-222762-1

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

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)
LCS 400-584619/2-A	Lab Control Sample	80	70	80	81	99	102
LCS 400-584619/3-A	Lab Control Sample	79	59	74	75	97	83
LCS 400-584922/2-A	Lab Control Sample	78	49	75	71	95	101
LCS 400-584922/3-A	Lab Control Sample	84	48	74	75	104	82
LCS 400-585529/2-A	Lab Control Sample	81		83		95	
LCSD 400-584619/4-A	Lab Control Sample Dup	85	56	80	76	105	88
LCSD 400-584922/4-A	Lab Control Sample Dup	81	52	73	73	97	83
LCSD 400-585529/3-A	Lab Control Sample Dup	81		84		96	
MB 400-584619/1-A	Method Blank	87	55	80	79	103	82
MB 400-584922/1-A	Method Blank	77	20	68	55	99	73
MB 400-585529/1-A	Method Blank	72		70		84	

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-222762-3	MW24-ROX-071122	107	102	135
400-222762-3 MS	MW24-ROX-071122	89	76	90
400-222762-3 MSD	MW24-ROX-071122	98	81	101
400-222762-4	MW13-ROX-071122	93	88	109
400-222762-5	P114R-ROX-071122	90	86	56
400-222762-8	MW5-ROX-071122	111	86	107
400-222762-8 MS	MW5-ROX-071122	93	57	99
400-222762-8 MSD	MW5-ROX-071122	91	60	93
400-222762-9	MW27-ROX-071122	113	105	150 S1+
400-222762-10	MW14-ROX-071122	113	107	147 S1+
LCS 400-584619/2-A	Lab Control Sample	96	79	99
LCS 400-584922/2-A	Lab Control Sample	97	59	101
MB 400-584619/1-A	Method Blank	99	98	132
MB 400-584922/1-A	Method Blank	47	40	64

Surrogate Legend

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

Surrogate Summary

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

Job ID: 400-222762-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	BFB1 (51-149)								
400-222762-2	TB-ROX-071122-8011-A	80								
400-222762-3	MW24-ROX-071122	84								
400-222762-3 MS	MW24-ROX-071122	76								
400-222762-3 MSD	MW24-ROX-071122	84								
400-222762-4	MW13-ROX-071122	69								
400-222762-5	P114R-ROX-071122	75								
400-222762-7	TB-ROX-071122-8011-B	83								
400-222762-8	MW5-ROX-071122	83								
400-222762-8 MS	MW5-ROX-071122	86								
400-222762-8 MSD	MW5-ROX-071122	80								
400-222762-9	MW27-ROX-071122	73								
400-222762-10	MW14-ROX-071122	73								
LCS 400-585213/2-A	Lab Control Sample	73								
LCSD 400-585213/3-A	Lab Control Sample Dup	80								
MB 400-585213/1-A	Method Blank	74								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-222762-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL 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:

TAL 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: 400-222762-1

Client Sample ID: TB-ROX-071122-8260-A
Lab Sample ID: 400-222762-1
Date Collected: 07/11/22 12:00
Matrix: Water
Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 13:08	BPO	TAL PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 10:33	WPD	TAL PEN

Client Sample ID: TB-ROX-071122-8011-A
Lab Sample ID: 400-222762-2
Date Collected: 07/11/22 12:00
Matrix: Water
Date Received: 07/12/22 09:08

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	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 19:28	JAW	TAL PEN

Client Sample ID: MW24-ROX-071122
Lab Sample ID: 400-222762-3
Date Collected: 07/11/22 09:20
Matrix: Water
Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585095	07/16/22 11:19	BPO	TAL PEN
Total/NA	Prep	3520C			267 mL	1 mL	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D		1			584968	07/15/22 19:24	S1B	TAL PEN
Total/NA	Prep	3520C			267 mL	1 mL	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			584908	07/15/22 14:20	KJA	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 19:51	JAW	TAL PEN

Client Sample ID: MW13-ROX-071122
Lab Sample ID: 400-222762-4
Date Collected: 07/11/22 11:20
Matrix: Water
Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 15:34	BPO	TAL PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 14:02	WPD	TAL PEN
Total/NA	Prep	3520C			264.4 mL	1 mL	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D		1			584968	07/15/22 19:45	S1B	TAL PEN
Total/NA	Prep	3520C			264.4 mL	1 mL	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			584908	07/15/22 14:36	KJA	TAL PEN
Total/NA	Prep	8011			32.8 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 21:00	JAW	TAL PEN

Client Sample ID: P114R-ROX-071122
Lab Sample ID: 400-222762-5
Date Collected: 07/11/22 12:20
Matrix: Water
Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 15:55	BPO	TAL PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 14:27	WPD	TAL PEN

Client Sample ID: P114R-ROX-071122

Lab Sample ID: 400-222762-5
Date Collected: 07/11/22 12:20
Matrix: Water
Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			264.6 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 17:14	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		259.8 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D	RERA	1			585995	07/25/22 10:35	VC1	TAL PEN
Total/NA	Prep	3520C			264.6 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 15:51	PP1	TAL PEN
Total/NA	Prep	8011			34.9 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 21:23	JAW	TAL PEN

Client Sample ID: TB-ROX-071122-8260-B

Lab Sample ID: 400-222762-6
Date Collected: 07/11/22 12:00
Matrix: Water
Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 13:29	BPO	TAL PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 13:39	WPD	TAL PEN

Client Sample ID: TB-ROX-071122-8011-B

Lab Sample ID: 400-222762-7
Date Collected: 07/11/22 12:00
Matrix: Water
Date Received: 07/12/22 09:08

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	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 21:46	JAW	TAL PEN

Client Sample ID: MW5-ROX-071122

Lab Sample ID: 400-222762-8
Date Collected: 07/11/22 09:10
Matrix: Water
Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 13:50	BPO	TAL PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 10:56	WPD	TAL PEN
Total/NA	Prep	3520C			269 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 16:52	S1B	TAL PEN
Total/NA	Prep	3520C			269 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 15:35	PP1	TAL PEN
Total/NA	Prep	8011			34 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 22:32	JAW	TAL PEN

Client Sample ID: MW27-ROX-071122

Lab Sample ID: 400-222762-9
Date Collected: 07/11/22 10:30
Matrix: Water
Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 16:16	BPO	TAL PEN

Lab Chronicle

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

Job ID: 400-222762-1

Client Sample ID: MW27-ROX-071122

Lab Sample ID: 400-222762-9

Date Collected: 07/11/22 10:30

Matrix: Water

Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 14:52	WPD	TAL PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 17:37	S1B	TAL PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 16:06	PP1	TAL PEN
Total/NA	Prep	8011			34.1 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 23:40	JAW	TAL PEN

Client Sample ID: MW14-ROX-071122

Lab Sample ID: 400-222762-10

Date Collected: 07/11/22 14:00

Matrix: Water

Date Received: 07/12/22 09:08

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 16:37	BPO	TAL PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 15:20	WPD	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 17:59	S1B	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 16:22	PP1	TAL PEN
Total/NA	Prep	8011			35.2 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/19/22 00:03	JAW	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-584619/1-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	584619	07/13/22 11:45	BKL	TAL PEN
Total/NA	Analysis	8270D		1			584968	07/15/22 17:19	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	584619	07/13/22 11:45	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			584908	07/15/22 13:18	KJA	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-584922/1-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	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 14:46	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		1			585193	07/18/22 14:34	PP1	TAL PEN

Lab Chronicle

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

Job ID: 400-222762-1

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

Lab Sample ID: MB 400-585077/5
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	8260B		1	5 mL	5 mL	585077	07/16/22 12:47	BPO	TAL PEN

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

Lab Sample ID: MB 400-585095/10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585095	07/16/22 10:28	BPO	TAL PEN

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

Lab Sample ID: MB 400-585213/1-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	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 18:19	JAW	TAL PEN

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

Lab Sample ID: MB 400-585405/5
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	8260B		1	5 mL	5 mL	585405	07/20/22 09:47	WPD	TAL PEN

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

Lab Sample ID: MB 400-585529/1-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:25	S1B	TAL PEN

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

Lab Sample ID: LCS 400-584619/2-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	584619	07/13/22 11:45	BKL	TAL PEN
Total/NA	Analysis	8270D		1			584968	07/15/22 18:22	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	584619	07/13/22 11:45	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			584908	07/15/22 13:34	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-584619/3-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	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D		1			584968	07/15/22 17:40	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-584922/2-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	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 15:49	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		5			585193	07/18/22 14:49	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-584922/3-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	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 15:07	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585077/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 11:54	BPO	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585095/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585095	07/16/22 09:25	BPO	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585213/2-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	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 18:42	JAW	TAL PEN

Lab Chronicle

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

Job ID: 400-222762-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585405/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585405	07/20/22 08:24	WPD	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585529/2-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:46	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-584619/4-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	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D		1			584968	07/15/22 18:01	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-584922/4-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	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 15:28	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585213/3-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	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 19:05	JAW	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585529/3-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:07	S1B	TAL PEN

Client Sample ID: MW24-ROX-071122
Date Collected: 07/11/22 09:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-3 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585095	07/16/22 11:44	BPO	TAL PEN
Total/NA	Prep	3520C			267.2 mL	1 mL	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D		1			584968	07/15/22 18:42	S1B	TAL PEN
Total/NA	Prep	3520C			267.2 mL	1 mL	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			584908	07/15/22 13:49	KJA	TAL PEN
Total/NA	Prep	8011			34.4 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 20:14	JAW	TAL PEN

Client Sample ID: MW24-ROX-071122
Date Collected: 07/11/22 09:20
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-3 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585095	07/16/22 12:09	BPO	TAL PEN
Total/NA	Prep	3520C			266 mL	1 mL	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D		1			584968	07/15/22 19:03	S1B	TAL PEN
Total/NA	Prep	3520C			266 mL	1 mL	584619	07/13/22 11:46	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			584908	07/15/22 14:05	KJA	TAL PEN
Total/NA	Prep	8011			34.9 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 20:37	JAW	TAL PEN

Client Sample ID: MW5-ROX-071122
Date Collected: 07/11/22 09:10
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-8 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 14:32	BPO	TAL PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 12:28	WPD	TAL PEN
Total/NA	Prep	3520C			275.2 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 16:10	S1B	TAL PEN
Total/NA	Prep	3520C			275.2 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		5			585193	07/18/22 15:04	PP1	TAL PEN
Total/NA	Prep	8011			34.3 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 22:55	JAW	TAL PEN

Client Sample ID: MW5-ROX-071122
Date Collected: 07/11/22 09:10
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-8 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585077	07/16/22 14:52	BPO	TAL PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	585405	07/20/22 12:52	WPD	TAL PEN
Total/NA	Prep	3520C			272.2 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D		1			585184	07/18/22 16:31	S1B	TAL PEN

Lab Chronicle

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

Job ID: 400-222762-1

Client Sample ID: MW5-ROX-071122
Date Collected: 07/11/22 09:10
Date Received: 07/12/22 09:08

Lab Sample ID: 400-222762-8 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			272.2 mL	1 mL	584922	07/15/22 08:55	RS	TAL PEN
Total/NA	Analysis	8270D LL		5			585193	07/18/22 15:20	PP1	TAL PEN
Total/NA	Prep	8011			34 mL	35 mL	585213	07/18/22 14:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585254	07/18/22 23:18	JAW	TAL PEN

Laboratory References:

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

GC/MS VOA

Analysis Batch: 585077

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-1	TB-ROX-071122-8260-A	Total/NA	Water	8260B	
400-222762-4	MW13-ROX-071122	Total/NA	Water	8260B	
400-222762-5	P114R-ROX-071122	Total/NA	Water	8260B	
400-222762-6	TB-ROX-071122-8260-B	Total/NA	Water	8260B	
400-222762-8	MW5-ROX-071122	Total/NA	Water	8260B	
400-222762-9	MW27-ROX-071122	Total/NA	Water	8260B	
400-222762-10	MW14-ROX-071122	Total/NA	Water	8260B	
MB 400-585077/5	Method Blank	Total/NA	Water	8260B	
LCS 400-585077/1002	Lab Control Sample	Total/NA	Water	8260B	
400-222762-8 MS	MW5-ROX-071122	Total/NA	Water	8260B	
400-222762-8 MSD	MW5-ROX-071122	Total/NA	Water	8260B	

Analysis Batch: 585095

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-3	MW24-ROX-071122	Total/NA	Water	8260B	
MB 400-585095/10	Method Blank	Total/NA	Water	8260B	
LCS 400-585095/1002	Lab Control Sample	Total/NA	Water	8260B	
400-222762-3 MS	MW24-ROX-071122	Total/NA	Water	8260B	
400-222762-3 MSD	MW24-ROX-071122	Total/NA	Water	8260B	

Analysis Batch: 585405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-1 - RA	TB-ROX-071122-8260-A	Total/NA	Water	8260B	
400-222762-4 - RA	MW13-ROX-071122	Total/NA	Water	8260B	
400-222762-5 - RA	P114R-ROX-071122	Total/NA	Water	8260B	
400-222762-6 - RA	TB-ROX-071122-8260-B	Total/NA	Water	8260B	
400-222762-8 - RA	MW5-ROX-071122	Total/NA	Water	8260B	
400-222762-9 - RA	MW27-ROX-071122	Total/NA	Water	8260B	
400-222762-10 - RA	MW14-ROX-071122	Total/NA	Water	8260B	
MB 400-585405/5	Method Blank	Total/NA	Water	8260B	
LCS 400-585405/1002	Lab Control Sample	Total/NA	Water	8260B	
400-222762-8 MS - RA	MW5-ROX-071122	Total/NA	Water	8260B	
400-222762-8 MSD - RA	MW5-ROX-071122	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 584619

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-3	MW24-ROX-071122	Total/NA	Water	3520C	
400-222762-4	MW13-ROX-071122	Total/NA	Water	3520C	
MB 400-584619/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-584619/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-584619/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-584619/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-222762-3 MS	MW24-ROX-071122	Total/NA	Water	3520C	
400-222762-3 MSD	MW24-ROX-071122	Total/NA	Water	3520C	

Analysis Batch: 584908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-3	MW24-ROX-071122	Total/NA	Water	8270D LL	584619
400-222762-4	MW13-ROX-071122	Total/NA	Water	8270D LL	584619

GC/MS Semi VOA (Continued)

Analysis Batch: 584908 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-584619/1-A	Method Blank	Total/NA	Water	8270D LL	584619
LCS 400-584619/2-A	Lab Control Sample	Total/NA	Water	8270D LL	584619
400-222762-3 MS	MW24-ROX-071122	Total/NA	Water	8270D LL	584619
400-222762-3 MSD	MW24-ROX-071122	Total/NA	Water	8270D LL	584619

Prep Batch: 584922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-5	P114R-ROX-071122	Total/NA	Water	3520C	
400-222762-8	MW5-ROX-071122	Total/NA	Water	3520C	
400-222762-9	MW27-ROX-071122	Total/NA	Water	3520C	
400-222762-10	MW14-ROX-071122	Total/NA	Water	3520C	
MB 400-584922/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-584922/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-584922/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-584922/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-222762-8 MS	MW5-ROX-071122	Total/NA	Water	3520C	
400-222762-8 MSD	MW5-ROX-071122	Total/NA	Water	3520C	

Analysis Batch: 584968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-3	MW24-ROX-071122	Total/NA	Water	8270D	584619
400-222762-4	MW13-ROX-071122	Total/NA	Water	8270D	584619
MB 400-584619/1-A	Method Blank	Total/NA	Water	8270D	584619
LCS 400-584619/2-A	Lab Control Sample	Total/NA	Water	8270D	584619
LCS 400-584619/3-A	Lab Control Sample	Total/NA	Water	8270D	584619
LCSD 400-584619/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	584619
400-222762-3 MS	MW24-ROX-071122	Total/NA	Water	8270D	584619
400-222762-3 MSD	MW24-ROX-071122	Total/NA	Water	8270D	584619

Analysis Batch: 585184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-5	P114R-ROX-071122	Total/NA	Water	8270D	584922
400-222762-8	MW5-ROX-071122	Total/NA	Water	8270D	584922
400-222762-9	MW27-ROX-071122	Total/NA	Water	8270D	584922
400-222762-10	MW14-ROX-071122	Total/NA	Water	8270D	584922
MB 400-584922/1-A	Method Blank	Total/NA	Water	8270D	584922
LCS 400-584922/2-A	Lab Control Sample	Total/NA	Water	8270D	584922
LCS 400-584922/3-A	Lab Control Sample	Total/NA	Water	8270D	584922
LCSD 400-584922/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	584922
400-222762-8 MS	MW5-ROX-071122	Total/NA	Water	8270D	584922
400-222762-8 MSD	MW5-ROX-071122	Total/NA	Water	8270D	584922

Analysis Batch: 585193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-5	P114R-ROX-071122	Total/NA	Water	8270D LL	584922
400-222762-8	MW5-ROX-071122	Total/NA	Water	8270D LL	584922
400-222762-9	MW27-ROX-071122	Total/NA	Water	8270D LL	584922
400-222762-10	MW14-ROX-071122	Total/NA	Water	8270D LL	584922
MB 400-584922/1-A	Method Blank	Total/NA	Water	8270D LL	584922
LCS 400-584922/2-A	Lab Control Sample	Total/NA	Water	8270D LL	584922
400-222762-8 MS	MW5-ROX-071122	Total/NA	Water	8270D LL	584922

GC/MS Semi VOA (Continued)

Analysis Batch: 585193 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-8 MSD	MW5-ROX-071122	Total/NA	Water	8270D LL	584922

Prep Batch: 585529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-5 - RERA	P114R-ROX-071122	Total/NA	Water	3520C	
MB 400-585529/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 585828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-585529/1-A	Method Blank	Total/NA	Water	8270D	585529
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	8270D	585529
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	585529

Analysis Batch: 585995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-5 - RERA	P114R-ROX-071122	Total/NA	Water	8270D	585529

GC Semi VOA

Prep Batch: 585213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-2	TB-ROX-071122-8011-A	Total/NA	Water	8011	
400-222762-3	MW24-ROX-071122	Total/NA	Water	8011	
400-222762-4	MW13-ROX-071122	Total/NA	Water	8011	
400-222762-5	P114R-ROX-071122	Total/NA	Water	8011	
400-222762-7	TB-ROX-071122-8011-B	Total/NA	Water	8011	
400-222762-8	MW5-ROX-071122	Total/NA	Water	8011	
400-222762-9	MW27-ROX-071122	Total/NA	Water	8011	
400-222762-10	MW14-ROX-071122	Total/NA	Water	8011	
MB 400-585213/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-585213/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-585213/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-222762-3 MS	MW24-ROX-071122	Total/NA	Water	8011	
400-222762-3 MSD	MW24-ROX-071122	Total/NA	Water	8011	
400-222762-8 MS	MW5-ROX-071122	Total/NA	Water	8011	
400-222762-8 MSD	MW5-ROX-071122	Total/NA	Water	8011	

Analysis Batch: 585254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222762-2	TB-ROX-071122-8011-A	Total/NA	Water	8011	585213
400-222762-3	MW24-ROX-071122	Total/NA	Water	8011	585213
400-222762-4	MW13-ROX-071122	Total/NA	Water	8011	585213
400-222762-5	P114R-ROX-071122	Total/NA	Water	8011	585213
400-222762-7	TB-ROX-071122-8011-B	Total/NA	Water	8011	585213
400-222762-8	MW5-ROX-071122	Total/NA	Water	8011	585213
400-222762-9	MW27-ROX-071122	Total/NA	Water	8011	585213
400-222762-10	MW14-ROX-071122	Total/NA	Water	8011	585213
MB 400-585213/1-A	Method Blank	Total/NA	Water	8011	585213
LCS 400-585213/2-A	Lab Control Sample	Total/NA	Water	8011	585213

GC Semi VOA (Continued)

Analysis Batch: 585254 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-585213/3-A	Lab Control Sample Dup	Total/NA	Water	8011	585213
400-222762-3 MS	MW24-ROX-071122	Total/NA	Water	8011	585213
400-222762-3 MSD	MW24-ROX-071122	Total/NA	Water	8011	585213
400-222762-8 MS	MW5-ROX-071122	Total/NA	Water	8011	585213
400-222762-8 MSD	MW5-ROX-071122	Total/NA	Water	8011	585213

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

Lab Sample ID: MB 400-585077/5
Matrix: Water
Analysis Batch: 585077

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			07/16/22 12:47	1
Acrolein	ND		20	3.3	ug/L			07/16/22 12:47	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 12:47	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 12:47	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 12:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 12:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 12:47	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 12:47	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 12:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 12:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 12:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 12:47	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 12:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/16/22 12:47	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 12:47	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 12:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 12:47	1
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 12:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 12:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 12:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 12:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 12:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 12:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 12:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 12:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 12:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 12:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 12:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 12:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 12:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 12:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/16/22 12:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 12:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 12:47	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 12:47	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/16/22 12:47	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 12:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 12:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 12:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/16/22 12:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 12:47	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 12:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/16/22 12:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/16/22 12:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 12:47	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 12:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 12:47	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 12:47	1

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

Lab Sample ID: MB 400-585077/5
Matrix: Water
Analysis Batch: 585077

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 12:47	1
Styrene	ND		1.0	1.0	ug/L			07/16/22 12:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/16/22 12:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 12:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 12:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 12:47	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 12:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 12:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 12:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 12:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 12:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 12:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 12:47	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 12:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 12:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 12:47	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/16/22 12:47	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/16/22 12:47	1
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 12:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 12:47	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 12:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*07/16/22 12:47*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*07/16/22 12:47*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/16/22 12:47*	*1*

Lab Sample ID: LCS 400-585077/1002
Matrix: Water
Analysis Batch: 585077

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	236		ug/L		118	43 - 160
Acrolein	500	671		ug/L		134	38 - 160
Acrylonitrile	500	581		ug/L		116	64 - 142
Benzene	50.0	50.8		ug/L		102	70 - 130
Bromobenzene	50.0	47.4		ug/L		95	70 - 132
Bromochloromethane	50.0	50.2		ug/L		100	70 - 130
Bromodichloromethane	50.0	49.5		ug/L		99	67 - 133
Bromoform	50.0	56.0		ug/L		112	57 - 140
Bromomethane	50.0	55.7		ug/L		111	10 - 160
2-Butanone (MEK)	200	221		ug/L		111	61 - 145
Carbon disulfide	50.0	51.2		ug/L		102	61 - 137
Carbon tetrachloride	50.0	52.4		ug/L		105	61 - 137
Chlorobenzene	50.0	49.8		ug/L		100	70 - 130
Dibromochloromethane	50.0	49.2		ug/L		98	67 - 135
Chloroethane	50.0	49.6		ug/L		99	55 - 141
Chloroform	50.0	46.4		ug/L		93	69 - 130

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

Lab Sample ID: LCS 400-585077/1002
Matrix: Water
Analysis Batch: 585077

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Chlorohexane	50.0	54.0		ug/L		108	69 - 130
Chloromethane	50.0	55.0		ug/L		110	58 - 137
cis-1,2-Dichloroethene	50.0	52.3		ug/L		105	68 - 130
cis-1,3-Dichloropropene	50.0	48.5		ug/L		97	69 - 132
1,2-Dichlorobenzene	50.0	50.9		ug/L		102	67 - 130
1,3-Dichlorobenzene	50.0	49.4		ug/L		99	70 - 130
1,4-Dichlorobenzene	50.0	50.0		ug/L		100	70 - 130
Dichlorodifluoromethane	50.0	32.2		ug/L		64	41 - 146
1,1-Dichloroethane	50.0	52.3		ug/L		105	70 - 130
1,2-Dichloroethane	50.0	49.2		ug/L		98	69 - 130
1,1-Dichloroethene	50.0	48.3		ug/L		97	63 - 134
1,2-Dichloropropane	50.0	51.8		ug/L		104	70 - 130
1,3-Dichloropropane	50.0	50.4		ug/L		101	70 - 130
2,2-Dichloropropane	50.0	54.7		ug/L		109	52 - 135
1,1-Dichloropropene	50.0	49.2		ug/L		98	70 - 130
Ethylbenzene	50.0	48.6		ug/L		97	70 - 130
Ethyl methacrylate	50.0	52.5		ug/L		105	68 - 130
Hexachlorobutadiene	50.0	51.5		ug/L		103	53 - 140
2-Hexanone	200	236		ug/L		118	65 - 137
Isopropy benzene	50.0	47.2		ug/L		94	70 - 130
Methylene bromide	50.0	49.0		ug/L		98	70 - 130
Methylene Chloride	50.0	50.9		ug/L		102	66 - 135
4-Methyl-2-pentanone (MIBK)	200	229		ug/L		115	69 - 138
Methyl tert-butyl ether	50.0	47.1		ug/L		94	66 - 130
m-Xylene & p-Xylene	50.0	48.9		ug/L		98	70 - 130
Naphthalene	50.0	48.1		ug/L		96	47 - 149
n-Butylbenzene	50.0	55.2		ug/L		110	67 - 130
N-Propylbenzene	50.0	51.2		ug/L		102	70 - 130
o-Chlorotoluene	50.0	50.9		ug/L		102	70 - 130
o-Xylene	50.0	48.6		ug/L		97	70 - 130
p-Chlorotoluene	50.0	50.3		ug/L		101	70 - 130
p-Isopropyltoluene	50.0	50.5		ug/L		101	65 - 130
sec-Butylbenzene	50.0	50.3		ug/L		101	66 - 130
Styrene	50.0	46.8		ug/L		94	70 - 130
tert-Butylbenzene	50.0	49.5		ug/L		99	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.7		ug/L		103	67 - 131
1,1,2,2-Tetrachloroethane	50.0	54.6		ug/L		109	70 - 131
Tetrachloroethene	50.0	44.9		ug/L		90	65 - 130
Toluene	50.0	49.7		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	50.7		ug/L		101	70 - 130
trans-1,3-Dichloropropene	50.0	53.3		ug/L		107	63 - 130
1,2,3-Trichlorobenzene	50.0	48.6		ug/L		97	60 - 138
1,2,4-Trichlorobenzene	50.0	48.2		ug/L		96	60 - 140
1,1,1-Trichloroethane	50.0	48.6		ug/L		97	68 - 130
1,1,2-Trichloroethane	50.0	51.8		ug/L		104	70 - 130
Trichloroethene	50.0	48.1		ug/L		96	70 - 130
Trichlorofluoromethane	50.0	47.6		ug/L		95	65 - 138
1,2,3-Trichloropropane	50.0	51.3		ug/L		103	70 - 130
1,2,4-Trimethy benzene	50.0	48.6		ug/L		97	70 - 130

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

Lab Sample ID: LCS 400-585077/1002
Matrix: Water
Analysis Batch: 585077

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethy benzene	50.0	49.5		ug/L		99	69 - 130
Vinyl acetate	100	121		ug/L		121	26 - 160
Vinyl chloride	50.0	47.8		ug/L		96	59 - 136
Xylenes, Total	100	97.5		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: 400-222762-8 MS
Matrix: Water
Analysis Batch: 585077

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	202		ug/L		101	43 - 150
Acrolein	ND		500	659		ug/L		132	38 - 150
Acrylonitrile	ND		500	584		ug/L		117	62 - 149
Benzene	ND		50.0	51.9		ug/L		104	56 - 142
Bromobenzene	ND		50.0	49.3		ug/L		99	59 - 136
Bromochloromethane	ND		50.0	49.8		ug/L		100	64 - 140
Bromodichloromethane	ND		50.0	49.0		ug/L		98	59 - 143
Bromoform	ND		50.0	56.8		ug/L		114	50 - 140
Bromomethane	ND		50.0	57.0		ug/L		114	10 - 150
2-Butanone (MEK)	ND		200	214		ug/L		107	55 - 150
Carbon disulfide	ND		50.0	51.8		ug/L		104	48 - 150
Carbon tetrachloride	ND		50.0	52.1		ug/L		104	55 - 145
Chlorobenzene	ND		50.0	51.9		ug/L		104	64 - 130
Dibromochloromethane	ND		50.0	53.0		ug/L		106	56 - 143
Chloroethane	ND		50.0	49.7		ug/L		99	50 - 150
Chloroform	ND		50.0	48.4		ug/L		97	60 - 141
1-Chlorohexane	ND		50.0	55.8		ug/L		112	56 - 136
Chloromethane	ND		50.0	54.1		ug/L		108	49 - 148
cis-1,2-Dichloroethene	ND		50.0	52.9		ug/L		106	59 - 143
cis-1,3-Dichloropropene	ND		50.0	47.9		ug/L		96	57 - 140
1,2-Dichlorobenzene	ND		50.0	51.6		ug/L		103	52 - 137
1,3-Dichlorobenzene	ND		50.0	51.3		ug/L		103	54 - 135
1,4-Dichlorobenzene	ND		50.0	51.7		ug/L		103	53 - 135
Dichlorodifluoromethane	ND		50.0	33.4		ug/L		67	16 - 150
1,1-Dichloroethane	ND		50.0	53.5		ug/L		107	61 - 144
1,2-Dichloroethane	ND		50.0	50.6		ug/L		101	60 - 141
1,1-Dichloroethene	ND		50.0	49.2		ug/L		98	54 - 147
1,2-Dichloropropane	ND		50.0	53.8		ug/L		108	66 - 137
1,3-Dichloropropane	ND		50.0	53.4		ug/L		107	66 - 133
2,2-Dichloropropane	ND		50.0	53.8		ug/L		108	42 - 144
1,1-Dichloropropene	ND		50.0	49.8		ug/L		100	65 - 136
Ethylbenzene	ND		50.0	49.2		ug/L		98	58 - 131
Ethyl methacrylate	ND		50.0	51.8		ug/L		104	64 - 130

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

Lab Sample ID: 400-222762-8 MS
Matrix: Water
Analysis Batch: 585077

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	ND		50.0	50.7		ug/L		101	31 - 149
2-Hexanone	ND		200	225		ug/L		113	65 - 140
Isopropy benzene	ND		50.0	46.8		ug/L		94	56 - 133
Methylene bromide	ND		50.0	48.4		ug/L		97	63 - 138
Methylene Chloride	ND		50.0	54.5		ug/L		109	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	223		ug/L		111	63 - 146
Methyl tert-butyl ether	3.0		50.0	48.8		ug/L		92	59 - 137
m-Xylene & p-Xylene	ND		50.0	47.6		ug/L		95	57 - 130
Naphthalene	ND		50.0	43.1		ug/L		86	25 - 150
n-Butylbenzene	ND		50.0	55.9		ug/L		112	41 - 142
N-Propylbenzene	ND		50.0	51.3		ug/L		103	51 - 138
o-Chlorotoluene	ND		50.0	53.5		ug/L		107	53 - 134
o-Xylene	ND		50.0	49.2		ug/L		98	61 - 130
p-Chlorotoluene	ND		50.0	53.1		ug/L		106	54 - 133
p-Isopropyltoluene	ND		50.0	51.1		ug/L		102	48 - 139
sec-Butylbenzene	ND		50.0	51.9		ug/L		104	50 - 138
Styrene	ND		50.0	48.0		ug/L		96	58 - 131
tert-Butylbenzene	2.2		50.0	54.2		ug/L		104	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	54.4		ug/L		109	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	55.0		ug/L		110	66 - 135
Tetrachloroethene	ND		50.0	44.1		ug/L		88	52 - 133
Toluene	ND		50.0	51.2		ug/L		102	65 - 130
trans-1,2-Dichloroethene	ND		50.0	50.2		ug/L		100	61 - 143
trans-1,3-Dichloropropene	ND		50.0	52.0		ug/L		104	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	45.6		ug/L		91	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	45.8		ug/L		92	39 - 148
1,1,1-Trichloroethane	ND		50.0	49.3		ug/L		99	57 - 142
1,1,2-Trichloroethane	ND		50.0	52.5		ug/L		105	66 - 131
Trichloroethene	ND		50.0	48.7		ug/L		97	64 - 136
Trichlorofluoromethane	ND		50.0	49.1		ug/L		98	54 - 150
1,2,3-Trichloropropane	ND		50.0	51.0		ug/L		102	65 - 133
1,2,4-Trimethy benzene	ND		50.0	51.0		ug/L		102	50 - 139
1,3,5-Trimethy benzene	ND		50.0	50.6		ug/L		101	52 - 135
Vinyl acetate	ND		100	114		ug/L		114	26 - 150
Vinyl chloride	ND		50.0	49.1		ug/L		98	46 - 150
Xylenes, Total	ND		100	96.8		ug/L		97	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585077

Client Sample ID: MW5-ROX-071122
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	216		ug/L		108	43 - 150	7	30

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

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585077

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acrolein	ND		500	601		ug/L		120	38 - 150	9	31
Acrylonitrile	ND		500	571		ug/L		114	62 - 149	2	30
Benzene	ND		50.0	50.8		ug/L		102	56 - 142	2	30
Bromobenzene	ND		50.0	46.6		ug/L		93	59 - 136	6	30
Bromochloromethane	ND		50.0	50.6		ug/L		101	64 - 140	2	30
Bromodichloromethane	ND		50.0	50.2		ug/L		100	59 - 143	2	30
Bromoform	ND		50.0	53.1		ug/L		106	50 - 140	7	30
Bromomethane	ND		50.0	58.4		ug/L		117	10 - 150	2	50
2-Butanone (MEK)	ND		200	215		ug/L		108	55 - 150	0	30
Carbon disulfide	ND		50.0	50.9		ug/L		102	48 - 150	2	30
Carbon tetrachloride	ND		50.0	51.2		ug/L		102	55 - 145	2	30
Chlorobenzene	ND		50.0	51.1		ug/L		102	64 - 130	2	30
Dibromochloromethane	ND		50.0	50.1		ug/L		100	56 - 143	6	30
Chloroethane	ND		50.0	47.2		ug/L		94	50 - 150	5	30
Chloroform	ND		50.0	48.1		ug/L		96	60 - 141	1	30
1-Chlorohexane	ND		50.0	52.9		ug/L		106	56 - 136	5	30
Chloromethane	ND		50.0	53.0		ug/L		106	49 - 148	2	31
cis-1,2-Dichloroethene	ND		50.0	51.8		ug/L		104	59 - 143	2	30
cis-1,3-Dichloropropene	ND		50.0	47.0		ug/L		94	57 - 140	2	30
1,2-Dichlorobenzene	ND		50.0	48.3		ug/L		97	52 - 137	7	30
1,3-Dichlorobenzene	ND		50.0	46.7		ug/L		93	54 - 135	9	30
1,4-Dichlorobenzene	ND		50.0	47.6		ug/L		95	53 - 135	8	30
Dichlorodifluoromethane	ND		50.0	30.8		ug/L		62	16 - 150	8	31
1,1-Dichloroethane	ND		50.0	53.0		ug/L		106	61 - 144	1	30
1,2-Dichloroethane	ND		50.0	49.7		ug/L		99	60 - 141	2	30
1,1-Dichloroethene	ND		50.0	48.5		ug/L		97	54 - 147	1	30
1,2-Dichloropropane	ND		50.0	54.4		ug/L		109	66 - 137	1	30
1,3-Dichloropropane	ND		50.0	51.7		ug/L		103	66 - 133	3	30
2,2-Dichloropropane	ND		50.0	55.5		ug/L		111	42 - 144	3	31
1,1-Dichloropropene	ND		50.0	48.4		ug/L		97	65 - 136	3	30
Ethylbenzene	ND		50.0	48.0		ug/L		96	58 - 131	3	30
Ethyl methacrylate	ND		50.0	52.1		ug/L		104	64 - 130	1	30
Hexachlorobutadiene	ND		50.0	46.0		ug/L		92	31 - 149	10	36
2-Hexanone	ND		200	221		ug/L		110	65 - 140	2	30
Isopropy benzene	ND		50.0	45.1		ug/L		90	56 - 133	4	30
Methylene bromide	ND		50.0	49.6		ug/L		99	63 - 138	3	30
Methylene Chloride	ND		50.0	54.1		ug/L		108	60 - 146	1	32
4-Methyl-2-pentanone (MIBK)	ND		200	221		ug/L		110	63 - 146	1	30
Methyl tert-butyl ether	3.0		50.0	49.4		ug/L		93	59 - 137	1	30
m-Xylene & p-Xylene	ND		50.0	45.9		ug/L		92	57 - 130	4	30
Naphthalene	ND		50.0	42.7		ug/L		85	25 - 150	1	30
n-Butylbenzene	ND		50.0	49.1		ug/L		98	41 - 142	13	31
N-Propylbenzene	ND		50.0	47.2		ug/L		94	51 - 138	8	30
o-Chlorotoluene	ND		50.0	49.4		ug/L		99	53 - 134	8	30
o-Xylene	ND		50.0	47.2		ug/L		94	61 - 130	4	30
p-Chlorotoluene	ND		50.0	49.0		ug/L		98	54 - 133	8	30
p-Isopropyltoluene	ND		50.0	46.0		ug/L		92	48 - 139	11	30
sec-Butylbenzene	ND		50.0	47.4		ug/L		95	50 - 138	9	30
Styrene	ND		50.0	46.8		ug/L		94	58 - 131	2	30

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

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585077

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
tert-Butylbenzene	2.2		50.0	49.8		ug/L		95	54 - 146	8	30
1,1,1,2-Tetrachloroethane	ND		50.0	53.0		ug/L		106	59 - 137	3	30
1,1,2,2-Tetrachloroethane	ND		50.0	51.9		ug/L		104	66 - 135	6	30
Tetrachloroethene	ND		50.0	43.8		ug/L		88	52 - 133	1	30
Toluene	ND		50.0	49.0		ug/L		98	65 - 130	4	30
trans-1,2-Dichloroethene	ND		50.0	50.4		ug/L		101	61 - 143	0	30
trans-1,3-Dichloropropene	ND		50.0	52.2		ug/L		104	53 - 133	0	30
1,2,3-Trichlorobenzene	ND		50.0	43.4		ug/L		87	43 - 145	5	30
1,2,4-Trichlorobenzene	ND		50.0	42.5		ug/L		85	39 - 148	7	30
1,1,1-Trichloroethane	ND		50.0	49.5		ug/L		99	57 - 142	0	30
1,1,2-Trichloroethane	ND		50.0	49.7		ug/L		99	66 - 131	6	30
Trichloroethene	ND		50.0	48.1		ug/L		96	64 - 136	1	30
Trichlorofluoromethane	ND		50.0	46.4		ug/L		93	54 - 150	6	30
1,2,3-Trichloropropane	ND		50.0	47.2		ug/L		94	65 - 133	8	30
1,2,4-Trimethy benzene	ND		50.0	46.4		ug/L		93	50 - 139	9	30
1,3,5-Trimethy benzene	ND		50.0	46.2		ug/L		92	52 - 135	9	30
Vinyl acetate	ND		100	111		ug/L		111	26 - 150	3	33
Vinyl chloride	ND		50.0	46.9		ug/L		94	46 - 150	5	30
Xylenes, Total	ND		100	93.0		ug/L		93	59 - 130	4	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*103*		*64 - 132*

Lab Sample ID: MB 400-585095/10
Matrix: Water
Analysis Batch: 585095

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			07/16/22 10:28	1
Acrolein	ND		20	3.3	ug/L			07/16/22 10:28	1
Acrylonitrile	ND		10	2.8	ug/L			07/16/22 10:28	1
Benzene	ND		1.0	0.13	ug/L			07/16/22 10:28	1
Bromobenzene	ND		1.0	0.54	ug/L			07/16/22 10:28	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/16/22 10:28	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/16/22 10:28	1
Bromoform	ND		5.0	0.25	ug/L			07/16/22 10:28	1
Bromomethane	ND		1.0	0.98	ug/L			07/16/22 10:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/16/22 10:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/16/22 10:28	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/16/22 10:28	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/16/22 10:28	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/16/22 10:28	1
Chloroethane	ND		1.0	0.76	ug/L			07/16/22 10:28	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/16/22 10:28	1
Chloroform	ND		1.0	1.0	ug/L			07/16/22 10:28	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/16/22 10:28	1

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

Lab Sample ID: MB 400-585095/10
Matrix: Water
Analysis Batch: 585095

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.32	ug/L			07/16/22 10:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/16/22 10:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/16/22 10:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/16/22 10:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/16/22 10:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/16/22 10:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/16/22 10:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/16/22 10:28	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/16/22 10:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 10:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 10:28	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 10:28	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/16/22 10:28	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/16/22 10:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/16/22 10:28	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/16/22 10:28	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/16/22 10:28	1
2-Hexanone	ND		25	1.4	ug/L			07/16/22 10:28	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/16/22 10:28	1
Methylene bromide	ND		5.0	0.22	ug/L			07/16/22 10:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/16/22 10:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/16/22 10:28	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/16/22 10:28	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/16/22 10:28	1
Naphthalene	ND		5.0	3.0	ug/L			07/16/22 10:28	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/16/22 10:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/16/22 10:28	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/16/22 10:28	1
o-Xylene	ND		5.0	0.60	ug/L			07/16/22 10:28	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/16/22 10:28	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/16/22 10:28	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/16/22 10:28	1
Styrene	ND		1.0	1.0	ug/L			07/16/22 10:28	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/16/22 10:28	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/16/22 10:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/16/22 10:28	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/16/22 10:28	1
Toluene	ND		1.0	0.41	ug/L			07/16/22 10:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/16/22 10:28	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/16/22 10:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/16/22 10:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/16/22 10:28	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/16/22 10:28	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/16/22 10:28	1
Trichloroethene	ND		1.0	0.15	ug/L			07/16/22 10:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/16/22 10:28	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/16/22 10:28	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/16/22 10:28	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/16/22 10:28	1

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

Lab Sample ID: MB 400-585095/10
Matrix: Water
Analysis Batch: 585095

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl acetate	ND		25	0.93	ug/L			07/16/22 10:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/16/22 10:28	1
Xylenes, Total	ND		10	1.6	ug/L			07/16/22 10:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*72 - 119*		*07/16/22 10:28*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*07/16/22 10:28*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*07/16/22 10:28*	*1*

Lab Sample ID: LCS 400-585095/1002
Matrix: Water
Analysis Batch: 585095

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	244		ug/L		122	43 - 160
Acrolein	500	575		ug/L		115	38 - 160
Acrylonitrile	500	610		ug/L		122	64 - 142
Benzene	50.0	56.0		ug/L		112	70 - 130
Bromobenzene	50.0	52.6		ug/L		105	70 - 132
Bromochloromethane	50.0	55.7		ug/L		111	70 - 130
Bromodichloromethane	50.0	57.8		ug/L		116	67 - 133
Bromoform	50.0	51.1		ug/L		102	57 - 140
Bromomethane	50.0	50.4		ug/L		101	10 - 160
2-Butanone (MEK)	200	239		ug/L		120	61 - 145
Carbon disulfide	50.0	55.9		ug/L		112	61 - 137
Carbon tetrachloride	50.0	59.0		ug/L		118	61 - 137
Chlorobenzene	50.0	59.5		ug/L		119	70 - 130
Dibromochloromethane	50.0	59.5		ug/L		119	67 - 135
Chloroethane	50.0	45.8		ug/L		92	55 - 141
2-Chloroethyl vinyl ether	50.0	56.7		ug/L		113	10 - 160
Chloroform	50.0	55.6		ug/L		111	69 - 130
1-Chlorohexane	50.0	57.4		ug/L		115	69 - 130
Chloromethane	50.0	39.9		ug/L		80	58 - 137
cis-1,2-Dichloroethene	50.0	55.4		ug/L		111	68 - 130
cis-1,3-Dichloropropene	50.0	60.6		ug/L		121	69 - 132
1,2-Dichlorobenzene	50.0	56.9		ug/L		114	67 - 130
1,3-Dichlorobenzene	50.0	57.9		ug/L		116	70 - 130
1,4-Dichlorobenzene	50.0	55.7		ug/L		111	70 - 130
Dichlorodifluoromethane	50.0	28.4		ug/L		57	41 - 146
1,1-Dichloroethane	50.0	54.3		ug/L		109	70 - 130
1,2-Dichloroethane	50.0	55.0		ug/L		110	69 - 130
1,1-Dichloroethene	50.0	56.0		ug/L		112	63 - 134
1,2-Dichloropropane	50.0	58.2		ug/L		116	70 - 130
1,3-Dichloropropane	50.0	57.3		ug/L		115	70 - 130
2,2-Dichloropropane	50.0	55.0		ug/L		110	52 - 135
1,1-Dichloropropene	50.0	59.5		ug/L		119	70 - 130
Ethylbenzene	50.0	59.8		ug/L		120	70 - 130
Ethyl methacrylate	50.0	60.5		ug/L		121	68 - 130

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

Lab Sample ID: LCS 400-585095/1002
Matrix: Water
Analysis Batch: 585095

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorobutadiene	50.0	57.4		ug/L		115	53 - 140
2-Hexanone	200	251		ug/L		125	65 - 137
Isopropy benzene	50.0	60.1		ug/L		120	70 - 130
Methylene bromide	50.0	58.6		ug/L		117	70 - 130
Methylene Chloride	50.0	58.7		ug/L		117	66 - 135
4-Methyl-2-pentanone (MIBK)	200	257		ug/L		129	69 - 138
Methyl tert-butyl ether	50.0	58.6		ug/L		117	66 - 130
m-Xylene & p-Xylene	50.0	57.2		ug/L		114	70 - 130
Naphthalene	50.0	65.0		ug/L		130	47 - 149
n-Butylbenzene	50.0	59.8		ug/L		120	67 - 130
N-Propylbenzene	50.0	56.6		ug/L		113	70 - 130
o-Chlorotoluene	50.0	49.2		ug/L		98	70 - 130
o-Xylene	50.0	55.9		ug/L		112	70 - 130
p-Chlorotoluene	50.0	51.1		ug/L		102	70 - 130
p-Isopropyltoluene	50.0	62.5		ug/L		125	65 - 130
sec-Butylbenzene	50.0	58.8		ug/L		118	66 - 130
Styrene	50.0	58.8		ug/L		118	70 - 130
tert-Butylbenzene	50.0	55.2		ug/L		110	64 - 139
1,1,1,2-Tetrachloroethane	50.0	58.0		ug/L		116	67 - 131
1,1,2,2-Tetrachloroethane	50.0	55.5		ug/L		111	70 - 131
Tetrachloroethene	50.0	58.1		ug/L		116	65 - 130
Toluene	50.0	56.7		ug/L		113	70 - 130
trans-1,2-Dichloroethene	50.0	56.6		ug/L		113	70 - 130
trans-1,3-Dichloropropene	50.0	58.4		ug/L		117	63 - 130
1,2,3-Trichlorobenzene	50.0	61.0		ug/L		122	60 - 138
1,2,4-Trichlorobenzene	50.0	60.6		ug/L		121	60 - 140
1,1,1-Trichloroethane	50.0	55.9		ug/L		112	68 - 130
1,1,2-Trichloroethane	50.0	57.7		ug/L		115	70 - 130
Trichloroethene	50.0	55.1		ug/L		110	70 - 130
Trichlorofluoromethane	50.0	48.1		ug/L		96	65 - 138
1,2,3-Trichloropropane	50.0	55.1		ug/L		110	70 - 130
1,2,4-Trimethy benzene	50.0	57.7		ug/L		115	70 - 130
1,3,5-Trimethy benzene	50.0	51.6		ug/L		103	69 - 130
Vinyl acetate	100	108		ug/L		108	26 - 160
Vinyl chloride	50.0	43.5		ug/L		87	59 - 136
Xylenes, Total	100	113		ug/L		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*87*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: 400-222762-3 MS
Matrix: Water
Analysis Batch: 585095

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	202		ug/L		101	43 - 150

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

Lab Sample ID: 400-222762-3 MS
Matrix: Water
Analysis Batch: 585095

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acrolein	ND		500	573		ug/L		115	38 - 150
Acrylonitrile	ND		500	543		ug/L		109	62 - 149
Benzene	ND		50.0	54.0		ug/L		108	56 - 142
Bromobenzene	ND		50.0	45.6		ug/L		91	59 - 136
Bromochloromethane	ND		50.0	52.3		ug/L		105	64 - 140
Bromodichloromethane	ND		50.0	53.2		ug/L		106	59 - 143
Bromoform	ND		50.0	44.0		ug/L		88	50 - 140
Bromomethane	ND		50.0	49.2		ug/L		98	10 - 150
2-Butanone (MEK)	ND		200	205		ug/L		103	55 - 150
Carbon disulfide	ND		50.0	49.8		ug/L		100	48 - 150
Carbon tetrachloride	ND		50.0	51.6		ug/L		103	55 - 145
Chlorobenzene	ND		50.0	51.1		ug/L		102	64 - 130
Dibromochloromethane	ND		50.0	54.6		ug/L		109	56 - 143
Chloroethane	ND		50.0	46.0		ug/L		92	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	2.63	J F1	ug/L		5	10 - 150
Chloroform	ND		50.0	51.2		ug/L		102	60 - 141
1-Chlorohexane	ND		50.0	50.6		ug/L		101	56 - 136
Chloromethane	ND		50.0	40.1		ug/L		80	49 - 148
cis-1,2-Dichloroethene	ND		50.0	50.5		ug/L		101	59 - 143
cis-1,3-Dichloropropene	ND		50.0	53.9		ug/L		108	57 - 140
1,2-Dichlorobenzene	ND		50.0	50.9		ug/L		102	52 - 137
1,3-Dichlorobenzene	ND		50.0	49.9		ug/L		100	54 - 135
1,4-Dichlorobenzene	ND		50.0	49.1		ug/L		98	53 - 135
Dichlorodifluoromethane	ND		50.0	29.2		ug/L		58	16 - 150
1,1-Dichloroethane	ND		50.0	49.6		ug/L		99	61 - 144
1,2-Dichloroethane	ND		50.0	52.7		ug/L		105	60 - 141
1,1-Dichloroethene	ND		50.0	50.1		ug/L		100	54 - 147
1,2-Dichloropropane	ND		50.0	53.1		ug/L		106	66 - 137
1,3-Dichloropropane	ND		50.0	53.2		ug/L		106	66 - 133
2,2-Dichloropropane	ND		50.0	50.1		ug/L		100	42 - 144
1,1-Dichloropropene	ND		50.0	50.8		ug/L		102	65 - 136
Ethylbenzene	ND		50.0	50.8		ug/L		102	58 - 131
Ethyl methacrylate	ND		50.0	54.3		ug/L		109	64 - 130
Hexachlorobutadiene	ND		50.0	50.0		ug/L		100	31 - 149
2-Hexanone	ND		200	221		ug/L		111	65 - 140
Isopropy benzene	ND		50.0	51.2		ug/L		102	56 - 133
Methylene bromide	ND		50.0	53.8		ug/L		108	63 - 138
Methylene Chloride	ND		50.0	53.9		ug/L		108	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	227		ug/L		113	63 - 146
Methyl tert-butyl ether	ND		50.0	54.6		ug/L		109	59 - 137
m-Xylene & p-Xylene	ND		50.0	52.0		ug/L		104	57 - 130
Naphthalene	ND		50.0	51.6		ug/L		103	25 - 150
n-Butylbenzene	ND		50.0	55.5		ug/L		111	41 - 142
N-Propylbenzene	ND		50.0	48.3		ug/L		97	51 - 138
o-Chlorotoluene	ND		50.0	45.8		ug/L		92	53 - 134
o-Xylene	ND		50.0	51.5		ug/L		103	61 - 130
p-Chlorotoluene	ND		50.0	44.6		ug/L		89	54 - 133
p-Isopropyltoluene	ND		50.0	53.7		ug/L		107	48 - 139
sec-Butylbenzene	ND		50.0	49.7		ug/L		99	50 - 138

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

Lab Sample ID: 400-222762-3 MS
Matrix: Water
Analysis Batch: 585095

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Styrene	ND		50.0	53.0		ug/L		106	58 - 131
tert-Butylbenzene	ND		50.0	45.0		ug/L		90	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	51.0		ug/L		102	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	47.6		ug/L		95	66 - 135
Tetrachloroethene	ND		50.0	51.9		ug/L		104	52 - 133
Toluene	ND		50.0	53.0		ug/L		106	65 - 130
trans-1,2-Dichloroethene	ND		50.0	51.3		ug/L		103	61 - 143
trans-1,3-Dichloropropene	ND		50.0	53.5		ug/L		107	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	52.0		ug/L		104	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	49.3		ug/L		99	39 - 148
1,1,1-Trichloroethane	ND		50.0	50.5		ug/L		101	57 - 142
1,1,2-Trichloroethane	ND		50.0	54.1		ug/L		108	66 - 131
Trichloroethene	ND		50.0	50.5		ug/L		101	64 - 136
Trichlorofluoromethane	ND		50.0	49.4		ug/L		99	54 - 150
1,2,3-Trichloropropane	ND		50.0	48.5		ug/L		97	65 - 133
1,2,4-Trimethy benzene	ND		50.0	46.0		ug/L		92	50 - 139
1,3,5-Trimethy benzene	ND		50.0	44.7		ug/L		89	52 - 135
Vinyl acetate	ND		100	105		ug/L		105	26 - 150
Vinyl chloride	ND		50.0	44.0		ug/L		88	46 - 150
Xylenes, Total	ND		100	104		ug/L		104	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*86*		*72 - 119*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

Lab Sample ID: 400-222762-3 MSD
Matrix: Water
Analysis Batch: 585095

Client Sample ID: MW24-ROX-071122
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	201		ug/L		101	43 - 150	0	30
Acrolein	ND		500	597		ug/L		119	38 - 150	4	31
Acrylonitrile	ND		500	540		ug/L		108	62 - 149	1	30
Benzene	ND		50.0	52.6		ug/L		105	56 - 142	3	30
Bromobenzene	ND		50.0	50.3		ug/L		101	59 - 136	10	30
Bromochloromethane	ND		50.0	50.6		ug/L		101	64 - 140	3	30
Bromodichloromethane	ND		50.0	50.0		ug/L		100	59 - 143	6	30
Bromoform	ND		50.0	49.2		ug/L		98	50 - 140	11	30
Bromomethane	ND		50.0	45.5		ug/L		91	10 - 150	8	50
2-Butanone (MEK)	ND		200	221		ug/L		110	55 - 150	7	30
Carbon disulfide	ND		50.0	48.0		ug/L		96	48 - 150	4	30
Carbon tetrachloride	ND		50.0	48.1		ug/L		96	55 - 145	7	30
Chlorobenzene	ND		50.0	47.9		ug/L		96	64 - 130	7	30
Dibromochloromethane	ND		50.0	51.1		ug/L		102	56 - 143	7	30
Chloroethane	ND		50.0	47.1		ug/L		94	50 - 150	2	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	48.8		ug/L		98	60 - 141	5	30

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

Lab Sample ID: 400-222762-3 MSD
Matrix: Water
Analysis Batch: 585095

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1-Chlorohexane	ND		50.0	46.2		ug/L		92	56 - 136	9	30
Chloromethane	ND		50.0	41.0		ug/L		82	49 - 148	2	31
cis-1,2-Dichloroethene	ND		50.0	52.5		ug/L		105	59 - 143	4	30
cis-1,3-Dichloropropene	ND		50.0	57.2		ug/L		114	57 - 140	6	30
1,2-Dichlorobenzene	ND		50.0	53.5		ug/L		107	52 - 137	5	30
1,3-Dichlorobenzene	ND		50.0	48.9		ug/L		98	54 - 135	2	30
1,4-Dichlorobenzene	ND		50.0	46.1		ug/L		92	53 - 135	6	30
Dichlorodifluoromethane	ND		50.0	29.3		ug/L		59	16 - 150	0	31
1,1-Dichloroethane	ND		50.0	48.3		ug/L		97	61 - 144	3	30
1,2-Dichloroethane	ND		50.0	51.9		ug/L		104	60 - 141	1	30
1,1-Dichloroethene	ND		50.0	49.7		ug/L		99	54 - 147	1	30
1,2-Dichloropropane	ND		50.0	47.9		ug/L		96	66 - 137	10	30
1,3-Dichloropropane	ND		50.0	52.1		ug/L		104	66 - 133	2	30
2,2-Dichloropropane	ND		50.0	50.8		ug/L		102	42 - 144	2	31
1,1-Dichloropropene	ND		50.0	48.0		ug/L		96	65 - 136	6	30
Ethylbenzene	ND		50.0	47.9		ug/L		96	58 - 131	6	30
Ethyl methacrylate	ND		50.0	55.9		ug/L		112	64 - 130	3	30
Hexachlorobutadiene	ND		50.0	46.0		ug/L		92	31 - 149	8	36
2-Hexanone	ND		200	221		ug/L		110	65 - 140	0	30
Isopropy benzene	ND		50.0	46.1		ug/L		92	56 - 133	11	30
Methylene bromide	ND		50.0	50.1		ug/L		100	63 - 138	7	30
Methylene Chloride	ND		50.0	53.8		ug/L		108	60 - 146	0	32
4-Methyl-2-pentanone (MIBK)	ND		200	247		ug/L		123	63 - 146	8	30
Methyl tert-butyl ether	ND		50.0	55.0		ug/L		110	59 - 137	1	30
m-Xylene & p-Xylene	ND		50.0	47.8		ug/L		96	57 - 130	8	30
Naphthalene	ND		50.0	57.0		ug/L		114	25 - 150	10	30
n-Butylbenzene	ND		50.0	51.3		ug/L		103	41 - 142	8	31
N-Propylbenzene	ND		50.0	51.3		ug/L		103	51 - 138	6	30
o-Chlorotoluene	ND		50.0	50.2		ug/L		100	53 - 134	9	30
o-Xylene	ND		50.0	45.2		ug/L		90	61 - 130	13	30
p-Chlorotoluene	ND		50.0	50.1		ug/L		100	54 - 133	12	30
p-Isopropyltoluene	ND		50.0	50.5		ug/L		101	48 - 139	6	30
sec-Butylbenzene	ND		50.0	49.1		ug/L		98	50 - 138	1	30
Styrene	ND		50.0	46.4		ug/L		93	58 - 131	13	30
tert-Butylbenzene	ND		50.0	49.6		ug/L		99	54 - 146	10	30
1,1,1,2-Tetrachloroethane	ND		50.0	47.7		ug/L		95	59 - 137	7	30
1,1,2,2-Tetrachloroethane	ND		50.0	53.7		ug/L		107	66 - 135	12	30
Tetrachloroethene	ND		50.0	47.3		ug/L		95	52 - 133	9	30
Toluene	ND		50.0	50.8		ug/L		102	65 - 130	4	30
trans-1,2-Dichloroethene	ND		50.0	50.2		ug/L		100	61 - 143	2	30
trans-1,3-Dichloropropene	ND		50.0	51.8		ug/L		104	53 - 133	3	30
1,2,3-Trichlorobenzene	ND		50.0	54.7		ug/L		109	43 - 145	5	30
1,2,4-Trichlorobenzene	ND		50.0	51.1		ug/L		102	39 - 148	4	30
1,1,1-Trichloroethane	ND		50.0	49.7		ug/L		99	57 - 142	2	30
1,1,2-Trichloroethane	ND		50.0	52.5		ug/L		105	66 - 131	3	30
Trichloroethene	ND		50.0	50.7		ug/L		101	64 - 136	0	30
Trichlorofluoromethane	ND		50.0	49.0		ug/L		98	54 - 150	1	30
1,2,3-Trichloropropane	ND		50.0	54.8		ug/L		110	65 - 133	12	30
1,2,4-Trimethy benzene	ND		50.0	50.3		ug/L		101	50 - 139	9	30

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

Lab Sample ID: 400-222762-3 MSD
Matrix: Water
Analysis Batch: 585095

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3,5-Trimethy benzene	ND		50.0	49.9		ug/L		100	52 - 135	11	30
Vinyl acetate	ND		100	116		ug/L		116	26 - 150	10	33
Vinyl chloride	ND		50.0	45.9		ug/L		92	46 - 150	4	30
Xylenes, Total	ND		100	93.0		ug/L		93	59 - 130	11	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

Lab Sample ID: MB 400-585405/5
Matrix: Water
Analysis Batch: 585405

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			07/20/22 09:47	1
Acrolein	ND		20	3.3	ug/L			07/20/22 09:47	1
Acrylonitrile	ND		10	2.8	ug/L			07/20/22 09:47	1
Benzene	ND		1.0	0.13	ug/L			07/20/22 09:47	1
Bromobenzene	ND		1.0	0.54	ug/L			07/20/22 09:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/20/22 09:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Bromoform	ND		5.0	0.25	ug/L			07/20/22 09:47	1
Bromomethane	ND		1.0	0.98	ug/L			07/20/22 09:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/20/22 09:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/20/22 09:47	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/20/22 09:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/20/22 09:47	1
Chloroethane	ND		1.0	0.76	ug/L			07/20/22 09:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 09:47	1
Chloroform	ND		1.0	1.0	ug/L			07/20/22 09:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/20/22 09:47	1
Chloromethane	ND		1.0	0.32	ug/L			07/20/22 09:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/20/22 09:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/20/22 09:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/20/22 09:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/20/22 09:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/20/22 09:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/20/22 09:47	1

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

Lab Sample ID: MB 400-585405/5
Matrix: Water
Analysis Batch: 585405

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/20/22 09:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/20/22 09:47	1
2-Hexanone	ND		25	1.4	ug/L			07/20/22 09:47	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/20/22 09:47	1
Methylene bromide	ND		5.0	0.22	ug/L			07/20/22 09:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/20/22 09:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/20/22 09:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/20/22 09:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/20/22 09:47	1
Naphthalene	ND		5.0	3.0	ug/L			07/20/22 09:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/20/22 09:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/20/22 09:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/20/22 09:47	1
o-Xylene	ND		5.0	0.60	ug/L			07/20/22 09:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/20/22 09:47	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/20/22 09:47	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/20/22 09:47	1
Styrene	ND		1.0	1.0	ug/L			07/20/22 09:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/20/22 09:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/20/22 09:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/20/22 09:47	1
Toluene	ND		1.0	0.41	ug/L			07/20/22 09:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/20/22 09:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/20/22 09:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/20/22 09:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/20/22 09:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/20/22 09:47	1
Trichloroethene	ND		1.0	0.15	ug/L			07/20/22 09:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/20/22 09:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/20/22 09:47	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/20/22 09:47	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/20/22 09:47	1
Vinyl acetate	ND		25	0.93	ug/L			07/20/22 09:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Xylenes, Total	ND		10	1.6	ug/L			07/20/22 09:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/20/22 09:47*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/20/22 09:47*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/20/22 09:47*	*1*

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

Lab Sample ID: LCS 400-585405/1002
Matrix: Water
Analysis Batch: 585405

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
2-Chloroethyl vinyl ether			50.0	16.7		ug/L		33	10 - 160		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

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

Lab Sample ID: 400-222762-8 MS
Matrix: Water
Analysis Batch: 585405

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
2-Chloroethyl vinyl ether - RA	ND	F1	50.0	ND	F1	ug/L		0	10 - 150		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene - RA	*87*		*72 - 119*
Dibromofluoromethane - RA	*100*		*75 - 126*
Toluene-d8 (Surr) - RA	*101*		*64 - 132*

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585405

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether - RA	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene - RA	*89*		*72 - 119*
Dibromofluoromethane - RA	*104*		*75 - 126*
Toluene-d8 (Surr) - RA	*101*		*64 - 132*

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

Lab Sample ID: MB 400-584619/1-A
Matrix: Water
Analysis Batch: 584968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/13/22 11:45	07/15/22 17:19	1
Benzenethiol	ND		10	1.7	ug/L		07/13/22 11:45	07/15/22 17:19	1
Benzoic acid	ND		30	7.3	ug/L		07/13/22 11:45	07/15/22 17:19	1
Benzyl alcohol	ND		10	2.0	ug/L		07/13/22 11:45	07/15/22 17:19	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/13/22 11:45	07/15/22 17:19	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/13/22 11:45	07/15/22 17:19	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/13/22 11:45	07/15/22 17:19	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/13/22 11:45	07/15/22 17:19	1

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

Lab Sample ID: MB 400-584619/1-A
Matrix: Water
Analysis Batch: 584968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/13/22 11:45	07/15/22 17:19	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/13/22 11:45	07/15/22 17:19	1
4-Chloroaniline	ND		10	3.4	ug/L		07/13/22 11:45	07/15/22 17:19	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/13/22 11:45	07/15/22 17:19	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/13/22 11:45	07/15/22 17:19	1
2-Chlorophenol	ND		10	2.2	ug/L		07/13/22 11:45	07/15/22 17:19	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/13/22 11:45	07/15/22 17:19	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/13/22 11:45	07/15/22 17:19	1
Dibenzofuran	ND		10	0.17	ug/L		07/13/22 11:45	07/15/22 17:19	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/13/22 11:45	07/15/22 17:19	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/13/22 11:45	07/15/22 17:19	1
Diethyl phthalate	ND		10	0.24	ug/L		07/13/22 11:45	07/15/22 17:19	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/13/22 11:45	07/15/22 17:19	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/13/22 11:45	07/15/22 17:19	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/13/22 11:45	07/15/22 17:19	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/13/22 11:45	07/15/22 17:19	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/13/22 11:45	07/15/22 17:19	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/13/22 11:45	07/15/22 17:19	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/13/22 11:45	07/15/22 17:19	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/13/22 11:45	07/15/22 17:19	1
1,4-Dioxane	ND		10	1.0	ug/L		07/13/22 11:45	07/15/22 17:19	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/13/22 11:45	07/15/22 17:19	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/13/22 11:45	07/15/22 17:19	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/13/22 11:45	07/15/22 17:19	1
Hexachloroethane	ND		10	4.2	ug/L		07/13/22 11:45	07/15/22 17:19	1
Indene	ND		10	1.0	ug/L		07/13/22 11:45	07/15/22 17:19	1
Isophorone	ND		10	0.14	ug/L		07/13/22 11:45	07/15/22 17:19	1
2-Methylphenol	ND		10	1.8	ug/L		07/13/22 11:45	07/15/22 17:19	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/13/22 11:45	07/15/22 17:19	1
2-Nitroaniline	ND		10	2.2	ug/L		07/13/22 11:45	07/15/22 17:19	1
3-Nitroaniline	ND		10	1.8	ug/L		07/13/22 11:45	07/15/22 17:19	1
4-Nitroaniline	ND		10	1.5	ug/L		07/13/22 11:45	07/15/22 17:19	1
Nitrobenzene	ND		10	0.13	ug/L		07/13/22 11:45	07/15/22 17:19	1
2-Nitrophenol	ND		10	5.2	ug/L		07/13/22 11:45	07/15/22 17:19	1
4-Nitrophenol	ND		10	2.1	ug/L		07/13/22 11:45	07/15/22 17:19	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/13/22 11:45	07/15/22 17:19	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/13/22 11:45	07/15/22 17:19	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/13/22 11:45	07/15/22 17:19	1
Pentachlorophenol	ND		20	1.4	ug/L		07/13/22 11:45	07/15/22 17:19	1
Phenol	ND		10	2.6	ug/L		07/13/22 11:45	07/15/22 17:19	1
Pyridine	ND		10	3.2	ug/L		07/13/22 11:45	07/15/22 17:19	1
Quinoline	ND		10	4.5	ug/L		07/13/22 11:45	07/15/22 17:19	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/13/22 11:45	07/15/22 17:19	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/13/22 11:45	07/15/22 17:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*07/13/22 11:45*	*07/15/22 17:19*	*1*

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

Lab Sample ID: MB 400-584619/1-A
Matrix: Water
Analysis Batch: 584968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584619

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	55		13 - 113	07/13/22 11:45	07/15/22 17:19	1
Nitrobenzene-d5	80		36 - 126	07/13/22 11:45	07/15/22 17:19	1
Phenol-d5	79		17 - 127	07/13/22 11:45	07/15/22 17:19	1
Terphenyl-d14	103		44 - 149	07/13/22 11:45	07/15/22 17:19	1
2,4,6-Tribromophenol	82		26 - 150	07/13/22 11:45	07/15/22 17:19	1

Lab Sample ID: LCS 400-584619/2-A
Matrix: Water
Analysis Batch: 584968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	94.9		ug/L		79	21 - 120
Benzoic acid	513	364		ug/L		71	10 - 144
Benzyl alcohol	120	99.2		ug/L		83	28 - 120
Bis(2-chloroethoxy)methane	120	90.3		ug/L		75	47 - 120
Bis(2-chloroethyl)ether	120	88.6		ug/L		74	44 - 120
bis (2-chloroisopropyl) ether	120	81.1		ug/L		68	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		96	52 - 147
4-Bromophenyl phenyl ether	120	122		ug/L		102	54 - 122
Butyl benzyl phthalate	120	110		ug/L		91	54 - 133
4-Chloroaniline	120	86.2		ug/L		72	26 - 120
4-Chloro-3-methylphenol	120	113		ug/L		94	48 - 131
2-Chloronaphthalene	120	99.7		ug/L		83	52 - 121
2-Chlorophenol	120	101		ug/L		84	40 - 120
4-Chlorophenyl phenyl ether	120	110		ug/L		91	56 - 125
Dibenz[a,h]acridine	120	134		ug/L		112	31 - 150
Dibenzofuran	120	105		ug/L		88	56 - 122
3,3'-Dichlorobenzidine	160	259	*+	ug/L		162	36 - 132
2,4-Dichlorophenol	120	107		ug/L		90	49 - 120
Diethyl phthalate	120	106		ug/L		89	50 - 137
2,4-Dimethylphenol	120	99.8		ug/L		83	48 - 120
Dimethyl phthalate	120	108		ug/L		90	57 - 124
Di-n-butyl phthalate	120	119		ug/L		99	58 - 126
4,6-Dinitro-ortho-cresol	240	211		ug/L		88	23 - 148
2,4-Dinitrophenol	240	190		ug/L		79	10 - 150
2,4-Dinitrotoluene	120	119		ug/L		99	54 - 142
2,6-Dinitrotoluene	120	112		ug/L		94	55 - 130
Di-n-octyl phthalate	120	120		ug/L		100	57 - 138
1,4-Dioxane	120	60.0		ug/L		50	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	97.9		ug/L		82	45 - 124
Hexachlorobenzene	120	120		ug/L		100	52 - 129
Hexachlorocyclopentadiene	120	74.4		ug/L		62	10 - 134
Hexachloroethane	120	73.4		ug/L		61	20 - 120
Indene	120	101		ug/L		84	49 - 120
Isophorone	120	92.9		ug/L		77	48 - 120
2-Methylphenol	120	103		ug/L		86	46 - 124
3 & 4 Methylphenol	120	96.9		ug/L		81	45 - 120
2-Nitroaniline	120	98.2		ug/L		82	51 - 145

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

Lab Sample ID: LCS 400-584619/2-A
Matrix: Water
Analysis Batch: 584968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584619

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
3-Nitroaniline			120	105		ug/L		88	37 - 127		
4-Nitroaniline			120	131		ug/L		109	36 - 137		
Nitrobenzene			120	87.4		ug/L		73	45 - 120		
2-Nitrophenol			120	83.0		ug/L		69	40 - 124		
4-Nitrophenol			240	221		ug/L		92	23 - 146		
N-Nitrosodimethylamine			120	89.0		ug/L		74	29 - 137		
N-Nitrosodi-n-propylamine			120	93.4		ug/L		78	45 - 120		
N-Nitrosodiphenylamine			119	115		ug/L		97	54 - 120		
Pentachlorophenol			240	212		ug/L		88	31 - 130		
Phenol			120	93.9		ug/L		78	11 - 120		
Pyridine			240	137		ug/L		57	16 - 120		
Quinoline			120	115		ug/L		96	49 - 130		
2,4,5-Trichlorophenol			120	119		ug/L		99	51 - 136		
2,4,6-Trichlorophenol			120	117		ug/L		98	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*70*		*13 - 113*
Nitrobenzene-d5	*80*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*102*		*26 - 150*

Lab Sample ID: LCS 400-584619/3-A
Matrix: Water
Analysis Batch: 584968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584619

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	2.77	J *-	ug/L		2	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*59*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*97*		*44 - 149*
2,4,6-Tribromophenol	*83*		*26 - 150*

Lab Sample ID: LCSD 400-584619/4-A
Matrix: Water
Analysis Batch: 584968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 584619

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.20	J *-	ug/L		2	10 - 120	23	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*56*		*13 - 113*

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

Lab Sample ID: LCSD 400-584619/4-A
Matrix: Water
Analysis Batch: 584968

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 584619

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*80*		*36 - 126*
Phenol-d5	*76*		*17 - 127*
Terphenyl-d14	*105*		*44 - 149*
2,4,6-Tribromophenol	*88*		*26 - 150*

Lab Sample ID: 400-222762-3 MS
Matrix: Water
Analysis Batch: 584968

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		112	84.2		ug/L		75	10 - 120
Benzoic acid	ND		480	401		ug/L		84	10 - 149
Benzyl alcohol	ND		112	91.2		ug/L		81	33 - 120
Bis(2-chloroethoxy)methane	ND		112	84.3		ug/L		75	26 - 120
Bis(2-chloroethyl)ether	ND		112	82.7		ug/L		74	42 - 120
bis (2-chloroisopropyl) ether	ND		112	75.2		ug/L		67	28 - 120
Bis(2-ethylhexyl) phthalate	ND		112	110		ug/L		98	39 - 120
4-Bromophenyl phenyl ether	ND		112	111		ug/L		99	40 - 120
Butyl benzyl phthalate	ND		112	102		ug/L		91	45 - 120
4-Chloroaniline	ND		112	63.5		ug/L		57	10 - 120
4-Chloro-3-methylphenol	ND		112	102		ug/L		91	34 - 120
2-Chloronaphthalene	ND		112	91.1		ug/L		81	39 - 120
2-Chlorophenol	ND		112	89.1		ug/L		79	25 - 120
4-Chlorophenyl phenyl ether	ND		112	102		ug/L		91	44 - 120
Dibenz[a,h]acridine	ND		112	123		ug/L		109	50 - 150
Dibenzofuran	ND		112	101		ug/L		90	25 - 130
3,3'-Dichlorobenzidine	ND	F1 *+	150	222	F1	ug/L		148	10 - 120
2,4-Dichlorophenol	ND		112	98.6		ug/L		88	31 - 120
Diethyl phthalate	ND		112	102		ug/L		91	46 - 120
2,4-Dimethylphenol	ND		112	92.9		ug/L		83	21 - 120
Dimethyl phthalate	ND		112	101		ug/L		90	38 - 120
Di-n-butyl phthalate	ND		112	114		ug/L		101	49 - 120
4,6-Dinitro-ortho-cresol	ND		225	207		ug/L		92	25 - 120
2,4-Dinitrophenol	ND		225	200		ug/L		89	15 - 140
2,4-Dinitrotoluene	ND		112	114		ug/L		102	53 - 120
2,6-Dinitrotoluene	ND		112	107		ug/L		95	43 - 120
Di-n-octyl phthalate	ND		112	114		ug/L		102	35 - 121
1,4-Dioxane	ND	F1	112	55.1	F1	ug/L		49	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		112	91.1		ug/L		81	50 - 150
Hexachlorobenzene	ND		112	111		ug/L		99	38 - 122
Hexachlorocyclopentadiene	ND		112	89.7		ug/L		80	10 - 120
Hexachloroethane	ND		112	66.1		ug/L		59	10 - 150
Indene	ND		112	96.0		ug/L		86	50 - 150
Isophorone	ND		112	86.6		ug/L		77	42 - 120
2-Methylphenol	ND		112	94.9		ug/L		85	28 - 120
3 & 4 Methylphenol	ND		112	88.6		ug/L		79	31 - 120
2-Nitroaniline	ND		112	89.9		ug/L		80	45 - 120
3-Nitroaniline	ND		112	96.4		ug/L		86	10 - 130

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

Lab Sample ID: 400-222762-3 MS
Matrix: Water
Analysis Batch: 584968

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
4-Nitroaniline	ND		112	96.2		ug/L		86	10 - 132
Nitrobenzene	ND		112	87.6		ug/L		78	39 - 120
2-Nitrophenol	ND		112	80.8		ug/L		72	33 - 120
4-Nitrophenol	ND		225	213		ug/L		95	10 - 120
N-Nitrosodimethylamine	ND		112	84.8		ug/L		76	10 - 139
N-Nitrosodi-n-propylamine	ND		112	86.7		ug/L		77	37 - 124
N-Nitrosodiphenylamine	ND		111	104		ug/L		93	10 - 150
Pentachlorophenol	ND		225	205		ug/L		91	29 - 130
Phenol	ND		112	83.8		ug/L		75	10 - 150
Pyridine	ND		225	135		ug/L		60	10 - 120
Quinoline	ND		112	110		ug/L		98	51 - 120
2,4,5-Trichlorophenol	ND		112	114		ug/L		102	34 - 120
2,4,6-Trichlorophenol	ND		112	111		ug/L		99	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*56*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*76*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*102*		*26 - 150*

Lab Sample ID: 400-222762-3 MSD
Matrix: Water
Analysis Batch: 584968

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		113	86.6		ug/L		77	10 - 120	3	63
Benzoic acid	ND		482	391		ug/L		81	10 - 149	3	49
Benzyl alcohol	ND		113	98.4		ug/L		87	33 - 120	8	37
Bis(2-chloroethoxy)methane	ND		113	88.3		ug/L		78	26 - 120	5	70
Bis(2-chloroethyl)ether	ND		113	88.0		ug/L		78	42 - 120	6	42
bis (2-chloroisopropyl) ether	ND		113	80.2		ug/L		71	28 - 120	6	41
Bis(2-ethylhexyl) phthalate	ND		113	117		ug/L		104	39 - 120	6	35
4-Bromophenyl phenyl ether	ND		113	118		ug/L		105	40 - 120	7	30
Butyl benzyl phthalate	ND		113	110		ug/L		98	45 - 120	8	32
4-Chloroaniline	ND		113	83.6		ug/L		74	10 - 120	27	94
4-Chloro-3-methylphenol	ND		113	109		ug/L		96	34 - 120	6	40
2-Chloronaphthalene	ND		113	100		ug/L		89	39 - 120	9	29
2-Chlorophenol	ND		113	100		ug/L		89	25 - 120	12	42
4-Chlorophenyl phenyl ether	ND		113	110		ug/L		98	44 - 120	7	27
Dibenz[a,h]acridine	ND		113	132		ug/L		117	50 - 150	7	40
Dibenzofuran	ND		113	107		ug/L		95	25 - 130	6	29
3,3'-Dichlorobenzidine	ND	F1 *+	150	232	F1	ug/L		154	10 - 120	5	58
2,4-Dichlorophenol	ND		113	105		ug/L		93	31 - 120	6	43
Diethyl phthalate	ND		113	108		ug/L		96	46 - 120	5	40
2,4-Dimethylphenol	ND		113	96.9		ug/L		86	21 - 120	4	47
Dimethyl phthalate	ND		113	108		ug/L		96	38 - 120	6	36

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

Lab Sample ID: 400-222762-3 MSD
Matrix: Water
Analysis Batch: 584968

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-butyl phthalate	ND		113	122		ug/L		108	49 - 120	7	32
4,6-Dinitro-ortho-cresol	ND		226	229		ug/L		101	25 - 120	10	42
2,4-Dinitrophenol	ND		226	219		ug/L		97	15 - 140	9	36
2,4-Dinitrotoluene	ND		113	123		ug/L		109	53 - 120	7	28
2,6-Dinitrotoluene	ND		113	113		ug/L		101	43 - 120	6	28
Di-n-octyl phthalate	ND		113	120		ug/L		106	35 - 121	5	35
1,4-Dioxane	ND	F1	113	58.0		ug/L		51	50 - 150	5	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		113	96.1		ug/L		85	50 - 150	5	40
Hexachlorobenzene	ND		113	117		ug/L		104	38 - 122	5	33
Hexachlorocyclopentadiene	ND		113	68.8		ug/L		61	10 - 120	26	50
Hexachloroethane	ND		113	72.9		ug/L		65	10 - 150	10	41
Indene	ND		113	103		ug/L		91	50 - 150	7	40
Isophorone	ND		113	91.8		ug/L		81	42 - 120	6	33
2-Methylphenol	ND		113	99.6		ug/L		88	28 - 120	5	47
3 & 4 Methylphenol	ND		113	94.6		ug/L		84	31 - 120	7	47
2-Nitroaniline	ND		113	95.1		ug/L		84	45 - 120	6	33
3-Nitroaniline	ND		113	103		ug/L		92	10 - 130	7	39
4-Nitroaniline	ND		113	106		ug/L		94	10 - 132	10	50
Nitrobenzene	ND		113	93.0		ug/L		82	39 - 120	6	35
2-Nitrophenol	ND		113	83.2		ug/L		74	33 - 120	3	43
4-Nitrophenol	ND		226	221		ug/L		98	10 - 120	4	82
N-Nitrosodimethylamine	ND		113	89.0		ug/L		79	10 - 139	5	62
N-Nitrosodi-n-propylamine	ND		113	92.4		ug/L		82	37 - 124	6	36
N-Nitrosodiphenylamine	ND		112	108		ug/L		97	10 - 150	4	34
Pentachlorophenol	ND		226	219		ug/L		97	29 - 130	7	42
Phenol	ND		113	90.9		ug/L		81	10 - 150	8	52
Pyridine	ND		226	137		ug/L		61	10 - 120	1	55
Quinoline	ND		113	120		ug/L		106	51 - 120	8	40
2,4,5-Trichlorophenol	ND		113	120		ug/L		106	34 - 120	5	42
2,4,6-Trichlorophenol	ND		113	116		ug/L		103	33 - 120	4	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*46 - 124*
2-Fluorophenol	*66*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*83*		*17 - 127*
Terphenyl-d14	*105*		*44 - 149*
2,4,6-Tribromophenol	*108*		*26 - 150*

Lab Sample ID: MB 400-584922/1-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/15/22 08:55	07/18/22 14:46	1
Benzenethiol	ND		10	1.7	ug/L		07/15/22 08:55	07/18/22 14:46	1
Benzoic acid	ND		30	7.3	ug/L		07/15/22 08:55	07/18/22 14:46	1
Benzyl alcohol	ND		10	2.0	ug/L		07/15/22 08:55	07/18/22 14:46	1

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

Lab Sample ID: MB 400-584922/1-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/15/22 08:55	07/18/22 14:46	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/15/22 08:55	07/18/22 14:46	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/15/22 08:55	07/18/22 14:46	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/15/22 08:55	07/18/22 14:46	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Chloroaniline	ND		10	3.4	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Chlorophenol	ND		10	2.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Dibenzofuran	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 14:46	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Diethyl phthalate	0.287	J	10	0.24	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/15/22 08:55	07/18/22 14:46	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 14:46	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/15/22 08:55	07/18/22 14:46	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/15/22 08:55	07/18/22 14:46	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 14:46	1
1,4-Dioxane	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/15/22 08:55	07/18/22 14:46	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/15/22 08:55	07/18/22 14:46	1
Hexachloroethane	ND		10	4.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
Indene	ND		10	1.0	ug/L		07/15/22 08:55	07/18/22 14:46	1
Isophorone	ND		10	0.14	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Methylphenol	ND		10	1.8	ug/L		07/15/22 08:55	07/18/22 14:46	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Nitroaniline	ND		10	2.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
3-Nitroaniline	ND		10	1.8	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Nitroaniline	ND		10	1.5	ug/L		07/15/22 08:55	07/18/22 14:46	1
Nitrobenzene	ND		10	0.13	ug/L		07/15/22 08:55	07/18/22 14:46	1
2-Nitrophenol	ND		10	5.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
4-Nitrophenol	ND		10	2.1	ug/L		07/15/22 08:55	07/18/22 14:46	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/15/22 08:55	07/18/22 14:46	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/15/22 08:55	07/18/22 14:46	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/15/22 08:55	07/18/22 14:46	1
Pentachlorophenol	ND		20	1.4	ug/L		07/15/22 08:55	07/18/22 14:46	1
Phenol	ND		10	2.6	ug/L		07/15/22 08:55	07/18/22 14:46	1
Pyridine	ND		10	3.2	ug/L		07/15/22 08:55	07/18/22 14:46	1
Quinoline	ND		10	4.5	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/15/22 08:55	07/18/22 14:46	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/15/22 08:55	07/18/22 14:46	1

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		46 - 124	07/15/22 08:55	07/18/22 14:46	1
2-Fluorophenol	20		13 - 113	07/15/22 08:55	07/18/22 14:46	1
Nitrobenzene-d5	68		36 - 126	07/15/22 08:55	07/18/22 14:46	1
Phenol-d5	55		17 - 127	07/15/22 08:55	07/18/22 14:46	1
Terphenyl-d14	99		44 - 149	07/15/22 08:55	07/18/22 14:46	1
2,4,6-Tribromophenol	73		26 - 150	07/15/22 08:55	07/18/22 14:46	1

Lab Sample ID: LCS 400-584922/2-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	87.8		ug/L		73	21 - 120
Benzoic acid	513	313		ug/L		61	10 - 144
Benzyl alcohol	120	93.4		ug/L		78	28 - 120
Bis(2-chloroethoxy)methane	120	85.6		ug/L		71	47 - 120
Bis(2-chloroethyl)ether	120	88.7		ug/L		74	44 - 120
bis (2-chloroisopropyl) ether	120	78.2		ug/L		65	33 - 121
Bis(2-ethylhexyl) phthalate	120	109		ug/L		91	52 - 147
4-Bromophenyl phenyl ether	120	115		ug/L		95	54 - 122
Butyl benzyl phthalate	120	105		ug/L		88	54 - 133
4-Chloroaniline	120	80.1		ug/L		67	26 - 120
4-Chloro-3-methylphenol	120	102		ug/L		85	48 - 131
2-Chloronaphthalene	120	98.4		ug/L		82	52 - 121
2-Chlorophenol	120	89.2		ug/L		74	40 - 120
4-Chlorophenyl phenyl ether	120	105		ug/L		87	56 - 125
Dibenz[a,h]acridine	120	113		ug/L		95	31 - 150
Dibenzofuran	120	102		ug/L		85	56 - 122
3,3'-Dichlorobenzidine	160	237	*+	ug/L		148	36 - 132
2,4-Dichlorophenol	120	98.8		ug/L		82	49 - 120
Diethyl phthalate	120	104		ug/L		87	50 - 137
2,4-Dimethylphenol	120	93.3		ug/L		78	48 - 120
Dimethyl phthalate	120	103		ug/L		86	57 - 124
Di-n-butyl phthalate	120	119		ug/L		99	58 - 126
4,6-Dinitro-ortho-cresol	240	216		ug/L		90	23 - 148
2,4-Dinitrophenol	240	222		ug/L		93	10 - 150
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142
2,6-Dinitrotoluene	120	101		ug/L		84	55 - 130
Di-n-octyl phthalate	120	103		ug/L		86	57 - 138
1,4-Dioxane	120	66.9		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	91.2		ug/L		76	45 - 124
Hexachlorobenzene	120	115		ug/L		96	52 - 129
Hexachlorocyclopentadiene	120	84.4		ug/L		70	10 - 134
Hexachloroethane	120	72.0		ug/L		60	20 - 120
Indene	120	99.5		ug/L		83	49 - 120
Isophorone	120	88.9		ug/L		74	48 - 120
2-Methylphenol	120	94.4		ug/L		79	46 - 124
3 & 4 Methylphenol	120	90.8		ug/L		76	45 - 120
2-Nitroaniline	120	87.3		ug/L		73	51 - 145
3-Nitroaniline	120	95.2		ug/L		79	37 - 127
4-Nitroaniline	120	94.9		ug/L		79	36 - 137

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

Lab Sample ID: LCS 400-584922/2-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Nitrobenzene			120	80.1		ug/L		67	45 - 120		
2-Nitrophenol			120	76.8		ug/L		64	40 - 124		
4-Nitrophenol			240	192		ug/L		80	23 - 146		
N-Nitrosodimethylamine			120	83.2		ug/L		69	29 - 137		
N-Nitrosodi-n-propylamine			120	88.1		ug/L		73	45 - 120		
N-Nitrosodiphenylamine			119	107		ug/L		89	54 - 120		
Pentachlorophenol			240	216		ug/L		90	31 - 130		
Phenol			120	81.9		ug/L		68	11 - 120		
Pyridine			240	139		ug/L		58	16 - 120		
Quinoline			120	108		ug/L		90	49 - 130		
2,4,5-Trichlorophenol			120	112		ug/L		94	51 - 136		
2,4,6-Trichlorophenol			120	114		ug/L		95	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*71*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*101*		*26 - 150*

Lab Sample ID: LCS 400-584922/3-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	6.30	J *-	ug/L		5	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*82*		*26 - 150*

Lab Sample ID: LCSD 400-584922/4-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 584922

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	4.32	J *- *1	ug/L		4	10 - 120	37	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*73*		*17 - 127*

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

Lab Sample ID: LCSD 400-584922/4-A
Matrix: Water
Analysis Batch: 585184

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 584922

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Terphenyl-d14	*97*		*44 - 149*
2,4,6-Tribromophenol	*83*		*26 - 150*

Lab Sample ID: 400-222762-8 MS
Matrix: Water
Analysis Batch: 585184

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		109	76.6		ug/L		70	10 - 120
Benzoic acid	16	J F2	466	199		ug/L		39	10 - 149
Benzyl alcohol	ND		109	83.9		ug/L		77	33 - 120
Bis(2-chloroethoxy)methane	ND		109	77.0		ug/L		71	26 - 120
Bis(2-chloroethyl)ether	ND		109	81.0		ug/L		74	42 - 120
bis (2-chloroisopropyl) ether	ND		109	72.1		ug/L		66	28 - 120
Bis(2-ethylhexyl) phthalate	5.3	J	109	106		ug/L		92	39 - 120
4-Bromophenyl phenyl ether	ND		109	105		ug/L		96	40 - 120
Butyl benzyl phthalate	ND		109	99.8		ug/L		92	45 - 120
4-Chloroaniline	ND		109	51.1		ug/L		47	10 - 120
4-Chloro-3-methylphenol	ND		109	60.5		ug/L		55	34 - 120
2-Chloronaphthalene	ND		109	90.4		ug/L		83	39 - 120
2-Chlorophenol	ND	F2 F1	109	9.31	F1	ug/L		9	25 - 120
4-Chlorophenyl phenyl ether	ND		109	95.5		ug/L		88	44 - 120
Dibenz[a,h]acridine	ND		109	106		ug/L		97	50 - 150
Dibenzofuran	ND		109	93.9		ug/L		86	25 - 130
3,3'-Dichlorobenzidine	ND	F2 F1 *+	145	179	F1	ug/L		123	10 - 120
2,4-Dichlorophenol	ND	F2 F1	109	26.3	F1	ug/L		24	31 - 120
Diethyl phthalate	0.23	J B	109	94.8		ug/L		87	46 - 120
2,4-Dimethylphenol	ND		109	70.3		ug/L		64	21 - 120
Dimethyl phthalate	ND		109	95.6		ug/L		88	38 - 120
Di-n-butyl phthalate	ND		109	108		ug/L		99	49 - 120
4,6-Dinitro-ortho-cresol	ND	F2	218	139		ug/L		64	25 - 120
2,4-Dinitrophenol	ND	F2	218	140		ug/L		64	15 - 140
2,4-Dinitrotoluene	ND		109	101		ug/L		93	53 - 120
2,6-Dinitrotoluene	ND		109	95.6		ug/L		88	43 - 120
Di-n-octyl phthalate	ND		109	99.4		ug/L		91	35 - 121
1,4-Dioxane	ND	F1	109	46.1	F1	ug/L		42	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		109	83.8		ug/L		77	50 - 150
Hexachlorobenzene	ND		109	106		ug/L		98	38 - 122
Hexachlorocyclopentadiene	ND		109	77.5		ug/L		71	10 - 120
Hexachloroethane	ND		109	70.5		ug/L		65	10 - 150
Indene	ND		109	91.1		ug/L		84	50 - 150
Isophorone	ND		109	80.7		ug/L		74	42 - 120
2-Methylphenol	ND	F2	109	40.6		ug/L		37	28 - 120
3 & 4 Methylphenol	ND	F2	109	35.3		ug/L		32	31 - 120
2-Nitroaniline	ND		109	80.5		ug/L		74	45 - 120
3-Nitroaniline	ND		109	86.0		ug/L		79	10 - 130
4-Nitroaniline	ND		109	108		ug/L		99	10 - 132
Nitrobenzene	ND		109	73.9		ug/L		68	39 - 120

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

Lab Sample ID: 400-222762-8 MS
Matrix: Water
Analysis Batch: 585184

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitrophenol	ND	F2 F1	109	13.3	F1	ug/L		12	33 - 120
4-Nitrophenol	ND		218	149		ug/L		68	10 - 120
N-Nitrosodimethylamine	ND		109	72.9		ug/L		67	10 - 139
N-Nitrosodi-n-propylamine	ND		109	81.9		ug/L		75	37 - 124
N-Nitrosodiphenylamine	ND		108	98.7		ug/L		91	10 - 150
Pentachlorophenol	ND		218	161		ug/L		74	29 - 130
Phenol	ND	F2	109	14.7		ug/L		13	10 - 150
Pyridine	ND		218	118		ug/L		54	10 - 120
Quinoline	ND		109	97.3		ug/L		89	51 - 120
2,4,5-Trichlorophenol	ND	F2	109	52.7		ug/L		48	34 - 120
2,4,6-Trichlorophenol	ND	F2	109	39.3		ug/L		36	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*3*	*S1-*	*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*15*	*S1-*	*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*62*		*26 - 150*

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585184

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		110	71.8		ug/L		65	10 - 120	7	63
Benzoic acid	16	J F2	471	387	F2	ug/L		79	10 - 149	64	49
Benzyl alcohol	ND		110	84.2		ug/L		76	33 - 120	0	37
Bis(2-chloroethoxy)methane	ND		110	77.3		ug/L		70	26 - 120	0	70
Bis(2-chloroethyl)ether	ND		110	82.4		ug/L		75	42 - 120	2	42
bis (2-chloroisopropyl) ether	ND		110	70.7		ug/L		64	28 - 120	2	41
Bis(2-ethylhexyl) phthalate	5.3	J	110	103		ug/L		88	39 - 120	3	35
4-Bromophenyl phenyl ether	ND		110	99.7		ug/L		90	40 - 120	5	30
Butyl benzyl phthalate	ND		110	96.2		ug/L		87	45 - 120	4	32
4-Chloroaniline	ND		110	63.4		ug/L		58	10 - 120	22	94
4-Chloro-3-methylphenol	ND		110	90.9		ug/L		82	34 - 120	40	40
2-Chloronaphthalene	ND		110	90.2		ug/L		82	39 - 120	0	29
2-Chlorophenol	ND	F2 F1	110	58.8	F2	ug/L		53	25 - 120	145	42
4-Chlorophenyl phenyl ether	ND		110	94.8		ug/L		86	44 - 120	1	27
Dibenz[a,h]acridine	ND		110	102		ug/L		93	50 - 150	3	40
Dibenzofuran	ND		110	92.7		ug/L		84	25 - 130	1	29
3,3'-Dichlorobenzidine	ND	F2 F1 *+	147	58.7	F2	ug/L		40	10 - 120	101	58
2,4-Dichlorophenol	ND	F2 F1	110	81.6	F2	ug/L		74	31 - 120	102	43
Diethyl phthalate	0.23	J B	110	95.7		ug/L		87	46 - 120	1	40
2,4-Dimethylphenol	ND		110	85.4		ug/L		77	21 - 120	19	47
Dimethyl phthalate	ND		110	93.9		ug/L		85	38 - 120	2	36
Di-n-butyl phthalate	ND		110	107		ug/L		97	49 - 120	1	32
4,6-Dinitro-ortho-cresol	ND	F2	220	229	F2	ug/L		104	25 - 120	49	42

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

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585184

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2,4-Dinitrophenol	ND	F2	220	243	F2	ug/L		110	15 - 140	54	36
2,4-Dinitrotoluene	ND		110	102		ug/L		92	53 - 120	0	28
2,6-Dinitrotoluene	ND		110	94.9		ug/L		86	43 - 120	1	28
Di-n-octyl phthalate	ND		110	101		ug/L		92	35 - 121	1	35
1,4-Dioxane	ND	F1	110	59.9		ug/L		54	50 - 150	26	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		110	81.4		ug/L		74	50 - 150	3	40
Hexachlorobenzene	ND		110	100		ug/L		91	38 - 122	6	33
Hexachlorocyclopentadiene	ND		110	89.5		ug/L		81	10 - 120	14	50
Hexachloroethane	ND		110	70.1		ug/L		64	10 - 150	1	41
Indene	ND		110	90.0		ug/L		82	50 - 150	1	40
Isophorone	ND		110	80.2		ug/L		73	42 - 120	1	33
2-Methylphenol	ND	F2	110	81.6	F2	ug/L		74	28 - 120	67	47
3 & 4 Methylphenol	ND	F2	110	77.0	F2	ug/L		70	31 - 120	74	47
2-Nitroaniline	ND		110	80.2		ug/L		73	45 - 120	0	33
3-Nitroaniline	ND		110	75.3		ug/L		68	10 - 130	13	39
4-Nitroaniline	ND		110	111		ug/L		101	10 - 132	3	50
Nitrobenzene	ND		110	73.2		ug/L		66	39 - 120	1	35
2-Nitrophenol	ND	F2 F1	110	64.9	F2	ug/L		59	33 - 120	132	43
4-Nitrophenol	ND		220	191		ug/L		87	10 - 120	25	82
N-Nitrosodimethylamine	ND		110	71.8		ug/L		65	10 - 139	2	62
N-Nitrosodi-n-propylamine	ND		110	79.0		ug/L		72	37 - 124	4	36
N-Nitrosodiphenylamine	ND		109	93.7		ug/L		86	10 - 150	5	34
Pentachlorophenol	ND		220	224		ug/L		102	29 - 130	33	42
Phenol	ND	F2	110	61.0	F2	ug/L		55	10 - 150	122	52
Pyridine	ND		220	111		ug/L		50	10 - 120	6	55
Quinoline	ND		110	101		ug/L		91	51 - 120	3	40
2,4,5-Trichlorophenol	ND	F2	110	102	F2	ug/L		92	34 - 120	63	42
2,4,6-Trichlorophenol	ND	F2	110	99.1	F2	ug/L		90	33 - 120	86	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*23*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*59*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*102*		*26 - 150*

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/20/22 15:41	07/22/22 16:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/20/22 15:41*	*07/22/22 16:25*	*1*

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	84		44 - 149	07/20/22 15:41	07/22/22 16:25	1

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bis(2-ethylhexyl) phthalate			120	110		ug/L		92	52 - 147		

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	81		46 - 124
Nitrobenzene-d5	83		36 - 126
Terphenyl-d14	95		44 - 149

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			120	119		ug/L		99	52 - 147	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	81		46 - 124
Nitrobenzene-d5	84		36 - 126
Terphenyl-d14	96		44 - 149

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

Lab Sample ID: MB 400-584619/1-A
Matrix: Water
Analysis Batch: 584908

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/13/22 11:45	07/15/22 13:18	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/13/22 11:45	07/15/22 13:18	1
Anthracene	ND		0.20	0.032	ug/L		07/13/22 11:45	07/15/22 13:18	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		07/13/22 11:45	07/15/22 13:18	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/13/22 11:45	07/15/22 13:18	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/13/22 11:45	07/15/22 13:18	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/13/22 11:45	07/15/22 13:18	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/13/22 11:45	07/15/22 13:18	1
Chrysene	ND		0.20	0.074	ug/L		07/13/22 11:45	07/15/22 13:18	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/13/22 11:45	07/15/22 13:18	1
Fluoranthene	ND		0.20	0.068	ug/L		07/13/22 11:45	07/15/22 13:18	1
Fluorene	ND		0.20	0.11	ug/L		07/13/22 11:45	07/15/22 13:18	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/13/22 11:45	07/15/22 13:18	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/13/22 11:45	07/15/22 13:18	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/13/22 11:45	07/15/22 13:18	1

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

Lab Sample ID: MB 400-584619/1-A
Matrix: Water
Analysis Batch: 584908

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584619

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	ND		0.20	0.036	ug/L		07/13/22 11:45	07/15/22 13:18	1
Pyrene	ND		0.20	0.040	ug/L		07/13/22 11:45	07/15/22 13:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*99*		*15 - 122*	*07/13/22 11:45*	*07/15/22 13:18*	*1*
Nitrobenzene-d5	*98*		*19 - 130*	*07/13/22 11:45*	*07/15/22 13:18*	*1*
Terphenyl-d14	*132*		*33 - 138*	*07/13/22 11:45*	*07/15/22 13:18*	*1*

Lab Sample ID: LCS 400-584619/2-A
Matrix: Water
Analysis Batch: 584908

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	133		ug/L		111	41 - 120
Acenaphthylene	120	116		ug/L		96	44 - 120
Anthracene	120	132		ug/L		110	49 - 120
Benzo[a]anthracene	120	124		ug/L		103	61 - 135
Benzo[a]pyrene	120	126		ug/L		105	52 - 120
Benzo[b]fluoranthene	120	132		ug/L		110	53 - 134
Benzo[g,h,i]perylene	120	106		ug/L		88	47 - 133
Benzo[k]fluoranthene	120	139		ug/L		116	57 - 134
Chrysene	120	117		ug/L		97	55 - 122
Dibenz(a,h)anthracene	120	131		ug/L		110	48 - 146
Fluoranthene	120	139		ug/L		116	54 - 128
Fluorene	120	140		ug/L		117	45 - 125
Indeno[1,2,3-cd]pyrene	120	123		ug/L		103	43 - 142
1-Methylnaphthalene	120	91.8		ug/L		76	41 - 120
2-Methylnaphthalene	120	91.7		ug/L		76	32 - 124
Phenanthrene	120	128		ug/L		106	48 - 120
Pyrene	120	128		ug/L		107	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*96*		*15 - 122*
Nitrobenzene-d5	*79*		*19 - 130*
Terphenyl-d14	*99*		*33 - 138*

Lab Sample ID: 400-222762-3 MS
Matrix: Water
Analysis Batch: 584908

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		112	110		ug/L		98	35 - 113
Acenaphthylene	ND		112	100		ug/L		89	41 - 118
Anthracene	ND		112	114		ug/L		101	45 - 122
Benzo[a]anthracene	ND		112	107		ug/L		95	55 - 133
Benzo[a]pyrene	ND		112	109		ug/L		97	50 - 108
Benzo[b]fluoranthene	ND		112	116		ug/L		103	50 - 128
Benzo[g,h,i]perylene	ND		112	91.4		ug/L		81	46 - 133

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

Lab Sample ID: 400-222762-3 MS
Matrix: Water
Analysis Batch: 584908

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[k]fluoranthene	ND		112	118		ug/L		105	52 - 128
Chrysene	ND		112	103		ug/L		91	52 - 116
Dibenz(a,h)anthracene	ND		112	114		ug/L		102	52 - 143
Fluoranthene	ND		112	120		ug/L		107	32 - 150
Fluorene	ND		112	118		ug/L		105	15 - 150
Indeno[1,2,3-cd]pyrene	ND		112	106		ug/L		95	41 - 141
1-Methylnaphthalene	ND		112	81.4		ug/L		72	10 - 150
2-Methylnaphthalene	ND		112	80.1		ug/L		71	10 - 150
Phenanthrene	ND		112	109		ug/L		97	36 - 125
Pyrene	ND		112	109		ug/L		97	41 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*89*		*15 - 122*
Nitrobenzene-d5	*76*		*19 - 130*
Terphenyl-d14	*90*		*33 - 138*

Lab Sample ID: 400-222762-3 MSD
Matrix: Water
Analysis Batch: 584908

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 584619

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		113	123		ug/L		109	35 - 113	11	49
Acenaphthylene	ND		113	108		ug/L		95	41 - 118	7	48
Anthracene	ND		113	124		ug/L		110	45 - 122	9	56
Benzo[a]anthracene	ND		113	119		ug/L		106	55 - 133	11	57
Benzo[a]pyrene	ND		113	119		ug/L		105	50 - 108	9	59
Benzo[b]fluoranthene	ND		113	129		ug/L		115	50 - 128	11	62
Benzo[g,h,i]perylene	ND		113	100		ug/L		89	46 - 133	9	58
Benzo[k]fluoranthene	ND		113	129		ug/L		114	52 - 128	9	58
Chrysene	ND		113	114		ug/L		101	52 - 116	10	59
Dibenz(a,h)anthracene	ND		113	124		ug/L		110	52 - 143	8	60
Fluoranthene	ND		113	133		ug/L		118	32 - 150	10	59
Fluorene	ND		113	129		ug/L		114	15 - 150	9	49
Indeno[1,2,3-cd]pyrene	ND		113	115		ug/L		102	41 - 141	8	58
1-Methylnaphthalene	ND		113	85.5		ug/L		76	10 - 150	5	66
2-Methylnaphthalene	ND		113	84.3		ug/L		75	10 - 150	5	66
Phenanthrene	ND		113	120		ug/L		107	36 - 125	10	69
Pyrene	ND		113	123		ug/L		109	41 - 127	11	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*81*		*19 - 130*
Terphenyl-d14	*101*		*33 - 138*

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

Lab Sample ID: MB 400-584922/1-A
Matrix: Water
Analysis Batch: 585193

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 584922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/15/22 08:55	07/18/22 14:34	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/15/22 08:55	07/18/22 14:34	1
Anthracene	ND		0.20	0.032	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[a]anthracene	0.0567	J	0.20	0.046	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/15/22 08:55	07/18/22 14:34	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/15/22 08:55	07/18/22 14:34	1
Chrysene	ND		0.20	0.074	ug/L		07/15/22 08:55	07/18/22 14:34	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/15/22 08:55	07/18/22 14:34	1
Fluoranthene	ND		0.20	0.068	ug/L		07/15/22 08:55	07/18/22 14:34	1
Fluorene	ND		0.20	0.11	ug/L		07/15/22 08:55	07/18/22 14:34	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/15/22 08:55	07/18/22 14:34	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/15/22 08:55	07/18/22 14:34	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/15/22 08:55	07/18/22 14:34	1
Phenanthrene	ND		0.20	0.036	ug/L		07/15/22 08:55	07/18/22 14:34	1
Pyrene	ND		0.20	0.040	ug/L		07/15/22 08:55	07/18/22 14:34	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*47*		*15 - 122*	*07/15/22 08:55*	*07/18/22 14:34*	*1*
Nitrobenzene-d5	*40*		*19 - 130*	*07/15/22 08:55*	*07/18/22 14:34*	*1*
Terphenyl-d14	*64*		*33 - 138*	*07/15/22 08:55*	*07/18/22 14:34*	*1*

Lab Sample ID: LCS 400-584922/2-A
Matrix: Water
Analysis Batch: 585193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	129		ug/L		107	41 - 120
Acenaphthylene	120	113		ug/L		95	44 - 120
Anthracene	120	129		ug/L		108	49 - 120
Benzo[a]anthracene	120	122		ug/L		101	61 - 135
Benzo[a]pyrene	120	124		ug/L		104	52 - 120
Benzo[b]fluoranthene	120	131		ug/L		109	53 - 134
Benzo[g,h,i]perylene	120	103		ug/L		86	47 - 133
Benzo[k]fluoranthene	120	134		ug/L		112	57 - 134
Chrysene	120	116		ug/L		97	55 - 122
Dibenz(a,h)anthracene	120	123		ug/L		103	48 - 146
Fluoranthene	120	138		ug/L		115	54 - 128
Fluorene	120	132		ug/L		110	45 - 125
Indeno[1,2,3-cd]pyrene	120	117		ug/L		97	43 - 142
1-Methylnaphthalene	120	89.6		ug/L		75	41 - 120
2-Methylnaphthalene	120	88.1		ug/L		73	32 - 124
Phenanthrene	120	126		ug/L		105	48 - 120
Pyrene	120	130		ug/L		108	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*97*		*15 - 122*

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

Lab Sample ID: LCS 400-584922/2-A
Matrix: Water
Analysis Batch: 585193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 584922

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	59		19 - 130
Terphenyl-d14	101		33 - 138

Lab Sample ID: 400-222762-8 MS
Matrix: Water
Analysis Batch: 585193

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		109	113		ug/L		103	35 - 113
Acenaphthylene	ND		109	102		ug/L		94	41 - 118
Anthracene	ND		109	120		ug/L		110	45 - 122
Benzo[a]anthracene	0.079	J B	109	109		ug/L		100	55 - 133
Benzo[a]pyrene	0.11	J	109	116		ug/L		107	50 - 108
Benzo[b]fluoranthene	0.078	J	109	116		ug/L		107	50 - 128
Benzo[g,h,i]perylene	ND		109	90.6		ug/L		83	46 - 133
Benzo[k]fluoranthene	ND		109	129		ug/L		118	52 - 128
Chrysene	ND		109	108		ug/L		99	52 - 116
Dibenz(a,h)anthracene	ND		109	112		ug/L		103	52 - 143
Fluoranthene	ND		109	123		ug/L		113	32 - 150
Fluorene	ND		109	117		ug/L		107	15 - 150
Indeno[1,2,3-cd]pyrene	0.099	J	109	105		ug/L		97	41 - 141
1-Methylnaphthalene	ND		109	85.2		ug/L		78	10 - 150
2-Methylnaphthalene	ND		109	82.7		ug/L		76	10 - 150
Phenanthrene	ND		109	113		ug/L		104	36 - 125
Pyrene	ND		109	116		ug/L		106	41 - 127

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	93		15 - 122
Nitrobenzene-d5	57		19 - 130
Terphenyl-d14	99		33 - 138

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585193

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 584922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		110	109		ug/L		99	35 - 113	3	49
Acenaphthylene	ND		110	97.6		ug/L		89	41 - 118	5	48
Anthracene	ND		110	113		ug/L		103	45 - 122	5	56
Benzo[a]anthracene	0.079	J B	110	102		ug/L		93	55 - 133	6	57
Benzo[a]pyrene	0.11	J	110	103		ug/L		94	50 - 108	12	59
Benzo[b]fluoranthene	0.078	J	110	110		ug/L		100	50 - 128	6	62
Benzo[g,h,i]perylene	ND		110	81.0		ug/L		73	46 - 133	11	58
Benzo[k]fluoranthene	ND		110	113		ug/L		103	52 - 128	13	58
Chrysene	ND		110	99.9		ug/L		91	52 - 116	7	59
Dibenz(a,h)anthracene	ND		110	102		ug/L		92	52 - 143	9	60
Fluoranthene	ND		110	116		ug/L		105	32 - 150	6	59
Fluorene	ND		110	111		ug/L		101	15 - 150	5	49

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

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585193

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 584922

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	0.099	J	110	95.5		ug/L		87	41 - 141	10	58
1-Methylnaphthalene	ND		110	79.5		ug/L		72	10 - 150	7	66
2-Methylnaphthalene	ND		110	79.4		ug/L		72	10 - 150	4	66
Phenanthrene	ND		110	106		ug/L		96	36 - 125	6	69
Pyrene	ND		110	108		ug/L		98	41 - 127	6	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*15 - 122*
Nitrobenzene-d5	*60*		*19 - 130*
Terphenyl-d14	*93*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-585213/1-A
Matrix: Water
Analysis Batch: 585254

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585213

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/18/22 14:46	07/18/22 18:19	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		07/18/22 14:46	07/18/22 18:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*07/18/22 14:46*	*07/18/22 18:19*	*1*

Lab Sample ID: LCS 400-585213/2-A
Matrix: Water
Analysis Batch: 585254

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585213

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.136	p	ug/L		136	60 - 140		
1,2-D bromoethane			0.101	0.0955	p	ug/L		95	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*73*		*51 - 149*

Lab Sample ID: LCSD 400-585213/3-A
Matrix: Water
Analysis Batch: 585254

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585213

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.147	*+	ug/L		147	60 - 140	8	30
1,2-D bromoethane			0.101	0.0985		ug/L		98	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*80*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-222762-3 MS
Matrix: Water
Analysis Batch: 585254

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 585213

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-D bromo-3-Chloropropane	ND	F2 *+	0.102	0.151		ug/L		148	10 - 150
1,2-D bromoethane	ND		0.103	0.100		ug/L		98	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*76*		*51 - 149*

Lab Sample ID: 400-222762-3 MSD
Matrix: Water
Analysis Batch: 585254

Client Sample ID: MW24-ROX-071122
Prep Type: Total/NA
Prep Batch: 585213

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane	ND	F2 *+	0.101	0.148	p	ug/L		147	10 - 150	2	20
1,2-D bromoethane	ND		0.101	0.0996		ug/L		99	39 - 150	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*84*		*51 - 149*

Lab Sample ID: 400-222762-8 MS
Matrix: Water
Analysis Batch: 585254

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 585213

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-D bromo-3-Chloropropane	ND	*+	0.103	0.150	p	ug/L		146	10 - 150
1,2-D bromoethane	ND		0.103	0.109		ug/L		106	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*86*		*51 - 149*

Lab Sample ID: 400-222762-8 MSD
Matrix: Water
Analysis Batch: 585254

Client Sample ID: MW5-ROX-071122
Prep Type: Total/NA
Prep Batch: 585213

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane	ND	*+	0.103	0.151	p	ug/L		146	10 - 150	1	20
1,2-D bromoethane	ND		0.104	0.106	p	ug/L		102	39 - 150	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*80*		*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 (_____)

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: 7/11/2022
PO #	**GSAP Project ID**	PAGE: 1 of 2
60674381 – 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 60674381 – 3.3.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): J. Mayer, J. Nichols
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; andrei.zamfir@aecom.com

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

REQUESTED ANALYSIS 60674381 – 3.3.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 3.7°C, 2.7°C

Container PID Readings or Laboratory Notes:

400-222762 COC

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-071122-8260-A	7/11/2022	0000	Water	2					2	X			
TB-ROX-071122-8011-A	7/11/2022	0000	Water	2					2		X		
MW24-ROX-071122	7/11/2022	0920	Water	6			2		8	X	X	X	X
MW24-ROX-071122-MS	7/11/2022	0920	Water	6			2		8	X	X	X	X
MW24-ROX-071122-MSD	7/11/2022	0920	Water	6			2		8	X	X	X	X
MW13-ROX-071122	7/11/2022	1120	Water	6			2		8	X	X	X	X
P114R-ROX-071122	7/11/2022	1220	Water	6			2		8	X	X	X	X

Joe Mayer

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Joe Mayer	FEDEX: 5564 3930 5394, 5564 3930 5409	7/11/2022	1600
Relinquished by: (Signature)	Received by: (Signature) MO	Date: 7/[illegible]/22	Time: [illegible]
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 11July22

CUSTODY SEALS: 979460, 979461, 979462 979463

7/29/2022 (Rev. 1)

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**
60674381 – 3.3.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 7/11/22
PAGE: 2 of 2

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Heintz; M. Massa
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; andrei.zamfir@aecom.com

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

REQUESTED ANALYSIS
60674381 – 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-071122-8260-B	7/11/2022	0000	Water	2			-		2	X			
	TB-ROX-071122-8011-B	7/11/2022	0000	Water	2					2		X		
	MW5-ROX-071122	7/11/2022	0910	Water	6			2		8	X	X	X	X
	MW5-ROX-071122-MS	7/11/2022	0910	Water	6			2		8	X	X	X	X
	MW5-ROX-071122-MSD	7/11/2022	0910	Water	6			2		8	X	X	X	X
	MW27-ROX-071122	7/11/2022	1030	Water	6			2		8	X	X	X	X
	MW14-ROX-071122	7/11/2022	1400	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: See page 1	7/11/2022	1600

CUSTODY SEALS: See page 1

Version: 11July22

Page 92 of 94

7/29/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-222762-1

Login Number: 222762
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7, 3.7°C IR9
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: 400-222762-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 3rd Quarter 2022 Data Review

Laboratory SDG: 400-222856-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Andreia Vladimirescu

Date Reviewed: 9/12/2022

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

Sample Identification	Sample Identification
TB-ROX-071222-8260-A	TB-ROX-071222-8011-A
MW9-ROX-071222-EB	MW9-ROX-071222
P54-ROX-071222	MW16-ROX-071222
MW28-ROX-071222	TB-ROX-071222-8260-B
TB-ROX-071222-8011-B	MW26-ROX-071222
ROST3MW-ROX-071222	ROST4PZ(G)-ROX-071222

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 SVOCs were re-extracted outside extraction time criteria in samples MW16-ROX-071222 and ROST3MW-ROX-071222. Several PAHs were detected in the method blank and equipment blank MW9-ROX-071222-EB. Several SVOC LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several PAH/SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. Several VOC, SVOC, and PAH MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in samples MW9-ROX-071222 and P54-ROX-071222. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (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 samples MW16-ROX-071222 and ROST3MW-ROX-071222 were re-extracted 3 days outside extraction time criteria (7 days) due to initial failing acid surrogate recoveries. SVOCs in samples MW16-ROX-071222 and ROST3MW-ROX-071222 were reported from the initial run due to non-detect data in the re-extracted secondary run; qualifications due to surrogate recovery are reported in Section 6.0 of this data review.

4.0 Blank Contamination

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

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MW9-ROX-071222-EB	PAHs	Benzo[a]anthracene	0.12 µg/L
MW9-ROX-071222-EB	PAHs	Benzo[a]pyrene	0.13 µg/L
MW9-ROX-071222-EB	PAHs	Benzo[b]fluoranthene	0.10 µg/L
MW9-ROX-071222-EB	PAHs	Phenanthrene	0.038 µg/L
MB 400-585238/1-A	PAHs	Benzo[a]anthracene	0.102 µg/L
MB 400-585238/1-A	PAHs	Benzo[b]fluoranthene	0.100 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
MW9-ROX-071222	PAHs	Benzo[a]anthracene	-	**U**
MW9-ROX-071222	PAHs	Benzo[b]fluoranthene	-	**U**
MW9-ROX-071222	PAHs	Benzo[a]pyrene	-	**U**
P54-ROX-071222	PAHs	Benzo[a]anthracene	-	**U**
P54-ROX-071222	PAHs	Benzo[b]fluoranthene	-	**U**
MW16-ROX-071222	PAHs	Benzo[a]anthracene	-	**U**
MW16-ROX-071222	PAHs	Benzo[b]fluoranthene	-	**U**
MW28-ROX-071222	PAHs	Benzo[a]anthracene	-	**U**
MW28-ROX-071222	PAHs	Benzo[b]fluoranthene	-	**U**
MW26-ROX-071222	PAHs	Benzo[a]anthracene	-	**U**
MW26-ROX-071222	PAHs	Benzo[b]fluoranthene	-	**U**
ROST3MW-ROX-071222	PAHs	Benzo[a]anthracene	-	**U**
ROST3MW-ROX-071222	PAHs	Benzo[b]fluoranthene	-	**U**
ROST4PZ(G)-ROX-071222	PAHs	Benzo[a]anthracene	-	**U**
ROST4PZ(G)-ROX-071222	PAHs	Benzo[b]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 400-585238/23-A/24-A	SVOCs	Benzenethiol	**5/4**	25	10-120/30

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-585238/2-A	SVOCs	3,3'-Dichlorobenzidine	**160**	NA	36-132
LCS/LCSD 400-585779/4-A/5-A	SVOCs	Benzenethiol	**4/2**	**47**	10-120/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	Aniline	87/**2**	**189**	21-120/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	Benzoic acid	18/68	**118**	10-144/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	bis(2-Chloroethyl)ether	88/**160**	**58**	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 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
MW9-ROX-071222	SVOCs	Benzenethiol	**UJ**
P54-ROX-071222	SVOCs	Benzenethiol	**UJ**
MW16-ROX-071222	SVOCs	Benzenethiol	**UJ**
MW28-ROX-071222	SVOCs	Benzenethiol	**UJ**
MW26-ROX-071222	SVOCs	Benzenethiol	**UJ**
ROST3MW-ROX-071222	SVOCs	Benzenethiol	**UJ**
ROST4PZ(G)-ROX-071222	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW9-ROX-071222-EB	PAHs	Terphenyl-d_{14}	**160**	33-138
MW9-ROX-071222	PAHs	Terphenyl-d_{14}	**151**	33-138
P54-ROX-071222	PAHs	Terphenyl-d_{14}	**159**	33-138
MW16-ROX-071222	PAHs	2-Fluorobiphenyl	**123**	15-122
MW16-ROX-071222	PAHs	Terphenyl-d_{14}	**156**	33-138
MW16-ROX-071222	SVOCs	2-Fluorophenol	**6**	13-113
MW16-ROX-071222	SVOCs	2,4,6-Tribromophenol	**19**	26-150
MW28-ROX-071222	PAHs	2-Fluorobiphenyl	**127**	15-122
MW28-ROX-071222	PAHs	Terphenyl-d_{14}	**166**	33-138
MW26-ROX-071222	PAHs	2-Fluorobiphenyl	**133**	15-122
MW26-ROX-071222	PAHs	Terphenyl-d_{14}	**165**	33-138
ROST3MW-ROX-071222	PAHs	Terphenyl-d_{14}	**151**	33-138

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
ROST3MW-ROX-071222	SVOCs	2-Fluorophenol	**0**	13-113
ROST3MW-ROX-071222	SVOCs	Phenol-d_5	**0.3**	17-127
ROST3MW-ROX-071222	SVOCs	2,4,6-Tribromophenol	**0**	26-150
ROST4PZ(G)-ROX-071222	PAHs	2-Fluorobiphenyl	**134**	15-122
ROST4PZ(G)-ROX-071222	PAHs	Terphenyl-d_{14}	**168**	33-138
MB 400-585779/1-A	SVOCs	2-Fluorophenol	**3**	13-113
MB 400-585238/1-A	PAHs	2-Fluorobiphenyl	**127**	15-122
MB 400-585238/1-A	PAHs	Terphenyl-d_{14}	**157**	33-138

Analytical data that required qualification based on surrogate data are included in the table below. Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Equipment blanks and method blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW16-ROX-071222	PAHs	Benzo[a]pyrene	**J**
MW16-ROX-071222	PAHs	Benzo[k]fluoranthene	**J**
MW16-ROX-071222	PAHs	Fluoranthene	**J**
MW16-ROX-071222	PAHs	Phenanthrene	**J**
MW16-ROX-071222	SVOCs	Benzyl alcohol	**UJ**
MW16-ROX-071222	SVOCs	4-Chloro-3-methylphenol	**UJ**
MW16-ROX-071222	SVOCs	2-Chlorophenol	**UJ**
MW16-ROX-071222	SVOCs	2,4-Dichlorophenol	**UJ**
MW16-ROX-071222	SVOCs	2,4-Dimethylphenol	**UJ**
MW16-ROX-071222	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
MW16-ROX-071222	SVOCs	2,4-Dinitrophenol	**UJ**
MW16-ROX-071222	SVOCs	2-Methylphenol	**UJ**
MW16-ROX-071222	SVOCs	3&4-Methylphenol	**UJ**
MW16-ROX-071222	SVOCs	2-Nitrophenol	**UJ**
MW16-ROX-071222	SVOCs	4-Nitrophenol	**UJ**
MW16-ROX-071222	SVOCs	Pentachlorophenol	**UJ**
MW16-ROX-071222	SVOCs	Phenol	**UJ**
MW16-ROX-071222	SVOCs	2,4,5-Trichlorophenol	**UJ**
MW16-ROX-071222	SVOCs	2,4,6-Trichlorophenol	**UJ**
MW28-ROX-071222	PAHs	Benzo[a]pyrene	**J**
MW28-ROX-071222	PAHs	Indeno[1,2,3-cd]pyrene	**J**
MW26-ROX-071222	PAHs	Benzo[a]pyrene	**J**
MW26-ROX-071222	PAHs	Dibenz(a,h)anthracene	**J**
MW26-ROX-071222	PAHs	Indeno[1,2,3-cd]pyrene	**J**
ROST3MW-ROX-071222	SVOCs	Benzyl alcohol	**UJ**
ROST3MW-ROX-071222	SVOCs	4-Chloro-3-methylphenol	**UJ**
ROST3MW-ROX-071222	SVOCs	2-Chlorophenol	**UJ**
ROST3MW-ROX-071222	SVOCs	2,4-Dichlorophenol	**UJ**

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-071222	SVOCs	2,4-Dimethylphenol	**UJ**
ROST3MW-ROX-071222	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
ROST3MW-ROX-071222	SVOCs	2,4-Dinitrophenol	**UJ**
ROST3MW-ROX-071222	SVOCs	2-Methylphenol	**UJ**
ROST3MW-ROX-071222	SVOCs	3&4-Methylphenol	**UJ**
ROST3MW-ROX-071222	SVOCs	2-Nitrophenol	**UJ**
ROST3MW-ROX-071222	SVOCs	4-Nitrophenol	**UJ**
ROST3MW-ROX-071222	SVOCs	Pentachlorophenol	**UJ**
ROST3MW-ROX-071222	SVOCs	Phenol	**UJ**
ROST3MW-ROX-071222	SVOCs	2,4,5-Trichlorophenol	**UJ**
ROST3MW-ROX-071222	SVOCs	2,4,6-Trichlorophenol	**UJ**
ROST4PZ(G)-ROX-071222	PAHs	Benzo[a]pyrene	**J**
ROST4PZ(G)-ROX-071222	PAHs	Dibenz(a,h)anthracene	**J**
ROST4PZ(G)-ROX-071222	PAHs	Indeno[1,2,3-cd]pyrene	**J**
ROST4PZ(G)-ROX-071222	PAHs	Phenanthrene	**J**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, sample MW9-ROX-071222 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011. Although not requested, sample P54-ROX-071222 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
MW9-ROX-071222 MS/MSD	VOCs	Acrylonitrile	121/**152**	22	62-149/30
MW9-ROX-071222 MS/MSD	VOCs	Bromochloromethane	118/**143**	19	64-140/30
MW9-ROX-071222 MS/MSD	VOCs	2-Chloroethyl vinyl ether	37/18	**69**	10-150/50
MW9-ROX-071222 MS/MSD	VOCs	1,2-Dichloropropane	113/**139**	21	66-137/30
MW9-ROX-071222 MS/MSD	VOCs	Methylene bromide	116/**145**	22	63-138/30
MW9-ROX-071222 MS/MSD	VOCs	4-Methyl-2-pentanone (MIBK)	125/**163**	26	63-146/30
MW9-ROX-071222 MS/MSD	VOCs	Vinyl acetate	120/**154**	25	26-150/33
MW9-ROX-071222 MS/MSD	SVOCs	3,3'-Dichlorobenzidine	**160/147**	9	10-120/58
MW9-ROX-071222 MS/MSD	PAHs	Acenaphthene	**114**/102	11	35-113/49
P54-ROX-071222 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. Analytical data associated with MS/MSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
P54-ROX-071222	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?

No

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-222856-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
7/27/2022 6:01:11 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Sample Summary 6
Detection Summary 7
Client Sample Results 9
Definitions 49
Surrogate Summary 50
Method Summary 53
Chronicle 54
QC Association 61
QC Sample Results 64
Chain of Custody 92
Receipt Checklists 94
Certification Summary 95

Job ID: 400-222856-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-222856-1

Comments
No additional comments.

Receipt
The samples were received on 7/13/2022 8:54 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 0.0º C and 0.1º C.

GC/MS VOA
Method 8260B: The matrix spike duplicate (MSD) recoveries for analytical batch 400-585109 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 400-585109 was outside control limits. Sample matrix interference is suspected.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-582407 was outside method criteria for the following analyte(s): Dichlorodifluoromethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-585311 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-585311 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-071222-8260-A (400-222856-1), MW9-ROX-071222-EB (400-222856-3), MW9-ROX-071222 (400-222856-4), P54-ROX-071222 (400-222856-5), MW16-ROX-071222 (400-222856-6), MW28-ROX-071222 (400-222856-7), TB-ROX-071222-8260-B (400-222856-8), MW26-ROX-071222 (400-222856-10), ROST3MW-ROX-071222 (400-222856-11), ROST4PZ(G)-ROX-071222 (400-222856-12). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-585238 and analytical batch 400-585449 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-585238 and analytical batch 400-585449 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte were biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-585238 and analytical batch 400-585449 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Benzoic acid, Aniline and Bis(2-chloroethyl)ether.

Job ID: 400-222856-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Bis(2-chloroethyl)ether. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-586042 recovered above the upper control limit for 2,4,6-Trichlorophenol, Di-n-butyl phthalate, 4-Chlorophenyl phenyl ether, Hexachlorobenzene, 2,4-Dinitrotoluene and Dibenzofuran. The samples associated with this CCV were less than the reporting limit for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-586042 recovered outside acceptance criteria, low biased, for 1,4-Dioxane 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 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-585779/1-A). These results have been reported and qualified.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-585779 and analytical batch 400-586042: Aniline. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270D: Surrogate recovery for the following samples were outside control limits: MW16-ROX-071222 (400-222856-6) and ROST3MW-ROX-071222 (400-222856-11). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. Both sets of data have been reported.

Methods 8270D LL, 8270E LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW9-ROX-071222-EB (400-222856-3), MW9-ROX-071222 (400-222856-4), P54-ROX-071222 (400-222856-5) and ROST3MW-ROX-071222 (400-222856-11). These results have been reported and qualified.

Method 8270D LL: The method blank for preparation batch 400-585238 and analytical batch 400-585568 contained Benzo[a]anthracene and Benzo[b]fluoranthene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-585238 and analytical batch 400-585568 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D LL: The surrogate recovery for the blank associated with preparation batch 400-585238 and analytical batch 400-585568 was outside the upper control limits.

Method 8270D LL: Surrogate recovery for the following samples were outside the upper control limit: MW16-ROX-071222 (400-222856-6), MW28-ROX-071222 (400-222856-7), MW26-ROX-071222 (400-222856-10) and ROST4PZ(G)-ROX-071222 (400-222856-12). This sample did not contain any target analytes above the reporting limit; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Job ID: 400-222856-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8011: The continuing calibration verification (CCV) associated with batch 400-585690 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

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

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

Sample Summary

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

Job ID: 400-222856-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-222856-1	TB-ROX-071222-8260-A	Water	07/12/22 12:00	07/13/22 08:54
400-222856-2	TB-ROX-071222-8011-A	Water	07/12/22 12:00	07/13/22 08:54
400-222856-3	MW9-ROX-071222-EB	Water	07/12/22 08:20	07/13/22 08:54
400-222856-4	MW9-ROX-071222	Water	07/12/22 09:30	07/13/22 08:54
400-222856-5	P54-ROX-071222	Water	07/12/22 11:00	07/13/22 08:54
400-222856-6	MW16-ROX-071222	Water	07/12/22 11:50	07/13/22 08:54
400-222856-7	MW28-ROX-071222	Water	07/12/22 13:00	07/13/22 08:54
400-222856-8	TB-ROX-071222-8260-B	Water	07/12/22 12:00	07/13/22 08:54
400-222856-9	TB-ROX-071222-8011-B	Water	07/12/22 12:00	07/13/22 08:54
400-222856-10	MW26-ROX-071222	Water	07/12/22 09:15	07/13/22 08:54
400-222856-11	ROST3MW-ROX-071222	Water	07/12/22 10:35	07/13/22 08:54
400-222856-12	ROST4PZ(G)-ROX-071222	Water	07/12/22 13:10	07/13/22 08:54

Detection Summary

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

Job ID: 400-222856-1

Client Sample ID: TB-ROX-071222-8260-A — Lab Sample ID: 400-222856-1

No Detections.

Client Sample ID: TB-ROX-071222-8011-A — Lab Sample ID: 400-222856-2

No Detections.

Client Sample ID: MW9-ROX-071222-EB — Lab Sample ID: 400-222856-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.12	J B	0.20	0.046	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.13	J	0.20	0.042	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.10	J B	0.20	0.034	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.038	J	0.20	0.036	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW9-ROX-071222 — Lab Sample ID: 400-222856-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.19	B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.16	J U	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.15	J B U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.18	J	0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.15	J	0.19	0.094	ug/L	1		8270D LL	Total/NA
Chrysene	0.17	J	0.19	0.070	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.22		0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.089	J	0.19	0.064	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.21		0.19	0.041	ug/L	1		8270D LL	Total/NA

Client Sample ID: P54-ROX-071222 — Lab Sample ID: 400-222856-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.096	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.14	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.13	J B U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.15	J	0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.11	J	0.19	0.094	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.20		0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.066	J	0.19	0.064	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.19		0.19	0.041	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW16-ROX-071222 — Lab Sample ID: 400-222856-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.11	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.16	J J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.16	J B U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.15	J J	0.19	0.094	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.075	J J	0.19	0.064	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.046	J J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	1.4	J	9.4	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: MW28-ROX-071222 — Lab Sample ID: 400-222856-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	6.4		1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.065	J B U	0.19	0.044	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW28-ROX-071222 (Continued) — Lab Sample ID: 400-222856-7

Analyte	Result	Qualifier		RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.10	J	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.097	J B	U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.14	J	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.31	J		9.5	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: TB-ROX-071222-8260-B — Lab Sample ID: 400-222856-8

No Detections.

Client Sample ID: TB-ROX-071222-8011-B — Lab Sample ID: 400-222856-9

No Detections.

Client Sample ID: MW26-ROX-071222 — Lab Sample ID: 400-222856-10

Analyte	Result	Qualifier		RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.095	J B	U	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.12	J	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.095	J B	U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.16	J	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.15	J	J	0.19	0.041	ug/L	1		8270D LL	Total/NA

Client Sample ID: ROST3MW-ROX-071222 — Lab Sample ID: 400-222856-11

Analyte	Result	Qualifier		RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.58	J		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	0.61	J		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	2.6	J		5.0	0.63	ug/L	1		8260B	Total/NA
Xylenes, Total	2.6	J		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	0.085	J		0.19	0.031	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.057	J		0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.064	J B	U	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.11	J		0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.093	J B	U	0.19	0.033	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	0.16	J		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.063	J		0.19	0.057	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.52	J		9.6	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: ROST4PZ(G)-ROX-071222 — Lab Sample ID: 400-222856-12

Analyte	Result	Qualifier		RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.33	J		1.0	0.13	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.051	J B	U	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.11	J	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.088	J B	U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.17	J	J	0.19	0.048	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.16	J	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.044	J	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Benzoic acid	16	J		29	6.9	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.43	J		9.5	0.23	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-222856-1

Client Sample ID: TB-ROX-071222-8260-A
Date Collected: 07/12/22 12:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 20:13	1
Acrolein	ND		20	3.3	ug/L			07/19/22 20:13	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 20:13	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 20:13	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 20:13	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 20:13	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 20:13	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 20:13	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 20:13	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 20:13	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 20:13	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 20:13	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 20:13	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 20:13	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 20:13	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 20:13	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 20:13	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 20:13	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 20:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 20:13	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 20:13	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 20:13	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 20:13	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 20:13	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 20:13	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 20:13	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 20:13	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 20:13	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 20:13	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 20:13	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 20:13	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 20:13	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 20:13	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 20:13	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 20:13	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 20:13	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 20:13	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 20:13	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 20:13	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 20:13	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 20:13	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 20:13	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 20:13	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 20:13	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 20:13	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 20:13	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 20:13	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 20:13	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 20:13	1

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

Job ID: 400-222856-1

Client Sample ID: TB-ROX-071222-8260-A
Date Collected: 07/12/22 12:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 20:13	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 20:13	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 20:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 20:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 20:13	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 20:13	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 20:13	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 20:13	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 20:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 20:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 20:13	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 20:13	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 20:13	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 20:13	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 20:13	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 20:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 20:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 20:13	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 20:13	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 20:13	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 20:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*07/19/22 20:13*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*07/19/22 20:13*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/19/22 20:13*	*1*

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

Job ID: 400-222856-1

Client Sample ID: TB-ROX-071222-8011-A
Date Collected: 07/12/22 12:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/21/22 17:46	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/21/22 17:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*07/21/22 10:46*	*07/21/22 17:46*	*1*

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

Job ID: 400-222856-1

Client Sample ID: MW9-ROX-071222-EB
Date Collected: 07/12/22 08:20
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 20:39	1
Acrolein	ND		20	3.3	ug/L			07/19/22 20:39	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 20:39	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 20:39	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 20:39	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 20:39	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 20:39	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 20:39	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 20:39	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 20:39	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 20:39	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 20:39	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 20:39	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 20:39	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 20:39	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 20:39	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 20:39	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 20:39	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 20:39	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 20:39	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 20:39	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 20:39	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 20:39	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 20:39	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 20:39	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 20:39	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 20:39	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 20:39	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 20:39	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 20:39	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 20:39	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 20:39	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 20:39	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 20:39	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 20:39	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 20:39	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 20:39	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 20:39	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 20:39	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 20:39	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 20:39	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 20:39	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 20:39	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 20:39	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 20:39	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 20:39	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 20:39	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 20:39	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 20:39	1

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

Job ID: 400-222856-1

Client Sample ID: MW9-ROX-071222-EB

Date Collected: 07/12/22 08:20
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 20:39	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 20:39	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 20:39	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 20:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 20:39	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 20:39	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 20:39	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 20:39	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 20:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 20:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 20:39	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 20:39	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 20:39	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 20:39	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 20:39	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 20:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 20:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 20:39	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 20:39	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 20:39	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/19/22 20:39*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*07/19/22 20:39*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/19/22 20:39*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/18/22 17:28	07/20/22 23:05	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/18/22 17:28	07/20/22 23:05	1
Anthracene	ND		0.20	0.032	ug/L		07/18/22 17:28	07/20/22 23:05	1
Benzo[a]anthracene	**0.12**	**J B**	0.20	0.046	ug/L		07/18/22 17:28	07/20/22 23:05	1
Benzo[a]pyrene	**0.13**	**J**	0.20	0.042	ug/L		07/18/22 17:28	07/20/22 23:05	1
Benzo[b]fluoranthene	**0.10**	**J B**	0.20	0.034	ug/L		07/18/22 17:28	07/20/22 23:05	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/18/22 17:28	07/20/22 23:05	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		07/18/22 17:28	07/20/22 23:05	1
Chrysene	ND		0.20	0.073	ug/L		07/18/22 17:28	07/20/22 23:05	1
D benz(a,h)anthracene	ND		0.20	0.050	ug/L		07/18/22 17:28	07/20/22 23:05	1
Fluoranthene	ND		0.20	0.067	ug/L		07/18/22 17:28	07/20/22 23:05	1
Fluorene	ND		0.20	0.11	ug/L		07/18/22 17:28	07/20/22 23:05	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/18/22 17:28	07/20/22 23:05	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		07/18/22 17:28	07/20/22 23:05	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		07/18/22 17:28	07/20/22 23:05	1
Phenanthrene	**0.038**	**J**	0.20	0.036	ug/L		07/18/22 17:28	07/20/22 23:05	1
Pyrene	ND		0.20	0.040	ug/L		07/18/22 17:28	07/20/22 23:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*122*		*15 - 122*	*07/18/22 17:28*	*07/20/22 23:05*	*1*
Nitrobenzene-d5	*107*		*19 - 130*	*07/18/22 17:28*	*07/20/22 23:05*	*1*

Client Sample ID: MW9-ROX-071222-EB

Lab Sample ID: 400-222856-3

Date Collected: 07/12/22 08:20

Matrix: Water

Date Received: 07/13/22 08:54

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*160*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/20/22 23:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		07/18/22 17:28	07/20/22 16:23	1
Benzenethiol	ND	*-	9.9	1.7	ug/L		07/18/22 17:28	07/20/22 16:23	1
Benzoic acid	ND		30	7.2	ug/L		07/18/22 17:28	07/20/22 16:23	1
Benzyl alcohol	ND		9.9	2.0	ug/L		07/18/22 17:28	07/20/22 16:23	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		07/18/22 17:28	07/20/22 16:23	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		07/18/22 17:28	07/20/22 16:23	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		07/18/22 17:28	07/20/22 16:23	1
Bis(2-ethylhexyl) phthalate	ND		9.9	5.0	ug/L		07/18/22 17:28	07/20/22 16:23	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		07/18/22 17:28	07/20/22 16:23	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		07/18/22 17:28	07/20/22 16:23	1
4-Chloroaniline	ND		9.9	3.4	ug/L		07/18/22 17:28	07/20/22 16:23	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		07/18/22 17:28	07/20/22 16:23	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		07/18/22 17:28	07/20/22 16:23	1
2-Chlorophenol	ND		9.9	2.2	ug/L		07/18/22 17:28	07/20/22 16:23	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		07/18/22 17:28	07/20/22 16:23	1
D benz[a,h]acridine	ND		9.9	0.99	ug/L		07/18/22 17:28	07/20/22 16:23	1
D benzofuran	ND		9.9	0.17	ug/L		07/18/22 17:28	07/20/22 16:23	1
3,3'-Dichlorobenzidine	ND	*+	9.9	2.6	ug/L		07/18/22 17:28	07/20/22 16:23	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		07/18/22 17:28	07/20/22 16:23	1
Diethyl phthalate	ND		9.9	0.24	ug/L		07/18/22 17:28	07/20/22 16:23	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		07/18/22 17:28	07/20/22 16:23	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		07/18/22 17:28	07/20/22 16:23	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		07/18/22 17:28	07/20/22 16:23	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		07/18/22 17:28	07/20/22 16:23	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/18/22 17:28	07/20/22 16:23	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		07/18/22 17:28	07/20/22 16:23	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		07/18/22 17:28	07/20/22 16:23	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		07/18/22 17:28	07/20/22 16:23	1
1,4-Dioxane	ND		9.9	0.99	ug/L		07/18/22 17:28	07/20/22 16:23	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		07/18/22 17:28	07/20/22 16:23	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		07/18/22 17:28	07/20/22 16:23	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/18/22 17:28	07/20/22 16:23	1
Hexachloroethane	ND		9.9	4.2	ug/L		07/18/22 17:28	07/20/22 16:23	1
Indene	ND		9.9	0.99	ug/L		07/18/22 17:28	07/20/22 16:23	1
Isophorone	ND		9.9	0.14	ug/L		07/18/22 17:28	07/20/22 16:23	1
2-Methylphenol	ND		9.9	1.8	ug/L		07/18/22 17:28	07/20/22 16:23	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/18/22 17:28	07/20/22 16:23	1
2-Nitroaniline	ND		9.9	2.2	ug/L		07/18/22 17:28	07/20/22 16:23	1
3-Nitroaniline	ND		9.9	1.8	ug/L		07/18/22 17:28	07/20/22 16:23	1
4-Nitroaniline	ND		9.9	1.5	ug/L		07/18/22 17:28	07/20/22 16:23	1
Nitrobenzene	ND		9.9	0.13	ug/L		07/18/22 17:28	07/20/22 16:23	1
2-Nitrophenol	ND		9.9	5.2	ug/L		07/18/22 17:28	07/20/22 16:23	1
4-Nitrophenol	ND		9.9	2.1	ug/L		07/18/22 17:28	07/20/22 16:23	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		07/18/22 17:28	07/20/22 16:23	1

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

Job ID: 400-222856-1

Client Sample ID: MW9-ROX-071222-EB
Date Collected: 07/12/22 08:20
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		07/18/22 17:28	07/20/22 16:23	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		07/18/22 17:28	07/20/22 16:23	1
Pentachlorophenol	ND		20	1.4	ug/L		07/18/22 17:28	07/20/22 16:23	1
Phenol	ND		9.9	2.6	ug/L		07/18/22 17:28	07/20/22 16:23	1
Pyridine	ND		9.9	3.2	ug/L		07/18/22 17:28	07/20/22 16:23	1
Quinoline	ND		9.9	4.5	ug/L		07/18/22 17:28	07/20/22 16:23	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		07/18/22 17:28	07/20/22 16:23	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		07/18/22 17:28	07/20/22 16:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*46 - 124*	*07/18/22 17:28*	*07/20/22 16:23*	*1*
2-Fluorophenol	*48*		*13 - 113*	*07/18/22 17:28*	*07/20/22 16:23*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*07/18/22 17:28*	*07/20/22 16:23*	*1*
Phenol-d5	*69*		*17 - 127*	*07/18/22 17:28*	*07/20/22 16:23*	*1*
Terphenyl-d14	*95*		*44 - 149*	*07/18/22 17:28*	*07/20/22 16:23*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*07/18/22 17:28*	*07/20/22 16:23*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/21/22 18:07	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/21/22 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*51 - 149*	*07/21/22 10:46*	*07/21/22 18:07*	*1*

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

Job ID: 400-222856-1

Client Sample ID: MW9-ROX-071222
Date Collected: 07/12/22 09:30
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/18/22 11:45	1
Acrolein	ND		20	3.3	ug/L			07/18/22 11:45	1
Acrylonitrile	ND	F1	10	2.8	ug/L			07/18/22 11:45	1
Benzene	ND		1.0	0.13	ug/L			07/18/22 11:45	1
Bromobenzene	ND		1.0	0.54	ug/L			07/18/22 11:45	1
Bromochloromethane	ND	F1	1.0	0.21	ug/L			07/18/22 11:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/18/22 11:45	1
Bromoform	ND		5.0	0.25	ug/L			07/18/22 11:45	1
Bromomethane	ND		1.0	0.98	ug/L			07/18/22 11:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/18/22 11:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/18/22 11:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/18/22 11:45	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/18/22 11:45	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/18/22 11:45	1
Chloroethane	ND		1.0	0.76	ug/L			07/18/22 11:45	1
2-Chloroethyl vinyl ether	ND	F2	5.0	2.0	ug/L			07/18/22 11:45	1
Chloroform	ND		1.0	1.0	ug/L			07/18/22 11:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/18/22 11:45	1
Chloromethane	ND		1.0	0.32	ug/L			07/18/22 11:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/18/22 11:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/18/22 11:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/18/22 11:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/18/22 11:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/18/22 11:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/18/22 11:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/18/22 11:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/18/22 11:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 11:45	1
1,2-Dichloropropane	ND	F1	1.0	0.50	ug/L			07/18/22 11:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 11:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 11:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/18/22 11:45	1
Ethy benzene	ND		1.0	0.50	ug/L			07/18/22 11:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/18/22 11:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/18/22 11:45	1
2-Hexanone	ND		25	1.4	ug/L			07/18/22 11:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/18/22 11:45	1
Methylene bromide	ND	F1	5.0	0.22	ug/L			07/18/22 11:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/18/22 11:45	1
4-Methyl-2-pentanone (MIBK)	ND	F1	25	1.8	ug/L			07/18/22 11:45	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/18/22 11:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/18/22 11:45	1
Naphthalene	ND		5.0	3.0	ug/L			07/18/22 11:45	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/18/22 11:45	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/18/22 11:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/18/22 11:45	1
o-Xylene	ND		5.0	0.60	ug/L			07/18/22 11:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/18/22 11:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/18/22 11:45	1

Client Sample ID: MW9-ROX-071222

Date Collected: 07/12/22 09:30
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/18/22 11:45	1
Styrene	ND		1.0	1.0	ug/L			07/18/22 11:45	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/18/22 11:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/18/22 11:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/18/22 11:45	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/18/22 11:45	1
Toluene	ND		1.0	0.41	ug/L			07/18/22 11:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 11:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/18/22 11:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/18/22 11:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/18/22 11:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/18/22 11:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/18/22 11:45	1
Trichloroethene	ND		1.0	0.15	ug/L			07/18/22 11:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/18/22 11:45	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/18/22 11:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/18/22 11:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/18/22 11:45	1
Vinyl acetate	ND	F1	25	0.93	ug/L			07/18/22 11:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/18/22 11:45	1
Xylenes, Total	ND		10	1.6	ug/L			07/18/22 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/18/22 11:45*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/18/22 11:45*	*1*
Toluene-d8 (Surr)	*89*		*64 - 132*		*07/18/22 11:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	F1	0.19	0.030	ug/L		07/18/22 17:28	07/20/22 22:49	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/18/22 17:28	07/20/22 22:49	1
Anthracene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/20/22 22:49	1
Benzo[a]anthracene	**0.19**	**B** U	0.19	0.043	ug/L		07/18/22 17:28	07/20/22 22:49	1
Benzo[a]pyrene	**0.16**	**J** U	0.19	0.040	ug/L		07/18/22 17:28	07/20/22 22:49	1
Benzo[b]fluoranthene	**0.15**	**J B** U	0.19	0.032	ug/L		07/18/22 17:28	07/20/22 22:49	1
Benzo[g,h,i]perylene	**0.18**	**J**	0.19	0.12	ug/L		07/18/22 17:28	07/20/22 22:49	1
Benzo[k]fluoranthene	**0.15**	**J**	0.19	0.094	ug/L		07/18/22 17:28	07/20/22 22:49	1
Chrysene	**0.17**	**J**	0.19	0.070	ug/L		07/18/22 17:28	07/20/22 22:49	1
Dibenz(a,h)anthracene	**0.22**		0.19	0.047	ug/L		07/18/22 17:28	07/20/22 22:49	1
Fluoranthene	**0.089**	**J**	0.19	0.064	ug/L		07/18/22 17:28	07/20/22 22:49	1
Fluorene	ND		0.19	0.10	ug/L		07/18/22 17:28	07/20/22 22:49	1
Indeno[1,2,3-cd]pyrene	**0.21**		0.19	0.041	ug/L		07/18/22 17:28	07/20/22 22:49	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/20/22 22:49	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/18/22 17:28	07/20/22 22:49	1
Phenanthrene	ND		0.19	0.034	ug/L		07/18/22 17:28	07/20/22 22:49	1
Pyrene	ND		0.19	0.038	ug/L		07/18/22 17:28	07/20/22 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*116*		*15 - 122*	*07/18/22 17:28*	*07/20/22 22:49*	*1*
Nitrobenzene-d5	*102*		*19 - 130*	*07/18/22 17:28*	*07/20/22 22:49*	*1*

Client Sample ID: MW9-ROX-071222
Date Collected: 07/12/22 09:30
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-4
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*151*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/20/22 22:49*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/18/22 17:28	07/20/22 16:02	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		07/18/22 17:28	07/20/22 16:02	1
Benzoic acid	ND		28	6.9	ug/L		07/18/22 17:28	07/20/22 16:02	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/18/22 17:28	07/20/22 16:02	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/18/22 17:28	07/20/22 16:02	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/18/22 17:28	07/20/22 16:02	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/18/22 17:28	07/20/22 16:02	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/18/22 17:28	07/20/22 16:02	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/18/22 17:28	07/20/22 16:02	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/18/22 17:28	07/20/22 16:02	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/18/22 17:28	07/20/22 16:02	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/18/22 17:28	07/20/22 16:02	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/18/22 17:28	07/20/22 16:02	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/18/22 17:28	07/20/22 16:02	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/18/22 17:28	07/20/22 16:02	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 16:02	1
D benzofuran	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 16:02	1
3,3'-Dichlorobenzidine	ND	F1 *+	9.4	2.4	ug/L		07/18/22 17:28	07/20/22 16:02	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/18/22 17:28	07/20/22 16:02	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/18/22 17:28	07/20/22 16:02	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/18/22 17:28	07/20/22 16:02	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 16:02	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/18/22 17:28	07/20/22 16:02	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/18/22 17:28	07/20/22 16:02	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/18/22 17:28	07/20/22 16:02	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/18/22 17:28	07/20/22 16:02	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/18/22 17:28	07/20/22 16:02	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 16:02	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 16:02	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 16:02	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 16:02	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/18/22 17:28	07/20/22 16:02	1
Hexachloroethane	ND		9.4	4.0	ug/L		07/18/22 17:28	07/20/22 16:02	1
Indene	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 16:02	1
Isophorone	ND		9.4	0.13	ug/L		07/18/22 17:28	07/20/22 16:02	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/18/22 17:28	07/20/22 16:02	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/18/22 17:28	07/20/22 16:02	1
2-Nitroaniline	ND		9.4	2.1	ug/L		07/18/22 17:28	07/20/22 16:02	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/18/22 17:28	07/20/22 16:02	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/18/22 17:28	07/20/22 16:02	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/18/22 17:28	07/20/22 16:02	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/18/22 17:28	07/20/22 16:02	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/18/22 17:28	07/20/22 16:02	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/18/22 17:28	07/20/22 16:02	1

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

Job ID: 400-222856-1

Client Sample ID: MW9-ROX-071222
Date Collected: 07/12/22 09:30
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-4
Matrix: Water

Method: 8270D - 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		07/18/22 17:28	07/20/22 16:02	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/18/22 17:28	07/20/22 16:02	1
Pentachlorophenol	ND		19	1.3	ug/L		07/18/22 17:28	07/20/22 16:02	1
Phenol	ND		9.4	2.4	ug/L		07/18/22 17:28	07/20/22 16:02	1
Pyridine	ND		9.4	3.0	ug/L		07/18/22 17:28	07/20/22 16:02	1
Quinoline	ND		9.4	4.2	ug/L		07/18/22 17:28	07/20/22 16:02	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/18/22 17:28	07/20/22 16:02	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/18/22 17:28	07/20/22 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*07/18/22 17:28*	*07/20/22 16:02*	*1*
2-Fluorophenol	*45*		*13 - 113*	*07/18/22 17:28*	*07/20/22 16:02*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*07/18/22 17:28*	*07/20/22 16:02*	*1*
Phenol-d5	*69*		*17 - 127*	*07/18/22 17:28*	*07/20/22 16:02*	*1*
Terphenyl-d14	*91*		*44 - 149*	*07/18/22 17:28*	*07/20/22 16:02*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*07/18/22 17:28*	*07/20/22 16:02*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.017	ug/L		07/21/22 10:46	07/21/22 18:28	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/21/22 10:46	07/21/22 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*51 - 149*	*07/21/22 10:46*	*07/21/22 18:28*	*1*

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

Job ID: 400-222856-1

Client Sample ID: P54-ROX-071222
Date Collected: 07/12/22 11:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 16:18	1
Acrolein	ND		20	3.3	ug/L			07/19/22 16:18	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 16:18	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 16:18	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 16:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 16:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 16:18	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 16:18	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 16:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 16:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 16:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 16:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 16:18	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 16:18	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 16:18	1
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			07/19/22 16:18	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 16:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 16:18	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 16:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 16:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 16:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 16:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 16:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 16:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 16:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 16:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 16:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 16:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 16:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 16:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 16:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 16:18	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 16:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 16:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 16:18	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 16:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 16:18	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 16:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 16:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 16:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 16:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 16:18	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 16:18	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 16:18	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 16:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 16:18	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 16:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 16:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 16:18	1

Client Sample ID: P54-ROX-071222
Date Collected: 07/12/22 11:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 16:18	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 16:18	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 16:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 16:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 16:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 16:18	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 16:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 16:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 16:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 16:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 16:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 16:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 16:18	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 16:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 16:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 16:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 16:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 16:18	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 16:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 16:18	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 16:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*07/19/22 16:18*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/19/22 16:18*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/19/22 16:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/20/22 23:20	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/18/22 17:28	07/20/22 23:20	1
Anthracene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/20/22 23:20	1
Benzo[a]anthracene	**0.096**	**J B** U	0.19	0.043	ug/L		07/18/22 17:28	07/20/22 23:20	1
Benzo[a]pyrene	**0.14**	**J**	0.19	0.040	ug/L		07/18/22 17:28	07/20/22 23:20	1
Benzo[b]fluoranthene	**0.13**	**J B** U	0.19	0.032	ug/L		07/18/22 17:28	07/20/22 23:20	1
Benzo[g,h,i]perylene	**0.15**	**J**	0.19	0.12	ug/L		07/18/22 17:28	07/20/22 23:20	1
Benzo[k]fluoranthene	**0.11**	**J**	0.19	0.094	ug/L		07/18/22 17:28	07/20/22 23:20	1
Chrysene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/20/22 23:20	1
Dibenz(a,h)anthracene	**0.20**		0.19	0.047	ug/L		07/18/22 17:28	07/20/22 23:20	1
Fluoranthene	**0.066**	**J**	0.19	0.064	ug/L		07/18/22 17:28	07/20/22 23:20	1
Fluorene	ND		0.19	0.10	ug/L		07/18/22 17:28	07/20/22 23:20	1
Indeno[1,2,3-cd]pyrene	**0.19**		0.19	0.041	ug/L		07/18/22 17:28	07/20/22 23:20	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/20/22 23:20	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/18/22 17:28	07/20/22 23:20	1
Phenanthrene	ND		0.19	0.034	ug/L		07/18/22 17:28	07/20/22 23:20	1
Pyrene	ND		0.19	0.038	ug/L		07/18/22 17:28	07/20/22 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*121*		*15 - 122*	*07/18/22 17:28*	*07/20/22 23:20*	*1*
Nitrobenzene-d5	*106*		*19 - 130*	*07/18/22 17:28*	*07/20/22 23:20*	*1*

Client Sample ID: P54-ROX-071222
Date Collected: 07/12/22 11:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-5
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*159*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/20/22 23:20*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/18/22 17:28	07/20/22 16:44	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		07/18/22 17:28	07/20/22 16:44	1
Benzoic acid	ND		28	6.9	ug/L		07/18/22 17:28	07/20/22 16:44	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/18/22 17:28	07/20/22 16:44	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/18/22 17:28	07/20/22 16:44	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/18/22 17:28	07/20/22 16:44	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/18/22 17:28	07/20/22 16:44	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/18/22 17:28	07/20/22 16:44	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/18/22 17:28	07/20/22 16:44	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/18/22 17:28	07/20/22 16:44	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/18/22 17:28	07/20/22 16:44	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/18/22 17:28	07/20/22 16:44	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/18/22 17:28	07/20/22 16:44	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/18/22 17:28	07/20/22 16:44	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/18/22 17:28	07/20/22 16:44	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 16:44	1
D benzofuran	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 16:44	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		07/18/22 17:28	07/20/22 16:44	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/18/22 17:28	07/20/22 16:44	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/18/22 17:28	07/20/22 16:44	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/18/22 17:28	07/20/22 16:44	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 16:44	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/18/22 17:28	07/20/22 16:44	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/18/22 17:28	07/20/22 16:44	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/18/22 17:28	07/20/22 16:44	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/18/22 17:28	07/20/22 16:44	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/18/22 17:28	07/20/22 16:44	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 16:44	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 16:44	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 16:44	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 16:44	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/18/22 17:28	07/20/22 16:44	1
Hexachloroethane	ND		9.4	4.0	ug/L		07/18/22 17:28	07/20/22 16:44	1
Indene	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 16:44	1
Isophorone	ND		9.4	0.13	ug/L		07/18/22 17:28	07/20/22 16:44	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/18/22 17:28	07/20/22 16:44	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/18/22 17:28	07/20/22 16:44	1
2-Nitroaniline	ND		9.4	2.1	ug/L		07/18/22 17:28	07/20/22 16:44	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/18/22 17:28	07/20/22 16:44	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/18/22 17:28	07/20/22 16:44	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/18/22 17:28	07/20/22 16:44	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/18/22 17:28	07/20/22 16:44	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/18/22 17:28	07/20/22 16:44	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/18/22 17:28	07/20/22 16:44	1

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

Job ID: 400-222856-1

Client Sample ID: P54-ROX-071222
Date Collected: 07/12/22 11:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-5
Matrix: Water

Method: 8270D - 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		07/18/22 17:28	07/20/22 16:44	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/18/22 17:28	07/20/22 16:44	1
Pentachlorophenol	ND		19	1.3	ug/L		07/18/22 17:28	07/20/22 16:44	1
Phenol	ND		9.4	2.5	ug/L		07/18/22 17:28	07/20/22 16:44	1
Pyridine	ND		9.4	3.0	ug/L		07/18/22 17:28	07/20/22 16:44	1
Quinoline	ND		9.4	4.2	ug/L		07/18/22 17:28	07/20/22 16:44	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/18/22 17:28	07/20/22 16:44	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/18/22 17:28	07/20/22 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*07/18/22 17:28*	*07/20/22 16:44*	*1*
2-Fluorophenol	*43*		*13 - 113*	*07/18/22 17:28*	*07/20/22 16:44*	*1*
Nitrobenzene-d5	*85*		*36 - 126*	*07/18/22 17:28*	*07/20/22 16:44*	*1*
Phenol-d5	*66*		*17 - 127*	*07/18/22 17:28*	*07/20/22 16:44*	*1*
Terphenyl-d14	*101*		*44 - 149*	*07/18/22 17:28*	*07/20/22 16:44*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*07/18/22 17:28*	*07/20/22 16:44*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.032	0.018	ug/L		07/21/22 10:46	07/21/22 19:31	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/21/22 10:46	07/21/22 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*51 - 149*	*07/21/22 10:46*	*07/21/22 19:31*	*1*

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

Job ID: 400-222856-1

Client Sample ID: MW16-ROX-071222
Date Collected: 07/12/22 11:50
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 23:44	1
Acrolein	ND		20	3.3	ug/L			07/19/22 23:44	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 23:44	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 23:44	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 23:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 23:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 23:44	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 23:44	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 23:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 23:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 23:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 23:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 23:44	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 23:44	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 23:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 23:44	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 23:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 23:44	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 23:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 23:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 23:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 23:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 23:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 23:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 23:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 23:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 23:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 23:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 23:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 23:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 23:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 23:44	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 23:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 23:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 23:44	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 23:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 23:44	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 23:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 23:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 23:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 23:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 23:44	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 23:44	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 23:44	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 23:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 23:44	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 23:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 23:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 23:44	1

Client Sample ID: MW16-ROX-071222
Date Collected: 07/12/22 11:50
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 23:44	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 23:44	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 23:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 23:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 23:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 23:44	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 23:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 23:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 23:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 23:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 23:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 23:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 23:44	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 23:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 23:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 23:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 23:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 23:44	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 23:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 23:44	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*07/19/22 23:44*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/19/22 23:44*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/19/22 23:44*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/20/22 23:36	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/18/22 17:28	07/20/22 23:36	1
Anthracene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/20/22 23:36	1
Benzo[a]anthracene	**0.11**	**J B** U	0.19	0.043	ug/L		07/18/22 17:28	07/20/22 23:36	1
Benzo[a]pyrene	**0.16**	**J** J	0.19	0.040	ug/L		07/18/22 17:28	07/20/22 23:36	1
Benzo[b]fluoranthene	**0.16**	**J B** U	0.19	0.032	ug/L		07/18/22 17:28	07/20/22 23:36	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/18/22 17:28	07/20/22 23:36	1
Benzo[k]fluoranthene	**0.15**	**J** J	0.19	0.094	ug/L		07/18/22 17:28	07/20/22 23:36	1
Chrysene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/20/22 23:36	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/18/22 17:28	07/20/22 23:36	1
Fluoranthene	**0.075**	**J** J	0.19	0.064	ug/L		07/18/22 17:28	07/20/22 23:36	1
Fluorene	ND		0.19	0.10	ug/L		07/18/22 17:28	07/20/22 23:36	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/18/22 17:28	07/20/22 23:36	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/20/22 23:36	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/18/22 17:28	07/20/22 23:36	1
Phenanthrene	**0.046**	**J** J	0.19	0.034	ug/L		07/18/22 17:28	07/20/22 23:36	1
Pyrene	ND		0.19	0.038	ug/L		07/18/22 17:28	07/20/22 23:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*123*	*S1+*	*15 - 122*	*07/18/22 17:28*	*07/20/22 23:36*	*1*
Nitrobenzene-d5	*103*		*19 - 130*	*07/18/22 17:28*	*07/20/22 23:36*	*1*

Client Sample ID: MW16-ROX-071222
Date Collected: 07/12/22 11:50
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*156*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/20/22 23:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/18/22 17:28	07/20/22 17:05	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		07/18/22 17:28	07/20/22 17:05	1
Benzoic acid	ND		28	6.9	ug/L		07/18/22 17:28	07/20/22 17:05	1
Benzyl alcohol	ND	UJ	9.4	1.9	ug/L		07/18/22 17:28	07/20/22 17:05	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/18/22 17:28	07/20/22 17:05	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/18/22 17:28	07/20/22 17:05	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/18/22 17:28	07/20/22 17:05	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/18/22 17:28	07/20/22 17:05	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/18/22 17:28	07/20/22 17:05	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/18/22 17:28	07/20/22 17:05	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/18/22 17:28	07/20/22 17:05	1
4-Chloro-3-methylphenol	ND	UJ	9.4	3.6	ug/L		07/18/22 17:28	07/20/22 17:05	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/18/22 17:28	07/20/22 17:05	1
2-Chlorophenol	ND	UJ	9.4	2.1	ug/L		07/18/22 17:28	07/20/22 17:05	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/18/22 17:28	07/20/22 17:05	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 17:05	1
D benzofuran	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 17:05	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		07/18/22 17:28	07/20/22 17:05	1
2,4-Dichlorophenol	ND	UJ	9.4	2.8	ug/L		07/18/22 17:28	07/20/22 17:05	1
Diethyl phthalate	**1.4**	**J**	9.4	0.23	ug/L		07/18/22 17:28	07/20/22 17:05	1
2,4-Dimethylphenol	ND	UJ	9.4	3.3	ug/L		07/18/22 17:28	07/20/22 17:05	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 17:05	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/18/22 17:28	07/20/22 17:05	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.4	1.5	ug/L		07/18/22 17:28	07/20/22 17:05	1
2,4-Dinitrophenol	ND	UJ	28	3.2	ug/L		07/18/22 17:28	07/20/22 17:05	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/18/22 17:28	07/20/22 17:05	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/18/22 17:28	07/20/22 17:05	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 17:05	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 17:05	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 17:05	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/18/22 17:28	07/20/22 17:05	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/18/22 17:28	07/20/22 17:05	1
Hexachloroethane	ND		9.4	4.0	ug/L		07/18/22 17:28	07/20/22 17:05	1
Indene	ND		9.4	0.94	ug/L		07/18/22 17:28	07/20/22 17:05	1
Isophorone	ND		9.4	0.13	ug/L		07/18/22 17:28	07/20/22 17:05	1
2-Methylphenol	ND	UJ	9.4	1.7	ug/L		07/18/22 17:28	07/20/22 17:05	1
3 & 4 Methylphenol	ND	UJ	19	0.37	ug/L		07/18/22 17:28	07/20/22 17:05	1
2-Nitroaniline	ND		9.4	2.1	ug/L		07/18/22 17:28	07/20/22 17:05	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/18/22 17:28	07/20/22 17:05	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/18/22 17:28	07/20/22 17:05	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/18/22 17:28	07/20/22 17:05	1
2-Nitrophenol	ND	UJ	9.4	4.9	ug/L		07/18/22 17:28	07/20/22 17:05	1
4-Nitrophenol	ND	UJ	9.4	2.0	ug/L		07/18/22 17:28	07/20/22 17:05	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/18/22 17:28	07/20/22 17:05	1

Client Sample ID: MW16-ROX-071222
Date Collected: 07/12/22 11:50
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-6
Matrix: Water

Method: 8270D - 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		07/18/22 17:28	07/20/22 17:05	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/18/22 17:28	07/20/22 17:05	1
Pentachlorophenol	ND	UJ	19	1.3	ug/L		07/18/22 17:28	07/20/22 17:05	1
Phenol	ND	UJ	9.4	2.5	ug/L		07/18/22 17:28	07/20/22 17:05	1
Pyridine	ND		9.4	3.0	ug/L		07/18/22 17:28	07/20/22 17:05	1
Quinoline	ND		9.4	4.2	ug/L		07/18/22 17:28	07/20/22 17:05	1
2,4,5-Trichlorophenol	ND	UJ	9.4	3.5	ug/L		07/18/22 17:28	07/20/22 17:05	1
2,4,6-Trichlorophenol	ND	UJ	9.4	3.3	ug/L		07/18/22 17:28	07/20/22 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*07/18/22 17:28*	*07/20/22 17:05*	*1*
2-Fluorophenol	*6*	*S1-*	*13 - 113*	*07/18/22 17:28*	*07/20/22 17:05*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*07/18/22 17:28*	*07/20/22 17:05*	*1*
Phenol-d5	*40*		*17 - 127*	*07/18/22 17:28*	*07/20/22 17:05*	*1*
Terphenyl-d14	*95*		*44 - 149*	*07/18/22 17:28*	*07/20/22 17:05*	*1*
2,4,6-Tribromophenol	*19*	*S1-*	*26 - 150*	*07/18/22 17:28*	*07/20/22 17:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	H *- *1	9.5	3.6	ug/L		07/22/22 10:11	07/25/22 21:28	1
Benzenethiol	ND	H *- *1	9.5	1.6	ug/L		07/22/22 10:11	07/25/22 21:28	1
Benzoic acid	ND	H *1	28	6.9	ug/L		07/22/22 10:11	07/25/22 21:28	1
Benzyl alcohol	ND	H	9.5	1.9	ug/L		07/22/22 10:11	07/25/22 21:28	1
Bis(2-chloroethoxy)methane	ND	H	9.5	0.15	ug/L		07/22/22 10:11	07/25/22 21:28	1
Bis(2-chloroethyl)ether	ND	H *+ *1	9.5	2.6	ug/L		07/22/22 10:11	07/25/22 21:28	1
bis (2-chloroisopropyl) ether	ND	H	9.5	0.15	ug/L		07/22/22 10:11	07/25/22 21:28	1
Bis(2-ethylhexyl) phthalate	ND	H	9.5	4.7	ug/L		07/22/22 10:11	07/25/22 21:28	1
4-Bromophenyl phenyl ether	ND	H	9.5	0.19	ug/L		07/22/22 10:11	07/25/22 21:28	1
Butyl benzyl phthalate	ND	H	9.5	0.18	ug/L		07/22/22 10:11	07/25/22 21:28	1
4-Chloroaniline	ND	H	9.5	3.2	ug/L		07/22/22 10:11	07/25/22 21:28	1
4-Chloro-3-methylphenol	ND	H	9.5	3.6	ug/L		07/22/22 10:11	07/25/22 21:28	1
2-Chloronaphthalene	ND	H	9.5	0.13	ug/L		07/22/22 10:11	07/25/22 21:28	1
2-Chlorophenol	ND	H	9.5	2.1	ug/L		07/22/22 10:11	07/25/22 21:28	1
4-Chlorophenyl phenyl ether	ND	H	9.5	1.9	ug/L		07/22/22 10:11	07/25/22 21:28	1
D benz[a,h]acridine	ND	H	9.5	0.95	ug/L		07/22/22 10:11	07/25/22 21:28	1
D benzofuran	ND	H	9.5	0.16	ug/L		07/22/22 10:11	07/25/22 21:28	1
3,3'-Dichlorobenzidine	ND	H	9.5	2.5	ug/L		07/22/22 10:11	07/25/22 21:28	1
2,4-Dichlorophenol	ND	H	9.5	2.8	ug/L		07/22/22 10:11	07/25/22 21:28	1
Diethyl phthalate	ND	H	9.5	0.23	ug/L		07/22/22 10:11	07/25/22 21:28	1
2,4-Dimethylphenol	ND	H	9.5	3.3	ug/L		07/22/22 10:11	07/25/22 21:28	1
Dimethyl phthalate	ND	H	9.5	0.16	ug/L		07/22/22 10:11	07/25/22 21:28	1
Di-n-butyl phthalate	ND	H	9.5	2.6	ug/L		07/22/22 10:11	07/25/22 21:28	1
4,6-Dinitro-ortho-cresol	ND	H	9.5	1.5	ug/L		07/22/22 10:11	07/25/22 21:28	1
2,4-Dinitrophenol	ND	H	28	3.2	ug/L		07/22/22 10:11	07/25/22 21:28	1
2,4-Dinitrotoluene	ND	H	9.5	1.8	ug/L		07/22/22 10:11	07/25/22 21:28	1
2,6-Dinitrotoluene	ND	H	9.5	1.8	ug/L		07/22/22 10:11	07/25/22 21:28	1
Di-n-octyl phthalate	ND	H	9.5	0.16	ug/L		07/22/22 10:11	07/25/22 21:28	1
1,4-Dioxane	ND	H	9.5	0.95	ug/L		07/22/22 10:11	07/25/22 21:28	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	H	9.5	0.95	ug/L		07/22/22 10:11	07/25/22 21:28	1

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

Job ID: 400-222856-1

Client Sample ID: MW16-ROX-071222
Date Collected: 07/12/22 11:50
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND	H	9.5	0.16	ug/L		07/22/22 10:11	07/25/22 21:28	1
Hexachlorocyclopentadiene	ND	H	19	2.5	ug/L		07/22/22 10:11	07/25/22 21:28	1
Hexachloroethane	ND	H	9.5	4.0	ug/L		07/22/22 10:11	07/25/22 21:28	1
Indene	ND	H	9.5	0.95	ug/L		07/22/22 10:11	07/25/22 21:28	1
Isophorone	ND	H	9.5	0.13	ug/L		07/22/22 10:11	07/25/22 21:28	1
2-Methylphenol	ND	H	9.5	1.7	ug/L		07/22/22 10:11	07/25/22 21:28	1
3 & 4 Methylphenol	ND	H	19	0.37	ug/L		07/22/22 10:11	07/25/22 21:28	1
2-Nitroaniline	ND	H	9.5	2.1	ug/L		07/22/22 10:11	07/25/22 21:28	1
3-Nitroaniline	ND	H	9.5	1.7	ug/L		07/22/22 10:11	07/25/22 21:28	1
4-Nitroaniline	ND	H	9.5	1.4	ug/L		07/22/22 10:11	07/25/22 21:28	1
Nitrobenzene	ND	H	9.5	0.12	ug/L		07/22/22 10:11	07/25/22 21:28	1
2-Nitrophenol	ND	H	9.5	4.9	ug/L		07/22/22 10:11	07/25/22 21:28	1
4-Nitrophenol	ND	H	9.5	2.0	ug/L		07/22/22 10:11	07/25/22 21:28	1
N-Nitrosodimethylamine	ND	H	9.5	3.3	ug/L		07/22/22 10:11	07/25/22 21:28	1
N-Nitrosodi-n-propylamine	ND	H	9.5	3.1	ug/L		07/22/22 10:11	07/25/22 21:28	1
N-Nitrosodiphenylamine	ND	H	9.5	0.17	ug/L		07/22/22 10:11	07/25/22 21:28	1
Pentachlorophenol	ND	H	19	1.3	ug/L		07/22/22 10:11	07/25/22 21:28	1
Phenol	ND	H	9.5	2.5	ug/L		07/22/22 10:11	07/25/22 21:28	1
Pyridine	ND	H	9.5	3.0	ug/L		07/22/22 10:11	07/25/22 21:28	1
Quinoline	ND	H	9.5	4.3	ug/L		07/22/22 10:11	07/25/22 21:28	1
2,4,5-Trichlorophenol	ND	H	9.5	3.5	ug/L		07/22/22 10:11	07/25/22 21:28	1
2,4,6-Trichlorophenol	ND	H	9.5	3.3	ug/L		07/22/22 10:11	07/25/22 21:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*46 - 124*	*07/22/22 10:11*	*07/25/22 21:28*	*1*
2-Fluorophenol	*30*		*13 - 113*	*07/22/22 10:11*	*07/25/22 21:28*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*07/22/22 10:11*	*07/25/22 21:28*	*1*
Phenol-d5	*58*		*17 - 127*	*07/22/22 10:11*	*07/25/22 21:28*	*1*
Terphenyl-d14	*114*		*44 - 149*	*07/22/22 10:11*	*07/25/22 21:28*	*1*
2,4,6-Tribromophenol	*70*		*26 - 150*	*07/22/22 10:11*	*07/25/22 21:28*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/21/22 19:52	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/21/22 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*51 - 149*	*07/21/22 10:46*	*07/21/22 19:52*	*1*

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

Job ID: 400-222856-1

Client Sample ID: MW28-ROX-071222
Date Collected: 07/12/22 13:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/18/22 12:10	1
Acrolein	ND		20	3.3	ug/L			07/18/22 12:10	1
Acrylonitrile	ND		10	2.8	ug/L			07/18/22 12:10	1
Benzene	ND		1.0	0.13	ug/L			07/18/22 12:10	1
Bromobenzene	ND		1.0	0.54	ug/L			07/18/22 12:10	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/18/22 12:10	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/18/22 12:10	1
Bromoform	ND		5.0	0.25	ug/L			07/18/22 12:10	1
Bromomethane	ND		1.0	0.98	ug/L			07/18/22 12:10	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/18/22 12:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/18/22 12:10	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/18/22 12:10	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/18/22 12:10	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/18/22 12:10	1
Chloroethane	ND		1.0	0.76	ug/L			07/18/22 12:10	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 12:10	1
Chloroform	ND		1.0	1.0	ug/L			07/18/22 12:10	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/18/22 12:10	1
Chloromethane	ND		1.0	0.32	ug/L			07/18/22 12:10	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/18/22 12:10	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/18/22 12:10	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/18/22 12:10	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/18/22 12:10	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/18/22 12:10	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/18/22 12:10	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/18/22 12:10	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/18/22 12:10	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 12:10	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 12:10	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 12:10	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 12:10	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/18/22 12:10	1
Ethy benzene	ND		1.0	0.50	ug/L			07/18/22 12:10	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/18/22 12:10	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/18/22 12:10	1
2-Hexanone	ND		25	1.4	ug/L			07/18/22 12:10	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/18/22 12:10	1
Methylene bromide	ND		5.0	0.22	ug/L			07/18/22 12:10	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/18/22 12:10	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/18/22 12:10	1
Methyl tert-butyl ether	**6.4**		1.0	0.22	ug/L			07/18/22 12:10	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/18/22 12:10	1
Naphthalene	ND		5.0	3.0	ug/L			07/18/22 12:10	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/18/22 12:10	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/18/22 12:10	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/18/22 12:10	1
o-Xylene	ND		5.0	0.60	ug/L			07/18/22 12:10	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/18/22 12:10	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/18/22 12:10	1

Client Sample ID: MW28-ROX-071222
Date Collected: 07/12/22 13:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/18/22 12:10	1
Styrene	ND		1.0	1.0	ug/L			07/18/22 12:10	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/18/22 12:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/18/22 12:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/18/22 12:10	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/18/22 12:10	1
Toluene	ND		1.0	0.41	ug/L			07/18/22 12:10	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 12:10	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/18/22 12:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/18/22 12:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/18/22 12:10	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/18/22 12:10	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/18/22 12:10	1
Trichloroethene	ND		1.0	0.15	ug/L			07/18/22 12:10	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/18/22 12:10	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/18/22 12:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/18/22 12:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/18/22 12:10	1
Vinyl acetate	ND		25	0.93	ug/L			07/18/22 12:10	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/18/22 12:10	1
Xylenes, Total	ND		10	1.6	ug/L			07/18/22 12:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*07/18/22 12:10*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*07/18/22 12:10*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*07/18/22 12:10*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/20/22 23:51	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/18/22 17:28	07/20/22 23:51	1
Anthracene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/20/22 23:51	1
Benzo[a]anthracene	**0.065**	**J B** U	0.19	0.044	ug/L		07/18/22 17:28	07/20/22 23:51	1
Benzo[a]pyrene	**0.10**	**J** J	0.19	0.040	ug/L		07/18/22 17:28	07/20/22 23:51	1
Benzo[b]fluoranthene	**0.097**	**J B** U	0.19	0.032	ug/L		07/18/22 17:28	07/20/22 23:51	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/18/22 17:28	07/20/22 23:51	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/18/22 17:28	07/20/22 23:51	1
Chrysene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/20/22 23:51	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/18/22 17:28	07/20/22 23:51	1
Fluoranthene	ND		0.19	0.065	ug/L		07/18/22 17:28	07/20/22 23:51	1
Fluorene	ND		0.19	0.10	ug/L		07/18/22 17:28	07/20/22 23:51	1
Indeno[1,2,3-cd]pyrene	**0.14**	**J** J	0.19	0.041	ug/L		07/18/22 17:28	07/20/22 23:51	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/20/22 23:51	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/18/22 17:28	07/20/22 23:51	1
Phenanthrene	ND		0.19	0.034	ug/L		07/18/22 17:28	07/20/22 23:51	1
Pyrene	ND		0.19	0.038	ug/L		07/18/22 17:28	07/20/22 23:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*127*	*S1+*	*15 - 122*	*07/18/22 17:28*	*07/20/22 23:51*	*1*
Nitrobenzene-d5	*114*		*19 - 130*	*07/18/22 17:28*	*07/20/22 23:51*	*1*

Client Sample ID: MW28-ROX-071222
Date Collected: 07/12/22 13:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-7
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*166*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/20/22 23:51*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/18/22 17:28	07/20/22 17:26	1
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		07/18/22 17:28	07/20/22 17:26	1
Benzoic acid	ND		28	6.9	ug/L		07/18/22 17:28	07/20/22 17:26	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/18/22 17:28	07/20/22 17:26	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/18/22 17:28	07/20/22 17:26	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/18/22 17:28	07/20/22 17:26	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/18/22 17:28	07/20/22 17:26	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		07/18/22 17:28	07/20/22 17:26	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/18/22 17:28	07/20/22 17:26	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/18/22 17:28	07/20/22 17:26	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/18/22 17:28	07/20/22 17:26	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/18/22 17:28	07/20/22 17:26	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/18/22 17:28	07/20/22 17:26	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/18/22 17:28	07/20/22 17:26	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/18/22 17:28	07/20/22 17:26	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 17:26	1
D benzofuran	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 17:26	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/18/22 17:28	07/20/22 17:26	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/18/22 17:28	07/20/22 17:26	1
Diethyl phthalate	**0.31**	**J**	9.5	0.23	ug/L		07/18/22 17:28	07/20/22 17:26	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 17:26	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 17:26	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/18/22 17:28	07/20/22 17:26	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/18/22 17:28	07/20/22 17:26	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/18/22 17:28	07/20/22 17:26	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/18/22 17:28	07/20/22 17:26	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/18/22 17:28	07/20/22 17:26	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 17:26	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 17:26	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 17:26	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 17:26	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/18/22 17:28	07/20/22 17:26	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/18/22 17:28	07/20/22 17:26	1
Indene	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 17:26	1
Isophorone	ND		9.5	0.13	ug/L		07/18/22 17:28	07/20/22 17:26	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/18/22 17:28	07/20/22 17:26	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/18/22 17:28	07/20/22 17:26	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/18/22 17:28	07/20/22 17:26	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/18/22 17:28	07/20/22 17:26	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/18/22 17:28	07/20/22 17:26	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/18/22 17:28	07/20/22 17:26	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/18/22 17:28	07/20/22 17:26	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/18/22 17:28	07/20/22 17:26	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 17:26	1

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

Job ID: 400-222856-1

Client Sample ID: MW28-ROX-071222
Date Collected: 07/12/22 13:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/18/22 17:28	07/20/22 17:26	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/18/22 17:28	07/20/22 17:26	1
Pentachlorophenol	ND		19	1.3	ug/L		07/18/22 17:28	07/20/22 17:26	1
Phenol	ND		9.5	2.5	ug/L		07/18/22 17:28	07/20/22 17:26	1
Pyridine	ND		9.5	3.0	ug/L		07/18/22 17:28	07/20/22 17:26	1
Quinoline	ND		9.5	4.3	ug/L		07/18/22 17:28	07/20/22 17:26	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/18/22 17:28	07/20/22 17:26	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*07/18/22 17:28*	*07/20/22 17:26*	*1*
2-Fluorophenol	*59*		*13 - 113*	*07/18/22 17:28*	*07/20/22 17:26*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*07/18/22 17:28*	*07/20/22 17:26*	*1*
Phenol-d5	*77*		*17 - 127*	*07/18/22 17:28*	*07/20/22 17:26*	*1*
Terphenyl-d14	*97*		*44 - 149*	*07/18/22 17:28*	*07/20/22 17:26*	*1*
2,4,6-Tribromophenol	*83*		*26 - 150*	*07/18/22 17:28*	*07/20/22 17:26*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		07/21/22 10:46	07/21/22 20:34	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/21/22 10:46	07/21/22 20:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*07/21/22 10:46*	*07/21/22 20:34*	*1*

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

Job ID: 400-222856-1

Client Sample ID: TB-ROX-071222-8260-B
Date Collected: 07/12/22 12:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 21:06	1
Acrolein	ND		20	3.3	ug/L			07/19/22 21:06	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 21:06	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 21:06	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 21:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 21:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 21:06	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 21:06	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 21:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 21:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 21:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 21:06	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 21:06	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 21:06	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 21:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 21:06	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 21:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 21:06	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 21:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 21:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 21:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 21:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 21:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 21:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 21:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 21:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 21:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 21:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 21:06	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 21:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 21:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 21:06	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 21:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 21:06	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 21:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 21:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 21:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 21:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 21:06	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 21:06	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 21:06	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 21:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 21:06	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 21:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 21:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 21:06	1

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

Job ID: 400-222856-1

Client Sample ID: TB-ROX-071222-8260-B
Date Collected: 07/12/22 12:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 21:06	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 21:06	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 21:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 21:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 21:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 21:06	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 21:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 21:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 21:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 21:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 21:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 21:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 21:06	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 21:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 21:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 21:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 21:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 21:06	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 21:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 21:06	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 21:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/19/22 21:06*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/19/22 21:06*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/19/22 21:06*	*1*

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

Job ID: 400-222856-1

Client Sample ID: TB-ROX-071222-8011-B
Date Collected: 07/12/22 12:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-9
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.017	ug/L		07/21/22 10:46	07/21/22 20:55	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/21/22 20:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*07/21/22 10:46*	*07/21/22 20:55*	*1*

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

Job ID: 400-222856-1

Client Sample ID: MW26-ROX-071222
Date Collected: 07/12/22 09:15
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/20/22 00:10	1
Acrolein	ND		20	3.3	ug/L			07/20/22 00:10	1
Acrylonitrile	ND		10	2.8	ug/L			07/20/22 00:10	1
Benzene	ND		1.0	0.13	ug/L			07/20/22 00:10	1
Bromobenzene	ND		1.0	0.54	ug/L			07/20/22 00:10	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/20/22 00:10	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/22 00:10	1
Bromoform	ND		5.0	0.25	ug/L			07/20/22 00:10	1
Bromomethane	ND		1.0	0.98	ug/L			07/20/22 00:10	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/20/22 00:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/20/22 00:10	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/20/22 00:10	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/20/22 00:10	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/20/22 00:10	1
Chloroethane	ND		1.0	0.76	ug/L			07/20/22 00:10	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 00:10	1
Chloroform	ND		1.0	1.0	ug/L			07/20/22 00:10	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/20/22 00:10	1
Chloromethane	ND		1.0	0.32	ug/L			07/20/22 00:10	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/20/22 00:10	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/20/22 00:10	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/22 00:10	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/20/22 00:10	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/20/22 00:10	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/20/22 00:10	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/22 00:10	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/20/22 00:10	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 00:10	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 00:10	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 00:10	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 00:10	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/22 00:10	1
Ethy benzene	ND		1.0	0.50	ug/L			07/20/22 00:10	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/20/22 00:10	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/20/22 00:10	1
2-Hexanone	ND		25	1.4	ug/L			07/20/22 00:10	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/20/22 00:10	1
Methylene bromide	ND		5.0	0.22	ug/L			07/20/22 00:10	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/20/22 00:10	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/20/22 00:10	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/20/22 00:10	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/20/22 00:10	1
Naphthalene	ND		5.0	3.0	ug/L			07/20/22 00:10	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/20/22 00:10	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/20/22 00:10	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/20/22 00:10	1
o-Xylene	ND		5.0	0.60	ug/L			07/20/22 00:10	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/20/22 00:10	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/20/22 00:10	1

Client Sample ID: MW26-ROX-071222
Date Collected: 07/12/22 09:15
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/20/22 00:10	1
Styrene	ND		1.0	1.0	ug/L			07/20/22 00:10	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/20/22 00:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/20/22 00:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/22 00:10	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/20/22 00:10	1
Toluene	ND		1.0	0.41	ug/L			07/20/22 00:10	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 00:10	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/20/22 00:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/20/22 00:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/20/22 00:10	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/20/22 00:10	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/20/22 00:10	1
Trichloroethene	ND		1.0	0.15	ug/L			07/20/22 00:10	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/20/22 00:10	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/20/22 00:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/20/22 00:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/20/22 00:10	1
Vinyl acetate	ND		25	0.93	ug/L			07/20/22 00:10	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/22 00:10	1
Xylenes, Total	ND		10	1.6	ug/L			07/20/22 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*07/20/22 00:10*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/20/22 00:10*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/20/22 00:10*	*1*

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

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND			0.19	0.030	ug/L		07/18/22 17:28	07/21/22 00:06	1
Acenaphthylene	ND			0.19	0.043	ug/L		07/18/22 17:28	07/21/22 00:06	1
Anthracene	ND			0.19	0.030	ug/L		07/18/22 17:28	07/21/22 00:06	1
Benzo[a]anthracene	**0.095**	**J B**	U	0.19	0.044	ug/L		07/18/22 17:28	07/21/22 00:06	1
Benzo[a]pyrene	**0.12**	**J**	J	0.19	0.040	ug/L		07/18/22 17:28	07/21/22 00:06	1
Benzo[b]fluoranthene	**0.095**	**J B**	U	0.19	0.032	ug/L		07/18/22 17:28	07/21/22 00:06	1
Benzo[g,h,i]perylene	ND			0.19	0.12	ug/L		07/18/22 17:28	07/21/22 00:06	1
Benzo[k]fluoranthene	ND			0.19	0.095	ug/L		07/18/22 17:28	07/21/22 00:06	1
Chrysene	ND			0.19	0.070	ug/L		07/18/22 17:28	07/21/22 00:06	1
Dibenz(a,h)anthracene	**0.16**	**J**	J	0.19	0.047	ug/L		07/18/22 17:28	07/21/22 00:06	1
Fluoranthene	ND			0.19	0.065	ug/L		07/18/22 17:28	07/21/22 00:06	1
Fluorene	ND			0.19	0.10	ug/L		07/18/22 17:28	07/21/22 00:06	1
Indeno[1,2,3-cd]pyrene	**0.15**	**J**	J	0.19	0.041	ug/L		07/18/22 17:28	07/21/22 00:06	1
1-Methylnaphthalene	ND			0.19	0.070	ug/L		07/18/22 17:28	07/21/22 00:06	1
2-Methylnaphthalene	ND			0.19	0.057	ug/L		07/18/22 17:28	07/21/22 00:06	1
Phenanthrene	ND			0.19	0.034	ug/L		07/18/22 17:28	07/21/22 00:06	1
Pyrene	ND			0.19	0.038	ug/L		07/18/22 17:28	07/21/22 00:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*133*	*S1+*	*15 - 122*	*07/18/22 17:28*	*07/21/22 00:06*	*1*
Nitrobenzene-d5	*118*		*19 - 130*	*07/18/22 17:28*	*07/21/22 00:06*	*1*

Client Sample ID: MW26-ROX-071222
Date Collected: 07/12/22 09:15
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-10
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*165*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/21/22 00:06*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/18/22 17:28	07/20/22 17:47	1
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		07/18/22 17:28	07/20/22 17:47	1
Benzoic acid	ND		28	6.9	ug/L		07/18/22 17:28	07/20/22 17:47	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/18/22 17:28	07/20/22 17:47	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/18/22 17:28	07/20/22 17:47	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/18/22 17:28	07/20/22 17:47	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/18/22 17:28	07/20/22 17:47	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		07/18/22 17:28	07/20/22 17:47	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/18/22 17:28	07/20/22 17:47	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/18/22 17:28	07/20/22 17:47	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/18/22 17:28	07/20/22 17:47	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/18/22 17:28	07/20/22 17:47	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/18/22 17:28	07/20/22 17:47	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/18/22 17:28	07/20/22 17:47	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/18/22 17:28	07/20/22 17:47	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 17:47	1
D benzofuran	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 17:47	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/18/22 17:28	07/20/22 17:47	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/18/22 17:28	07/20/22 17:47	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/18/22 17:28	07/20/22 17:47	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 17:47	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 17:47	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/18/22 17:28	07/20/22 17:47	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/18/22 17:28	07/20/22 17:47	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/18/22 17:28	07/20/22 17:47	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/18/22 17:28	07/20/22 17:47	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/18/22 17:28	07/20/22 17:47	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 17:47	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 17:47	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 17:47	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 17:47	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/18/22 17:28	07/20/22 17:47	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/18/22 17:28	07/20/22 17:47	1
Indene	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 17:47	1
Isophorone	ND		9.5	0.13	ug/L		07/18/22 17:28	07/20/22 17:47	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/18/22 17:28	07/20/22 17:47	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/18/22 17:28	07/20/22 17:47	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/18/22 17:28	07/20/22 17:47	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/18/22 17:28	07/20/22 17:47	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/18/22 17:28	07/20/22 17:47	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/18/22 17:28	07/20/22 17:47	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/18/22 17:28	07/20/22 17:47	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/18/22 17:28	07/20/22 17:47	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 17:47	1

Client Sample ID: MW26-ROX-071222
Date Collected: 07/12/22 09:15
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/18/22 17:28	07/20/22 17:47	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/18/22 17:28	07/20/22 17:47	1
Pentachlorophenol	ND		19	1.3	ug/L		07/18/22 17:28	07/20/22 17:47	1
Phenol	ND		9.5	2.5	ug/L		07/18/22 17:28	07/20/22 17:47	1
Pyridine	ND		9.5	3.0	ug/L		07/18/22 17:28	07/20/22 17:47	1
Quinoline	ND		9.5	4.3	ug/L		07/18/22 17:28	07/20/22 17:47	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/18/22 17:28	07/20/22 17:47	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*07/18/22 17:28*	*07/20/22 17:47*	*1*
2-Fluorophenol	*60*		*13 - 113*	*07/18/22 17:28*	*07/20/22 17:47*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*07/18/22 17:28*	*07/20/22 17:47*	*1*
Phenol-d5	*76*		*17 - 127*	*07/18/22 17:28*	*07/20/22 17:47*	*1*
Terphenyl-d14	*101*		*44 - 149*	*07/18/22 17:28*	*07/20/22 17:47*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*07/18/22 17:28*	*07/20/22 17:47*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/22/22 08:19	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/22/22 08:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*07/21/22 10:46*	*07/22/22 08:19*	*1*

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

Job ID: 400-222856-1

Client Sample ID: ROST3MW-ROX-071222
Date Collected: 07/12/22 10:35
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/20/22 00:36	1
Acrolein	ND		20	3.3	ug/L			07/20/22 00:36	1
Acrylonitrile	ND		10	2.8	ug/L			07/20/22 00:36	1
Benzene	ND		1.0	0.13	ug/L			07/20/22 00:36	1
Bromobenzene	ND		1.0	0.54	ug/L			07/20/22 00:36	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/20/22 00:36	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/22 00:36	1
Bromoform	ND		5.0	0.25	ug/L			07/20/22 00:36	1
Bromomethane	ND		1.0	0.98	ug/L			07/20/22 00:36	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/20/22 00:36	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/20/22 00:36	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/20/22 00:36	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/20/22 00:36	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/20/22 00:36	1
Chloroethane	ND		1.0	0.76	ug/L			07/20/22 00:36	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 00:36	1
Chloroform	ND		1.0	1.0	ug/L			07/20/22 00:36	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/20/22 00:36	1
Chloromethane	ND		1.0	0.32	ug/L			07/20/22 00:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/20/22 00:36	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/20/22 00:36	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/22 00:36	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/20/22 00:36	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/20/22 00:36	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/20/22 00:36	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/22 00:36	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/20/22 00:36	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 00:36	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 00:36	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 00:36	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 00:36	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/22 00:36	1
Ethylbenzene	**0.58**	**J**	1.0	0.50	ug/L			07/20/22 00:36	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/20/22 00:36	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/20/22 00:36	1
2-Hexanone	ND		25	1.4	ug/L			07/20/22 00:36	1
Isopropylbenzene	**0.61**	**J**	1.0	0.53	ug/L			07/20/22 00:36	1
Methylene bromide	ND		5.0	0.22	ug/L			07/20/22 00:36	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/20/22 00:36	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/20/22 00:36	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/20/22 00:36	1
m-Xylene & p-Xylene	**2.6**	**J**	5.0	0.63	ug/L			07/20/22 00:36	1
Naphthalene	ND		5.0	3.0	ug/L			07/20/22 00:36	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/20/22 00:36	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/20/22 00:36	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/20/22 00:36	1
o-Xylene	ND		5.0	0.60	ug/L			07/20/22 00:36	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/20/22 00:36	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/20/22 00:36	1

Client Sample ID: ROST3MW-ROX-071222

Lab Sample ID: 400-222856-11

Date Collected: 07/12/22 10:35

Matrix: Water

Date Received: 07/13/22 08:54

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/20/22 00:36	1
Styrene	ND		1.0	1.0	ug/L			07/20/22 00:36	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/20/22 00:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/20/22 00:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/22 00:36	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/20/22 00:36	1
Toluene	ND		1.0	0.41	ug/L			07/20/22 00:36	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 00:36	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/20/22 00:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/20/22 00:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/20/22 00:36	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/20/22 00:36	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/20/22 00:36	1
Trichloroethene	ND		1.0	0.15	ug/L			07/20/22 00:36	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/20/22 00:36	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/20/22 00:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/20/22 00:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/20/22 00:36	1
Vinyl acetate	ND		25	0.93	ug/L			07/20/22 00:36	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/22 00:36	1
Xylenes, Total	**2.6**	**J**	10	1.6	ug/L			07/20/22 00:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*07/20/22 00:36*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/20/22 00:36*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/20/22 00:36*	*1*

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

Analyte	Result	Qualifier		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.085**	**J**		0.19	0.031	ug/L		07/18/22 17:28	07/21/22 00:22	1
Acenaphthylene	**0.057**	**J**		0.19	0.043	ug/L		07/18/22 17:28	07/21/22 00:22	1
Anthracene	ND			0.19	0.031	ug/L		07/18/22 17:28	07/21/22 00:22	1
Benzo[a]anthracene	**0.064**	**J B**	U	0.19	0.044	ug/L		07/18/22 17:28	07/21/22 00:22	1
Benzo[a]pyrene	**0.11**	**J**		0.19	0.040	ug/L		07/18/22 17:28	07/21/22 00:22	1
Benzo[b]fluoranthene	**0.093**	**J B**	U	0.19	0.033	ug/L		07/18/22 17:28	07/21/22 00:22	1
Benzo[g,h,i]perylene	ND			0.19	0.12	ug/L		07/18/22 17:28	07/21/22 00:22	1
Benzo[k]fluoranthene	ND			0.19	0.096	ug/L		07/18/22 17:28	07/21/22 00:22	1
Chrysene	ND			0.19	0.071	ug/L		07/18/22 17:28	07/21/22 00:22	1
D benz(a,h)anthracene	ND			0.19	0.048	ug/L		07/18/22 17:28	07/21/22 00:22	1
Fluoranthene	ND			0.19	0.065	ug/L		07/18/22 17:28	07/21/22 00:22	1
Fluorene	ND			0.19	0.11	ug/L		07/18/22 17:28	07/21/22 00:22	1
Indeno[1,2,3-cd]pyrene	ND			0.19	0.041	ug/L		07/18/22 17:28	07/21/22 00:22	1
1-Methylnaphthalene	**0.16**	**J**		0.19	0.071	ug/L		07/18/22 17:28	07/21/22 00:22	1
2-Methylnaphthalene	**0.063**	**J**		0.19	0.057	ug/L		07/18/22 17:28	07/21/22 00:22	1
Phenanthrene	ND			0.19	0.034	ug/L		07/18/22 17:28	07/21/22 00:22	1
Pyrene	ND			0.19	0.038	ug/L		07/18/22 17:28	07/21/22 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*119*		*15 - 122*	*07/18/22 17:28*	*07/21/22 00:22*	*1*
Nitrobenzene-d5	*101*		*19 - 130*	*07/18/22 17:28*	*07/21/22 00:22*	*1*

Client Sample ID: ROST3MW-ROX-071222
Date Collected: 07/12/22 10:35
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-11
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*151*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/21/22 00:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		07/18/22 17:28	07/20/22 18:08	1
Benzenethiol	ND	*- UJ	9.6	1.6	ug/L		07/18/22 17:28	07/20/22 18:08	1
Benzoic acid	ND		29	7.0	ug/L		07/18/22 17:28	07/20/22 18:08	1
Benzyl alcohol	ND	UJ	9.6	1.9	ug/L		07/18/22 17:28	07/20/22 18:08	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		07/18/22 17:28	07/20/22 18:08	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		07/18/22 17:28	07/20/22 18:08	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		07/18/22 17:28	07/20/22 18:08	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		07/18/22 17:28	07/20/22 18:08	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		07/18/22 17:28	07/20/22 18:08	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		07/18/22 17:28	07/20/22 18:08	1
4-Chloroaniline	ND		9.6	3.3	ug/L		07/18/22 17:28	07/20/22 18:08	1
4-Chloro-3-methylphenol	ND	UJ	9.6	3.6	ug/L		07/18/22 17:28	07/20/22 18:08	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		07/18/22 17:28	07/20/22 18:08	1
2-Chlorophenol	ND	UJ	9.6	2.1	ug/L		07/18/22 17:28	07/20/22 18:08	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		07/18/22 17:28	07/20/22 18:08	1
D benz[a,h]acridine	ND		9.6	0.96	ug/L		07/18/22 17:28	07/20/22 18:08	1
D benzofuran	ND		9.6	0.16	ug/L		07/18/22 17:28	07/20/22 18:08	1
3,3'-Dichlorobenzidine	ND	*+	9.6	2.5	ug/L		07/18/22 17:28	07/20/22 18:08	1
2,4-Dichlorophenol	ND	UJ	9.6	2.9	ug/L		07/18/22 17:28	07/20/22 18:08	1
Diethyl phthalate	**0.52**	**J**	9.6	0.23	ug/L		07/18/22 17:28	07/20/22 18:08	1
2,4-Dimethylphenol	ND	UJ	9.6	3.3	ug/L		07/18/22 17:28	07/20/22 18:08	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		07/18/22 17:28	07/20/22 18:08	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		07/18/22 17:28	07/20/22 18:08	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.6	1.5	ug/L		07/18/22 17:28	07/20/22 18:08	1
2,4-Dinitrophenol	ND	UJ	29	3.3	ug/L		07/18/22 17:28	07/20/22 18:08	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		07/18/22 17:28	07/20/22 18:08	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		07/18/22 17:28	07/20/22 18:08	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		07/18/22 17:28	07/20/22 18:08	1
1,4-Dioxane	ND		9.6	0.96	ug/L		07/18/22 17:28	07/20/22 18:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		07/18/22 17:28	07/20/22 18:08	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		07/18/22 17:28	07/20/22 18:08	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/18/22 17:28	07/20/22 18:08	1
Hexachloroethane	ND		9.6	4.0	ug/L		07/18/22 17:28	07/20/22 18:08	1
Indene	ND		9.6	0.96	ug/L		07/18/22 17:28	07/20/22 18:08	1
Isophorone	ND		9.6	0.13	ug/L		07/18/22 17:28	07/20/22 18:08	1
2-Methylphenol	ND	UJ	9.6	1.7	ug/L		07/18/22 17:28	07/20/22 18:08	1
3 & 4 Methylphenol	ND	UJ	19	0.37	ug/L		07/18/22 17:28	07/20/22 18:08	1
2-Nitroaniline	ND		9.6	2.1	ug/L		07/18/22 17:28	07/20/22 18:08	1
3-Nitroaniline	ND		9.6	1.7	ug/L		07/18/22 17:28	07/20/22 18:08	1
4-Nitroaniline	ND		9.6	1.4	ug/L		07/18/22 17:28	07/20/22 18:08	1
Nitrobenzene	ND		9.6	0.12	ug/L		07/18/22 17:28	07/20/22 18:08	1
2-Nitrophenol	ND	UJ	9.6	5.0	ug/L		07/18/22 17:28	07/20/22 18:08	1
4-Nitrophenol	ND	UJ	9.6	2.0	ug/L		07/18/22 17:28	07/20/22 18:08	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		07/18/22 17:28	07/20/22 18:08	1

Client Sample ID: ROST3MW-ROX-071222
Date Collected: 07/12/22 10:35
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		07/18/22 17:28	07/20/22 18:08	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		07/18/22 17:28	07/20/22 18:08	1
Pentachlorophenol	ND	UJ	19	1.3	ug/L		07/18/22 17:28	07/20/22 18:08	1
Phenol	ND	UJ	9.6	2.5	ug/L		07/18/22 17:28	07/20/22 18:08	1
Pyridine	ND		9.6	3.1	ug/L		07/18/22 17:28	07/20/22 18:08	1
Quinoline	ND		9.6	4.3	ug/L		07/18/22 17:28	07/20/22 18:08	1
2,4,5-Trichlorophenol	ND	UJ	9.6	3.5	ug/L		07/18/22 17:28	07/20/22 18:08	1
2,4,6-Trichlorophenol	ND	UJ	9.6	3.3	ug/L		07/18/22 17:28	07/20/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*07/18/22 17:28*	*07/20/22 18:08*	*1*
2-Fluorophenol	*0*	*S1-*	*13 - 113*	*07/18/22 17:28*	*07/20/22 18:08*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/18/22 17:28*	*07/20/22 18:08*	*1*
Phenol-d5	*0.3*	*S1-*	*17 - 127*	*07/18/22 17:28*	*07/20/22 18:08*	*1*
Terphenyl-d14	*92*		*44 - 149*	*07/18/22 17:28*	*07/20/22 18:08*	*1*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 150*	*07/18/22 17:28*	*07/20/22 18:08*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	H *- *1	9.7	3.7	ug/L		07/22/22 10:11	07/25/22 21:53	1
Benzenethiol	ND	H *- *1	9.7	1.6	ug/L		07/22/22 10:11	07/25/22 21:53	1
Benzoic acid	ND	H *1	29	7.1	ug/L		07/22/22 10:11	07/25/22 21:53	1
Benzyl alcohol	ND	H	9.7	1.9	ug/L		07/22/22 10:11	07/25/22 21:53	1
Bis(2-chloroethoxy)methane	ND	H	9.7	0.15	ug/L		07/22/22 10:11	07/25/22 21:53	1
Bis(2-chloroethyl)ether	ND	H *+ *1	9.7	2.6	ug/L		07/22/22 10:11	07/25/22 21:53	1
bis (2-chloroisopropyl) ether	ND	H	9.7	0.15	ug/L		07/22/22 10:11	07/25/22 21:53	1
Bis(2-ethylhexyl) phthalate	ND	H	9.7	4.8	ug/L		07/22/22 10:11	07/25/22 21:53	1
4-Bromophenyl phenyl ether	ND	H	9.7	0.19	ug/L		07/22/22 10:11	07/25/22 21:53	1
Butyl benzyl phthalate	ND	H	9.7	0.18	ug/L		07/22/22 10:11	07/25/22 21:53	1
4-Chloroaniline	ND	H	9.7	3.3	ug/L		07/22/22 10:11	07/25/22 21:53	1
4-Chloro-3-methylphenol	ND	H	9.7	3.7	ug/L		07/22/22 10:11	07/25/22 21:53	1
2-Chloronaphthalene	ND	H	9.7	0.14	ug/L		07/22/22 10:11	07/25/22 21:53	1
2-Chlorophenol	ND	H	9.7	2.1	ug/L		07/22/22 10:11	07/25/22 21:53	1
4-Chlorophenyl phenyl ether	ND	H	9.7	1.9	ug/L		07/22/22 10:11	07/25/22 21:53	1
D benz[a,h]acridine	ND	H	9.7	0.97	ug/L		07/22/22 10:11	07/25/22 21:53	1
D benzofuran	ND	H	9.7	0.16	ug/L		07/22/22 10:11	07/25/22 21:53	1
3,3'-Dichlorobenzidine	ND	H	9.7	2.5	ug/L		07/22/22 10:11	07/25/22 21:53	1
2,4-Dichlorophenol	ND	H	9.7	2.9	ug/L		07/22/22 10:11	07/25/22 21:53	1
Diethyl phthalate	ND	H	9.7	0.23	ug/L		07/22/22 10:11	07/25/22 21:53	1
2,4-Dimethylphenol	ND	H	9.7	3.4	ug/L		07/22/22 10:11	07/25/22 21:53	1
Dimethyl phthalate	ND	H	9.7	0.16	ug/L		07/22/22 10:11	07/25/22 21:53	1
Di-n-butyl phthalate	ND	H	9.7	2.6	ug/L		07/22/22 10:11	07/25/22 21:53	1
4,6-Dinitro-ortho-cresol	ND	H	9.7	1.5	ug/L		07/22/22 10:11	07/25/22 21:53	1
2,4-Dinitrophenol	ND	H	29	3.3	ug/L		07/22/22 10:11	07/25/22 21:53	1
2,4-Dinitrotoluene	ND	H	9.7	1.8	ug/L		07/22/22 10:11	07/25/22 21:53	1
2,6-Dinitrotoluene	ND	H	9.7	1.8	ug/L		07/22/22 10:11	07/25/22 21:53	1
Di-n-octyl phthalate	ND	H	9.7	0.16	ug/L		07/22/22 10:11	07/25/22 21:53	1
1,4-Dioxane	ND	H	9.7	0.97	ug/L		07/22/22 10:11	07/25/22 21:53	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	H	9.7	0.97	ug/L		07/22/22 10:11	07/25/22 21:53	1

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

Job ID: 400-222856-1

Client Sample ID: ROST3MW-ROX-071222
Date Collected: 07/12/22 10:35
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND	H	9.7	0.16	ug/L		07/22/22 10:11	07/25/22 21:53	1
Hexachlorocyclopentadiene	ND	H	19	2.5	ug/L		07/22/22 10:11	07/25/22 21:53	1
Hexachloroethane	ND	H	9.7	4.1	ug/L		07/22/22 10:11	07/25/22 21:53	1
Indene	ND	H	9.7	0.97	ug/L		07/22/22 10:11	07/25/22 21:53	1
Isophorone	ND	H	9.7	0.14	ug/L		07/22/22 10:11	07/25/22 21:53	1
2-Methylphenol	ND	H	9.7	1.7	ug/L		07/22/22 10:11	07/25/22 21:53	1
3 & 4 Methylphenol	ND	H	19	0.38	ug/L		07/22/22 10:11	07/25/22 21:53	1
2-Nitroaniline	ND	H	9.7	2.1	ug/L		07/22/22 10:11	07/25/22 21:53	1
3-Nitroaniline	ND	H	9.7	1.7	ug/L		07/22/22 10:11	07/25/22 21:53	1
4-Nitroaniline	ND	H	9.7	1.5	ug/L		07/22/22 10:11	07/25/22 21:53	1
Nitrobenzene	ND	H	9.7	0.13	ug/L		07/22/22 10:11	07/25/22 21:53	1
2-Nitrophenol	ND	H	9.7	5.0	ug/L		07/22/22 10:11	07/25/22 21:53	1
4-Nitrophenol	ND	H	9.7	2.0	ug/L		07/22/22 10:11	07/25/22 21:53	1
N-Nitrosodimethylamine	ND	H	9.7	3.4	ug/L		07/22/22 10:11	07/25/22 21:53	1
N-Nitrosodi-n-propylamine	ND	H	9.7	3.2	ug/L		07/22/22 10:11	07/25/22 21:53	1
N-Nitrosodiphenylamine	ND	H	9.7	0.17	ug/L		07/22/22 10:11	07/25/22 21:53	1
Pentachlorophenol	ND	H	19	1.4	ug/L		07/22/22 10:11	07/25/22 21:53	1
Phenol	ND	H	9.7	2.5	ug/L		07/22/22 10:11	07/25/22 21:53	1
Pyridine	ND	H	9.7	3.1	ug/L		07/22/22 10:11	07/25/22 21:53	1
Quinoline	ND	H	9.7	4.4	ug/L		07/22/22 10:11	07/25/22 21:53	1
2,4,5-Trichlorophenol	ND	H	9.7	3.6	ug/L		07/22/22 10:11	07/25/22 21:53	1
2,4,6-Trichlorophenol	ND	H	9.7	3.4	ug/L		07/22/22 10:11	07/25/22 21:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*104*		*46 - 124*	*07/22/22 10:11*	*07/25/22 21:53*	*1*
2-Fluorophenol	*17*		*13 - 113*	*07/22/22 10:11*	*07/25/22 21:53*	*1*
Nitrobenzene-d5	*77*		*36 - 126*	*07/22/22 10:11*	*07/25/22 21:53*	*1*
Phenol-d5	*47*		*17 - 127*	*07/22/22 10:11*	*07/25/22 21:53*	*1*
Terphenyl-d14	*119*		*44 - 149*	*07/22/22 10:11*	*07/25/22 21:53*	*1*
2,4,6-Tribromophenol	*93*		*26 - 150*	*07/22/22 10:11*	*07/25/22 21:53*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/22/22 08:39	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/22/22 08:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*07/21/22 10:46*	*07/22/22 08:39*	*1*

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

Job ID: 400-222856-1

Client Sample ID: ROST4PZ(G)-ROX-071222
Date Collected: 07/12/22 13:10
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/18/22 12:34	1
Acrolein	ND		20	3.3	ug/L			07/18/22 12:34	1
Acrylonitrile	ND		10	2.8	ug/L			07/18/22 12:34	1
Benzene	**0.33**	**J**	1.0	0.13	ug/L			07/18/22 12:34	1
Bromobenzene	ND		1.0	0.54	ug/L			07/18/22 12:34	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/18/22 12:34	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/18/22 12:34	1
Bromoform	ND		5.0	0.25	ug/L			07/18/22 12:34	1
Bromomethane	ND		1.0	0.98	ug/L			07/18/22 12:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/18/22 12:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/18/22 12:34	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/18/22 12:34	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/18/22 12:34	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/18/22 12:34	1
Chloroethane	ND		1.0	0.76	ug/L			07/18/22 12:34	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 12:34	1
Chloroform	ND		1.0	1.0	ug/L			07/18/22 12:34	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/18/22 12:34	1
Chloromethane	ND		1.0	0.32	ug/L			07/18/22 12:34	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/18/22 12:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/18/22 12:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/18/22 12:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/18/22 12:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/18/22 12:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/18/22 12:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/18/22 12:34	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/18/22 12:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 12:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 12:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 12:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 12:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/18/22 12:34	1
Ethy benzene	ND		1.0	0.50	ug/L			07/18/22 12:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/18/22 12:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/18/22 12:34	1
2-Hexanone	ND		25	1.4	ug/L			07/18/22 12:34	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/18/22 12:34	1
Methylene bromide	ND		5.0	0.22	ug/L			07/18/22 12:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/18/22 12:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/18/22 12:34	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/18/22 12:34	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/18/22 12:34	1
Naphthalene	ND		5.0	3.0	ug/L			07/18/22 12:34	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/18/22 12:34	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/18/22 12:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/18/22 12:34	1
o-Xylene	ND		5.0	0.60	ug/L			07/18/22 12:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/18/22 12:34	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/18/22 12:34	1

Client Sample ID: ROST4PZ(G)-ROX-071222
Date Collected: 07/12/22 13:10
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/18/22 12:34	1
Styrene	ND		1.0	1.0	ug/L			07/18/22 12:34	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/18/22 12:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/18/22 12:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/18/22 12:34	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/18/22 12:34	1
Toluene	ND		1.0	0.41	ug/L			07/18/22 12:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 12:34	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/18/22 12:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/18/22 12:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/18/22 12:34	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/18/22 12:34	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/18/22 12:34	1
Trichloroethene	ND		1.0	0.15	ug/L			07/18/22 12:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/18/22 12:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/18/22 12:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/18/22 12:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/18/22 12:34	1
Vinyl acetate	ND		25	0.93	ug/L			07/18/22 12:34	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/18/22 12:34	1
Xylenes, Total	ND		10	1.6	ug/L			07/18/22 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*07/18/22 12:34*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*07/18/22 12:34*	*1*
Toluene-d8 (Surr)	*92*		*64 - 132*		*07/18/22 12:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/21/22 00:37	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/18/22 17:28	07/21/22 00:37	1
Anthracene	ND		0.19	0.030	ug/L		07/18/22 17:28	07/21/22 00:37	1
Benzo[a]anthracene	**0.051**	**J B** U	0.19	0.044	ug/L		07/18/22 17:28	07/21/22 00:37	1
Benzo[a]pyrene	**0.11**	**J** J	0.19	0.040	ug/L		07/18/22 17:28	07/21/22 00:37	1
Benzo[b]fluoranthene	**0.088**	**J B** U	0.19	0.032	ug/L		07/18/22 17:28	07/21/22 00:37	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/18/22 17:28	07/21/22 00:37	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/18/22 17:28	07/21/22 00:37	1
Chrysene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/21/22 00:37	1
Dibenz(a,h)anthracene	**0.17**	**J** J	0.19	0.048	ug/L		07/18/22 17:28	07/21/22 00:37	1
Fluoranthene	ND		0.19	0.065	ug/L		07/18/22 17:28	07/21/22 00:37	1
Fluorene	ND		0.19	0.10	ug/L		07/18/22 17:28	07/21/22 00:37	1
Indeno[1,2,3-cd]pyrene	**0.16**	**J** J	0.19	0.041	ug/L		07/18/22 17:28	07/21/22 00:37	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/18/22 17:28	07/21/22 00:37	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/18/22 17:28	07/21/22 00:37	1
Phenanthrene	**0.044**	**J** J	0.19	0.034	ug/L		07/18/22 17:28	07/21/22 00:37	1
Pyrene	ND		0.19	0.038	ug/L		07/18/22 17:28	07/21/22 00:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*134*	*S1+*	*15 - 122*	*07/18/22 17:28*	*07/21/22 00:37*	*1*
Nitrobenzene-d5	*117*		*19 - 130*	*07/18/22 17:28*	*07/21/22 00:37*	*1*

Client Sample ID: ROST4PZ(G)-ROX-071222
Date Collected: 07/12/22 13:10
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-12
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*168*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/21/22 00:37*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/18/22 17:28	07/20/22 18:28	1
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		07/18/22 17:28	07/20/22 18:28	1
Benzoic acid	**16**	**J**	29	6.9	ug/L		07/18/22 17:28	07/20/22 18:28	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/18/22 17:28	07/20/22 18:28	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/18/22 17:28	07/20/22 18:28	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/18/22 17:28	07/20/22 18:28	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/18/22 17:28	07/20/22 18:28	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		07/18/22 17:28	07/20/22 18:28	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/18/22 17:28	07/20/22 18:28	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/18/22 17:28	07/20/22 18:28	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/18/22 17:28	07/20/22 18:28	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/18/22 17:28	07/20/22 18:28	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/18/22 17:28	07/20/22 18:28	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/18/22 17:28	07/20/22 18:28	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/18/22 17:28	07/20/22 18:28	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 18:28	1
D benzofuran	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 18:28	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/18/22 17:28	07/20/22 18:28	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		07/18/22 17:28	07/20/22 18:28	1
Diethyl phthalate	**0.43**	**J**	9.5	0.23	ug/L		07/18/22 17:28	07/20/22 18:28	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 18:28	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 18:28	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/18/22 17:28	07/20/22 18:28	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/18/22 17:28	07/20/22 18:28	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		07/18/22 17:28	07/20/22 18:28	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/18/22 17:28	07/20/22 18:28	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/18/22 17:28	07/20/22 18:28	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 18:28	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 18:28	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 18:28	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/18/22 17:28	07/20/22 18:28	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/18/22 17:28	07/20/22 18:28	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/18/22 17:28	07/20/22 18:28	1
Indene	ND		9.5	0.95	ug/L		07/18/22 17:28	07/20/22 18:28	1
Isophorone	ND		9.5	0.13	ug/L		07/18/22 17:28	07/20/22 18:28	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/18/22 17:28	07/20/22 18:28	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/18/22 17:28	07/20/22 18:28	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/18/22 17:28	07/20/22 18:28	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/18/22 17:28	07/20/22 18:28	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/18/22 17:28	07/20/22 18:28	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/18/22 17:28	07/20/22 18:28	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/18/22 17:28	07/20/22 18:28	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/18/22 17:28	07/20/22 18:28	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 18:28	1

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

Job ID: 400-222856-1

Client Sample ID: ROST4PZ(G)-ROX-071222
Date Collected: 07/12/22 13:10
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/18/22 17:28	07/20/22 18:28	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/18/22 17:28	07/20/22 18:28	1
Pentachlorophenol	ND		19	1.3	ug/L		07/18/22 17:28	07/20/22 18:28	1
Phenol	ND		9.5	2.5	ug/L		07/18/22 17:28	07/20/22 18:28	1
Pyridine	ND		9.5	3.0	ug/L		07/18/22 17:28	07/20/22 18:28	1
Quinoline	ND		9.5	4.3	ug/L		07/18/22 17:28	07/20/22 18:28	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/18/22 17:28	07/20/22 18:28	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/18/22 17:28	07/20/22 18:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*07/18/22 17:28*	*07/20/22 18:28*	*1*
2-Fluorophenol	*63*		*13 - 113*	*07/18/22 17:28*	*07/20/22 18:28*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*07/18/22 17:28*	*07/20/22 18:28*	*1*
Phenol-d5	*78*		*17 - 127*	*07/18/22 17:28*	*07/20/22 18:28*	*1*
Terphenyl-d14	*95*		*44 - 149*	*07/18/22 17:28*	*07/20/22 18:28*	*1*
2,4,6-Tribromophenol	*86*		*26 - 150*	*07/18/22 17:28*	*07/20/22 18:28*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		07/21/22 10:46	07/22/22 09:00	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/21/22 10:46	07/22/22 09:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*07/21/22 10:46*	*07/22/22 09:00*	*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.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

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

Job ID: 400-222856-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-222856-1	TB-ROX-071222-8260-A	95	105	99
400-222856-3	MW9-ROX-071222-EB	94	105	98
400-222856-4	MW9-ROX-071222	94	107	89
400-222856-4 MS	MW9-ROX-071222-MS	98	106	91
400-222856-4 MSD	MW9-ROX-07122-MSD	97	108	91
400-222856-5	P54-ROX-071222	93	107	98
400-222856-5 MS	P54-ROX-071222	93	104	98
400-222856-5 MSD	P54-ROX-071222	96	102	98
400-222856-6	MW16-ROX-071222	93	106	99
400-222856-7	MW28-ROX-071222	92	105	91
400-222856-8	TB-ROX-071222-8260-B	94	106	98
400-222856-10	MW26-ROX-071222	93	104	98
400-222856-11	ROST3MW-ROX-071222	93	104	99
400-222856-12	ROST4PZ(G)-ROX-071222	95	108	92
LCS 400-585109/1002	Lab Control Sample	98	115	90
LCS 400-585311/1002	Lab Control Sample	95	110	99
MB 400-585109/5	Method Blank	96	107	91
MB 400-585311/5	Method Blank	94	104	100

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-222856-3	MW9-ROX-071222-EB	76	48	73	69	95	71
400-222856-4	MW9-ROX-071222	75	45	71	69	91	69
400-222856-4 MS	MW9-ROX-071222-MS	80	78	85	84	99	97
400-222856-4 MSD	MW9-ROX-07122-MSD	75	65	82	80	91	89
400-222856-5	P54-ROX-071222	82	43	85	66	101	71
400-222856-6	MW16-ROX-071222	77	6 S1-	71	40	95	19 S1-
400-222856-6 - RERA	MW16-ROX-071222	102	30	74	58	114	70
400-222856-7	MW28-ROX-071222	75	59	78	77	97	83
400-222856-10	MW26-ROX-071222	84	60	79	76	101	79
400-222856-11	ROST3MW-ROX-071222	73	0 S1-	70	0.3 S1-	92	0 S1-
400-222856-11 - RERA	ROST3MW-ROX-071222	104	17	77	47	119	93
400-222856-12	ROST4PZ(G)-ROX-071222	79	63	74	78	95	86
LCS 400-585238/23-A	Lab Control Sample	85	78	89	88	105	83
LCS 400-585238/2-A	Lab Control Sample	79	65	83	78	96	93
LCS 400-585779/2-A	Lab Control Sample	99	52	79	68	109	111
LCS 400-585779/4-A	Lab Control Sample	107	43	74	69	121	97
LCSD 400-585238/24-A	Lab Control Sample Dup	74	63	72	73	93	82
LCSD 400-585779/3-A	Lab Control Sample Dup	104	30	75	63	115	111
LCSD 400-585779/5-A	Lab Control Sample Dup	100	48	72	68	115	87
MB 400-585238/1-A	Method Blank	82	52	78	72	100	74

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

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)
MB 400-585779/1-A	Method Blank	93	3 S1-	68	23	107	69

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-222856-3	MW9-ROX-071222-EB	122	107	160 S1+
400-222856-4	MW9-ROX-071222	116	102	151 S1+
400-222856-4 MS	MW9-ROX-071222-MS	101	59	99
400-222856-4 MSD	MW9-ROX-07122-MSD	95	59	99
400-222856-5	P54-ROX-071222	121	106	159 S1+
400-222856-6	MW16-ROX-071222	123 S1+	103	156 S1+
400-222856-7	MW28-ROX-071222	127 S1+	114	166 S1+
400-222856-10	MW26-ROX-071222	133 S1+	118	165 S1+
400-222856-11	ROST3MW-ROX-071222	119	101	151 S1+
400-222856-12	ROST4PZ(G)-ROX-071222	134 S1+	117	168 S1+
LCS 400-585238/2-A	Lab Control Sample	88	49	94
MB 400-585238/1-A	Method Blank	127 S1+	114	157 S1+

Surrogate Legend

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

Method: 8011 - EDB and DBCP in Water by Microextraction

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-222856-2	TB-ROX-071222-8011-A	96
400-222856-3	MW9-ROX-071222-EB	92
400-222856-4	MW9-ROX-071222	107
400-222856-4 MS	MW9-ROX-071222-MS	93
400-222856-4 MSD	MW9-ROX-07122-MSD	94
400-222856-5	P54-ROX-071222	102
400-222856-6	MW16-ROX-071222	97
400-222856-7	MW28-ROX-071222	99
400-222856-9	TB-ROX-071222-8011-B	101
400-222856-10	MW26-ROX-071222	101
400-222856-11	ROST3MW-ROX-071222	99
400-222856-12	ROST4PZ(G)-ROX-071222	94

Surrogate Summary

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

Job ID: 400-222856-1

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	BFB1 (51-149)								
LCS 400-585620/2-A	Lab Control Sample	90								
LCSD 400-585620/3-A	Lab Control Sample Dup	101								
MB 400-585620/1-A	Method Blank	103								

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-222856-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL 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:

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

Client Sample ID: TB-ROX-071222-8260-A
Lab Sample ID: 400-222856-1
Date Collected: 07/12/22 12:00
Matrix: Water
Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 20:13	BEP	TAL PEN

Client Sample ID: TB-ROX-071222-8011-A
Lab Sample ID: 400-222856-2
Date Collected: 07/12/22 12:00
Matrix: Water
Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.2 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 17:46	JAW	TAL PEN

Client Sample ID: MW9-ROX-071222-EB
Lab Sample ID: 400-222856-3
Date Collected: 07/12/22 08:20
Matrix: Water
Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 20:39	BEP	TAL PEN
Total/NA	Prep	3520C			252.4 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 16:23	S1B	TAL PEN
Total/NA	Prep	3520C			252.4 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/20/22 23:05	PP1	TAL PEN
Total/NA	Prep	8011			35.4 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 18:07	JAW	TAL PEN

Client Sample ID: MW9-ROX-071222
Lab Sample ID: 400-222856-4
Date Collected: 07/12/22 09:30
Matrix: Water
Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 11:45	WPD	TAL PEN
Total/NA	Prep	3520C			265.4 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 16:02	S1B	TAL PEN
Total/NA	Prep	3520C			265.4 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/20/22 22:49	PP1	TAL PEN
Total/NA	Prep	8011			34.1 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 18:28	JAW	TAL PEN

Client Sample ID: P54-ROX-071222
Lab Sample ID: 400-222856-5
Date Collected: 07/12/22 11:00
Matrix: Water
Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 16:18	BEP	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 16:44	S1B	TAL PEN

Lab Chronicle

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

Job ID: 400-222856-1

Client Sample ID: P54-ROX-071222

Lab Sample ID: 400-222856-5

Date Collected: 07/12/22 11:00

Matrix: Water

Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			264.8 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/20/22 23:20	PP1	TAL PEN
Total/NA	Prep	8011			32.9 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 19:31	JAW	TAL PEN

Client Sample ID: MW16-ROX-071222

Lab Sample ID: 400-222856-6

Date Collected: 07/12/22 11:50

Matrix: Water

Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 23:44	BEP	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 17:05	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		263.8 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D	RERA	1			586042	07/25/22 21:28	S1B	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/20/22 23:36	PP1	TAL PEN
Total/NA	Prep	8011			34.7 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 19:52	JAW	TAL PEN

Client Sample ID: MW28-ROX-071222

Lab Sample ID: 400-222856-7

Date Collected: 07/12/22 13:00

Matrix: Water

Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 12:10	WPD	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 17:26	S1B	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/20/22 23:51	PP1	TAL PEN
Total/NA	Prep	8011			34 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 20:34	JAW	TAL PEN

Client Sample ID: TB-ROX-071222-8260-B

Lab Sample ID: 400-222856-8

Date Collected: 07/12/22 12:00

Matrix: Water

Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 21:06	BEP	TAL PEN

Client Sample ID: TB-ROX-071222-8011-B

Lab Sample ID: 400-222856-9

Date Collected: 07/12/22 12:00

Matrix: Water

Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.2 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 20:55	JAW	TAL PEN

Client Sample ID: MW26-ROX-071222

Lab Sample ID: 400-222856-10

Date Collected: 07/12/22 09:15

Matrix: Water

Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/20/22 00:10	BEP	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 17:47	S1B	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/21/22 00:06	PP1	TAL PEN
Total/NA	Prep	8011			35.2 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 08:19	JAW	TAL PEN

Client Sample ID: ROST3MW-ROX-071222

Lab Sample ID: 400-222856-11

Date Collected: 07/12/22 10:35

Matrix: Water

Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/20/22 00:36	BEP	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 18:08	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		258.4 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D	RERA	1			586042	07/25/22 21:53	S1B	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/21/22 00:22	PP1	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 08:39	JAW	TAL PEN

Client Sample ID: ROST4PZ(G)-ROX-071222

Lab Sample ID: 400-222856-12

Date Collected: 07/12/22 13:10

Matrix: Water

Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 12:34	WPD	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 18:28	S1B	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/21/22 00:37	PP1	TAL PEN
Total/NA	Prep	8011			33.8 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 09:00	JAW	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585109/5
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 08:18	WPD	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585238/1-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	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 13:56	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			585568	07/20/22 21:47	PP1	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585311/5
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 15:24	BEP	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585620/1-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 16:16	JAW	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585779/1-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 19:21	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585109/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 07:02	WPD	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-585238/23-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	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 14:17	S1B	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-585238/2-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	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 14:59	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			585568	07/20/22 22:03	PP1	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-585311/1002**
Date Collected: N/A — **Matrix: Water**
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 14:22	BEP	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-585620/2-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 16:37	JAW	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-585779/2-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 20:37	S1B	TAL PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-585779/4-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 19:47	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585238/24-A
Date Collected: N/A
Matrix: Water
Date Received: N/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	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 14:38	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585620/3-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 17:25	JAW	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585779/3-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	586042	07/25/22 21:03	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585779/5-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 20:12	S1B	TAL PEN

Client Sample ID: MW9-ROX-071222-MS
Lab Sample ID: 400-222856-4 MS
Date Collected: 07/12/22 09:30
Matrix: Water
Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 12:58	WPD	TAL PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 15:20	S1B	TAL PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			585568	07/20/22 22:18	PP1	TAL PEN
Total/NA	Prep	8011			33.3 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 18:49	JAW	TAL PEN

Client Sample ID: MW9-ROX-07122-MSD
Lab Sample ID: 400-222856-4 MSD
Date Collected: 07/12/22 09:30
Matrix: Water
Date Received: 07/13/22 08:54

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585109	07/18/22 13:23	WPD	TAL PEN

Client Sample ID: MW9-ROX-07122-MSD

Date Collected: 07/12/22 09:30
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-4 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	Prep	3520C			265.4 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D		1			585449	07/20/22 15:41	S1B	TAL PEN
Total/NA	Prep	3520C			265.4 mL	1 mL	585238	07/18/22 17:28	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			585568	07/20/22 22:34	PP1	TAL PEN
Total/NA	Prep	8011			34.4 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 19:10	JAW	TAL PEN

Client Sample ID: P54-ROX-071222

Date Collected: 07/12/22 11:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-5 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	8260B		1	5 mL	5 mL	585311	07/19/22 17:36	BEP	TAL PEN

Client Sample ID: P54-ROX-071222

Date Collected: 07/12/22 11:00
Date Received: 07/13/22 08:54

Lab Sample ID: 400-222856-5 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	8260B		1	5 mL	5 mL	585311	07/19/22 18:02	BEP	TAL PEN

Laboratory References:

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

GC/MS VOA

Analysis Batch: 585109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-4	MW9-ROX-071222	Total/NA	Water	8260B	
400-222856-7	MW28-ROX-071222	Total/NA	Water	8260B	
400-222856-12	ROST4PZ(G)-ROX-071222	Total/NA	Water	8260B	
MB 400-585109/5	Method Blank	Total/NA	Water	8260B	
LCS 400-585109/1002	Lab Control Sample	Total/NA	Water	8260B	
400-222856-4 MS	MW9-ROX-071222-MS	Total/NA	Water	8260B	
400-222856-4 MSD	MW9-ROX-07122-MSD	Total/NA	Water	8260B	

Analysis Batch: 585311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-1	TB-ROX-071222-8260-A	Total/NA	Water	8260B	
400-222856-3	MW9-ROX-071222-EB	Total/NA	Water	8260B	
400-222856-5	P54-ROX-071222	Total/NA	Water	8260B	
400-222856-6	MW16-ROX-071222	Total/NA	Water	8260B	
400-222856-8	TB-ROX-071222-8260-B	Total/NA	Water	8260B	
400-222856-10	MW26-ROX-071222	Total/NA	Water	8260B	
400-222856-11	ROST3MW-ROX-071222	Total/NA	Water	8260B	
MB 400-585311/5	Method Blank	Total/NA	Water	8260B	
LCS 400-585311/1002	Lab Control Sample	Total/NA	Water	8260B	
400-222856-5 MS	P54-ROX-071222	Total/NA	Water	8260B	
400-222856-5 MSD	P54-ROX-071222	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 585238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-3	MW9-ROX-071222-EB	Total/NA	Water	3520C	
400-222856-4	MW9-ROX-071222	Total/NA	Water	3520C	
400-222856-5	P54-ROX-071222	Total/NA	Water	3520C	
400-222856-6	MW16-ROX-071222	Total/NA	Water	3520C	
400-222856-7	MW28-ROX-071222	Total/NA	Water	3520C	
400-222856-10	MW26-ROX-071222	Total/NA	Water	3520C	
400-222856-11	ROST3MW-ROX-071222	Total/NA	Water	3520C	
400-222856-12	ROST4PZ(G)-ROX-071222	Total/NA	Water	3520C	
MB 400-585238/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585238/23-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-585238/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585238/24-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-222856-4 MS	MW9-ROX-071222-MS	Total/NA	Water	3520C	
400-222856-4 MSD	MW9-ROX-07122-MSD	Total/NA	Water	3520C	

Analysis Batch: 585449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-3	MW9-ROX-071222-EB	Total/NA	Water	8270D	585238
400-222856-4	MW9-ROX-071222	Total/NA	Water	8270D	585238
400-222856-5	P54-ROX-071222	Total/NA	Water	8270D	585238
400-222856-6	MW16-ROX-071222	Total/NA	Water	8270D	585238
400-222856-7	MW28-ROX-071222	Total/NA	Water	8270D	585238
400-222856-10	MW26-ROX-071222	Total/NA	Water	8270D	585238
400-222856-11	ROST3MW-ROX-071222	Total/NA	Water	8270D	585238
400-222856-12	ROST4PZ(G)-ROX-071222	Total/NA	Water	8270D	585238

GC/MS Semi VOA (Continued)

Analysis Batch: 585449 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-585238/1-A	Method Blank	Total/NA	Water	8270D	585238
LCS 400-585238/23-A	Lab Control Sample	Total/NA	Water	8270D	585238
LCS 400-585238/2-A	Lab Control Sample	Total/NA	Water	8270D	585238
LCSD 400-585238/24-A	Lab Control Sample Dup	Total/NA	Water	8270D	585238
400-222856-4 MS	MW9-ROX-071222-MS	Total/NA	Water	8270D	585238
400-222856-4 MSD	MW9-ROX-07122-MSD	Total/NA	Water	8270D	585238

Analysis Batch: 585568

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-3	MW9-ROX-071222-EB	Total/NA	Water	8270D LL	585238
400-222856-4	MW9-ROX-071222	Total/NA	Water	8270D LL	585238
400-222856-5	P54-ROX-071222	Total/NA	Water	8270D LL	585238
400-222856-6	MW16-ROX-071222	Total/NA	Water	8270D LL	585238
400-222856-7	MW28-ROX-071222	Total/NA	Water	8270D LL	585238
400-222856-10	MW26-ROX-071222	Total/NA	Water	8270D LL	585238
400-222856-11	ROST3MW-ROX-071222	Total/NA	Water	8270D LL	585238
400-222856-12	ROST4PZ(G)-ROX-071222	Total/NA	Water	8270D LL	585238
MB 400-585238/1-A	Method Blank	Total/NA	Water	8270D LL	585238
LCS 400-585238/2-A	Lab Control Sample	Total/NA	Water	8270D LL	585238
400-222856-4 MS	MW9-ROX-071222-MS	Total/NA	Water	8270D LL	585238
400-222856-4 MSD	MW9-ROX-07122-MSD	Total/NA	Water	8270D LL	585238

Prep Batch: 585779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-6 - RERA	MW16-ROX-071222	Total/NA	Water	3520C	
400-222856-11 - RERA	ROST3MW-ROX-071222	Total/NA	Water	3520C	
MB 400-585779/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585779/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-585779/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585779/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-585779/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 586042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-6 - RERA	MW16-ROX-071222	Total/NA	Water	8270D	585779
400-222856-11 - RERA	ROST3MW-ROX-071222	Total/NA	Water	8270D	585779
MB 400-585779/1-A	Method Blank	Total/NA	Water	8270D	585779
LCS 400-585779/2-A	Lab Control Sample	Total/NA	Water	8270D	585779
LCS 400-585779/4-A	Lab Control Sample	Total/NA	Water	8270D	585779
LCSD 400-585779/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	585779
LCSD 400-585779/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	585779

GC Semi VOA

Prep Batch: 585620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-2	TB-ROX-071222-8011-A	Total/NA	Water	8011	
400-222856-3	MW9-ROX-071222-EB	Total/NA	Water	8011	
400-222856-4	MW9-ROX-071222	Total/NA	Water	8011	
400-222856-5	P54-ROX-071222	Total/NA	Water	8011	
400-222856-6	MW16-ROX-071222	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 585620 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-7	MW28-ROX-071222	Total/NA	Water	8011	
400-222856-9	TB-ROX-071222-8011-B	Total/NA	Water	8011	
400-222856-10	MW26-ROX-071222	Total/NA	Water	8011	
400-222856-11	ROST3MW-ROX-071222	Total/NA	Water	8011	
400-222856-12	ROST4PZ(G)-ROX-071222	Total/NA	Water	8011	
MB 400-585620/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-585620/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-585620/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-222856-4 MS	MW9-ROX-071222-MS	Total/NA	Water	8011	
400-222856-4 MSD	MW9-ROX-07122-MSD	Total/NA	Water	8011	

Analysis Batch: 585690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222856-2	TB-ROX-071222-8011-A	Total/NA	Water	8011	585620
400-222856-3	MW9-ROX-071222-EB	Total/NA	Water	8011	585620
400-222856-4	MW9-ROX-071222	Total/NA	Water	8011	585620
400-222856-5	P54-ROX-071222	Total/NA	Water	8011	585620
400-222856-6	MW16-ROX-071222	Total/NA	Water	8011	585620
400-222856-7	MW28-ROX-071222	Total/NA	Water	8011	585620
400-222856-9	TB-ROX-071222-8011-B	Total/NA	Water	8011	585620
400-222856-10	MW26-ROX-071222	Total/NA	Water	8011	585620
400-222856-11	ROST3MW-ROX-071222	Total/NA	Water	8011	585620
400-222856-12	ROST4PZ(G)-ROX-071222	Total/NA	Water	8011	585620
MB 400-585620/1-A	Method Blank	Total/NA	Water	8011	585620
LCS 400-585620/2-A	Lab Control Sample	Total/NA	Water	8011	585620
LCSD 400-585620/3-A	Lab Control Sample Dup	Total/NA	Water	8011	585620
400-222856-4 MS	MW9-ROX-071222-MS	Total/NA	Water	8011	585620
400-222856-4 MSD	MW9-ROX-07122-MSD	Total/NA	Water	8011	585620

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

Lab Sample ID: MB 400-585109/5
Matrix: Water
Analysis Batch: 585109

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			07/18/22 08:18	1
Acrolein	ND		20	3.3	ug/L			07/18/22 08:18	1
Acrylonitrile	ND		10	2.8	ug/L			07/18/22 08:18	1
Benzene	ND		1.0	0.13	ug/L			07/18/22 08:18	1
Bromobenzene	ND		1.0	0.54	ug/L			07/18/22 08:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/18/22 08:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Bromoform	ND		5.0	0.25	ug/L			07/18/22 08:18	1
Bromomethane	ND		1.0	0.98	ug/L			07/18/22 08:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/18/22 08:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/18/22 08:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/18/22 08:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/18/22 08:18	1
Chloroethane	ND		1.0	0.76	ug/L			07/18/22 08:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/18/22 08:18	1
Chloroform	ND		1.0	1.0	ug/L			07/18/22 08:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/18/22 08:18	1
Chloromethane	ND		1.0	0.32	ug/L			07/18/22 08:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/18/22 08:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/18/22 08:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/18/22 08:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/18/22 08:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/18/22 08:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/18/22 08:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/18/22 08:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/18/22 08:18	1
2-Hexanone	ND		25	1.4	ug/L			07/18/22 08:18	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/18/22 08:18	1
Methylene bromide	ND		5.0	0.22	ug/L			07/18/22 08:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/18/22 08:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/18/22 08:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/18/22 08:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/18/22 08:18	1
Naphthalene	ND		5.0	3.0	ug/L			07/18/22 08:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/18/22 08:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/18/22 08:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/18/22 08:18	1
o-Xylene	ND		5.0	0.60	ug/L			07/18/22 08:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/18/22 08:18	1

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

Lab Sample ID: MB 400-585109/5
Matrix: Water
Analysis Batch: 585109

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			07/18/22 08:18	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/18/22 08:18	1
Styrene	ND		1.0	1.0	ug/L			07/18/22 08:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/18/22 08:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/18/22 08:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/18/22 08:18	1
Toluene	ND		1.0	0.41	ug/L			07/18/22 08:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/18/22 08:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/18/22 08:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/18/22 08:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/18/22 08:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/18/22 08:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/18/22 08:18	1
Trichloroethene	ND		1.0	0.15	ug/L			07/18/22 08:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/18/22 08:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/18/22 08:18	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/18/22 08:18	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/18/22 08:18	1
Vinyl acetate	ND		25	0.93	ug/L			07/18/22 08:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/18/22 08:18	1
Xylenes, Total	ND		10	1.6	ug/L			07/18/22 08:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*07/18/22 08:18*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/18/22 08:18*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*07/18/22 08:18*	*1*

Lab Sample ID: LCS 400-585109/1002
Matrix: Water
Analysis Batch: 585109

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	243		ug/L		122	43 - 160
Acrolein	500	564		ug/L		113	38 - 160
Acrylonitrile	500	594		ug/L		119	64 - 142
Benzene	50.0	47.3		ug/L		95	70 - 130
Bromobenzene	50.0	42.2		ug/L		84	70 - 132
Bromochloromethane	50.0	51.5		ug/L		103	70 - 130
Bromodichloromethane	50.0	50.7		ug/L		101	67 - 133
Bromoform	50.0	49.7		ug/L		99	57 - 140
Bromomethane	50.0	43.1		ug/L		86	10 - 160
2-Butanone (MEK)	200	240		ug/L		120	61 - 145
Carbon disulfide	50.0	51.8		ug/L		104	61 - 137
Carbon tetrachloride	50.0	46.7		ug/L		93	61 - 137
Chlorobenzene	50.0	42.8		ug/L		86	70 - 130
Dibromochloromethane	50.0	47.6		ug/L		95	67 - 135
Chloroethane	50.0	60.8		ug/L		122	55 - 141

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

Lab Sample ID: LCS 400-585109/1002
Matrix: Water
Analysis Batch: 585109

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	68.4		ug/L		137	10 - 160
Chloroform	50.0	46.5		ug/L		93	69 - 130
1-Chlorohexane	50.0	43.9		ug/L		88	69 - 130
Chloromethane	50.0	50.9		ug/L		102	58 - 137
cis-1,2-Dichloroethene	50.0	47.6		ug/L		95	68 - 130
cis-1,3-Dichloropropene	50.0	50.3		ug/L		101	69 - 132
1,2-Dichlorobenzene	50.0	44.3		ug/L		89	67 - 130
1,3-Dichlorobenzene	50.0	43.9		ug/L		88	70 - 130
1,4-Dichlorobenzene	50.0	43.8		ug/L		88	70 - 130
Dichlorodifluoromethane	50.0	37.3		ug/L		75	41 - 146
1,1-Dichloroethane	50.0	47.1		ug/L		94	70 - 130
1,2-Dichloroethane	50.0	52.0		ug/L		104	69 - 130
1,1-Dichloroethene	50.0	45.6		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	49.1		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	46.1		ug/L		92	70 - 130
2,2-Dichloropropane	50.0	36.0		ug/L		72	52 - 135
1,1-Dichloropropene	50.0	47.7		ug/L		95	70 - 130
Ethylbenzene	50.0	42.5		ug/L		85	70 - 130
Ethyl methacrylate	50.0	50.6		ug/L		101	68 - 130
Hexachlorobutadiene	50.0	45.2		ug/L		90	53 - 140
2-Hexanone	200	235		ug/L		118	65 - 137
Isopropy benzene	50.0	44.9		ug/L		90	70 - 130
Methylene bromide	50.0	53.8		ug/L		108	70 - 130
Methylene Chloride	50.0	47.8		ug/L		96	66 - 135
4-Methyl-2-pentanone (MIBK)	200	269		ug/L		134	69 - 138
Methyl tert-butyl ether	50.0	52.4		ug/L		105	66 - 130
m-Xylene & p-Xylene	50.0	43.4		ug/L		87	70 - 130
Naphthalene	50.0	51.2		ug/L		102	47 - 149
n-Butylbenzene	50.0	45.5		ug/L		91	67 - 130
N-Propylbenzene	50.0	43.1		ug/L		86	70 - 130
o-Chlorotoluene	50.0	41.4		ug/L		83	70 - 130
o-Xylene	50.0	43.8		ug/L		88	70 - 130
p-Chlorotoluene	50.0	42.7		ug/L		85	70 - 130
p-Isopropyltoluene	50.0	44.2		ug/L		88	65 - 130
sec-Butylbenzene	50.0	44.5		ug/L		89	66 - 130
Styrene	50.0	44.3		ug/L		89	70 - 130
tert-Butylbenzene	50.0	42.9		ug/L		86	64 - 139
1,1,1,2-Tetrachloroethane	50.0	43.9		ug/L		88	67 - 131
1,1,2,2-Tetrachloroethane	50.0	50.9		ug/L		102	70 - 131
Tetrachloroethene	50.0	41.6		ug/L		83	65 - 130
Toluene	50.0	40.9		ug/L		82	70 - 130
trans-1,2-Dichloroethene	50.0	46.6		ug/L		93	70 - 130
trans-1,3-Dichloropropene	50.0	42.3		ug/L		85	63 - 130
1,2,3-Trichlorobenzene	50.0	47.5		ug/L		95	60 - 138
1,2,4-Trichlorobenzene	50.0	47.0		ug/L		94	60 - 140
1,1,1-Trichloroethane	50.0	44.7		ug/L		89	68 - 130
1,1,2-Trichloroethane	50.0	46.2		ug/L		92	70 - 130
Trichloroethene	50.0	47.5		ug/L		95	70 - 130
Trichlorofluoromethane	50.0	50.5		ug/L		101	65 - 138

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

Lab Sample ID: LCS 400-585109/1002
Matrix: Water
Analysis Batch: 585109

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	50.6		ug/L		101	70 - 130
1,2,4-Trimethy benzene	50.0	43.2		ug/L		86	70 - 130
1,3,5-Trimethy benzene	50.0	42.4		ug/L		85	69 - 130
Vinyl acetate	100	117		ug/L		117	26 - 160
Vinyl chloride	50.0	45.7		ug/L		91	59 - 136
Xylenes, Total	100	87.2		ug/L		87	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 119*
Dibromofluoromethane	*115*		*75 - 126*
Toluene-d8 (Surr)	*90*		*64 - 132*

Lab Sample ID: 400-222856-4 MS
Matrix: Water
Analysis Batch: 585109

Client Sample ID: MW9-ROX-071222-MS
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	208		ug/L		104	43 - 150
Acrolein	ND		500	563		ug/L		113	38 - 150
Acrylonitrile	ND	F1	500	607		ug/L		121	62 - 149
Benzene	ND		50.0	55.2		ug/L		110	56 - 142
Bromobenzene	ND		50.0	47.1		ug/L		94	59 - 136
Bromochloromethane	ND	F1	50.0	59.0		ug/L		118	64 - 140
Bromodichloromethane	ND		50.0	56.3		ug/L		113	59 - 143
Bromoform	ND		50.0	47.3		ug/L		95	50 - 140
Bromomethane	ND		50.0	52.7		ug/L		105	10 - 150
2-Butanone (MEK)	ND		200	214		ug/L		107	55 - 150
Carbon disulfide	ND		50.0	54.5		ug/L		109	48 - 150
Carbon tetrachloride	ND		50.0	51.3		ug/L		103	55 - 145
Chlorobenzene	ND		50.0	48.8		ug/L		98	64 - 130
Dibromochloromethane	ND		50.0	48.8		ug/L		98	56 - 143
Chloroethane	ND		50.0	60.3		ug/L		121	50 - 150
2-Chloroethyl vinyl ether	ND	F2	50.0	18.3		ug/L		37	10 - 150
Chloroform	ND		50.0	54.0		ug/L		108	60 - 141
1-Chlorohexane	ND		50.0	50.3		ug/L		101	56 - 136
Chloromethane	ND		50.0	56.8		ug/L		114	49 - 148
cis-1,2-Dichloroethene	ND		50.0	53.5		ug/L		107	59 - 143
cis-1,3-Dichloropropene	ND		50.0	53.3		ug/L		107	57 - 140
1,2-Dichlorobenzene	ND		50.0	49.6		ug/L		99	52 - 137
1,3-Dichlorobenzene	ND		50.0	49.8		ug/L		100	54 - 135
1,4-Dichlorobenzene	ND		50.0	48.7		ug/L		97	53 - 135
Dichlorodifluoromethane	ND		50.0	45.8		ug/L		92	16 - 150
1,1-Dichloroethane	ND		50.0	53.6		ug/L		107	61 - 144
1,2-Dichloroethane	ND		50.0	56.8		ug/L		114	60 - 141
1,1-Dichloroethene	ND		50.0	51.6		ug/L		103	54 - 147
1,2-Dichloropropane	ND	F1	50.0	56.3		ug/L		113	66 - 137
1,3-Dichloropropane	ND		50.0	49.5		ug/L		99	66 - 133
2,2-Dichloropropane	ND		50.0	37.7		ug/L		75	42 - 144

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

Lab Sample ID: 400-222856-4 MS
Matrix: Water
Analysis Batch: 585109

Client Sample ID: MW9-ROX-071222-MS
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	54.8		ug/L		110	65 - 136
Ethylbenzene	ND		50.0	49.6		ug/L		99	58 - 131
Ethyl methacrylate	ND		50.0	49.8		ug/L		100	64 - 130
Hexachlorobutadiene	ND		50.0	49.7		ug/L		99	31 - 149
2-Hexanone	ND		200	204		ug/L		102	65 - 140
Isopropy benzene	ND		50.0	51.0		ug/L		102	56 - 133
Methylene bromide	ND	F1	50.0	58.1		ug/L		116	63 - 138
Methylene Chloride	ND		50.0	56.0		ug/L		112	60 - 146
4-Methyl-2-pentanone (MIBK)	ND	F1	200	250		ug/L		125	63 - 146
Methyl tert-butyl ether	ND		50.0	53.3		ug/L		107	59 - 137
m-Xylene & p-Xylene	ND		50.0	48.8		ug/L		98	57 - 130
Naphthalene	ND		50.0	49.0		ug/L		98	25 - 150
n-Butylbenzene	ND		50.0	51.7		ug/L		103	41 - 142
N-Propylbenzene	ND		50.0	49.2		ug/L		98	51 - 138
o-Chlorotoluene	ND		50.0	47.7		ug/L		95	53 - 134
o-Xylene	ND		50.0	49.9		ug/L		100	61 - 130
p-Chlorotoluene	ND		50.0	48.5		ug/L		97	54 - 133
p-Isopropyltoluene	ND		50.0	50.2		ug/L		100	48 - 139
sec-Butylbenzene	ND		50.0	51.0		ug/L		102	50 - 138
Styrene	ND		50.0	50.3		ug/L		101	58 - 131
tert-Butylbenzene	ND		50.0	49.3		ug/L		99	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	47.5		ug/L		95	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	50.9		ug/L		102	66 - 135
Tetrachloroethene	ND		50.0	48.0		ug/L		96	52 - 133
Toluene	ND		50.0	47.1		ug/L		94	65 - 130
trans-1,2-Dichloroethene	ND		50.0	53.9		ug/L		108	61 - 143
trans-1,3-Dichloropropene	ND		50.0	42.6		ug/L		85	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	49.9		ug/L		100	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	49.2		ug/L		98	39 - 148
1,1,1-Trichloroethane	ND		50.0	50.9		ug/L		102	57 - 142
1,1,2-Trichloroethane	ND		50.0	50.0		ug/L		100	66 - 131
Trichloroethene	ND		50.0	55.1		ug/L		110	64 - 136
Trichlorofluoromethane	ND		50.0	58.0		ug/L		116	54 - 150
1,2,3-Trichloropropane	ND		50.0	50.6		ug/L		101	65 - 133
1,2,4-Trimethy benzene	ND		50.0	49.4		ug/L		99	50 - 139
1,3,5-Trimethy benzene	ND		50.0	49.0		ug/L		98	52 - 135
Vinyl acetate	ND	F1	100	120		ug/L		120	26 - 150
Vinyl chloride	ND		50.0	54.3		ug/L		109	46 - 150
Xylenes, Total	ND		100	98.7		ug/L		99	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 119*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*91*		*64 - 132*

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

Lab Sample ID: 400-222856-4 MSD
Matrix: Water
Analysis Batch: 585109

Client Sample ID: MW9-ROX-07122-MSD
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	271		ug/L		135	43 - 150	26	30
Acrolein	ND		500	724		ug/L		145	38 - 150	25	31
Acrylonitrile	ND	F1	500	760	F1	ug/L		152	62 - 149	22	30
Benzene	ND		50.0	68.2		ug/L		136	56 - 142	21	30
Bromobenzene	ND		50.0	56.2		ug/L		112	59 - 136	18	30
Bromochloromethane	ND	F1	50.0	71.3	F1	ug/L		143	64 - 140	19	30
Bromodichloromethane	ND		50.0	69.3		ug/L		139	59 - 143	21	30
Bromoform	ND		50.0	58.5		ug/L		117	50 - 140	21	30
Bromomethane	ND		50.0	69.9		ug/L		140	10 - 150	28	50
2-Butanone (MEK)	ND		200	273		ug/L		137	55 - 150	24	30
Carbon disulfide	ND		50.0	67.3		ug/L		135	48 - 150	21	30
Carbon tetrachloride	ND		50.0	64.1		ug/L		128	55 - 145	22	30
Chlorobenzene	ND		50.0	58.4		ug/L		117	64 - 130	18	30
Dibromochloromethane	ND		50.0	60.7		ug/L		121	56 - 143	22	30
Chloroethane	ND		50.0	70.2		ug/L		140	50 - 150	15	30
2-Chloroethyl vinyl ether	ND	F2	50.0	8.92	F2	ug/L		18	10 - 150	69	50
Chloroform	ND		50.0	66.5		ug/L		133	60 - 141	21	30
1-Chlorohexane	ND		50.0	61.1		ug/L		122	56 - 136	19	30
Chloromethane	ND		50.0	68.2		ug/L		136	49 - 148	18	31
cis-1,2-Dichloroethene	ND		50.0	65.4		ug/L		131	59 - 143	20	30
cis-1,3-Dichloropropene	ND		50.0	67.5		ug/L		135	57 - 140	23	30
1,2-Dichlorobenzene	ND		50.0	58.5		ug/L		117	52 - 137	16	30
1,3-Dichlorobenzene	ND		50.0	58.0		ug/L		116	54 - 135	15	30
1,4-Dichlorobenzene	ND		50.0	56.7		ug/L		113	53 - 135	15	30
Dichlorodifluoromethane	ND		50.0	56.3		ug/L		113	16 - 150	21	31
1,1-Dichloroethane	ND		50.0	65.9		ug/L		132	61 - 144	21	30
1,2-Dichloroethane	ND		50.0	69.2		ug/L		138	60 - 141	20	30
1,1-Dichloroethene	ND		50.0	63.7		ug/L		127	54 - 147	21	30
1,2-Dichloropropane	ND	F1	50.0	69.3	F1	ug/L		139	66 - 137	21	30
1,3-Dichloropropane	ND		50.0	60.8		ug/L		122	66 - 133	20	30
2,2-Dichloropropane	ND		50.0	50.9		ug/L		102	42 - 144	30	31
1,1-Dichloropropene	ND		50.0	67.9		ug/L		136	65 - 136	21	30
Ethylbenzene	ND		50.0	60.0		ug/L		120	58 - 131	19	30
Ethyl methacrylate	ND		50.0	64.2		ug/L		128	64 - 130	25	30
Hexachlorobutadiene	ND		50.0	58.3		ug/L		117	31 - 149	16	36
2-Hexanone	ND		200	269		ug/L		134	65 - 140	28	30
Isopropy benzene	ND		50.0	61.7		ug/L		123	56 - 133	19	30
Methylene bromide	ND	F1	50.0	72.4	F1	ug/L		145	63 - 138	22	30
Methylene Chloride	ND		50.0	67.4		ug/L		135	60 - 146	19	32
4-Methyl-2-pentanone (MIBK)	ND	F1	200	327	F1	ug/L		163	63 - 146	26	30
Methyl tert-butyl ether	ND		50.0	68.1		ug/L		136	59 - 137	24	30
m-Xylene & p-Xylene	ND		50.0	59.3		ug/L		119	57 - 130	19	30
Naphthalene	ND		50.0	62.2		ug/L		124	25 - 150	24	30
n-Butylbenzene	ND		50.0	61.2		ug/L		122	41 - 142	17	31
N-Propylbenzene	ND		50.0	59.4		ug/L		119	51 - 138	19	30
o-Chlorotoluene	ND		50.0	56.7		ug/L		113	53 - 134	17	30
o-Xylene	ND		50.0	59.4		ug/L		119	61 - 130	17	30
p-Chlorotoluene	ND		50.0	58.1		ug/L		116	54 - 133	18	30

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

Lab Sample ID: 400-222856-4 MSD
Matrix: Water
Analysis Batch: 585109

Client Sample ID: MW9-ROX-07122-MSD
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	58.7		ug/L		117	48 - 139	16	30
sec-Butylbenzene	ND		50.0	61.0		ug/L		122	50 - 138	18	30
Styrene	ND		50.0	60.7		ug/L		121	58 - 131	19	30
tert-Butylbenzene	ND		50.0	58.7		ug/L		117	54 - 146	18	30
1,1,1,2-Tetrachloroethane	ND		50.0	58.9		ug/L		118	59 - 137	21	30
1,1,2,2-Tetrachloroethane	ND		50.0	62.3		ug/L		125	66 - 135	20	30
Tetrachloroethene	ND		50.0	57.9		ug/L		116	52 - 133	19	30
Toluene	ND		50.0	56.9		ug/L		114	65 - 130	19	30
trans-1,2-Dichloroethene	ND		50.0	65.9		ug/L		132	61 - 143	20	30
trans-1,3-Dichloropropene	ND		50.0	53.7		ug/L		107	53 - 133	23	30
1,2,3-Trichlorobenzene	ND		50.0	59.1		ug/L		118	43 - 145	17	30
1,2,4-Trichlorobenzene	ND		50.0	58.3		ug/L		117	39 - 148	17	30
1,1,1-Trichloroethane	ND		50.0	64.1		ug/L		128	57 - 142	23	30
1,1,2-Trichloroethane	ND		50.0	60.8		ug/L		122	66 - 131	20	30
Trichloroethene	ND		50.0	68.2		ug/L		136	64 - 136	21	30
Trichlorofluoromethane	ND		50.0	71.3		ug/L		143	54 - 150	21	30
1,2,3-Trichloropropane	ND		50.0	61.9		ug/L		124	65 - 133	20	30
1,2,4-Trimethy benzene	ND		50.0	58.0		ug/L		116	50 - 139	16	30
1,3,5-Trimethy benzene	ND		50.0	58.1		ug/L		116	52 - 135	17	30
Vinyl acetate	ND	F1	100	154	F1	ug/L		154	26 - 150	25	33
Vinyl chloride	ND		50.0	68.5		ug/L		137	46 - 150	23	30
Xylenes, Total	ND		100	119		ug/L		119	59 - 130	18	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 119*
Dibromofluoromethane	*108*		*75 - 126*
Toluene-d8 (Surr)	*91*		*64 - 132*

Lab Sample ID: MB 400-585311/5
Matrix: Water
Analysis Batch: 585311

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			07/19/22 15:24	1
Acrolein	ND		20	3.3	ug/L			07/19/22 15:24	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 15:24	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 15:24	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 15:24	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 15:24	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 15:24	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 15:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 15:24	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 15:24	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 15:24	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/19/22 15:24	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 15:24	1

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

Lab Sample ID: MB 400-585311/5
Matrix: Water
Analysis Batch: 585311

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 15:24	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 15:24	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 15:24	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 15:24	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 15:24	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 15:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 15:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 15:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 15:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 15:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 15:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 15:24	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 15:24	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/19/22 15:24	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 15:24	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 15:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 15:24	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 15:24	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 15:24	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 15:24	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/19/22 15:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/19/22 15:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 15:24	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 15:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 15:24	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 15:24	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 15:24	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 15:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/19/22 15:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 15:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 15:24	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 15:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 15:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 15:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 15:24	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 15:24	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 15:24	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 15:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 15:24	1

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

Lab Sample ID: MB 400-585311/5
Matrix: Water
Analysis Batch: 585311

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			07/19/22 15:24	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/19/22 15:24	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/19/22 15:24	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 15:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 15:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/19/22 15:24*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/19/22 15:24*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/19/22 15:24*	*1*

Lab Sample ID: LCS 400-585311/1002
Matrix: Water
Analysis Batch: 585311

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	225		ug/L		112	43 - 160
Acrolein	500	518		ug/L		104	38 - 160
Acrylonitrile	500	557		ug/L		111	64 - 142
Benzene	50.0	47.9		ug/L		96	70 - 130
Bromobenzene	50.0	51.8		ug/L		104	70 - 132
Bromochloromethane	50.0	51.9		ug/L		104	70 - 130
Bromodichloromethane	50.0	51.0		ug/L		102	67 - 133
Bromoform	50.0	54.9		ug/L		110	57 - 140
Bromomethane	50.0	53.4		ug/L		107	10 - 160
2-Butanone (MEK)	200	210		ug/L		105	61 - 145
Carbon disulfide	50.0	47.6		ug/L		95	61 - 137
Carbon tetrachloride	50.0	49.4		ug/L		99	61 - 137
Chlorobenzene	50.0	49.9		ug/L		100	70 - 130
Dibromochloromethane	50.0	52.8		ug/L		106	67 - 135
Chloroethane	50.0	50.1		ug/L		100	55 - 141
2-Chloroethyl vinyl ether	50.0	63.9		ug/L		128	10 - 160
Chloroform	50.0	48.4		ug/L		97	69 - 130
1-Chlorohexane	50.0	51.8		ug/L		104	69 - 130
Chloromethane	50.0	47.7		ug/L		95	58 - 137
cis-1,2-Dichloroethene	50.0	48.2		ug/L		96	68 - 130
cis-1,3-Dichloropropene	50.0	48.4		ug/L		97	69 - 132
1,2-Dichlorobenzene	50.0	52.4		ug/L		105	67 - 130
1,3-Dichlorobenzene	50.0	53.2		ug/L		106	70 - 130
1,4-Dichlorobenzene	50.0	53.3		ug/L		107	70 - 130
Dichlorodifluoromethane	50.0	39.4		ug/L		79	41 - 146
1,1-Dichloroethane	50.0	48.2		ug/L		96	70 - 130
1,2-Dichloroethane	50.0	50.0		ug/L		100	69 - 130
1,1-Dichloroethene	50.0	47.9		ug/L		96	63 - 134
1,2-Dichloropropane	50.0	49.3		ug/L		99	70 - 130
1,3-Dichloropropane	50.0	50.1		ug/L		100	70 - 130
2,2-Dichloropropane	50.0	36.0		ug/L		72	52 - 135

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

Lab Sample ID: LCS 400-585311/1002
Matrix: Water
Analysis Batch: 585311

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	49.0		ug/L		98	70 - 130
Ethylbenzene	50.0	50.1		ug/L		100	70 - 130
Ethyl methacrylate	50.0	49.5		ug/L		99	68 - 130
Hexachlorobutadiene	50.0	56.7		ug/L		113	53 - 140
2-Hexanone	200	222		ug/L		111	65 - 137
Isopropy benzene	50.0	52.0		ug/L		104	70 - 130
Methylene bromide	50.0	51.2		ug/L		102	70 - 130
Methylene Chloride	50.0	48.5		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	230		ug/L		115	69 - 138
Methyl tert-butyl ether	50.0	46.8		ug/L		94	66 - 130
m-Xylene & p-Xylene	50.0	49.9		ug/L		100	70 - 130
Naphthalene	50.0	52.7		ug/L		105	47 - 149
n-Butylbenzene	50.0	56.2		ug/L		112	67 - 130
N-Propylbenzene	50.0	53.1		ug/L		106	70 - 130
o-Chlorotoluene	50.0	50.2		ug/L		100	70 - 130
o-Xylene	50.0	50.2		ug/L		100	70 - 130
p-Chlorotoluene	50.0	51.1		ug/L		102	70 - 130
p-Isopropyltoluene	50.0	53.6		ug/L		107	65 - 130
sec-Butylbenzene	50.0	54.2		ug/L		108	66 - 130
Styrene	50.0	50.7		ug/L		101	70 - 130
tert-Butylbenzene	50.0	50.5		ug/L		101	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.6		ug/L		101	67 - 131
1,1,2,2-Tetrachloroethane	50.0	52.1		ug/L		104	70 - 131
Tetrachloroethene	50.0	51.0		ug/L		102	65 - 130
Toluene	50.0	48.3		ug/L		97	70 - 130
trans-1,2-Dichloroethene	50.0	49.7		ug/L		99	70 - 130
trans-1,3-Dichloropropene	50.0	45.5		ug/L		91	63 - 130
1,2,3-Trichlorobenzene	50.0	54.7		ug/L		109	60 - 138
1,2,4-Trichlorobenzene	50.0	54.9		ug/L		110	60 - 140
1,1,1-Trichloroethane	50.0	46.9		ug/L		94	68 - 130
1,1,2-Trichloroethane	50.0	50.1		ug/L		100	70 - 130
Trichloroethene	50.0	50.6		ug/L		101	70 - 130
Trichlorofluoromethane	50.0	50.4		ug/L		101	65 - 138
1,2,3-Trichloropropane	50.0	53.4		ug/L		107	70 - 130
1,2,4-Trimethy benzene	50.0	51.9		ug/L		104	70 - 130
1,3,5-Trimethy benzene	50.0	51.6		ug/L		103	69 - 130
Vinyl acetate	100	100		ug/L		100	26 - 160
Vinyl chloride	50.0	47.7		ug/L		95	59 - 136
Xylenes, Total	100	100		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 119*
Dibromofluoromethane	*110*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

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

Lab Sample ID: 400-222856-5 MS
Matrix: Water
Analysis Batch: 585311

Client Sample ID: P54-ROX-071222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	198		ug/L		99	43 - 150
Acrolein	ND		500	545		ug/L		109	38 - 150
Acrylonitrile	ND		500	564		ug/L		113	62 - 149
Benzene	ND		50.0	49.9		ug/L		100	56 - 142
Bromobenzene	ND		50.0	46.2		ug/L		92	59 - 136
Bromochloromethane	ND		50.0	52.5		ug/L		105	64 - 140
Bromodichloromethane	ND		50.0	48.9		ug/L		98	59 - 143
Bromoform	ND		50.0	45.8		ug/L		92	50 - 140
Bromomethane	ND		50.0	54.7		ug/L		109	10 - 150
2-Butanone (MEK)	ND		200	197		ug/L		98	55 - 150
Carbon disulfide	ND		50.0	49.3		ug/L		99	48 - 150
Carbon tetrachloride	ND		50.0	46.6		ug/L		93	55 - 145
Chlorobenzene	ND		50.0	47.9		ug/L		96	64 - 130
Dibromochloromethane	ND		50.0	47.9		ug/L		96	56 - 143
Chloroethane	ND		50.0	57.0		ug/L		114	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	49.0		ug/L		98	60 - 141
1-Chlorohexane	ND		50.0	48.8		ug/L		98	56 - 136
Chloromethane	ND		50.0	54.1		ug/L		108	49 - 148
cis-1,2-Dichloroethene	ND		50.0	48.4		ug/L		97	59 - 143
cis-1,3-Dichloropropene	ND		50.0	46.8		ug/L		94	57 - 140
1,2-Dichlorobenzene	ND		50.0	46.9		ug/L		94	52 - 137
1,3-Dichlorobenzene	ND		50.0	47.0		ug/L		94	54 - 135
1,4-Dichlorobenzene	ND		50.0	46.7		ug/L		93	53 - 135
Dichlorodifluoromethane	ND		50.0	44.6		ug/L		89	16 - 150
1,1-Dichloroethane	ND		50.0	48.9		ug/L		98	61 - 144
1,2-Dichloroethane	ND		50.0	49.9		ug/L		100	60 - 141
1,1-Dichloroethene	ND		50.0	48.3		ug/L		97	54 - 147
1,2-Dichloropropane	ND		50.0	50.3		ug/L		101	66 - 137
1,3-Dichloropropane	ND		50.0	49.3		ug/L		99	66 - 133
2,2-Dichloropropane	ND		50.0	33.8		ug/L		68	42 - 144
1,1-Dichloropropene	ND		50.0	50.1		ug/L		100	65 - 136
Ethylbenzene	ND		50.0	47.9		ug/L		96	58 - 131
Ethyl methacrylate	ND		50.0	48.6		ug/L		97	64 - 130
Hexachlorobutadiene	ND		50.0	46.2		ug/L		92	31 - 149
2-Hexanone	ND		200	205		ug/L		102	65 - 140
Isopropy benzene	ND		50.0	48.8		ug/L		98	56 - 133
Methylene bromide	ND		50.0	51.9		ug/L		104	63 - 138
Methylene Chloride	ND		50.0	51.4		ug/L		103	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	224		ug/L		112	63 - 146
Methyl tert-butyl ether	ND		50.0	47.4		ug/L		95	59 - 137
m-Xylene & p-Xylene	ND		50.0	47.1		ug/L		94	57 - 130
Naphthalene	ND		50.0	47.3		ug/L		95	25 - 150
n-Butylbenzene	ND		50.0	46.6		ug/L		93	41 - 142
N-Propylbenzene	ND		50.0	46.5		ug/L		93	51 - 138
o-Chlorotoluene	ND		50.0	45.2		ug/L		90	53 - 134
o-Xylene	ND		50.0	47.6		ug/L		95	61 - 130
p-Chlorotoluene	ND		50.0	45.5		ug/L		91	54 - 133

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

Lab Sample ID: 400-222856-5 MS
Matrix: Water
Analysis Batch: 585311

Client Sample ID: P54-ROX-071222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	ND		50.0	46.4		ug/L		93	48 - 139
sec-Butylbenzene	ND		50.0	47.9		ug/L		96	50 - 138
Styrene	ND		50.0	47.8		ug/L		96	58 - 131
tert-Butylbenzene	ND		50.0	45.8		ug/L		92	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	47.3		ug/L		95	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	50.8		ug/L		102	66 - 135
Tetrachloroethene	ND		50.0	48.7		ug/L		97	52 - 133
Toluene	ND		50.0	46.4		ug/L		93	65 - 130
trans-1,2-Dichloroethene	ND		50.0	49.3		ug/L		99	61 - 143
trans-1,3-Dichloropropene	ND		50.0	40.9		ug/L		82	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	47.2		ug/L		94	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	46.4		ug/L		93	39 - 148
1,1,1-Trichloroethane	ND		50.0	46.4		ug/L		93	57 - 142
1,1,2-Trichloroethane	ND		50.0	49.5		ug/L		99	66 - 131
Trichloroethene	ND		50.0	50.4		ug/L		101	64 - 136
Trichlorofluoromethane	ND		50.0	55.7		ug/L		111	54 - 150
1,2,3-Trichloropropane	ND		50.0	50.3		ug/L		101	65 - 133
1,2,4-Trimethy benzene	ND		50.0	45.7		ug/L		91	50 - 139
1,3,5-Trimethy benzene	ND		50.0	46.1		ug/L		92	52 - 135
Vinyl acetate	ND		100	106		ug/L		106	26 - 150
Vinyl chloride	ND		50.0	53.4		ug/L		107	46 - 150
Xylenes, Total	ND		100	94.7		ug/L		95	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*72 - 119*
Dibromofluoromethane	*104*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: 400-222856-5 MSD
Matrix: Water
Analysis Batch: 585311

Client Sample ID: P54-ROX-071222
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	211		ug/L		106	43 - 150	7	30
Acrolein	ND		500	560		ug/L		112	38 - 150	3	31
Acrylonitrile	ND		500	602		ug/L		120	62 - 149	6	30
Benzene	ND		50.0	52.2		ug/L		104	56 - 142	4	30
Bromobenzene	ND		50.0	47.4		ug/L		95	59 - 136	3	30
Bromochloromethane	ND		50.0	55.2		ug/L		110	64 - 140	5	30
Bromodichloromethane	ND		50.0	52.5		ug/L		105	59 - 143	7	30
Bromoform	ND		50.0	51.2		ug/L		102	50 - 140	11	30
Bromomethane	ND		50.0	57.4		ug/L		115	10 - 150	5	50
2-Butanone (MEK)	ND		200	216		ug/L		108	55 - 150	9	30
Carbon disulfide	ND		50.0	51.2		ug/L		102	48 - 150	4	30
Carbon tetrachloride	ND		50.0	49.4		ug/L		99	55 - 145	6	30
Chlorobenzene	ND		50.0	46.9		ug/L		94	64 - 130	2	30
Dibromochloromethane	ND		50.0	51.8		ug/L		104	56 - 143	8	30
Chloroethane	ND		50.0	57.9		ug/L		116	50 - 150	2	30

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

Lab Sample ID: 400-222856-5 MSD
Matrix: Water
Analysis Batch: 585311

Client Sample ID: P54-ROX-071222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	51.0		ug/L		102	60 - 141	4	30
1-Chlorohexane	ND		50.0	46.2		ug/L		92	56 - 136	6	30
Chloromethane	ND		50.0	56.3		ug/L		113	49 - 148	4	31
cis-1,2-Dichloroethene	ND		50.0	50.9		ug/L		102	59 - 143	5	30
cis-1,3-Dichloropropene	ND		50.0	48.8		ug/L		98	57 - 140	4	30
1,2-Dichlorobenzene	ND		50.0	46.3		ug/L		93	52 - 137	1	30
1,3-Dichlorobenzene	ND		50.0	45.1		ug/L		90	54 - 135	4	30
1,4-Dichlorobenzene	ND		50.0	44.6		ug/L		89	53 - 135	5	30
Dichlorodifluoromethane	ND		50.0	46.3		ug/L		93	16 - 150	4	31
1,1-Dichloroethane	ND		50.0	52.5		ug/L		105	61 - 144	7	30
1,2-Dichloroethane	ND		50.0	52.9		ug/L		106	60 - 141	6	30
1,1-Dichloroethene	ND		50.0	52.1		ug/L		104	54 - 147	8	30
1,2-Dichloropropane	ND		50.0	53.2		ug/L		106	66 - 137	6	30
1,3-Dichloropropane	ND		50.0	52.4		ug/L		105	66 - 133	6	30
2,2-Dichloropropane	ND		50.0	39.6		ug/L		79	42 - 144	16	31
1,1-Dichloropropene	ND		50.0	51.7		ug/L		103	65 - 136	3	30
Ethylbenzene	ND		50.0	46.7		ug/L		93	58 - 131	3	30
Ethyl methacrylate	ND		50.0	53.3		ug/L		107	64 - 130	9	30
Hexachlorobutadiene	ND		50.0	38.5		ug/L		77	31 - 149	18	36
2-Hexanone	ND		200	229		ug/L		114	65 - 140	11	30
Isopropy benzene	ND		50.0	45.5		ug/L		91	56 - 133	7	30
Methylene bromide	ND		50.0	53.8		ug/L		108	63 - 138	3	30
Methylene Chloride	ND		50.0	54.7		ug/L		109	60 - 146	6	32
4-Methyl-2-pentanone (MIBK)	ND		200	240		ug/L		120	63 - 146	7	30
Methyl tert-butyl ether	ND		50.0	51.6		ug/L		103	59 - 137	8	30
m-Xylene & p-Xylene	ND		50.0	44.9		ug/L		90	57 - 130	5	30
Naphthalene	ND		50.0	49.6		ug/L		99	25 - 150	5	30
n-Butylbenzene	ND		50.0	40.8		ug/L		82	41 - 142	13	31
N-Propylbenzene	ND		50.0	44.0		ug/L		88	51 - 138	6	30
o-Chlorotoluene	ND		50.0	43.3		ug/L		87	53 - 134	4	30
o-Xylene	ND		50.0	46.3		ug/L		93	61 - 130	3	30
p-Chlorotoluene	ND		50.0	43.9		ug/L		88	54 - 133	4	30
p-Isopropyltoluene	ND		50.0	42.7		ug/L		85	48 - 139	8	30
sec-Butylbenzene	ND		50.0	44.3		ug/L		89	50 - 138	8	30
Styrene	ND		50.0	46.2		ug/L		92	58 - 131	3	30
tert-Butylbenzene	ND		50.0	45.1		ug/L		90	54 - 146	1	30
1,1,1,2-Tetrachloroethane	ND		50.0	48.5		ug/L		97	59 - 137	3	30
1,1,2,2-Tetrachloroethane	ND		50.0	54.8		ug/L		110	66 - 135	7	30
Tetrachloroethene	ND		50.0	47.9		ug/L		96	52 - 133	2	30
Toluene	ND		50.0	47.8		ug/L		96	65 - 130	3	30
trans-1,2-Dichloroethene	ND		50.0	52.7		ug/L		105	61 - 143	7	30
trans-1,3-Dichloropropene	ND		50.0	44.7		ug/L		89	53 - 133	9	30
1,2,3-Trichlorobenzene	ND		50.0	46.4		ug/L		93	43 - 145	2	30
1,2,4-Trichlorobenzene	ND		50.0	43.8		ug/L		88	39 - 148	6	30
1,1,1-Trichloroethane	ND		50.0	49.8		ug/L		100	57 - 142	7	30
1,1,2-Trichloroethane	ND		50.0	52.3		ug/L		105	66 - 131	5	30
Trichloroethene	ND		50.0	51.2		ug/L		102	64 - 136	2	30
Trichlorofluoromethane	ND		50.0	58.0		ug/L		116	54 - 150	4	30

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

Lab Sample ID: 400-222856-5 MSD
Matrix: Water
Analysis Batch: 585311

Client Sample ID: P54-ROX-071222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2,3-Trichloropropane	ND		50.0	54.7		ug/L		109	65 - 133	8	30
1,2,4-Trimethy benzene	ND		50.0	43.4		ug/L		87	50 - 139	5	30
1,3,5-Trimethy benzene	ND		50.0	44.4		ug/L		89	52 - 135	4	30
Vinyl acetate	ND		100	112		ug/L		112	26 - 150	6	33
Vinyl chloride	ND		50.0	56.5		ug/L		113	46 - 150	6	30
Xylenes, Total	ND		100	91.1		ug/L		91	59 - 130	4	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*102*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

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

Lab Sample ID: MB 400-585238/1-A
Matrix: Water
Analysis Batch: 585449

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585238

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/18/22 17:28	07/20/22 13:56	1
Benzenethiol	ND		10	1.7	ug/L		07/18/22 17:28	07/20/22 13:56	1
Benzoic acid	ND		30	7.3	ug/L		07/18/22 17:28	07/20/22 13:56	1
Benzyl alcohol	ND		10	2.0	ug/L		07/18/22 17:28	07/20/22 13:56	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/18/22 17:28	07/20/22 13:56	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/18/22 17:28	07/20/22 13:56	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/18/22 17:28	07/20/22 13:56	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/18/22 17:28	07/20/22 13:56	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/18/22 17:28	07/20/22 13:56	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/18/22 17:28	07/20/22 13:56	1
4-Chloroaniline	ND		10	3.4	ug/L		07/18/22 17:28	07/20/22 13:56	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/18/22 17:28	07/20/22 13:56	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/18/22 17:28	07/20/22 13:56	1
2-Chlorophenol	ND		10	2.2	ug/L		07/18/22 17:28	07/20/22 13:56	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/18/22 17:28	07/20/22 13:56	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/18/22 17:28	07/20/22 13:56	1
Dibenzofuran	ND		10	0.17	ug/L		07/18/22 17:28	07/20/22 13:56	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/18/22 17:28	07/20/22 13:56	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/18/22 17:28	07/20/22 13:56	1
Diethyl phthalate	ND		10	0.24	ug/L		07/18/22 17:28	07/20/22 13:56	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/18/22 17:28	07/20/22 13:56	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/18/22 17:28	07/20/22 13:56	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/18/22 17:28	07/20/22 13:56	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/18/22 17:28	07/20/22 13:56	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/18/22 17:28	07/20/22 13:56	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/18/22 17:28	07/20/22 13:56	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/18/22 17:28	07/20/22 13:56	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/18/22 17:28	07/20/22 13:56	1
1,4-Dioxane	ND		10	1.0	ug/L		07/18/22 17:28	07/20/22 13:56	1

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

Lab Sample ID: MB 400-585238/1-A
Matrix: Water
Analysis Batch: 585449

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585238

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/18/22 17:28	07/20/22 13:56	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/18/22 17:28	07/20/22 13:56	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/18/22 17:28	07/20/22 13:56	1
Hexachloroethane	ND		10	4.2	ug/L		07/18/22 17:28	07/20/22 13:56	1
Indene	ND		10	1.0	ug/L		07/18/22 17:28	07/20/22 13:56	1
Isophorone	ND		10	0.14	ug/L		07/18/22 17:28	07/20/22 13:56	1
2-Methylphenol	ND		10	1.8	ug/L		07/18/22 17:28	07/20/22 13:56	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/18/22 17:28	07/20/22 13:56	1
2-Nitroaniline	ND		10	2.2	ug/L		07/18/22 17:28	07/20/22 13:56	1
3-Nitroaniline	ND		10	1.8	ug/L		07/18/22 17:28	07/20/22 13:56	1
4-Nitroaniline	ND		10	1.5	ug/L		07/18/22 17:28	07/20/22 13:56	1
Nitrobenzene	ND		10	0.13	ug/L		07/18/22 17:28	07/20/22 13:56	1
2-Nitrophenol	ND		10	5.2	ug/L		07/18/22 17:28	07/20/22 13:56	1
4-Nitrophenol	ND		10	2.1	ug/L		07/18/22 17:28	07/20/22 13:56	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/18/22 17:28	07/20/22 13:56	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/18/22 17:28	07/20/22 13:56	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/18/22 17:28	07/20/22 13:56	1
Pentachlorophenol	ND		20	1.4	ug/L		07/18/22 17:28	07/20/22 13:56	1
Phenol	ND		10	2.6	ug/L		07/18/22 17:28	07/20/22 13:56	1
Pyridine	ND		10	3.2	ug/L		07/18/22 17:28	07/20/22 13:56	1
Quinoline	ND		10	4.5	ug/L		07/18/22 17:28	07/20/22 13:56	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/18/22 17:28	07/20/22 13:56	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/18/22 17:28	07/20/22 13:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*07/18/22 17:28*	*07/20/22 13:56*	*1*
2-Fluorophenol	*52*		*13 - 113*	*07/18/22 17:28*	*07/20/22 13:56*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*07/18/22 17:28*	*07/20/22 13:56*	*1*
Phenol-d5	*72*		*17 - 127*	*07/18/22 17:28*	*07/20/22 13:56*	*1*
Terphenyl-d14	*100*		*44 - 149*	*07/18/22 17:28*	*07/20/22 13:56*	*1*
2,4,6-Tribromophenol	*74*		*26 - 150*	*07/18/22 17:28*	*07/20/22 13:56*	*1*

Lab Sample ID: LCS 400-585238/23-A
Matrix: Water
Analysis Batch: 585449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585238

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	6.25	J *-	ug/L		5	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*78*		*13 - 113*
Nitrobenzene-d5	*89*		*36 - 126*
Phenol-d5	*88*		*17 - 127*
Terphenyl-d14	*105*		*44 - 149*
2,4,6-Tribromophenol	*83*		*26 - 150*

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

Lab Sample ID: LCS 400-585238/2-A
Matrix: Water
Analysis Batch: 585449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585238

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	98.9		ug/L		82	21 - 120
Benzoic acid	513	351		ug/L		68	10 - 144
Benzyl alcohol	120	105		ug/L		87	28 - 120
Bis(2-chloroethoxy)methane	120	93.5		ug/L		78	47 - 120
Bis(2-chloroethyl)ether	120	94.0		ug/L		78	44 - 120
bis (2-chloroisopropyl) ether	120	92.4		ug/L		77	33 - 121
Bis(2-ethylhexyl) phthalate	120	121		ug/L		101	52 - 147
4-Bromophenyl phenyl ether	120	114		ug/L		95	54 - 122
Butyl benzyl phthalate	120	111		ug/L		92	54 - 133
4-Chloroaniline	120	86.6		ug/L		72	26 - 120
4-Chloro-3-methylphenol	120	109		ug/L		91	48 - 131
2-Chloronaphthalene	120	102		ug/L		85	52 - 121
2-Chlorophenol	120	94.6		ug/L		79	40 - 120
4-Chlorophenyl phenyl ether	120	107		ug/L		89	56 - 125
Dibenz[a,h]acridine	120	122		ug/L		102	31 - 150
Dibenzofuran	120	108		ug/L		90	56 - 122
3,3'-Dichlorobenzidine	160	256	*+	ug/L		160	36 - 132
2,4-Dichlorophenol	120	101		ug/L		84	49 - 120
Diethyl phthalate	120	108		ug/L		90	50 - 137
2,4-Dimethylphenol	120	99.5		ug/L		83	48 - 120
Dimethyl phthalate	120	106		ug/L		88	57 - 124
Di-n-butyl phthalate	120	122		ug/L		102	58 - 126
4,6-Dinitro-ortho-cresol	240	229		ug/L		96	23 - 148
2,4-Dinitrophenol	240	236		ug/L		98	10 - 150
2,4-Dinitrotoluene	120	113		ug/L		94	54 - 142
2,6-Dinitrotoluene	120	105		ug/L		87	55 - 130
Di-n-octyl phthalate	120	125		ug/L		104	57 - 138
1,4-Dioxane	120	71.6		ug/L		60	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	106		ug/L		88	45 - 124
Hexachlorobenzene	120	117		ug/L		98	52 - 129
Hexachlorocyclopentadiene	120	89.4		ug/L		75	10 - 134
Hexachloroethane	120	94.0		ug/L		78	20 - 120
Indene	120	108		ug/L		90	49 - 120
Isophorone	120	95.4		ug/L		80	48 - 120
2-Methylphenol	120	102		ug/L		85	46 - 124
3 & 4 Methylphenol	120	95.3		ug/L		79	45 - 120
2-Nitroaniline	120	98.5		ug/L		82	51 - 145
3-Nitroaniline	120	113		ug/L		94	37 - 127
4-Nitroaniline	120	125		ug/L		104	36 - 137
Nitrobenzene	120	89.7		ug/L		75	45 - 120
2-Nitrophenol	120	75.6		ug/L		63	40 - 124
4-Nitrophenol	240	210		ug/L		88	23 - 146
N-Nitrosodimethylamine	120	103		ug/L		86	29 - 137
N-Nitrosodi-n-propylamine	120	99.1		ug/L		83	45 - 120
N-Nitrosodiphenylamine	119	111		ug/L		94	54 - 120
Pentachlorophenol	240	227		ug/L		94	31 - 130
Phenol	120	90.4		ug/L		75	11 - 120
Pyridine	240	167		ug/L		69	16 - 120

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

Lab Sample ID: LCS 400-585238/2-A
Matrix: Water
Analysis Batch: 585449

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585238

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Quinoline			120	117		ug/L		98	49 - 130		
2,4,5-Trichlorophenol			120	114		ug/L		95	51 - 136		
2,4,6-Trichlorophenol			120	111		ug/L		93	50 - 127		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*65*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*93*		*26 - 150*

Lab Sample ID: LCSD 400-585238/24-A
Matrix: Water
Analysis Batch: 585449

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585238

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	4.87	J *-	ug/L		4	10 - 120	25	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*63*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*82*		*26 - 150*

Lab Sample ID: 400-222856-4 MS
Matrix: Water
Analysis Batch: 585449

Client Sample ID: MW9-ROX-071222-MS
Prep Type: Total/NA
Prep Batch: 585238

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Aniline	ND		114	94.8		ug/L		83	10 - 120		
Benzoic acid	ND		486	406		ug/L		84	10 - 149		
Benzyl alcohol	ND		114	99.5		ug/L		88	33 - 120		
Bis(2-chloroethoxy)methane	ND		114	88.0		ug/L		77	26 - 120		
Bis(2-chloroethyl)ether	ND		114	89.9		ug/L		79	42 - 120		
bis (2-chloroisopropyl) ether	ND		114	88.0		ug/L		78	28 - 120		
Bis(2-ethylhexyl) phthalate	ND		114	115		ug/L		101	39 - 120		
4-Bromophenyl phenyl ether	ND		114	104		ug/L		91	40 - 120		
Butyl benzyl phthalate	ND		114	107		ug/L		95	45 - 120		
4-Chloroaniline	ND		114	62.8		ug/L		55	10 - 120		
4-Chloro-3-methylphenol	ND		114	104		ug/L		92	34 - 120		
2-Chloronaphthalene	ND		114	96.1		ug/L		85	39 - 120		
2-Chlorophenol	ND		114	99.7		ug/L		88	25 - 120		
4-Chlorophenyl phenyl ether	ND		114	103		ug/L		91	44 - 120		
Dibenz[a,h]acridine	ND		113	127		ug/L		112	50 - 150		
Dibenzofuran	ND		114	104		ug/L		92	25 - 130		

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

Lab Sample ID: 400-222856-4 MS
Matrix: Water
Analysis Batch: 585449

Client Sample ID: MW9-ROX-071222-MS
Prep Type: Total/NA
Prep Batch: 585238

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
3,3'-Dichlorobenzidine	ND	F1 *+	151	243	F1	ug/L		160	10 - 120
2,4-Dichlorophenol	ND		114	99.5		ug/L		88	31 - 120
Diethyl phthalate	ND		114	104		ug/L		92	46 - 120
2,4-Dimethylphenol	ND		114	94.2		ug/L		83	21 - 120
Dimethyl phthalate	ND		114	102		ug/L		90	38 - 120
Di-n-butyl phthalate	ND		114	119		ug/L		105	49 - 120
4,6-Dinitro-ortho-cresol	ND		227	237		ug/L		104	25 - 120
2,4-Dinitrophenol	ND		227	260		ug/L		114	15 - 140
2,4-Dinitrotoluene	ND		114	112		ug/L		99	53 - 120
2,6-Dinitrotoluene	ND		114	104		ug/L		92	43 - 120
Di-n-octyl phthalate	ND		114	113		ug/L		100	35 - 121
1,4-Dioxane	ND		114	68.2		ug/L		60	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		114	95.2		ug/L		84	50 - 150
Hexachlorobenzene	ND		114	105		ug/L		93	38 - 122
Hexachlorocyclopentadiene	ND		114	92.8		ug/L		82	10 - 120
Hexachloroethane	ND		114	90.8		ug/L		80	10 - 150
Indene	ND		114	104		ug/L		91	50 - 150
Isophorone	ND		114	91.5		ug/L		81	42 - 120
2-Methylphenol	ND		114	100		ug/L		88	28 - 120
3 & 4 Methylphenol	ND		114	93.9		ug/L		83	31 - 120
2-Nitroaniline	ND		114	97.9		ug/L		86	45 - 120
3-Nitroaniline	ND		114	105		ug/L		93	10 - 130
4-Nitroaniline	ND		114	125		ug/L		110	10 - 132
Nitrobenzene	ND		114	88.2		ug/L		78	39 - 120
2-Nitrophenol	ND		114	78.6		ug/L		69	33 - 120
4-Nitrophenol	ND		227	218		ug/L		96	10 - 120
N-Nitrosodimethylamine	ND		114	95.0		ug/L		84	10 - 139
N-Nitrosodi-n-propylamine	ND		114	94.7		ug/L		83	37 - 124
N-Nitrosodiphenylamine	ND		113	101		ug/L		90	10 - 150
Pentachlorophenol	ND		227	215		ug/L		95	29 - 130
Phenol	ND		114	93.2		ug/L		82	10 - 150
Pyridine	ND		227	151		ug/L		67	10 - 120
Quinoline	ND		113	114		ug/L		101	51 - 120
2,4,5-Trichlorophenol	ND		114	113		ug/L		100	34 - 120
2,4,6-Trichlorophenol	ND		114	110		ug/L		97	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*78*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*84*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*97*		*26 - 150*

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

Lab Sample ID: 400-222856-4 MSD
Matrix: Water
Analysis Batch: 585449

Client Sample ID: MW9-ROX-07122-MSD
Prep Type: Total/NA
Prep Batch: 585238

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		113	89.5		ug/L		79	10 - 120	6	63
Benzoic acid	ND		484	368		ug/L		76	10 - 149	10	49
Benzyl alcohol	ND		113	93.7		ug/L		83	33 - 120	6	37
Bis(2-chloroethoxy)methane	ND		113	84.9		ug/L		75	26 - 120	4	70
Bis(2-chloroethyl)ether	ND		113	87.1		ug/L		77	42 - 120	3	42
bis (2-chloroisopropyl) ether	ND		113	84.8		ug/L		75	28 - 120	4	41
Bis(2-ethylhexyl) phthalate	ND		113	109		ug/L		96	39 - 120	6	35
4-Bromophenyl phenyl ether	ND		113	100		ug/L		89	40 - 120	3	30
Butyl benzyl phthalate	ND		113	99.7		ug/L		88	45 - 120	7	32
4-Chloroaniline	ND		113	60.9		ug/L		54	10 - 120	3	94
4-Chloro-3-methylphenol	ND		113	90.4		ug/L		80	34 - 120	14	40
2-Chloronaphthalene	ND		113	90.0		ug/L		80	39 - 120	7	29
2-Chlorophenol	ND		113	91.0		ug/L		80	25 - 120	9	42
4-Chlorophenyl phenyl ether	ND		113	93.8		ug/L		83	44 - 120	9	27
Dibenz[a,h]acridine	ND		113	113		ug/L		100	50 - 150	12	40
Dibenzofuran	ND		113	94.7		ug/L		84	25 - 130	10	29
3,3'-Dichlorobenzidine	ND	F1 *+	151	221	F1	ug/L		147	10 - 120	9	58
2,4-Dichlorophenol	ND		113	94.8		ug/L		84	31 - 120	5	43
Diethyl phthalate	ND		113	96.7		ug/L		86	46 - 120	7	40
2,4-Dimethylphenol	ND		113	91.3		ug/L		81	21 - 120	3	47
Dimethyl phthalate	ND		113	94.3		ug/L		83	38 - 120	8	36
Di-n-butyl phthalate	ND		113	110		ug/L		98	49 - 120	8	32
4,6-Dinitro-ortho-cresol	ND		226	207		ug/L		92	25 - 120	13	42
2,4-Dinitrophenol	ND		226	214		ug/L		95	15 - 140	19	36
2,4-Dinitrotoluene	ND		113	102		ug/L		90	53 - 120	10	28
2,6-Dinitrotoluene	ND		113	94.5		ug/L		84	43 - 120	10	28
Di-n-octyl phthalate	ND		113	110		ug/L		98	35 - 121	3	35
1,4-Dioxane	ND		113	59.1		ug/L		52	50 - 150	14	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		113	93.5		ug/L		83	50 - 150	2	40
Hexachlorobenzene	ND		113	102		ug/L		90	38 - 122	3	33
Hexachlorocyclopentadiene	ND		113	75.2		ug/L		67	10 - 120	21	50
Hexachloroethane	ND		113	83.6		ug/L		74	10 - 150	8	41
Indene	ND		113	95.4		ug/L		84	50 - 150	8	40
Isophorone	ND		113	87.5		ug/L		77	42 - 120	4	33
2-Methylphenol	ND		113	95.7		ug/L		85	28 - 120	5	47
3 & 4 Methylphenol	ND		113	88.0		ug/L		78	31 - 120	6	47
2-Nitroaniline	ND		113	88.6		ug/L		78	45 - 120	10	33
3-Nitroaniline	ND		113	101		ug/L		90	10 - 130	4	39
4-Nitroaniline	ND		113	105		ug/L		93	10 - 132	17	50
Nitrobenzene	ND		113	84.0		ug/L		74	39 - 120	5	35
2-Nitrophenol	ND		113	70.8		ug/L		63	33 - 120	10	43
4-Nitrophenol	ND		226	184		ug/L		81	10 - 120	17	82
N-Nitrosodimethylamine	ND		113	83.1		ug/L		73	10 - 139	13	62
N-Nitrosodi-n-propylamine	ND		113	88.9		ug/L		79	37 - 124	6	36
N-Nitrosodiphenylamine	ND		112	99.2		ug/L		88	10 - 150	2	34
Pentachlorophenol	ND		226	207		ug/L		92	29 - 130	4	42
Phenol	ND		113	86.8		ug/L		77	10 - 150	7	52
Pyridine	ND		226	131		ug/L		58	10 - 120	14	55

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

Lab Sample ID: 400-222856-4 MSD
Matrix: Water
Analysis Batch: 585449

Client Sample ID: MW9-ROX-07122-MSD
Prep Type: Total/NA
Prep Batch: 585238

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Quinoline	ND		113	94.2		ug/L		84	51 - 120	19	40
2,4,5-Trichlorophenol	ND		113	104		ug/L		92	34 - 120	8	42
2,4,6-Trichlorophenol	ND		113	101		ug/L		89	33 - 120	9	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*65*		*13 - 113*
Nitrobenzene-d5	*82*		*36 - 126*
Phenol-d5	*80*		*17 - 127*
Terphenyl-d14	*91*		*44 - 149*
2,4,6-Tribromophenol	*89*		*26 - 150*

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzenethiol	ND		10	1.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzoic acid	ND		30	7.3	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzyl alcohol	ND		10	2.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/22/22 10:11	07/25/22 19:21	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/22/22 10:11	07/25/22 19:21	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/22/22 10:11	07/25/22 19:21	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chloroaniline	ND		10	3.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Chlorophenol	ND		10	2.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dibenzofuran	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Diethyl phthalate	ND		10	0.24	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/22/22 10:11	07/25/22 19:21	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
1,4-Dioxane	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1

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

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
Hexachloroethane	ND		10	4.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
Indene	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Isophorone	ND		10	0.14	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Methylphenol	ND		10	1.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Nitroaniline	ND		10	2.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
3-Nitroaniline	ND		10	1.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Nitroaniline	ND		10	1.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
Nitrobenzene	ND		10	0.13	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Nitrophenol	ND		10	5.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Nitrophenol	ND		10	2.1	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/22/22 10:11	07/25/22 19:21	1
Pentachlorophenol	ND		20	1.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
Phenol	ND		10	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
Pyridine	ND		10	3.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
Quinoline	ND		10	4.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*46 - 124*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
2-Fluorophenol	*3*	*S1-*	*13 - 113*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
Phenol-d5	*23*		*17 - 127*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
Terphenyl-d14	*107*		*44 - 149*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*07/22/22 10:11*	*07/25/22 19:21*	*1*

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	104		ug/L		87	21 - 120
Benzoic acid	513	90.1		ug/L		18	10 - 144
Benzyl alcohol	120	72.9		ug/L		61	28 - 120
Bis(2-chloroethoxy)methane	120	87.5		ug/L		73	47 - 120
Bis(2-chloroethyl)ether	120	106		ug/L		88	44 - 120
bis (2-chloroisopropyl) ether	120	65.3		ug/L		54	33 - 121
Bis(2-ethylhexyl) phthalate	120	121		ug/L		101	52 - 147
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122
Butyl benzyl phthalate	120	122		ug/L		102	54 - 133
4-Chloroaniline	120	99.5		ug/L		83	26 - 120
4-Chloro-3-methylphenol	120	110		ug/L		91	48 - 131
2-Chloronaphthalene	120	118		ug/L		98	52 - 121
2-Chlorophenol	120	93.7		ug/L		78	40 - 120

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

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Chlorophenyl phenyl ether	120	127		ug/L		105	56 - 125
Dibenz[a,h]acridine	120	118		ug/L		99	31 - 150
Dibenzofuran	120	122		ug/L		102	56 - 122
3,3'-Dichlorobenzidine	160	152		ug/L		95	36 - 132
2,4-Dichlorophenol	120	109		ug/L		91	49 - 120
Diethyl phthalate	120	129		ug/L		108	50 - 137
2,4-Dimethylphenol	120	103		ug/L		86	48 - 120
Dimethyl phthalate	120	120		ug/L		100	57 - 124
Di-n-butyl phthalate	120	124		ug/L		103	58 - 126
4,6-Dinitro-ortho-cresol	240	176		ug/L		73	23 - 148
2,4-Dinitrophenol	240	143		ug/L		60	10 - 150
2,4-Dinitrotoluene	120	129		ug/L		107	54 - 142
2,6-Dinitrotoluene	120	119		ug/L		99	55 - 130
Di-n-octyl phthalate	120	116		ug/L		97	57 - 138
1,4-Dioxane	120	59.2		ug/L		49	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	90.6		ug/L		75	45 - 124
Hexachlorobenzene	120	126		ug/L		105	52 - 129
Hexachlorocyclopentadiene	120	82.9		ug/L		69	10 - 134
Hexachloroethane	120	94.9		ug/L		79	20 - 120
Indene	120	105		ug/L		87	49 - 120
Isophorone	120	86.5		ug/L		72	48 - 120
2-Methylphenol	120	112		ug/L		94	46 - 124
3 & 4 Methylphenol	120	109		ug/L		91	45 - 120
2-Nitroaniline	120	99.8		ug/L		83	51 - 145
3-Nitroaniline	120	88.7		ug/L		74	37 - 127
4-Nitroaniline	120	112		ug/L		93	36 - 137
Nitrobenzene	120	85.3		ug/L		71	45 - 120
2-Nitrophenol	120	105		ug/L		88	40 - 124
4-Nitrophenol	240	94.4		ug/L		39	23 - 146
N-Nitrosodimethylamine	120	76.1		ug/L		63	29 - 137
N-Nitrosodi-n-propylamine	120	90.9		ug/L		76	45 - 120
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120
Pentachlorophenol	240	218		ug/L		91	31 - 130
Phenol	120	84.8		ug/L		71	11 - 120
Pyridine	240	118		ug/L		49	16 - 120
Quinoline	120	114		ug/L		95	49 - 130
2,4,5-Trichlorophenol	120	122		ug/L		102	51 - 136
2,4,6-Trichlorophenol	120	118		ug/L		98	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*99*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*111*		*26 - 150*

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

Lab Sample ID: LCS 400-585779/4-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

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	*107*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*121*		*44 - 149*
2,4,6-Tribromophenol	*97*		*26 - 150*

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	ND	*- *1	ug/L		2	21 - 120	189	30
Benzoic acid			513	348	*1	ug/L		68	10 - 144	118	30
Benzyl alcohol			120	86.1		ug/L		72	28 - 120	17	30
Bis(2-chloroethoxy)methane			120	93.6		ug/L		78	47 - 120	7	30
Bis(2-chloroethyl)ether			120	192	*+ *1	ug/L		160	44 - 120	58	30
bis (2-chloroisopropyl) ether			120	68.7		ug/L		57	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	128		ug/L		107	52 - 147	5	30
4-Bromophenyl phenyl ether			120	126		ug/L		105	54 - 122	5	30
Butyl benzyl phthalate			120	126		ug/L		105	54 - 133	3	30
4-Chloroaniline			120	96.8		ug/L		81	26 - 120	3	30
4-Chloro-3-methylphenol			120	112		ug/L		93	48 - 131	2	30
2-Chloronaphthalene			120	125		ug/L		104	52 - 121	5	30
2-Chlorophenol			120	78.9		ug/L		66	40 - 120	17	30
4-Chlorophenyl phenyl ether			120	133		ug/L		111	56 - 125	5	30
Dibenz[a,h]acridine			120	125		ug/L		104	31 - 150	6	30
Dibenzofuran			120	130		ug/L		108	56 - 122	6	30
3,3'-Dichlorobenzidine			160	149		ug/L		93	36 - 132	2	30
2,4-Dichlorophenol			120	106		ug/L		89	49 - 120	3	30
Diethyl phthalate			120	134		ug/L		112	50 - 137	4	30
2,4-Dimethylphenol			120	110		ug/L		91	48 - 120	6	30
Dimethyl phthalate			120	127		ug/L		106	57 - 124	6	30
Di-n-butyl phthalate			120	131		ug/L		109	58 - 126	5	30
4,6-Dinitro-ortho-cresol			240	213		ug/L		89	23 - 148	19	30
2,4-Dinitrophenol			240	193		ug/L		80	10 - 150	30	30
2,4-Dinitrotoluene			120	136		ug/L		113	54 - 142	5	30
2,6-Dinitrotoluene			120	126		ug/L		105	55 - 130	6	30
Di-n-octyl phthalate			120	123		ug/L		102	57 - 138	6	30
1,4-Dioxane			120	56.5		ug/L		47	31 - 120	5	30
1,2-Diphenylhydrazine (as Azobenzene)			120	96.5		ug/L		80	45 - 124	6	30
Hexachlorobenzene			120	133		ug/L		111	52 - 129	5	30
Hexachlorocyclopentadiene			120	82.0		ug/L		68	10 - 134	1	30
Hexachloroethane			120	98.7		ug/L		82	20 - 120	4	30

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

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indene			120	110		ug/L		92	49 - 120	5	30
Isophorone			120	92.4		ug/L		77	48 - 120	7	30
2-Methylphenol			120	117		ug/L		97	46 - 124	4	30
3 & 4 Methylphenol			120	110		ug/L		92	45 - 120	1	30
2-Nitroaniline			120	106		ug/L		88	51 - 145	6	30
3-Nitroaniline			120	84.8		ug/L		71	37 - 127	5	30
4-Nitroaniline			120	115		ug/L		96	36 - 137	3	30
Nitrobenzene			120	91.1		ug/L		76	45 - 120	7	30
2-Nitrophenol			120	104		ug/L		87	40 - 124	1	30
4-Nitrophenol			240	92.6		ug/L		39	23 - 146	2	30
N-Nitrosodimethylamine			120	84.9		ug/L		71	29 - 137	11	30
N-Nitrosodi-n-propylamine			120	97.7		ug/L		81	45 - 120	7	30
N-Nitrosodiphenylamine			119	116		ug/L		98	54 - 120	5	30
Pentachlorophenol			240	233		ug/L		97	31 - 130	7	30
Phenol			120	78.3		ug/L		65	11 - 120	8	30
Pyridine			240	126		ug/L		52	16 - 120	7	30
Quinoline			120	119		ug/L		99	49 - 130	4	30
2,4,5-Trichlorophenol			120	125		ug/L		104	51 - 136	2	30
2,4,6-Trichlorophenol			120	122		ug/L		102	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*104*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*63*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*
2,4,6-Tribromophenol	*111*		*26 - 150*

Lab Sample ID: LCSD 400-585779/5-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.91	J *- *1	ug/L		2	10 - 120	47	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*100*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*
2,4,6-Tribromophenol	*87*		*26 - 150*

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

Lab Sample ID: MB 400-585238/1-A
Matrix: Water
Analysis Batch: 585568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585238

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/18/22 17:28	07/20/22 21:47	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/18/22 17:28	07/20/22 21:47	1
Anthracene	ND		0.20	0.032	ug/L		07/18/22 17:28	07/20/22 21:47	1
Benzo[a]anthracene	0.102	J	0.20	0.046	ug/L		07/18/22 17:28	07/20/22 21:47	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/18/22 17:28	07/20/22 21:47	1
Benzo[b]fluoranthene	0.100	J	0.20	0.034	ug/L		07/18/22 17:28	07/20/22 21:47	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/18/22 17:28	07/20/22 21:47	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/18/22 17:28	07/20/22 21:47	1
Chrysene	ND		0.20	0.074	ug/L		07/18/22 17:28	07/20/22 21:47	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/18/22 17:28	07/20/22 21:47	1
Fluoranthene	ND		0.20	0.068	ug/L		07/18/22 17:28	07/20/22 21:47	1
Fluorene	ND		0.20	0.11	ug/L		07/18/22 17:28	07/20/22 21:47	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/18/22 17:28	07/20/22 21:47	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/18/22 17:28	07/20/22 21:47	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/18/22 17:28	07/20/22 21:47	1
Phenanthrene	ND		0.20	0.036	ug/L		07/18/22 17:28	07/20/22 21:47	1
Pyrene	ND		0.20	0.040	ug/L		07/18/22 17:28	07/20/22 21:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*127*	*S1+*	*15 - 122*	*07/18/22 17:28*	*07/20/22 21:47*	*1*
Nitrobenzene-d5	*114*		*19 - 130*	*07/18/22 17:28*	*07/20/22 21:47*	*1*
Terphenyl-d14	*157*	*S1+*	*33 - 138*	*07/18/22 17:28*	*07/20/22 21:47*	*1*

Lab Sample ID: LCS 400-585238/2-A
Matrix: Water
Analysis Batch: 585568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585238

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	112		ug/L		93	41 - 120
Acenaphthylene	120	99.9		ug/L		83	44 - 120
Anthracene	120	119		ug/L		99	49 - 120
Benzo[a]anthracene	120	107		ug/L		90	61 - 135
Benzo[a]pyrene	120	112		ug/L		93	52 - 120
Benzo[b]fluoranthene	120	112		ug/L		93	53 - 134
Benzo[g,h,i]perylene	120	103		ug/L		86	47 - 133
Benzo[k]fluoranthene	120	115		ug/L		96	57 - 134
Chrysene	120	106		ug/L		88	55 - 122
Dibenz(a,h)anthracene	120	124		ug/L		103	48 - 146
Fluoranthene	120	118		ug/L		98	54 - 128
Fluorene	120	122		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	114		ug/L		95	43 - 142
1-Methylnaphthalene	120	83.5		ug/L		70	41 - 120
2-Methylnaphthalene	120	82.2		ug/L		68	32 - 124
Phenanthrene	120	112		ug/L		93	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*88*		*15 - 122*

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

Lab Sample ID: LCS 400-585238/2-A
Matrix: Water
Analysis Batch: 585568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585238

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	49		19 - 130
Terphenyl-d14	94		33 - 138

Lab Sample ID: 400-222856-4 MS
Matrix: Water
Analysis Batch: 585568

Client Sample ID: MW9-ROX-071222-MS
Prep Type: Total/NA
Prep Batch: 585238

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND	F1	114	129	F1	ug/L		114	35 - 113
Acenaphthylene	ND		114	109		ug/L		96	41 - 118
Anthracene	ND		114	122		ug/L		107	45 - 122
Benzo[a]anthracene	0.19	B	114	116		ug/L		102	55 - 133
Benzo[a]pyrene	0.16	J	114	117		ug/L		103	50 - 108
Benzo[b]fluoranthene	0.15	J B	114	116		ug/L		102	50 - 128
Benzo[g,h,i]perylene	0.18	J	114	110		ug/L		97	46 - 133
Benzo[k]fluoranthene	0.15	J	114	126		ug/L		111	52 - 128
Chrysene	0.17	J	114	110		ug/L		97	52 - 116
Dibenz(a,h)anthracene	0.22		114	130		ug/L		115	52 - 143
Fluoranthene	0.089	J	114	129		ug/L		114	32 - 150
Fluorene	ND		114	133		ug/L		117	15 - 150
Indeno[1,2,3-cd]pyrene	0.21		114	123		ug/L		108	41 - 141
1-Methylnaphthalene	ND		114	87.8		ug/L		77	10 - 150
2-Methylnaphthalene	ND		114	85.5		ug/L		75	10 - 150
Phenanthrene	ND		114	117		ug/L		103	36 - 125
Pyrene	ND		114	119		ug/L		105	41 - 127

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	101		15 - 122
Nitrobenzene-d5	59		19 - 130
Terphenyl-d14	99		33 - 138

Lab Sample ID: 400-222856-4 MSD
Matrix: Water
Analysis Batch: 585568

Client Sample ID: MW9-ROX-07122-MSD
Prep Type: Total/NA
Prep Batch: 585238

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND	F1	113	115		ug/L		102	35 - 113	11	49
Acenaphthylene	ND		113	100		ug/L		89	41 - 118	8	48
Anthracene	ND		113	117		ug/L		103	45 - 122	4	56
Benzo[a]anthracene	0.19	B	113	107		ug/L		95	55 - 133	7	57
Benzo[a]pyrene	0.16	J	113	109		ug/L		96	50 - 108	7	59
Benzo[b]fluoranthene	0.15	J B	113	113		ug/L		100	50 - 128	3	62
Benzo[g,h,i]perylene	0.18	J	113	105		ug/L		92	46 - 133	5	58
Benzo[k]fluoranthene	0.15	J	113	109		ug/L		96	52 - 128	14	58
Chrysene	0.17	J	113	105		ug/L		92	52 - 116	5	59
Dibenz(a,h)anthracene	0.22		113	124		ug/L		110	52 - 143	5	60
Fluoranthene	0.089	J	113	116		ug/L		103	32 - 150	11	59
Fluorene	ND		113	120		ug/L		106	15 - 150	10	49

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

Lab Sample ID: 400-222856-4 MSD
Matrix: Water
Analysis Batch: 585568

Client Sample ID: MW9-ROX-07122-MSD
Prep Type: Total/NA
Prep Batch: 585238

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	0.21		113	116		ug/L		102	41 - 141	6	58
1-Methylnaphthalene	ND		113	81.3		ug/L		72	10 - 150	8	66
2-Methylnaphthalene	ND		113	80.1		ug/L		71	10 - 150	7	66
Phenanthrene	ND		113	111		ug/L		98	36 - 125	6	69
Pyrene	ND		113	113		ug/L		100	41 - 127	5	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*95*		*15 - 122*
Nitrobenzene-d5	*59*		*19 - 130*
Terphenyl-d14	*99*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-585620/1-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585620

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/21/22 16:16	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/21/22 16:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*51 - 149*	*07/21/22 10:46*	*07/21/22 16:16*	*1*

Lab Sample ID: LCS 400-585620/2-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585620

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.115		ug/L		114	60 - 140		
1,2-D bromoethane			0.101	0.108		ug/L		107	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*51 - 149*

Lab Sample ID: LCSD 400-585620/3-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585620

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.113		ug/L		112	60 - 140	4	30
1,2-D bromoethane			0.101	0.109		ug/L		108	60 - 140	1	30

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

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-222856-4 MS
Matrix: Water
Analysis Batch: 585690

Client Sample ID: MW9-ROX-071222-MS
Prep Type: Total/NA
Prep Batch: 585620

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-D bromo-3-Chloropropane	ND		0.106	0.132		ug/L		125	10 - 150
1,2-D bromoethane	ND		0.106	0.104		ug/L		98	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*51 - 149*

Lab Sample ID: 400-222856-4 MSD
Matrix: Water
Analysis Batch: 585690

Client Sample ID: MW9-ROX-07122-MSD
Prep Type: Total/NA
Prep Batch: 585620

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane	ND		0.102	0.122		ug/L		120	10 - 150	7	20
1,2-D bromoethane	ND		0.103	0.122		ug/L		119	39 - 150	16	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*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 (_____)

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: 7/12/2022
PO #	**GSAP Project ID**	PAGE: 1 of 2
60674381 – 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 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name Company Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): J. Mayer, J. Nichols
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

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

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

REQUESTED ANALYSIS 60674381 – 3.3.2

400-222856 COC

FIELD NOTES: 0.1°C 0.0°C

TEMPERATURE ON RECEIPT C°: 1.9

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-071222-8260-A	7/12/2022	0000	Water	2					2	X				
	TB-ROX-071222-8011-A	7/12/2022	0000	Water	2					2		X			
	MW9-ROX-071222-EB	7/12/2022	0820	Water	6			2		8	X	X	X	X	
	MW9-ROX-071222	7/12/2022	0930	Water	6			2		8	X	X	X	X	
	MW9-ROX-071222-MS	7/12/2022	0930	Water	6			2		8	X	X	X	X	
	MW9-ROX-071222-MSD	7/12/2022	0930	Water	6			2		8	X	X	X	X	
	P54-ROX-071222	7/12/2022	1100	Water	6			2		8	X	X	X	X	
	MW16-ROX-071222	7/12/2022	1150	Water	6			2		8	X	X	X	X	
	MW28-ROX-071222	7/12/2022	1300	Water	6			2		8	X	X	X	X	

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Joe Mayer	FEDEX: 5564 3930 5420, 5564 3930 5410	7/12/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 7/13/22	Time: 854

Version: 11July22

CUSTODY SEALS: 979464, 979465, 979466, 979467

7/27/2022

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**
60674381 – 3.3.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 7/12/22
PAGE: 2 of 2

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Heintz; M. Massa
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@aecomsheil.com; andrei.zamfir@aecom.com

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

REQUESTED ANALYSIS
60674381 – 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-071222-8260-B	7/12/2022	0000	Water	2					2	X			
	TB-ROX-071222-8011-B	7/12/2022	0000	Water	2					2		X		
	MW26-ROX-071222	7/12/2022	0915	Water	6			2		8	X	X	X	X
	ROST3MW-ROX-071222	7/12/2022	1035	Water	6			2		8	X	X	X	X
	ROST4PZ(G)-ROX-071222	7/12/2022	1310	Water	6			2		8	X	X	X	X

7/12/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: See page 1	7/12/2022	1600
		7/13/22	554

CUSTODY SEALS: See page 1

Version: 11July22

7/27/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc. Job Number: 400-222856-1

Login Number: 222856 **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, 0.1°C IR9
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: 400-222856-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 3rd Quarter 2022 Data Review

Laboratory SDG: 400-222952-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Andreia Vladimirescu

Date Reviewed: 9/13/2022

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

Sample Identification	Sample Identification
TB-ROX-071322-8260-BP	TB-ROX-071322-8011-BP
MW23-ROX-071322	

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. This issue is addressed further in the appropriate section of this data review.

Three of 69 (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 indicated headspace larger than 1/4" was present in one or more VOA vials; analyses were run from vials with acceptable headspace. No qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

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

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-585529/4-A/5-A	SVOCs	Benzenethiol	30/**4**	**150**	10-120/30
LCS/LCSD 400-585529/2-A/3-A	SVOCs	4-Chloroaniline	55/77	**34**	26-120/30
LCS/LCSD 400-585529/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	**141/154**	9	36-132/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-071322	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

No

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-222952-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
7/28/2022 11:56:51 AM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

LINKS

Review your project results through myEOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Sample Summary 5
Detection Summary 6
Client Sample Results 7
Definitions 14
Surrogate Summary 15
Method Summary 17
Chronicle 18
QC Association 21
QC Sample Results 22
Chain of Custody 33
Receipt Checklists 34
Certification Summary 35

Job ID: 400-222952-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-222952-1

Comments
No additional comments.

Receipt
The samples were received on 7/14/2022 8:37 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.1º C.

GC/MS VOA
Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-071322-8260-BP (400-222952-1) and MW23-ROX-071322 (400-222952-3). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

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

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 400-585995 recovered above the upper control limit for 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: 4-Chloroaniline.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 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.

Methods 8270D LL, 8270E LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW23-ROX-071322 (400-222952-3), (LCS 400-585529/2-A), (LCSD 400-585529/3-A) and (MB 400-585529/1-A). These results have been reported and qualified.

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

GC Semi VOA
Method 8011: The continuing calibration verification (CCV) associated with batch 400-585690 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

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

Job ID: 400-222952-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

VOA Prep

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

Sample Summary

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

Job ID: 400-222952-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-222952-1	TB-ROX-071322-8260-BP	Water	07/13/22 12:00	07/14/22 08:37
400-222952-2	TB-ROX-071322-8011-BP	Water	07/13/22 12:00	07/14/22 08:37
400-222952-3	MW23-ROX-071322	Water	07/13/22 08:20	07/14/22 08:37

Detection Summary

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

Job ID: 400-222952-1

Client Sample ID: TB-ROX-071322-8260-BP — Lab Sample ID: 400-222952-1

No Detections.

Client Sample ID: TB-ROX-071322-8011-BP — Lab Sample ID: 400-222952-2

No Detections.

Client Sample ID: MW23-ROX-071322 — Lab Sample ID: 400-222952-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.21	J	1.0	0.20	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.82	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[b]fluoranthene	0.041	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzoic acid	16	J	29	6.9	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-222952-1

Client Sample ID: TB-ROX-071322-8260-BP
Date Collected: 07/13/22 12:00
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222952-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/20/22 15:45	1
Acrolein	ND		20	3.3	ug/L			07/20/22 15:45	1
Acrylonitrile	ND		10	2.8	ug/L			07/20/22 15:45	1
Benzene	ND		1.0	0.13	ug/L			07/20/22 15:45	1
Bromobenzene	ND		1.0	0.54	ug/L			07/20/22 15:45	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/20/22 15:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/22 15:45	1
Bromoform	ND		5.0	0.25	ug/L			07/20/22 15:45	1
Bromomethane	ND		1.0	0.98	ug/L			07/20/22 15:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/20/22 15:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/20/22 15:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/20/22 15:45	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/20/22 15:45	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/20/22 15:45	1
Chloroethane	ND		1.0	0.76	ug/L			07/20/22 15:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 15:45	1
Chloroform	ND		1.0	1.0	ug/L			07/20/22 15:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/20/22 15:45	1
Chloromethane	ND		1.0	0.32	ug/L			07/20/22 15:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/20/22 15:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/20/22 15:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/22 15:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/20/22 15:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/20/22 15:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/20/22 15:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/22 15:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/20/22 15:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 15:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 15:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 15:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 15:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/22 15:45	1
Ethy benzene	ND		1.0	0.50	ug/L			07/20/22 15:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/20/22 15:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/20/22 15:45	1
2-Hexanone	ND		25	1.4	ug/L			07/20/22 15:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/20/22 15:45	1
Methylene bromide	ND		5.0	0.22	ug/L			07/20/22 15:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/20/22 15:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/20/22 15:45	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/20/22 15:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/20/22 15:45	1
Naphthalene	ND		5.0	3.0	ug/L			07/20/22 15:45	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/20/22 15:45	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/20/22 15:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/20/22 15:45	1
o-Xylene	ND		5.0	0.60	ug/L			07/20/22 15:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/20/22 15:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/20/22 15:45	1

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

Job ID: 400-222952-1

Client Sample ID: TB-ROX-071322-8260-BP
Date Collected: 07/13/22 12:00
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222952-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/20/22 15:45	1
Styrene	ND		1.0	1.0	ug/L			07/20/22 15:45	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/20/22 15:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/20/22 15:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/22 15:45	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/20/22 15:45	1
Toluene	ND		1.0	0.41	ug/L			07/20/22 15:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 15:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/20/22 15:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/20/22 15:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/20/22 15:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/20/22 15:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/20/22 15:45	1
Trichloroethene	ND		1.0	0.15	ug/L			07/20/22 15:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/20/22 15:45	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/20/22 15:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/20/22 15:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/20/22 15:45	1
Vinyl acetate	ND		25	0.93	ug/L			07/20/22 15:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/22 15:45	1
Xylenes, Total	ND		10	1.6	ug/L			07/20/22 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/20/22 15:45*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/20/22 15:45*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/20/22 15:45*	*1*

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

Job ID: 400-222952-1

Client Sample ID: TB-ROX-071322-8011-BP
Date Collected: 07/13/22 12:00
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222952-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/22/22 09:32	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/22/22 09:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*51 - 149*	*07/21/22 10:46*	*07/22/22 09:32*	*1*

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

Job ID: 400-222952-1

Client Sample ID: MW23-ROX-071322
Date Collected: 07/13/22 08:20
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222952-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/20/22 16:12	1
Acrolein	ND		20	3.3	ug/L			07/20/22 16:12	1
Acrylonitrile	ND		10	2.8	ug/L			07/20/22 16:12	1
Benzene	ND		1.0	0.13	ug/L			07/20/22 16:12	1
Bromobenzene	ND		1.0	0.54	ug/L			07/20/22 16:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/20/22 16:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/22 16:12	1
Bromoform	ND		5.0	0.25	ug/L			07/20/22 16:12	1
Bromomethane	ND		1.0	0.98	ug/L			07/20/22 16:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/20/22 16:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/20/22 16:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/20/22 16:12	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/20/22 16:12	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/20/22 16:12	1
Chloroethane	ND		1.0	0.76	ug/L			07/20/22 16:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 16:12	1
Chloroform	ND		1.0	1.0	ug/L			07/20/22 16:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/20/22 16:12	1
Chloromethane	ND		1.0	0.32	ug/L			07/20/22 16:12	1
cis-1,2-Dichloroethene	**0.21**	**J**	1.0	0.20	ug/L			07/20/22 16:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/20/22 16:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/22 16:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/20/22 16:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/20/22 16:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/20/22 16:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/22 16:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/20/22 16:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 16:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 16:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 16:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 16:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/22 16:12	1
Ethy benzene	ND		1.0	0.50	ug/L			07/20/22 16:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/20/22 16:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/20/22 16:12	1
2-Hexanone	ND		25	1.4	ug/L			07/20/22 16:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/20/22 16:12	1
Methylene bromide	ND		5.0	0.22	ug/L			07/20/22 16:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/20/22 16:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/20/22 16:12	1
Methyl tert-butyl ether	**0.82**	**J**	1.0	0.22	ug/L			07/20/22 16:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/20/22 16:12	1
Naphthalene	ND		5.0	3.0	ug/L			07/20/22 16:12	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/20/22 16:12	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/20/22 16:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/20/22 16:12	1
o-Xylene	ND		5.0	0.60	ug/L			07/20/22 16:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/20/22 16:12	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/20/22 16:12	1

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

Job ID: 400-222952-1

Client Sample ID: MW23-ROX-071322
Date Collected: 07/13/22 08:20
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222952-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/20/22 16:12	1
Styrene	ND		1.0	1.0	ug/L			07/20/22 16:12	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/20/22 16:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/20/22 16:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/22 16:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/20/22 16:12	1
Toluene	ND		1.0	0.41	ug/L			07/20/22 16:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 16:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/20/22 16:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/20/22 16:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/20/22 16:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/20/22 16:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/20/22 16:12	1
Trichloroethene	ND		1.0	0.15	ug/L			07/20/22 16:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/20/22 16:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/20/22 16:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/20/22 16:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/20/22 16:12	1
Vinyl acetate	ND		25	0.93	ug/L			07/20/22 16:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/22 16:12	1
Xylenes, Total	ND		10	1.6	ug/L			07/20/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/20/22 16:12*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/20/22 16:12*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/20/22 16:12*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 18:38	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/20/22 15:41	07/27/22 18:38	1
Anthracene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 18:38	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		07/20/22 15:41	07/27/22 18:38	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/20/22 15:41	07/27/22 18:38	1
Benzo[b]fluoranthene	**0.041**	**J**	0.19	0.032	ug/L		07/20/22 15:41	07/27/22 18:38	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/20/22 15:41	07/27/22 18:38	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/20/22 15:41	07/27/22 18:38	1
Chrysene	ND		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 18:38	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/20/22 15:41	07/27/22 18:38	1
Fluoranthene	ND		0.19	0.065	ug/L		07/20/22 15:41	07/27/22 18:38	1
Fluorene	ND		0.19	0.10	ug/L		07/20/22 15:41	07/27/22 18:38	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/20/22 15:41	07/27/22 18:38	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 18:38	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/20/22 15:41	07/27/22 18:38	1
Phenanthrene	ND		0.19	0.034	ug/L		07/20/22 15:41	07/27/22 18:38	1
Pyrene	ND		0.19	0.038	ug/L		07/20/22 15:41	07/27/22 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*117*		*15 - 122*	*07/20/22 15:41*	*07/27/22 18:38*	*1*
Nitrobenzene-d5	*109*		*19 - 130*	*07/20/22 15:41*	*07/27/22 18:38*	*1*

Client Sample ID: MW23-ROX-071322
Date Collected: 07/13/22 08:20
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222952-3
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*133*		*33 - 138*	*07/20/22 15:41*	*07/27/22 18:38*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 15:07	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/20/22 15:41	07/25/22 15:07	1
Benzoic acid	**16**	**J**	29	6.9	ug/L		07/20/22 15:41	07/25/22 15:07	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 15:07	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 15:07	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 15:07	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 15:07	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		07/20/22 15:41	07/25/22 15:07	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/20/22 15:41	07/25/22 15:07	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/20/22 15:41	07/25/22 15:07	1
4-Chloroaniline	ND	*1	9.5	3.2	ug/L		07/20/22 15:41	07/25/22 15:07	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 15:07	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 15:07	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 15:07	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 15:07	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 15:07	1
D benzofuran	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 15:07	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/20/22 15:41	07/25/22 15:07	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		07/20/22 15:41	07/25/22 15:07	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/20/22 15:41	07/25/22 15:07	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 15:07	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 15:07	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 15:07	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/20/22 15:41	07/25/22 15:07	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		07/20/22 15:41	07/25/22 15:07	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 15:07	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 15:07	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 15:07	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 15:07	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 15:07	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 15:07	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/20/22 15:41	07/25/22 15:07	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/20/22 15:41	07/25/22 15:07	1
Indene	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 15:07	1
Isophorone	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 15:07	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 15:07	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/20/22 15:41	07/25/22 15:07	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 15:07	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 15:07	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/20/22 15:41	07/25/22 15:07	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/20/22 15:41	07/25/22 15:07	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/20/22 15:41	07/25/22 15:07	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/20/22 15:41	07/25/22 15:07	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 15:07	1

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

Job ID: 400-222952-1

Client Sample ID: MW23-ROX-071322
Date Collected: 07/13/22 08:20
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222952-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/20/22 15:41	07/25/22 15:07	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/20/22 15:41	07/25/22 15:07	1
Pentachlorophenol	ND		19	1.3	ug/L		07/20/22 15:41	07/25/22 15:07	1
Phenol	ND		9.5	2.5	ug/L		07/20/22 15:41	07/25/22 15:07	1
Pyridine	ND		9.5	3.0	ug/L		07/20/22 15:41	07/25/22 15:07	1
Quinoline	ND		9.5	4.3	ug/L		07/20/22 15:41	07/25/22 15:07	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/20/22 15:41	07/25/22 15:07	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*07/20/22 15:41*	*07/25/22 15:07*	*1*
2-Fluorophenol	*67*		*13 - 113*	*07/20/22 15:41*	*07/25/22 15:07*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*07/20/22 15:41*	*07/25/22 15:07*	*1*
Phenol-d5	*82*		*17 - 127*	*07/20/22 15:41*	*07/25/22 15:07*	*1*
Terphenyl-d14	*114*		*44 - 149*	*07/20/22 15:41*	*07/25/22 15:07*	*1*
2,4,6-Tribromophenol	*106*		*26 - 150*	*07/20/22 15:41*	*07/25/22 15:07*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/22/22 09:52	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/22/22 09:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*51 - 149*	*07/21/22 10:46*	*07/22/22 09:52*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-222952-1
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.
*+	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.

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: 400-222952-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-222952-1	TB-ROX-071322-8260-BP	83	109	98
400-222952-3	MW23-ROX-071322	85	107	100
LCS 400-585405/1002	Lab Control Sample	89	98	102
MB 400-585405/5	Method Blank	83	106	99

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-222952-3	MW23-ROX-071322	83	67	84	82	114	106
LCS 400-585529/2-A	Lab Control Sample	81	67	83	81	95	91
LCS 400-585529/4-A	Lab Control Sample	90	76	83	87	104	70
LCSD 400-585529/3-A	Lab Control Sample Dup	81	57	84	78	96	93
LCSD 400-585529/5-A	Lab Control Sample Dup	91	72	86	87	112	56
MB 400-585529/1-A	Method Blank	72	49	70	67	84	55

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-222952-3	MW23-ROX-071322	117	109	133
LCS 400-585529/2-A	Lab Control Sample	102	72	108
LCSD 400-585529/3-A	Lab Control Sample Dup	104	91	110
MB 400-585529/1-A	Method Blank	99	96	114

Surrogate Legend

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Job ID: 400-222952-1
Project/Site: ROXANA QUARTERLY GW

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-222952-2	TB-ROX-071322-8011-BP	117
400-222952-3	MW23-ROX-071322	97
LCS 400-585620/2-A	Lab Control Sample	90
LCSD 400-585620/3-A	Lab Control Sample Dup	101
MB 400-585620/1-A	Method Blank	103

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-222952-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL 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:

TAL 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: 400-222952-1

Client Sample ID: TB-ROX-071322-8260-BP
Lab Sample ID: 400-222952-1
Date Collected: 07/13/22 12:00
Matrix: Water
Date Received: 07/14/22 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585405	07/20/22 15:45	WPD	TAL PEN

Client Sample ID: TB-ROX-071322-8011-BP
Lab Sample ID: 400-222952-2
Date Collected: 07/13/22 12:00
Matrix: Water
Date Received: 07/14/22 08:37

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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 09:32	JAW	TAL PEN

Client Sample ID: MW23-ROX-071322
Lab Sample ID: 400-222952-3
Date Collected: 07/13/22 08:20
Matrix: Water
Date Received: 07/14/22 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585405	07/20/22 16:12	WPD	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 15:07	VC1	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 18:38	KJA	TAL PEN
Total/NA	Prep	8011			35.2 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 09:52	JAW	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585405/5
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585405	07/20/22 09:47	WPD	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585529/1-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:25	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 16:19	KJA	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585620/1-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 16:16	JAW	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585405/1002

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585405	07/20/22 08:24	WPD	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585529/2-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:46	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			586444	07/27/22 16:34	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585529/4-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:28	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585620/2-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 16:37	JAW	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585529/3-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:07	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			586444	07/27/22 16:50	KJA	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-222952-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585529/5-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:49	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585620/3-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 17:25	JAW	TAL PEN

Laboratory References:

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

GC/MS VOA

Analysis Batch: 585405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222952-1	TB-ROX-071322-8260-BP	Total/NA	Water	8260B	
400-222952-3	MW23-ROX-071322	Total/NA	Water	8260B	
MB 400-585405/5	Method Blank	Total/NA	Water	8260B	
LCS 400-585405/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 585529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222952-3	MW23-ROX-071322	Total/NA	Water	3520C	
MB 400-585529/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-585529/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-585529/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 585828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-585529/1-A	Method Blank	Total/NA	Water	8270D	585529
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	8270D	585529
LCS 400-585529/4-A	Lab Control Sample	Total/NA	Water	8270D	585529
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	585529
LCSD 400-585529/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	585529

Analysis Batch: 585995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222952-3	MW23-ROX-071322	Total/NA	Water	8270D	585529

Analysis Batch: 586444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222952-3	MW23-ROX-071322	Total/NA	Water	8270D LL	585529
MB 400-585529/1-A	Method Blank	Total/NA	Water	8270D LL	585529
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	8270D LL	585529
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	585529

GC Semi VOA

Prep Batch: 585620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222952-2	TB-ROX-071322-8011-BP	Total/NA	Water	8011	
400-222952-3	MW23-ROX-071322	Total/NA	Water	8011	
MB 400-585620/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-585620/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-585620/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 585690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222952-2	TB-ROX-071322-8011-BP	Total/NA	Water	8011	585620
400-222952-3	MW23-ROX-071322	Total/NA	Water	8011	585620
MB 400-585620/1-A	Method Blank	Total/NA	Water	8011	585620
LCS 400-585620/2-A	Lab Control Sample	Total/NA	Water	8011	585620
LCSD 400-585620/3-A	Lab Control Sample Dup	Total/NA	Water	8011	585620

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

Lab Sample ID: MB 400-585405/5
Matrix: Water
Analysis Batch: 585405

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			07/20/22 09:47	1
Acrolein	ND		20	3.3	ug/L			07/20/22 09:47	1
Acrylonitrile	ND		10	2.8	ug/L			07/20/22 09:47	1
Benzene	ND		1.0	0.13	ug/L			07/20/22 09:47	1
Bromobenzene	ND		1.0	0.54	ug/L			07/20/22 09:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/20/22 09:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Bromoform	ND		5.0	0.25	ug/L			07/20/22 09:47	1
Bromomethane	ND		1.0	0.98	ug/L			07/20/22 09:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/20/22 09:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/20/22 09:47	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/20/22 09:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/20/22 09:47	1
Chloroethane	ND		1.0	0.76	ug/L			07/20/22 09:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 09:47	1
Chloroform	ND		1.0	1.0	ug/L			07/20/22 09:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/20/22 09:47	1
Chloromethane	ND		1.0	0.32	ug/L			07/20/22 09:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/20/22 09:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/20/22 09:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/20/22 09:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/20/22 09:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/20/22 09:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/20/22 09:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/20/22 09:47	1
2-Hexanone	ND		25	1.4	ug/L			07/20/22 09:47	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/20/22 09:47	1
Methylene bromide	ND		5.0	0.22	ug/L			07/20/22 09:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/20/22 09:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/20/22 09:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/20/22 09:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/20/22 09:47	1
Naphthalene	ND		5.0	3.0	ug/L			07/20/22 09:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/20/22 09:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/20/22 09:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/20/22 09:47	1
o-Xylene	ND		5.0	0.60	ug/L			07/20/22 09:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/20/22 09:47	1

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

Lab Sample ID: MB 400-585405/5
Matrix: Water
Analysis Batch: 585405

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			07/20/22 09:47	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/20/22 09:47	1
Styrene	ND		1.0	1.0	ug/L			07/20/22 09:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/20/22 09:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/20/22 09:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/20/22 09:47	1
Toluene	ND		1.0	0.41	ug/L			07/20/22 09:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/20/22 09:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/20/22 09:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/20/22 09:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/20/22 09:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/20/22 09:47	1
Trichloroethene	ND		1.0	0.15	ug/L			07/20/22 09:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/20/22 09:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/20/22 09:47	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/20/22 09:47	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/20/22 09:47	1
Vinyl acetate	ND		25	0.93	ug/L			07/20/22 09:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Xylenes, Total	ND		10	1.6	ug/L			07/20/22 09:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/20/22 09:47*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/20/22 09:47*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/20/22 09:47*	*1*

Lab Sample ID: LCS 400-585405/1002
Matrix: Water
Analysis Batch: 585405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	212		ug/L		106	43 - 160
Acrolein	500	516		ug/L		103	38 - 160
Acrylonitrile	500	542		ug/L		108	64 - 142
Benzene	50.0	47.0		ug/L		94	70 - 130
Bromobenzene	50.0	52.8		ug/L		106	70 - 132
Bromochloromethane	50.0	49.1		ug/L		98	70 - 130
Bromodichloromethane	50.0	47.2		ug/L		94	67 - 133
Bromoform	50.0	60.2		ug/L		120	57 - 140
Bromomethane	50.0	46.6		ug/L		93	10 - 160
2-Butanone (MEK)	200	216		ug/L		108	61 - 145
Carbon disulfide	50.0	47.4		ug/L		95	61 - 137
Carbon tetrachloride	50.0	49.3		ug/L		99	61 - 137
Chlorobenzene	50.0	51.9		ug/L		104	70 - 130
Dibromochloromethane	50.0	57.0		ug/L		114	67 - 135
Chloroethane	50.0	44.8		ug/L		90	55 - 141

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

Lab Sample ID: LCS 400-585405/1002
Matrix: Water
Analysis Batch: 585405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	16.7		ug/L		33	10 - 160
Chloroform	50.0	46.2		ug/L		92	69 - 130
1-Chlorohexane	50.0	52.6		ug/L		105	69 - 130
Chloromethane	50.0	49.4		ug/L		99	58 - 137
cis-1,2-Dichloroethene	50.0	48.8		ug/L		98	68 - 130
cis-1,3-Dichloropropene	50.0	47.9		ug/L		96	69 - 132
1,2-Dichlorobenzene	50.0	53.7		ug/L		107	67 - 130
1,3-Dichlorobenzene	50.0	56.6		ug/L		113	70 - 130
1,4-Dichlorobenzene	50.0	54.7		ug/L		109	70 - 130
Dichlorodifluoromethane	50.0	53.0		ug/L		106	41 - 146
1,1-Dichloroethane	50.0	48.8		ug/L		98	70 - 130
1,2-Dichloroethane	50.0	48.6		ug/L		97	69 - 130
1,1-Dichloroethene	50.0	48.1		ug/L		96	63 - 134
1,2-Dichloropropane	50.0	45.5		ug/L		91	70 - 130
1,3-Dichloropropane	50.0	52.0		ug/L		104	70 - 130
2,2-Dichloropropane	50.0	50.0		ug/L		100	52 - 135
1,1-Dichloropropene	50.0	51.9		ug/L		104	70 - 130
Ethylbenzene	50.0	51.0		ug/L		102	70 - 130
Ethyl methacrylate	50.0	52.0		ug/L		104	68 - 130
Hexachlorobutadiene	50.0	63.8		ug/L		128	53 - 140
2-Hexanone	200	201		ug/L		101	65 - 137
Isopropy benzene	50.0	51.8		ug/L		104	70 - 130
Methylene bromide	50.0	47.2		ug/L		94	70 - 130
Methylene Chloride	50.0	46.7		ug/L		93	66 - 135
4-Methyl-2-pentanone (MIBK)	200	205		ug/L		103	69 - 138
Methyl tert-butyl ether	50.0	49.8		ug/L		100	66 - 130
m-Xylene & p-Xylene	50.0	51.4		ug/L		103	70 - 130
Naphthalene	50.0	54.0		ug/L		108	47 - 149
n-Butylbenzene	50.0	52.8		ug/L		106	67 - 130
N-Propylbenzene	50.0	50.2		ug/L		100	70 - 130
o-Chlorotoluene	50.0	50.1		ug/L		100	70 - 130
o-Xylene	50.0	50.4		ug/L		101	70 - 130
p-Chlorotoluene	50.0	51.0		ug/L		102	70 - 130
p-Isopropyltoluene	50.0	53.5		ug/L		107	65 - 130
sec-Butylbenzene	50.0	51.3		ug/L		103	66 - 130
Styrene	50.0	49.5		ug/L		99	70 - 130
tert-Butylbenzene	50.0	51.2		ug/L		102	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.9		ug/L		102	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.8		ug/L		98	70 - 131
Tetrachloroethene	50.0	55.8		ug/L		112	65 - 130
Toluene	50.0	51.3		ug/L		103	70 - 130
trans-1,2-Dichloroethene	50.0	50.1		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	52.4		ug/L		105	63 - 130
1,2,3-Trichlorobenzene	50.0	58.7		ug/L		117	60 - 138
1,2,4-Trichlorobenzene	50.0	57.4		ug/L		115	60 - 140
1,1,1-Trichloroethane	50.0	50.5		ug/L		101	68 - 130
1,1,2-Trichloroethane	50.0	51.4		ug/L		103	70 - 130
Trichloroethene	50.0	50.7		ug/L		101	70 - 130
Trichlorofluoromethane	50.0	50.2		ug/L		100	65 - 138

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

Lab Sample ID: LCS 400-585405/1002
Matrix: Water
Analysis Batch: 585405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	51.0		ug/L		102	70 - 130
1,2,4-Trimethy benzene	50.0	52.6		ug/L		105	70 - 130
1,3,5-Trimethy benzene	50.0	50.3		ug/L		101	69 - 130
Vinyl acetate	100	109		ug/L		109	26 - 160
Vinyl chloride	50.0	50.0		ug/L		100	59 - 136
Xylenes, Total	100	102		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzenethiol	ND		10	1.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzoic acid	ND		30	7.3	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzyl alcohol	ND		10	2.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/20/22 15:41	07/22/22 16:25	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chloroaniline	ND		10	3.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Chlorophenol	ND		10	2.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dibenzofuran	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Diethyl phthalate	ND		10	0.24	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/20/22 15:41	07/22/22 16:25	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
1,4-Dioxane	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachloroethane	ND		10	4.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
Indene	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Isophorone	ND		10	0.14	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Methylphenol	ND		10	1.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Nitroaniline	ND		10	2.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
3-Nitroaniline	ND		10	1.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Nitroaniline	ND		10	1.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
Nitrobenzene	ND		10	0.13	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Nitrophenol	ND		10	5.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Nitrophenol	ND		10	2.1	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/20/22 15:41	07/22/22 16:25	1
Pentachlorophenol	ND		20	1.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
Phenol	ND		10	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
Pyridine	ND		10	3.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
Quinoline	ND		10	4.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
2-Fluorophenol	*49*		*13 - 113*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Phenol-d5	*67*		*17 - 127*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Terphenyl-d14	*84*		*44 - 149*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
2,4,6-Tribromophenol	*55*		*26 - 150*	*07/20/22 15:41*	*07/22/22 16:25*	*1*

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	89.9		ug/L		75	21 - 120
Benzoic acid	513	292		ug/L		57	10 - 144
Benzyl alcohol	120	96.2		ug/L		80	28 - 120
Bis(2-chloroethoxy)methane	120	88.0		ug/L		73	47 - 120
Bis(2-chloroethyl)ether	120	87.9		ug/L		73	44 - 120
bis (2-chloroisopropyl) ether	120	82.7		ug/L		69	33 - 121
Bis(2-ethylhexyl) phthalate	120	110		ug/L		92	52 - 147
4-Bromophenyl phenyl ether	120	111		ug/L		92	54 - 122
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133
4-Chloroaniline	120	66.0		ug/L		55	26 - 120
4-Chloro-3-methylphenol	120	102		ug/L		85	48 - 131

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

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	98.1		ug/L		82	52 - 121
2-Chlorophenol	120	94.2		ug/L		79	40 - 120
4-Chlorophenyl phenyl ether	120	99.4		ug/L		83	56 - 125
Dibenz[a,h]acridine	120	118		ug/L		99	31 - 150
Dibenzofuran	120	95.2		ug/L		79	56 - 122
3,3'-Dichlorobenzidine	160	226	*+	ug/L		141	36 - 132
2,4-Dichlorophenol	120	98.2		ug/L		82	49 - 120
Diethyl phthalate	120	96.9		ug/L		81	50 - 137
2,4-Dimethylphenol	120	94.7		ug/L		79	48 - 120
Dimethyl phthalate	120	99.3		ug/L		83	57 - 124
Di-n-butyl phthalate	120	116		ug/L		97	58 - 126
4,6-Dinitro-ortho-cresol	240	231		ug/L		96	23 - 148
2,4-Dinitrophenol	240	213		ug/L		89	10 - 150
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142
2,6-Dinitrotoluene	120	107		ug/L		89	55 - 130
Di-n-octyl phthalate	120	110		ug/L		92	57 - 138
1,4-Dioxane	120	65.2		ug/L		54	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	97.6		ug/L		81	45 - 124
Hexachlorobenzene	120	110		ug/L		92	52 - 129
Hexachlorocyclopentadiene	120	85.0		ug/L		71	10 - 134
Hexachloroethane	120	75.9		ug/L		63	20 - 120
Indene	120	93.0		ug/L		78	49 - 120
Isophorone	120	89.9		ug/L		75	48 - 120
2-Methylphenol	120	95.5		ug/L		80	46 - 124
3 & 4 Methylphenol	120	90.5		ug/L		75	45 - 120
2-Nitroaniline	120	101		ug/L		84	51 - 145
3-Nitroaniline	120	105		ug/L		87	37 - 127
4-Nitroaniline	120	119		ug/L		99	36 - 137
Nitrobenzene	120	86.9		ug/L		72	45 - 120
2-Nitrophenol	120	78.3		ug/L		65	40 - 124
4-Nitrophenol	240	196		ug/L		82	23 - 146
N-Nitrosodimethylamine	120	91.2		ug/L		76	29 - 137
N-Nitrosodi-n-propylamine	120	90.7		ug/L		76	45 - 120
N-Nitrosodiphenylamine	119	109		ug/L		92	54 - 120
Pentachlorophenol	240	191		ug/L		80	31 - 130
Phenol	120	88.1		ug/L		73	11 - 120
Pyridine	240	145		ug/L		60	16 - 120
Quinoline	120	103		ug/L		86	49 - 130
2,4,5-Trichlorophenol	120	110		ug/L		91	51 - 136
2,4,6-Trichlorophenol	120	111		ug/L		92	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*67*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*

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

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*91*		*26 - 150*

Lab Sample ID: LCS 400-585529/4-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	35.5		ug/L		30	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*46 - 124*
2-Fluorophenol	*76*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*87*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	96.5		ug/L		80	21 - 120	7	30
Benzoic acid			513	347		ug/L		68	10 - 144	17	30
Benzyl alcohol			120	102		ug/L		85	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	92.5		ug/L		77	47 - 120	5	30
Bis(2-chloroethyl)ether			120	89.8		ug/L		75	44 - 120	2	30
bis (2-chloroisopropyl) ether			120	86.4		ug/L		72	33 - 121	4	30
Bis(2-ethylhexyl) phthalate			120	119		ug/L		99	52 - 147	7	30
4-Bromophenyl phenyl ether			120	120		ug/L		100	54 - 122	8	30
Butyl benzyl phthalate			120	111		ug/L		92	54 - 133	7	30
4-Chloroaniline			120	92.7	*1	ug/L		77	26 - 120	34	30
4-Chloro-3-methylphenol			120	107		ug/L		89	48 - 131	5	30
2-Chloronaphthalene			120	103		ug/L		86	52 - 121	5	30
2-Chlorophenol			120	91.5		ug/L		76	40 - 120	3	30
4-Chlorophenyl phenyl ether			120	105		ug/L		88	56 - 125	6	30
Dibenz[a,h]acridine			120	126		ug/L		105	31 - 150	6	30
Dibenzofuran			120	100		ug/L		84	56 - 122	5	30
3,3'-Dichlorobenzidine			160	247	*+	ug/L		154	36 - 132	9	30
2,4-Dichlorophenol			120	101		ug/L		84	49 - 120	3	30
Diethyl phthalate			120	103		ug/L		86	50 - 137	6	30
2,4-Dimethylphenol			120	98.7		ug/L		82	48 - 120	4	30
Dimethyl phthalate			120	107		ug/L		89	57 - 124	7	30
Di-n-butyl phthalate			120	121		ug/L		101	58 - 126	4	30
4,6-Dinitro-ortho-cresol			240	255		ug/L		106	23 - 148	10	30
2,4-Dinitrophenol			240	233		ug/L		97	10 - 150	9	30
2,4-Dinitrotoluene			120	116		ug/L		97	54 - 142	7	30
2,6-Dinitrotoluene			120	113		ug/L		94	55 - 130	6	30

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

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	118		ug/L		98	57 - 138	7	30
1,4-Dioxane			120	64.5		ug/L		54	31 - 120	1	30
1,2-Diphenylhydrazine (as Azobenzene)			120	104		ug/L		86	45 - 124	6	30
Hexachlorobenzene			120	116		ug/L		97	52 - 129	5	30
Hexachlorocyclopentadiene			120	82.6		ug/L		69	10 - 134	3	30
Hexachloroethane			120	80.3		ug/L		67	20 - 120	6	30
Indene			120	101		ug/L		84	49 - 120	8	30
Isophorone			120	95.0		ug/L		79	48 - 120	6	30
2-Methylphenol			120	98.3		ug/L		82	46 - 124	3	30
3 & 4 Methylphenol			120	93.8		ug/L		78	45 - 120	4	30
2-Nitroaniline			120	110		ug/L		91	51 - 145	8	30
3-Nitroaniline			120	114		ug/L		95	37 - 127	9	30
4-Nitroaniline			120	128		ug/L		106	36 - 137	7	30
Nitrobenzene			120	91.2		ug/L		76	45 - 120	5	30
2-Nitrophenol			120	80.7		ug/L		67	40 - 124	3	30
4-Nitrophenol			240	214		ug/L		89	23 - 146	9	30
N-Nitrosodimethylamine			120	96.6		ug/L		81	29 - 137	6	30
N-Nitrosodi-n-propylamine			120	94.6		ug/L		79	45 - 120	4	30
N-Nitrosodiphenylamine			119	120		ug/L		101	54 - 120	10	30
Pentachlorophenol			240	209		ug/L		87	31 - 130	9	30
Phenol			120	89.3		ug/L		74	11 - 120	1	30
Pyridine			240	151		ug/L		63	16 - 120	4	30
Quinoline			120	112		ug/L		94	49 - 130	8	30
2,4,5-Trichlorophenol			120	117		ug/L		98	51 - 136	7	30
2,4,6-Trichlorophenol			120	116		ug/L		96	50 - 127	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*57*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*93*		*26 - 150*

Lab Sample ID: LCSD 400-585529/5-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	5.09	J *- *1	ug/L		4	10 - 120	150	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*72*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*87*		*17 - 127*
Terphenyl-d14	*112*		*44 - 149*

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

Lab Sample ID: LCSD 400-585529/5-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*56*		*26 - 150*

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/20/22 15:41	07/27/22 16:19	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/20/22 15:41	07/27/22 16:19	1
Anthracene	ND		0.20	0.032	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/20/22 15:41	07/27/22 16:19	1
Chrysene	ND		0.20	0.074	ug/L		07/20/22 15:41	07/27/22 16:19	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/20/22 15:41	07/27/22 16:19	1
Fluoranthene	ND		0.20	0.068	ug/L		07/20/22 15:41	07/27/22 16:19	1
Fluorene	ND		0.20	0.11	ug/L		07/20/22 15:41	07/27/22 16:19	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/20/22 15:41	07/27/22 16:19	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/20/22 15:41	07/27/22 16:19	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/20/22 15:41	07/27/22 16:19	1
Phenanthrene	ND		0.20	0.036	ug/L		07/20/22 15:41	07/27/22 16:19	1
Pyrene	ND		0.20	0.040	ug/L		07/20/22 15:41	07/27/22 16:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*99*		*15 - 122*	*07/20/22 15:41*	*07/27/22 16:19*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*07/20/22 15:41*	*07/27/22 16:19*	*1*
Terphenyl-d14	*114*		*33 - 138*	*07/20/22 15:41*	*07/27/22 16:19*	*1*

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	114		ug/L		95	41 - 120
Acenaphthylene	120	114		ug/L		95	44 - 120
Anthracene	120	121		ug/L		101	49 - 120
Benzo[a]anthracene	120	121		ug/L		101	61 - 135
Benzo[a]pyrene	120	105		ug/L		88	52 - 120
Benzo[b]fluoranthene	120	126		ug/L		105	53 - 134
Benzo[g,h,i]perylene	120	104		ug/L		86	47 - 133
Benzo[k]fluoranthene	120	113		ug/L		94	57 - 134
Chrysene	120	102		ug/L		85	55 - 122
Dibenz(a,h)anthracene	120	126		ug/L		105	48 - 146
Fluoranthene	120	120		ug/L		100	54 - 128

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

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluorene			120	120		ug/L		100	45 - 125		
Indeno[1,2,3-cd]pyrene			120	115		ug/L		96	43 - 142		
1-Methylnaphthalene			120	94.3		ug/L		79	41 - 120		
2-Methylnaphthalene			120	91.6		ug/L		76	32 - 124		
Phenanthrene			120	121		ug/L		101	48 - 120		
Pyrene			120	115		ug/L		96	48 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*
Nitrobenzene-d5	*72*		*19 - 130*
Terphenyl-d14	*108*		*33 - 138*

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			120	129		ug/L		107	41 - 120	12	56
Acenaphthylene			120	128		ug/L		106	44 - 120	11	56
Anthracene			120	140		ug/L		117	49 - 120	14	51
Benzo[a]anthracene			120	138		ug/L		115	61 - 135	13	49
Benzo[a]pyrene			120	123		ug/L		102	52 - 120	15	50
Benzo[b]fluoranthene			120	142		ug/L		118	53 - 134	12	54
Benzo[g,h,i]perylene			120	114		ug/L		95	47 - 133	10	50
Benzo[k]fluoranthene			120	131		ug/L		109	57 - 134	14	52
Chrysene			120	116		ug/L		97	55 - 122	13	50
Dibenz(a,h)anthracene			120	142		ug/L		118	48 - 146	12	50
Fluoranthene			120	138		ug/L		115	54 - 128	14	52
Fluorene			120	137		ug/L		114	45 - 125	14	56
Indeno[1,2,3-cd]pyrene			120	128		ug/L		107	43 - 142	11	51
1-Methylnaphthalene			120	102		ug/L		85	41 - 120	7	55
2-Methylnaphthalene			120	99.5		ug/L		83	32 - 124	8	57
Phenanthrene			120	138		ug/L		115	48 - 120	14	56
Pyrene			120	129		ug/L		108	48 - 132	12	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*104*		*15 - 122*
Nitrobenzene-d5	*91*		*19 - 130*
Terphenyl-d14	*110*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-585620/1-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585620

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/21/22 16:16	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-585620/1-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585620

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/21/22 16:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*51 - 149*	*07/21/22 10:46*	*07/21/22 16:16*	*1*

Lab Sample ID: LCS 400-585620/2-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585620

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.115		ug/L		114	60 - 140		
1,2-D bromoethane			0.101	0.108		ug/L		107	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*51 - 149*

Lab Sample ID: LCSD 400-585620/3-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585620

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.113		ug/L		112	60 - 140	4	30
1,2-D bromoethane			0.101	0.109		ug/L		108	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*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: 7/13/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 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 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): J. Mayer, J. Nichols
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; andrei.zamfir@aecom.com

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

REQUESTED ANALYSIS
60674381 – 3.3.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

400-222952 COC

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-071322-8260-BP	7/13/2022	0000	Water	2					2	X			
	TB-ROX-071322-8011-BP	7/13/2022	0000	Water	2					2		X		
	MW23-ROX-071322	7/13/2022	0820	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Joe Mayer	FEDEX: 5564 3930 5431	7/13/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 7/14/22	Time: 831
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 979468, 979469

Version: 11July22

Page 33 of 35

7/28/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-222952-1

Login Number: 222952
List Number: 1
Creator: DeKlerk, Michaela

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	1.1°C IR9
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").	False	Headspace larger than 1/4" in one or more vials, one vial with accpt. headspace
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: 400-222952-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 3rd Quarter 2022 Data Review

Laboratory SDG: 400-222958-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Andreia Vladimirescu

Date Reviewed: 9/13/2022

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

Sample Identification	Sample Identification
TB-ROX-071322-8260-B	TB-ROX-071322-8011-B
P74-ROX-071322-EB	P74-ROX-071322
P56-ROX-071322	P93C-ROX-071322

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. This issue is addressed further in the appropriate section of this data review.

Three of 69 (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 400-585529/4-A/5-A	SVOCs	Benzenethiol	30/**4**	**150**	10-120/30

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-585529/2-A/3-A	SVOCs	4-Chloroaniline	55/77	**34**	26-120/30
LCS/LCSD 400-585529/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	**141/154**	9	36-132/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
P74-ROX-071322	SVOCs	Benzenethiol	**UJ**
P56-ROX-071322	SVOCs	Benzenethiol	**UJ**
P93C-ROX-071322	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

No

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-222958-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
7/28/2022 12:03:34 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Sample Summary 5
Detection Summary 6
Client Sample Results 8
Definitions 27
Surrogate Summary 28
Method Summary 30
Chronicle 31
QC Association 35
QC Sample Results 37
Chain of Custody 48
Receipt Checklists 49
Certification Summary 50

Job ID: 400-222958-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-222958-1

Comments
No additional comments.

Receipt
The samples were received on 7/14/2022 8:37 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.1º C.

GC/MS VOA
Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-582407 was outside method criteria for the following analyte(s): Dichlorodifluoromethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-071322-8260-B (400-222958-1), P74-ROX-071322-EB (400-222958-3), P74-ROX-071322 (400-222958-4), P56-ROX-071322 (400-222958-5) and P93C-ROX-071322 (400-222958-6). 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 8270D: The continuing calibration verification (CCV) associated with batch 400-585995 recovered above the upper control limit for 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: 4-Chloroaniline.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: P74-ROX-071322-EB (400-222958-3), P74-ROX-071322 (400-222958-4), P56-ROX-071322 (400-222958-5), P93C-ROX-071322 (400-222958-6), (LCS 400-585529/2-A), (LCSD 400-585529/3-A) and (MB 400-585529/1-A). These results have been reported and qualified.

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

GC Semi VOA
Method 8011: The continuing calibration verification (CCV) associated with batch 400-585690 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-222958-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

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

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

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

Sample Summary

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

Job ID: 400-222958-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-222958-1	TB-ROX-071322-8260-B	Water	07/13/22 12:00	07/14/22 08:37
400-222958-2	TB-ROX-071322-8011-B	Water	07/13/22 12:00	07/14/22 08:37
400-222958-3	P74-ROX-071322-EB	Water	07/13/22 08:40	07/14/22 08:37
400-222958-4	P74-ROX-071322	Water	07/13/22 10:30	07/14/22 08:37
400-222958-5	P56-ROX-071322	Water	07/13/22 12:10	07/14/22 08:37
400-222958-6	P93C-ROX-071322	Water	07/13/22 13:20	07/14/22 08:37

Detection Summary

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

Job ID: 400-222958-1

Client Sample ID: TB-ROX-071322-8260-B — Lab Sample ID: 400-222958-1

No Detections.

Client Sample ID: TB-ROX-071322-8011-B — Lab Sample ID: 400-222958-2

No Detections.

Client Sample ID: P74-ROX-071322-EB — Lab Sample ID: 400-222958-3

No Detections.

Client Sample ID: P74-ROX-071322 — Lab Sample ID: 400-222958-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	41		1.0	0.13	ug/L	1		8260B	Total/NA
Carbon disulfide	0.59	J	1.0	0.50	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.68	J	1.0	0.22	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	1.1	J	5.0	0.63	ug/L	1		8260B	Total/NA
Toluene	1.3		1.0	0.41	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.087	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.17	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.061	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.048	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.069	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: P56-ROX-071322 — Lab Sample ID: 400-222958-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.70	J	1.0	0.13	ug/L	1		8260B	Total/NA
Carbon disulfide	0.74	J	1.0	0.50	ug/L	1		8260B	Total/NA
Ethylbenzene	2.2		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	17		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	52		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	5.2		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	0.82	J	1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	21		1.0	0.69	ug/L	1		8260B	Total/NA
o-Chlorotoluene	1.4		1.0	0.57	ug/L	1		8260B	Total/NA
o-Xylene	1.7	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.2		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	2.3		1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	1.4		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	27		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	7.1		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	54		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	0.63		0.18	0.030	ug/L	1		8270D LL	Total/NA
Anthracene	0.075	J	0.18	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.16	J	0.18	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.053	J	0.18	0.031	ug/L	1		8270D LL	Total/NA
Fluorene	0.34		0.18	0.10	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	10		0.18	0.068	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	9.2		0.18	0.055	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.73		0.18	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.045	J	0.18	0.037	ug/L	1		8270D LL	Total/NA
3 & 4 Methylphenol	0.60	J	18	0.36	ug/L	1		8270D	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: 400-222958-1

Client Sample ID: P93C-ROX-071322

Lab Sample ID: 400-222958-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.8		1.0	0.22	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-222958-1

Client Sample ID: TB-ROX-071322-8260-B
Date Collected: 07/13/22 12:00
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 21:32	1
Acrolein	ND		20	3.3	ug/L			07/19/22 21:32	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 21:32	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 21:32	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 21:32	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 21:32	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 21:32	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 21:32	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 21:32	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 21:32	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 21:32	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 21:32	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 21:32	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 21:32	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 21:32	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 21:32	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 21:32	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 21:32	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 21:32	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 21:32	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 21:32	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 21:32	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 21:32	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 21:32	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 21:32	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 21:32	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 21:32	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 21:32	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:32	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:32	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:32	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 21:32	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 21:32	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 21:32	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 21:32	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 21:32	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 21:32	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 21:32	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 21:32	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 21:32	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 21:32	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 21:32	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 21:32	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 21:32	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 21:32	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 21:32	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 21:32	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 21:32	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 21:32	1

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

Job ID: 400-222958-1

Client Sample ID: TB-ROX-071322-8260-B
Date Collected: 07/13/22 12:00
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 21:32	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 21:32	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 21:32	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 21:32	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 21:32	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 21:32	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 21:32	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 21:32	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 21:32	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 21:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 21:32	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 21:32	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 21:32	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 21:32	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 21:32	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 21:32	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 21:32	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 21:32	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 21:32	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 21:32	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*07/19/22 21:32*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/19/22 21:32*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/19/22 21:32*	*1*

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

Job ID: 400-222958-1

Client Sample ID: TB-ROX-071322-8011-B
Date Collected: 07/13/22 12:00
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/22/22 10:13	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/22/22 10:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*51 - 149*	*07/21/22 10:46*	*07/22/22 10:13*	*1*

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

Job ID: 400-222958-1

Client Sample ID: P74-ROX-071322-EB
Date Collected: 07/13/22 08:40
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 21:59	1
Acrolein	ND		20	3.3	ug/L			07/19/22 21:59	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 21:59	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 21:59	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 21:59	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 21:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 21:59	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 21:59	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 21:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 21:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 21:59	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 21:59	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 21:59	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 21:59	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 21:59	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 21:59	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 21:59	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 21:59	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 21:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 21:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 21:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 21:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 21:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 21:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 21:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 21:59	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 21:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 21:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:59	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 21:59	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 21:59	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 21:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 21:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 21:59	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 21:59	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 21:59	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 21:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 21:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 21:59	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 21:59	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 21:59	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 21:59	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 21:59	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 21:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 21:59	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 21:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 21:59	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 21:59	1

Client Sample ID: P74-ROX-071322-EB
Date Collected: 07/13/22 08:40
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 21:59	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 21:59	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 21:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 21:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 21:59	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 21:59	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 21:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 21:59	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 21:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 21:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 21:59	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 21:59	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 21:59	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 21:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 21:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 21:59	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 21:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 21:59	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 21:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 21:59	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*07/19/22 21:59*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*07/19/22 21:59*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/19/22 21:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 18:53	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/20/22 15:41	07/27/22 18:53	1
Anthracene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 18:53	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		07/20/22 15:41	07/27/22 18:53	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		07/20/22 15:41	07/27/22 18:53	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/20/22 15:41	07/27/22 18:53	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/20/22 15:41	07/27/22 18:53	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		07/20/22 15:41	07/27/22 18:53	1
Chrysene	ND		0.19	0.069	ug/L		07/20/22 15:41	07/27/22 18:53	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/20/22 15:41	07/27/22 18:53	1
Fluoranthene	ND		0.19	0.063	ug/L		07/20/22 15:41	07/27/22 18:53	1
Fluorene	ND		0.19	0.10	ug/L		07/20/22 15:41	07/27/22 18:53	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		07/20/22 15:41	07/27/22 18:53	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		07/20/22 15:41	07/27/22 18:53	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		07/20/22 15:41	07/27/22 18:53	1
Phenanthrene	ND		0.19	0.034	ug/L		07/20/22 15:41	07/27/22 18:53	1
Pyrene	ND		0.19	0.037	ug/L		07/20/22 15:41	07/27/22 18:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*116*		*15 - 122*	*07/20/22 15:41*	*07/27/22 18:53*	*1*
Nitrobenzene-d5	*110*		*19 - 130*	*07/20/22 15:41*	*07/27/22 18:53*	*1*

Client Sample ID: P74-ROX-071322-EB
Date Collected: 07/13/22 08:40
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-3
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*135*		*33 - 138*	*07/20/22 15:41*	*07/27/22 18:53*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.3	3.5	ug/L		07/20/22 15:41	07/25/22 15:28	1
Benzenethiol	ND	*- *1	9.3	1.6	ug/L		07/20/22 15:41	07/25/22 15:28	1
Benzoic acid	ND		28	6.8	ug/L		07/20/22 15:41	07/25/22 15:28	1
Benzyl alcohol	ND		9.3	1.9	ug/L		07/20/22 15:41	07/25/22 15:28	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		07/20/22 15:41	07/25/22 15:28	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		07/20/22 15:41	07/25/22 15:28	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		07/20/22 15:41	07/25/22 15:28	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		07/20/22 15:41	07/25/22 15:28	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		07/20/22 15:41	07/25/22 15:28	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		07/20/22 15:41	07/25/22 15:28	1
4-Chloroaniline	ND	*1	9.3	3.2	ug/L		07/20/22 15:41	07/25/22 15:28	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		07/20/22 15:41	07/25/22 15:28	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		07/20/22 15:41	07/25/22 15:28	1
2-Chlorophenol	ND		9.3	2.0	ug/L		07/20/22 15:41	07/25/22 15:28	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		07/20/22 15:41	07/25/22 15:28	1
D benz[a,h]acridine	ND		9.3	0.93	ug/L		07/20/22 15:41	07/25/22 15:28	1
D benzofuran	ND		9.3	0.16	ug/L		07/20/22 15:41	07/25/22 15:28	1
3,3'-Dichlorobenzidine	ND	*+	9.3	2.4	ug/L		07/20/22 15:41	07/25/22 15:28	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		07/20/22 15:41	07/25/22 15:28	1
Diethyl phthalate	ND		9.3	0.22	ug/L		07/20/22 15:41	07/25/22 15:28	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		07/20/22 15:41	07/25/22 15:28	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		07/20/22 15:41	07/25/22 15:28	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		07/20/22 15:41	07/25/22 15:28	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		07/20/22 15:41	07/25/22 15:28	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/20/22 15:41	07/25/22 15:28	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		07/20/22 15:41	07/25/22 15:28	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		07/20/22 15:41	07/25/22 15:28	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		07/20/22 15:41	07/25/22 15:28	1
1,4-Dioxane	ND		9.3	0.93	ug/L		07/20/22 15:41	07/25/22 15:28	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		07/20/22 15:41	07/25/22 15:28	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		07/20/22 15:41	07/25/22 15:28	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/20/22 15:41	07/25/22 15:28	1
Hexachloroethane	ND		9.3	3.9	ug/L		07/20/22 15:41	07/25/22 15:28	1
Indene	ND		9.3	0.93	ug/L		07/20/22 15:41	07/25/22 15:28	1
Isophorone	ND		9.3	0.13	ug/L		07/20/22 15:41	07/25/22 15:28	1
2-Methylphenol	ND		9.3	1.7	ug/L		07/20/22 15:41	07/25/22 15:28	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		07/20/22 15:41	07/25/22 15:28	1
2-Nitroaniline	ND		9.3	2.0	ug/L		07/20/22 15:41	07/25/22 15:28	1
3-Nitroaniline	ND		9.3	1.7	ug/L		07/20/22 15:41	07/25/22 15:28	1
4-Nitroaniline	ND		9.3	1.4	ug/L		07/20/22 15:41	07/25/22 15:28	1
Nitrobenzene	ND		9.3	0.12	ug/L		07/20/22 15:41	07/25/22 15:28	1
2-Nitrophenol	ND		9.3	4.8	ug/L		07/20/22 15:41	07/25/22 15:28	1
4-Nitrophenol	ND		9.3	2.0	ug/L		07/20/22 15:41	07/25/22 15:28	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		07/20/22 15:41	07/25/22 15:28	1

Client Sample ID: P74-ROX-071322-EB

Date Collected: 07/13/22 08:40
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		07/20/22 15:41	07/25/22 15:28	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		07/20/22 15:41	07/25/22 15:28	1
Pentachlorophenol	ND		19	1.3	ug/L		07/20/22 15:41	07/25/22 15:28	1
Phenol	ND		9.3	2.4	ug/L		07/20/22 15:41	07/25/22 15:28	1
Pyridine	ND		9.3	3.0	ug/L		07/20/22 15:41	07/25/22 15:28	1
Quinoline	ND		9.3	4.2	ug/L		07/20/22 15:41	07/25/22 15:28	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		07/20/22 15:41	07/25/22 15:28	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		07/20/22 15:41	07/25/22 15:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*07/20/22 15:41*	*07/25/22 15:28*	*1*
2-Fluorophenol	*60*		*13 - 113*	*07/20/22 15:41*	*07/25/22 15:28*	*1*
Nitrobenzene-d5	*82*		*36 - 126*	*07/20/22 15:41*	*07/25/22 15:28*	*1*
Phenol-d5	*78*		*17 - 127*	*07/20/22 15:41*	*07/25/22 15:28*	*1*
Terphenyl-d14	*113*		*44 - 149*	*07/20/22 15:41*	*07/25/22 15:28*	*1*
2,4,6-Tribromophenol	*89*		*26 - 150*	*07/20/22 15:41*	*07/25/22 15:28*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		07/21/22 10:46	07/22/22 10:34	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/21/22 10:46	07/22/22 10:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*07/21/22 10:46*	*07/22/22 10:34*	*1*

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

Job ID: 400-222958-1

Client Sample ID: P74-ROX-071322
Date Collected: 07/13/22 10:30
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 22:26	1
Acrolein	ND		20	3.3	ug/L			07/19/22 22:26	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 22:26	1
Benzene	**41**		1.0	0.13	ug/L			07/19/22 22:26	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 22:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 22:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 22:26	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 22:26	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 22:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 22:26	1
Carbon disulfide	**0.59**	**J**	1.0	0.50	ug/L			07/19/22 22:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 22:26	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 22:26	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 22:26	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 22:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 22:26	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 22:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 22:26	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 22:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 22:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 22:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 22:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 22:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 22:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 22:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 22:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 22:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 22:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 22:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 22:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 22:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 22:26	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 22:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 22:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 22:26	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 22:26	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 22:26	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 22:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 22:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 22:26	1
Methyl tert-butyl ether	**0.68**	**J**	1.0	0.22	ug/L			07/19/22 22:26	1
m-Xylene & p-Xylene	**1.1**	**J**	5.0	0.63	ug/L			07/19/22 22:26	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 22:26	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 22:26	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 22:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 22:26	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 22:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 22:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 22:26	1

Client Sample ID: P74-ROX-071322
Date Collected: 07/13/22 10:30
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 22:26	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 22:26	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 22:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 22:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 22:26	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 22:26	1
Toluene	**1.3**		1.0	0.41	ug/L			07/19/22 22:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 22:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 22:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 22:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 22:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 22:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 22:26	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 22:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 22:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 22:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 22:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 22:26	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 22:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 22:26	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*07/19/22 22:26*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*07/19/22 22:26*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/19/22 22:26*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 19:09	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/20/22 15:41	07/27/22 19:09	1
Anthracene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 19:09	1
Benzo[a]anthracene	**0.087**	**J**	0.19	0.044	ug/L		07/20/22 15:41	07/27/22 19:09	1
Benzo[a]pyrene	**0.17**	**J**	0.19	0.040	ug/L		07/20/22 15:41	07/27/22 19:09	1
Benzo[b]fluoranthene	**0.061**	**J**	0.19	0.032	ug/L		07/20/22 15:41	07/27/22 19:09	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/20/22 15:41	07/27/22 19:09	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/20/22 15:41	07/27/22 19:09	1
Chrysene	ND		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 19:09	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/20/22 15:41	07/27/22 19:09	1
Fluoranthene	ND		0.19	0.064	ug/L		07/20/22 15:41	07/27/22 19:09	1
Fluorene	ND		0.19	0.10	ug/L		07/20/22 15:41	07/27/22 19:09	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/20/22 15:41	07/27/22 19:09	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 19:09	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/20/22 15:41	07/27/22 19:09	1
Phenanthrene	**0.048**	**J**	0.19	0.034	ug/L		07/20/22 15:41	07/27/22 19:09	1
Pyrene	**0.069**	**J**	0.19	0.038	ug/L		07/20/22 15:41	07/27/22 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*108*		*15 - 122*	*07/20/22 15:41*	*07/27/22 19:09*	*1*
Nitrobenzene-d5	*104*		*19 - 130*	*07/20/22 15:41*	*07/27/22 19:09*	*1*

Client Sample ID: P74-ROX-071322
Date Collected: 07/13/22 10:30
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-4
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*125*		*33 - 138*	*07/20/22 15:41*	*07/27/22 19:09*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 15:49	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/20/22 15:41	07/25/22 15:49	1
Benzoic acid	ND		28	6.9	ug/L		07/20/22 15:41	07/25/22 15:49	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 15:49	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 15:49	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 15:49	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 15:49	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		07/20/22 15:41	07/25/22 15:49	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/20/22 15:41	07/25/22 15:49	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/20/22 15:41	07/25/22 15:49	1
4-Chloroaniline	ND	*1	9.5	3.2	ug/L		07/20/22 15:41	07/25/22 15:49	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 15:49	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 15:49	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 15:49	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 15:49	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 15:49	1
D benzofuran	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 15:49	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/20/22 15:41	07/25/22 15:49	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/20/22 15:41	07/25/22 15:49	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/20/22 15:41	07/25/22 15:49	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 15:49	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 15:49	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 15:49	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/20/22 15:41	07/25/22 15:49	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/20/22 15:41	07/25/22 15:49	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 15:49	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 15:49	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 15:49	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 15:49	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 15:49	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 15:49	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/20/22 15:41	07/25/22 15:49	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/20/22 15:41	07/25/22 15:49	1
Indene	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 15:49	1
Isophorone	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 15:49	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 15:49	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/20/22 15:41	07/25/22 15:49	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 15:49	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 15:49	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/20/22 15:41	07/25/22 15:49	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/20/22 15:41	07/25/22 15:49	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/20/22 15:41	07/25/22 15:49	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/20/22 15:41	07/25/22 15:49	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 15:49	1

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

Job ID: 400-222958-1

Client Sample ID: P74-ROX-071322
Date Collected: 07/13/22 10:30
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/20/22 15:41	07/25/22 15:49	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/20/22 15:41	07/25/22 15:49	1
Pentachlorophenol	ND		19	1.3	ug/L		07/20/22 15:41	07/25/22 15:49	1
Phenol	ND		9.5	2.5	ug/L		07/20/22 15:41	07/25/22 15:49	1
Pyridine	ND		9.5	3.0	ug/L		07/20/22 15:41	07/25/22 15:49	1
Quinoline	ND		9.5	4.3	ug/L		07/20/22 15:41	07/25/22 15:49	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/20/22 15:41	07/25/22 15:49	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*07/20/22 15:41*	*07/25/22 15:49*	*1*
2-Fluorophenol	*60*		*13 - 113*	*07/20/22 15:41*	*07/25/22 15:49*	*1*
Nitrobenzene-d5	*82*		*36 - 126*	*07/20/22 15:41*	*07/25/22 15:49*	*1*
Phenol-d5	*78*		*17 - 127*	*07/20/22 15:41*	*07/25/22 15:49*	*1*
Terphenyl-d14	*108*		*44 - 149*	*07/20/22 15:41*	*07/25/22 15:49*	*1*
2,4,6-Tribromophenol	*89*		*26 - 150*	*07/20/22 15:41*	*07/25/22 15:49*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/22/22 10:55	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/22/22 10:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*115*		*51 - 149*	*07/21/22 10:46*	*07/22/22 10:55*	*1*

Client Sample ID: P56-ROX-071322
Date Collected: 07/13/22 12:10
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 22:52	1
Acrolein	ND		20	3.3	ug/L			07/19/22 22:52	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 22:52	1
Benzene	**0.70**	**J**	1.0	0.13	ug/L			07/19/22 22:52	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 22:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 22:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 22:52	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 22:52	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 22:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 22:52	1
Carbon disulfide	**0.74**	**J**	1.0	0.50	ug/L			07/19/22 22:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 22:52	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 22:52	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 22:52	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 22:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 22:52	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 22:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 22:52	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 22:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 22:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 22:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 22:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 22:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 22:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 22:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 22:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 22:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 22:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 22:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 22:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 22:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 22:52	1
Ethylbenzene	**2.2**		1.0	0.50	ug/L			07/19/22 22:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 22:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 22:52	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 22:52	1
Isopropylbenzene	**17**		1.0	0.53	ug/L			07/19/22 22:52	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 22:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 22:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 22:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 22:52	1
m-Xylene & p-Xylene	**52**		5.0	0.63	ug/L			07/19/22 22:52	1
Naphthalene	**5.2**		5.0	3.0	ug/L			07/19/22 22:52	1
n-Butylbenzene	**0.82**	**J**	1.0	0.76	ug/L			07/19/22 22:52	1
N-Propylbenzene	**21**		1.0	0.69	ug/L			07/19/22 22:52	1
o-Chlorotoluene	**1.4**		1.0	0.57	ug/L			07/19/22 22:52	1
o-Xylene	**1.7**	**J**	5.0	0.60	ug/L			07/19/22 22:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 22:52	1
p-Isopropyltoluene	**1.2**		1.0	0.71	ug/L			07/19/22 22:52	1

Client Sample ID: P56-ROX-071322

Date Collected: 07/13/22 12:10
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**2.3**		1.0	0.70	ug/L			07/19/22 22:52	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 22:52	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 22:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 22:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 22:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 22:52	1
Toluene	**1.4**		1.0	0.41	ug/L			07/19/22 22:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 22:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 22:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 22:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 22:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 22:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 22:52	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 22:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 22:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 22:52	1
1,2,4-Trimethylbenzene	**27**		1.0	0.82	ug/L			07/19/22 22:52	1
1,3,5-Trimethylbenzene	**7.1**		1.0	0.56	ug/L			07/19/22 22:52	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 22:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 22:52	1
Xylenes, Total	**54**		10	1.6	ug/L			07/19/22 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*07/19/22 22:52*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/19/22 22:52*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/19/22 22:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.63**		0.18	0.030	ug/L		07/20/22 15:41	07/27/22 19:24	1
Acenaphthylene	ND		0.18	0.042	ug/L		07/20/22 15:41	07/27/22 19:24	1
Anthracene	**0.075**	**J**	0.18	0.030	ug/L		07/20/22 15:41	07/27/22 19:24	1
Benzo[a]anthracene	ND		0.18	0.043	ug/L		07/20/22 15:41	07/27/22 19:24	1
Benzo[a]pyrene	**0.16**	**J**	0.18	0.039	ug/L		07/20/22 15:41	07/27/22 19:24	1
Benzo[b]fluoranthene	**0.053**	**J**	0.18	0.031	ug/L		07/20/22 15:41	07/27/22 19:24	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		07/20/22 15:41	07/27/22 19:24	1
Benzo[k]fluoranthene	ND		0.18	0.092	ug/L		07/20/22 15:41	07/27/22 19:24	1
Chrysene	ND		0.18	0.068	ug/L		07/20/22 15:41	07/27/22 19:24	1
D benz(a,h)anthracene	ND		0.18	0.046	ug/L		07/20/22 15:41	07/27/22 19:24	1
Fluoranthene	ND		0.18	0.063	ug/L		07/20/22 15:41	07/27/22 19:24	1
Fluorene	**0.34**		0.18	0.10	ug/L		07/20/22 15:41	07/27/22 19:24	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.040	ug/L		07/20/22 15:41	07/27/22 19:24	1
1-Methylnaphthalene	**10**		0.18	0.068	ug/L		07/20/22 15:41	07/27/22 19:24	1
2-Methylnaphthalene	**9.2**		0.18	0.055	ug/L		07/20/22 15:41	07/27/22 19:24	1
Phenanthrene	**0.73**		0.18	0.033	ug/L		07/20/22 15:41	07/27/22 19:24	1
Pyrene	**0.045**	**J**	0.18	0.037	ug/L		07/20/22 15:41	07/27/22 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*105*		*15 - 122*	*07/20/22 15:41*	*07/27/22 19:24*	*1*
Nitrobenzene-d5	*100*		*19 - 130*	*07/20/22 15:41*	*07/27/22 19:24*	*1*

Client Sample ID: P56-ROX-071322
Date Collected: 07/13/22 12:10
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-5
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*82*		*33 - 138*	*07/20/22 15:41*	*07/27/22 19:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		07/20/22 15:41	07/25/22 16:09	1
Benzenethiol	ND	*- *1 UJ	9.2	1.6	ug/L		07/20/22 15:41	07/25/22 16:09	1
Benzoic acid	ND		28	6.7	ug/L		07/20/22 15:41	07/25/22 16:09	1
Benzyl alcohol	ND		9.2	1.8	ug/L		07/20/22 15:41	07/25/22 16:09	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		07/20/22 15:41	07/25/22 16:09	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		07/20/22 15:41	07/25/22 16:09	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		07/20/22 15:41	07/25/22 16:09	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		07/20/22 15:41	07/25/22 16:09	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		07/20/22 15:41	07/25/22 16:09	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		07/20/22 15:41	07/25/22 16:09	1
4-Chloroaniline	ND	*1	9.2	3.1	ug/L		07/20/22 15:41	07/25/22 16:09	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		07/20/22 15:41	07/25/22 16:09	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		07/20/22 15:41	07/25/22 16:09	1
2-Chlorophenol	ND		9.2	2.0	ug/L		07/20/22 15:41	07/25/22 16:09	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		07/20/22 15:41	07/25/22 16:09	1
D benz[a,h]acridine	ND		9.2	0.92	ug/L		07/20/22 15:41	07/25/22 16:09	1
D benzofuran	ND		9.2	0.16	ug/L		07/20/22 15:41	07/25/22 16:09	1
3,3'-Dichlorobenzidine	ND	*+	9.2	2.4	ug/L		07/20/22 15:41	07/25/22 16:09	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		07/20/22 15:41	07/25/22 16:09	1
Diethyl phthalate	ND		9.2	0.22	ug/L		07/20/22 15:41	07/25/22 16:09	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		07/20/22 15:41	07/25/22 16:09	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		07/20/22 15:41	07/25/22 16:09	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		07/20/22 15:41	07/25/22 16:09	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		07/20/22 15:41	07/25/22 16:09	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		07/20/22 15:41	07/25/22 16:09	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		07/20/22 15:41	07/25/22 16:09	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		07/20/22 15:41	07/25/22 16:09	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		07/20/22 15:41	07/25/22 16:09	1
1,4-Dioxane	ND		9.2	0.92	ug/L		07/20/22 15:41	07/25/22 16:09	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		07/20/22 15:41	07/25/22 16:09	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		07/20/22 15:41	07/25/22 16:09	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		07/20/22 15:41	07/25/22 16:09	1
Hexachloroethane	ND		9.2	3.9	ug/L		07/20/22 15:41	07/25/22 16:09	1
Indene	ND		9.2	0.92	ug/L		07/20/22 15:41	07/25/22 16:09	1
Isophorone	ND		9.2	0.13	ug/L		07/20/22 15:41	07/25/22 16:09	1
2-Methylphenol	ND		9.2	1.7	ug/L		07/20/22 15:41	07/25/22 16:09	1
3 & 4 Methylphenol	**0.60**	**J**	18	0.36	ug/L		07/20/22 15:41	07/25/22 16:09	1
2-Nitroaniline	ND		9.2	2.0	ug/L		07/20/22 15:41	07/25/22 16:09	1
3-Nitroaniline	ND		9.2	1.7	ug/L		07/20/22 15:41	07/25/22 16:09	1
4-Nitroaniline	ND		9.2	1.4	ug/L		07/20/22 15:41	07/25/22 16:09	1
Nitrobenzene	ND		9.2	0.12	ug/L		07/20/22 15:41	07/25/22 16:09	1
2-Nitrophenol	ND		9.2	4.8	ug/L		07/20/22 15:41	07/25/22 16:09	1
4-Nitrophenol	ND		9.2	1.9	ug/L		07/20/22 15:41	07/25/22 16:09	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		07/20/22 15:41	07/25/22 16:09	1

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

Job ID: 400-222958-1

Client Sample ID: P56-ROX-071322
Date Collected: 07/13/22 12:10
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.2	3.1	ug/L		07/20/22 15:41	07/25/22 16:09	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		07/20/22 15:41	07/25/22 16:09	1
Pentachlorophenol	ND		18	1.3	ug/L		07/20/22 15:41	07/25/22 16:09	1
Phenol	ND		9.2	2.4	ug/L		07/20/22 15:41	07/25/22 16:09	1
Pyridine	ND		9.2	3.0	ug/L		07/20/22 15:41	07/25/22 16:09	1
Quinoline	ND		9.2	4.2	ug/L		07/20/22 15:41	07/25/22 16:09	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		07/20/22 15:41	07/25/22 16:09	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		07/20/22 15:41	07/25/22 16:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*07/20/22 15:41*	*07/25/22 16:09*	*1*
2-Fluorophenol	*70*		*13 - 113*	*07/20/22 15:41*	*07/25/22 16:09*	*1*
Nitrobenzene-d5	*95*		*36 - 126*	*07/20/22 15:41*	*07/25/22 16:09*	*1*
Phenol-d5	*82*		*17 - 127*	*07/20/22 15:41*	*07/25/22 16:09*	*1*
Terphenyl-d14	*69*		*44 - 149*	*07/20/22 15:41*	*07/25/22 16:09*	*1*
2,4,6-Tribromophenol	*112*		*26 - 150*	*07/20/22 15:41*	*07/25/22 16:09*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.031	0.018	ug/L		07/21/22 10:46	07/22/22 11:36	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/21/22 10:46	07/22/22 11:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*07/21/22 10:46*	*07/22/22 11:36*	*1*

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

Job ID: 400-222958-1

Client Sample ID: P93C-ROX-071322
Date Collected: 07/13/22 13:20
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/19/22 23:18	1
Acrolein	ND		20	3.3	ug/L			07/19/22 23:18	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 23:18	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 23:18	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 23:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 23:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 23:18	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 23:18	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 23:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 23:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 23:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 23:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 23:18	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/19/22 23:18	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 23:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 23:18	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 23:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 23:18	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 23:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 23:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 23:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 23:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 23:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 23:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 23:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 23:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 23:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 23:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 23:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 23:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 23:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 23:18	1
Ethy benzene	ND		1.0	0.50	ug/L			07/19/22 23:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 23:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 23:18	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 23:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/19/22 23:18	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 23:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 23:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 23:18	1
Methyl tert-butyl ether	**3.8**		1.0	0.22	ug/L			07/19/22 23:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 23:18	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 23:18	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/19/22 23:18	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/19/22 23:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 23:18	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 23:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 23:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/19/22 23:18	1

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

Job ID: 400-222958-1

Client Sample ID: P93C-ROX-071322
Date Collected: 07/13/22 13:20
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 23:18	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 23:18	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/19/22 23:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 23:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 23:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 23:18	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 23:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 23:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 23:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 23:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 23:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 23:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 23:18	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 23:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 23:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 23:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/19/22 23:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/19/22 23:18	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 23:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 23:18	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*07/19/22 23:18*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/19/22 23:18*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/19/22 23:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.21	0.034	ug/L		07/20/22 15:41	07/27/22 19:40	1
Acenaphthylene	ND		0.21	0.047	ug/L		07/20/22 15:41	07/27/22 19:40	1
Anthracene	ND		0.21	0.034	ug/L		07/20/22 15:41	07/27/22 19:40	1
Benzo[a]anthracene	ND		0.21	0.048	ug/L		07/20/22 15:41	07/27/22 19:40	1
Benzo[a]pyrene	ND		0.21	0.044	ug/L		07/20/22 15:41	07/27/22 19:40	1
Benzo[b]fluoranthene	ND		0.21	0.036	ug/L		07/20/22 15:41	07/27/22 19:40	1
Benzo[g,h,i]perylene	ND		0.21	0.14	ug/L		07/20/22 15:41	07/27/22 19:40	1
Benzo[k]fluoranthene	ND		0.21	0.10	ug/L		07/20/22 15:41	07/27/22 19:40	1
Chrysene	ND		0.21	0.078	ug/L		07/20/22 15:41	07/27/22 19:40	1
D benz(a,h)anthracene	ND		0.21	0.052	ug/L		07/20/22 15:41	07/27/22 19:40	1
Fluoranthene	ND		0.21	0.071	ug/L		07/20/22 15:41	07/27/22 19:40	1
Fluorene	ND		0.21	0.12	ug/L		07/20/22 15:41	07/27/22 19:40	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.045	ug/L		07/20/22 15:41	07/27/22 19:40	1
1-Methylnaphthalene	ND		0.21	0.078	ug/L		07/20/22 15:41	07/27/22 19:40	1
2-Methylnaphthalene	ND		0.21	0.063	ug/L		07/20/22 15:41	07/27/22 19:40	1
Phenanthrene	ND		0.21	0.038	ug/L		07/20/22 15:41	07/27/22 19:40	1
Pyrene	ND		0.21	0.042	ug/L		07/20/22 15:41	07/27/22 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*07/20/22 15:41*	*07/27/22 19:40*	*1*
Nitrobenzene-d5	*98*		*19 - 130*	*07/20/22 15:41*	*07/27/22 19:40*	*1*

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

Job ID: 400-222958-1

Client Sample ID: P93C-ROX-071322
Date Collected: 07/13/22 13:20
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-6
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*129*		*33 - 138*	*07/20/22 15:41*	*07/27/22 19:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	4.0	ug/L		07/20/22 15:41	07/25/22 16:30	1
Benzenethiol	ND	*- *1 UJ	10	1.8	ug/L		07/20/22 15:41	07/25/22 16:30	1
Benzoic acid	ND		31	7.7	ug/L		07/20/22 15:41	07/25/22 16:30	1
Benzyl alcohol	ND		10	2.1	ug/L		07/20/22 15:41	07/25/22 16:30	1
Bis(2-chloroethoxy)methane	ND		10	0.17	ug/L		07/20/22 15:41	07/25/22 16:30	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		07/20/22 15:41	07/25/22 16:30	1
bis (2-chloroisopropyl) ether	ND		10	0.17	ug/L		07/20/22 15:41	07/25/22 16:30	1
Bis(2-ethylhexyl) phthalate	ND		10	5.2	ug/L		07/20/22 15:41	07/25/22 16:30	1
4-Bromophenyl phenyl ether	ND		10	0.21	ug/L		07/20/22 15:41	07/25/22 16:30	1
Butyl benzyl phthalate	ND		10	0.20	ug/L		07/20/22 15:41	07/25/22 16:30	1
4-Chloroaniline	ND	*1	10	3.6	ug/L		07/20/22 15:41	07/25/22 16:30	1
4-Chloro-3-methylphenol	ND		10	4.0	ug/L		07/20/22 15:41	07/25/22 16:30	1
2-Chloronaphthalene	ND		10	0.15	ug/L		07/20/22 15:41	07/25/22 16:30	1
2-Chlorophenol	ND		10	2.3	ug/L		07/20/22 15:41	07/25/22 16:30	1
4-Chlorophenyl phenyl ether	ND		10	2.1	ug/L		07/20/22 15:41	07/25/22 16:30	1
D benz[a,h]acridine	ND		10	1.0	ug/L		07/20/22 15:41	07/25/22 16:30	1
D benzofuran	ND		10	0.18	ug/L		07/20/22 15:41	07/25/22 16:30	1
3,3'-Dichlorobenzidine	ND	*+	10	2.7	ug/L		07/20/22 15:41	07/25/22 16:30	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		07/20/22 15:41	07/25/22 16:30	1
Diethyl phthalate	ND		10	0.25	ug/L		07/20/22 15:41	07/25/22 16:30	1
2,4-Dimethylphenol	ND		10	3.7	ug/L		07/20/22 15:41	07/25/22 16:30	1
Dimethyl phthalate	ND		10	0.18	ug/L		07/20/22 15:41	07/25/22 16:30	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		07/20/22 15:41	07/25/22 16:30	1
4,6-Dinitro-ortho-cresol	ND		10	1.7	ug/L		07/20/22 15:41	07/25/22 16:30	1
2,4-Dinitrophenol	ND		31	3.6	ug/L		07/20/22 15:41	07/25/22 16:30	1
2,4-Dinitrotoluene	ND		10	2.0	ug/L		07/20/22 15:41	07/25/22 16:30	1
2,6-Dinitrotoluene	ND		10	2.0	ug/L		07/20/22 15:41	07/25/22 16:30	1
Di-n-octyl phthalate	ND		10	0.18	ug/L		07/20/22 15:41	07/25/22 16:30	1
1,4-Dioxane	ND		10	1.0	ug/L		07/20/22 15:41	07/25/22 16:30	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/20/22 15:41	07/25/22 16:30	1
Hexachlorobenzene	ND		10	0.18	ug/L		07/20/22 15:41	07/25/22 16:30	1
Hexachlorocyclopentadiene	ND		21	2.7	ug/L		07/20/22 15:41	07/25/22 16:30	1
Hexachloroethane	ND		10	4.4	ug/L		07/20/22 15:41	07/25/22 16:30	1
Indene	ND		10	1.0	ug/L		07/20/22 15:41	07/25/22 16:30	1
Isophorone	ND		10	0.15	ug/L		07/20/22 15:41	07/25/22 16:30	1
2-Methylphenol	ND		10	1.9	ug/L		07/20/22 15:41	07/25/22 16:30	1
3 & 4 Methylphenol	ND		21	0.41	ug/L		07/20/22 15:41	07/25/22 16:30	1
2-Nitroaniline	ND		10	2.3	ug/L		07/20/22 15:41	07/25/22 16:30	1
3-Nitroaniline	ND		10	1.9	ug/L		07/20/22 15:41	07/25/22 16:30	1
4-Nitroaniline	ND		10	1.6	ug/L		07/20/22 15:41	07/25/22 16:30	1
Nitrobenzene	ND		10	0.14	ug/L		07/20/22 15:41	07/25/22 16:30	1
2-Nitrophenol	ND		10	5.5	ug/L		07/20/22 15:41	07/25/22 16:30	1
4-Nitrophenol	ND		10	2.2	ug/L		07/20/22 15:41	07/25/22 16:30	1
N-Nitrosodimethylamine	ND		10	3.7	ug/L		07/20/22 15:41	07/25/22 16:30	1

Client Sample ID: P93C-ROX-071322
Date Collected: 07/13/22 13:20
Date Received: 07/14/22 08:37

Lab Sample ID: 400-222958-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.5	ug/L		07/20/22 15:41	07/25/22 16:30	1
N-Nitrosodiphenylamine	ND		10	0.19	ug/L		07/20/22 15:41	07/25/22 16:30	1
Pentachlorophenol	ND		21	1.5	ug/L		07/20/22 15:41	07/25/22 16:30	1
Phenol	ND		10	2.7	ug/L		07/20/22 15:41	07/25/22 16:30	1
Pyridine	ND		10	3.4	ug/L		07/20/22 15:41	07/25/22 16:30	1
Quinoline	ND		10	4.7	ug/L		07/20/22 15:41	07/25/22 16:30	1
2,4,5-Trichlorophenol	ND		10	3.9	ug/L		07/20/22 15:41	07/25/22 16:30	1
2,4,6-Trichlorophenol	ND		10	3.7	ug/L		07/20/22 15:41	07/25/22 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*07/20/22 15:41*	*07/25/22 16:30*	*1*
2-Fluorophenol	*52*		*13 - 113*	*07/20/22 15:41*	*07/25/22 16:30*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*07/20/22 15:41*	*07/25/22 16:30*	*1*
Phenol-d5	*72*		*17 - 127*	*07/20/22 15:41*	*07/25/22 16:30*	*1*
Terphenyl-d14	*107*		*44 - 149*	*07/20/22 15:41*	*07/25/22 16:30*	*1*
2,4,6-Tribromophenol	*101*		*26 - 150*	*07/20/22 15:41*	*07/25/22 16:30*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/22/22 11:57	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/22/22 11:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*51 - 149*	*07/21/22 10:46*	*07/22/22 11:57*	*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.
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: 400-222958-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-222958-1	TB-ROX-071322-8260-B	93	104	98
400-222958-3	P74-ROX-071322-EB	92	103	99
400-222958-4	P74-ROX-071322	91	105	99
400-222958-5	P56-ROX-071322	98	104	100
400-222958-6	P93C-ROX-071322	96	106	98
LCS 400-585311/1002	Lab Control Sample	95	110	99
MB 400-585311/5	Method Blank	94	104	100

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-222958-3	P74-ROX-071322-EB	82	60	82	78	113	89
400-222958-4	P74-ROX-071322	80	60	82	78	108	89
400-222958-5	P56-ROX-071322	79	70	95	82	69	112
400-222958-6	P93C-ROX-071322	78	52	76	72	107	101
LCS 400-585529/2-A	Lab Control Sample	81	67	83	81	95	91
LCS 400-585529/4-A	Lab Control Sample	90	76	83	87	104	70
LCSD 400-585529/3-A	Lab Control Sample Dup	81	57	84	78	96	93
LCSD 400-585529/5-A	Lab Control Sample Dup	91	72	86	87	112	56
MB 400-585529/1-A	Method Blank	72	49	70	67	84	55

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-222958-3	P74-ROX-071322-EB	116	110	135
400-222958-4	P74-ROX-071322	108	104	125
400-222958-5	P56-ROX-071322	105	100	82
400-222958-6	P93C-ROX-071322	109	98	129
LCS 400-585529/2-A	Lab Control Sample	102	72	108
LCSD 400-585529/3-A	Lab Control Sample Dup	104	91	110
MB 400-585529/1-A	Method Blank	99	96	114

Surrogate Legend

Client: AECOM Technical Services Inc.
Job ID: 400-222958-1
Project/Site: ROXANA QUARTERLY GW

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

Method: 8011 - EDB and DBCP in Water by Microextraction

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

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB1 (51-149)
400-222958-2	TB-ROX-071322-8011-B	109
400-222958-3	P74-ROX-071322-EB	101
400-222958-4	P74-ROX-071322	115
400-222958-5	P56-ROX-071322	96
400-222958-6	P93C-ROX-071322	106
LCS 400-585620/2-A	Lab Control Sample	90
LCSD 400-585620/3-A	Lab Control Sample Dup	101
MB 400-585620/1-A	Method Blank	103

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-222958-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL 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:

TAL 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: 400-222958-1

Client Sample ID: TB-ROX-071322-8260-B
Lab Sample ID: 400-222958-1
Date Collected: 07/13/22 12:00
Matrix: Water
Date Received: 07/14/22 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 21:32	BEP	TAL PEN

Client Sample ID: TB-ROX-071322-8011-B
Lab Sample ID: 400-222958-2
Date Collected: 07/13/22 12:00
Matrix: Water
Date Received: 07/14/22 08:37

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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 10:13	JAW	TAL PEN

Client Sample ID: P74-ROX-071322-EB
Lab Sample ID: 400-222958-3
Date Collected: 07/13/22 08:40
Matrix: Water
Date Received: 07/14/22 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 21:59	BEP	TAL PEN
Total/NA	Prep	3520C			268.4 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 15:28	VC1	TAL PEN
Total/NA	Prep	3520C			268.4 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 18:53	KJA	TAL PEN
Total/NA	Prep	8011			33.5 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 10:34	JAW	TAL PEN

Client Sample ID: P74-ROX-071322
Lab Sample ID: 400-222958-4
Date Collected: 07/13/22 10:30
Matrix: Water
Date Received: 07/14/22 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 22:26	BEP	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 15:49	VC1	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 19:09	KJA	TAL PEN
Total/NA	Prep	8011			34.7 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 10:55	JAW	TAL PEN

Client Sample ID: P56-ROX-071322
Lab Sample ID: 400-222958-5
Date Collected: 07/13/22 12:10
Matrix: Water
Date Received: 07/14/22 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 22:52	BEP	TAL PEN
Total/NA	Prep	3520C			270.4 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 16:09	VC1	TAL PEN

Lab Chronicle

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

Job ID: 400-222958-1

Client Sample ID: P56-ROX-071322

Lab Sample ID: 400-222958-5
Date Collected: 07/13/22 12:10
Matrix: Water
Date Received: 07/14/22 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			270.4 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 19:24	KJA	TAL PEN
Total/NA	Prep	8011			33.6 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 11:36	JAW	TAL PEN

Client Sample ID: P93C-ROX-071322

Lab Sample ID: 400-222958-6
Date Collected: 07/13/22 13:20
Matrix: Water
Date Received: 07/14/22 08:37

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 23:18	BEP	TAL PEN
Total/NA	Prep	3520C			238.4 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 16:30	VC1	TAL PEN
Total/NA	Prep	3520C			238.4 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 19:40	KJA	TAL PEN
Total/NA	Prep	8011			35.4 mL	35 mL	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/22/22 11:57	JAW	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-585311/5
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 15:24	BEP	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-585529/1-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:25	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 16:19	KJA	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-585620/1-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 16:16	JAW	TAL PEN

Lab Chronicle

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

Job ID: 400-222958-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585311/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585311	07/19/22 14:22	BEP	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585529/2-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:46	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			586444	07/27/22 16:34	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585529/4-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:28	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585620/2-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 16:37	JAW	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585529/3-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:07	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			586444	07/27/22 16:50	KJA	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585529/5-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:49	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-222958-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585620/3-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	585620	07/21/22 10:46	JAW	TAL PEN
Total/NA	Analysis	8011		1			585690	07/21/22 17:25	JAW	TAL PEN

Laboratory References:

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

GC/MS VOA

Analysis Batch: 585311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222958-1	TB-ROX-071322-8260-B	Total/NA	Water	8260B	
400-222958-3	P74-ROX-071322-EB	Total/NA	Water	8260B	
400-222958-4	P74-ROX-071322	Total/NA	Water	8260B	
400-222958-5	P56-ROX-071322	Total/NA	Water	8260B	
400-222958-6	P93C-ROX-071322	Total/NA	Water	8260B	
MB 400-585311/5	Method Blank	Total/NA	Water	8260B	
LCS 400-585311/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 585529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222958-3	P74-ROX-071322-EB	Total/NA	Water	3520C	
400-222958-4	P74-ROX-071322	Total/NA	Water	3520C	
400-222958-5	P56-ROX-071322	Total/NA	Water	3520C	
400-222958-6	P93C-ROX-071322	Total/NA	Water	3520C	
MB 400-585529/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-585529/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-585529/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 585828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-585529/1-A	Method Blank	Total/NA	Water	8270D	585529
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	8270D	585529
LCS 400-585529/4-A	Lab Control Sample	Total/NA	Water	8270D	585529
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	585529
LCSD 400-585529/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	585529

Analysis Batch: 585995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222958-3	P74-ROX-071322-EB	Total/NA	Water	8270D	585529
400-222958-4	P74-ROX-071322	Total/NA	Water	8270D	585529
400-222958-5	P56-ROX-071322	Total/NA	Water	8270D	585529
400-222958-6	P93C-ROX-071322	Total/NA	Water	8270D	585529

Analysis Batch: 586444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222958-3	P74-ROX-071322-EB	Total/NA	Water	8270D LL	585529
400-222958-4	P74-ROX-071322	Total/NA	Water	8270D LL	585529
400-222958-5	P56-ROX-071322	Total/NA	Water	8270D LL	585529
400-222958-6	P93C-ROX-071322	Total/NA	Water	8270D LL	585529
MB 400-585529/1-A	Method Blank	Total/NA	Water	8270D LL	585529
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	8270D LL	585529
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	585529

GC Semi VOA

Prep Batch: 585620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222958-2	TB-ROX-071322-8011-B	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 585620 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222958-3	P74-ROX-071322-EB	Total/NA	Water	8011	
400-222958-4	P74-ROX-071322	Total/NA	Water	8011	
400-222958-5	P56-ROX-071322	Total/NA	Water	8011	
400-222958-6	P93C-ROX-071322	Total/NA	Water	8011	
MB 400-585620/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-585620/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-585620/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 585690

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-222958-2	TB-ROX-071322-8011-B	Total/NA	Water	8011	585620
400-222958-3	P74-ROX-071322-EB	Total/NA	Water	8011	585620
400-222958-4	P74-ROX-071322	Total/NA	Water	8011	585620
400-222958-5	P56-ROX-071322	Total/NA	Water	8011	585620
400-222958-6	P93C-ROX-071322	Total/NA	Water	8011	585620
MB 400-585620/1-A	Method Blank	Total/NA	Water	8011	585620
LCS 400-585620/2-A	Lab Control Sample	Total/NA	Water	8011	585620
LCSD 400-585620/3-A	Lab Control Sample Dup	Total/NA	Water	8011	585620

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

Lab Sample ID: MB 400-585311/5
Matrix: Water
Analysis Batch: 585311

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			07/19/22 15:24	1
Acrolein	ND		20	3.3	ug/L			07/19/22 15:24	1
Acrylonitrile	ND		10	2.8	ug/L			07/19/22 15:24	1
Benzene	ND		1.0	0.13	ug/L			07/19/22 15:24	1
Bromobenzene	ND		1.0	0.54	ug/L			07/19/22 15:24	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/19/22 15:24	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Bromoform	ND		5.0	0.25	ug/L			07/19/22 15:24	1
Bromomethane	ND		1.0	0.98	ug/L			07/19/22 15:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/19/22 15:24	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/19/22 15:24	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/19/22 15:24	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/19/22 15:24	1
Chloroethane	ND		1.0	0.76	ug/L			07/19/22 15:24	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/19/22 15:24	1
Chloroform	ND		1.0	1.0	ug/L			07/19/22 15:24	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/19/22 15:24	1
Chloromethane	ND		1.0	0.32	ug/L			07/19/22 15:24	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/19/22 15:24	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/19/22 15:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/19/22 15:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/19/22 15:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/19/22 15:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/19/22 15:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/19/22 15:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/19/22 15:24	1
2-Hexanone	ND		25	1.4	ug/L			07/19/22 15:24	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/19/22 15:24	1
Methylene bromide	ND		5.0	0.22	ug/L			07/19/22 15:24	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/19/22 15:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/19/22 15:24	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/19/22 15:24	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/19/22 15:24	1
Naphthalene	ND		5.0	3.0	ug/L			07/19/22 15:24	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/19/22 15:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/19/22 15:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/19/22 15:24	1
o-Xylene	ND		5.0	0.60	ug/L			07/19/22 15:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/19/22 15:24	1

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

Lab Sample ID: MB 400-585311/5
Matrix: Water
Analysis Batch: 585311

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			07/19/22 15:24	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/19/22 15:24	1
Styrene	ND		1.0	1.0	ug/L			07/19/22 15:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/19/22 15:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/19/22 15:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/19/22 15:24	1
Toluene	ND		1.0	0.41	ug/L			07/19/22 15:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/19/22 15:24	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/19/22 15:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/19/22 15:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/19/22 15:24	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/19/22 15:24	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/19/22 15:24	1
Trichloroethene	ND		1.0	0.15	ug/L			07/19/22 15:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/19/22 15:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/19/22 15:24	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/19/22 15:24	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/19/22 15:24	1
Vinyl acetate	ND		25	0.93	ug/L			07/19/22 15:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/19/22 15:24	1
Xylenes, Total	ND		10	1.6	ug/L			07/19/22 15:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*07/19/22 15:24*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/19/22 15:24*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/19/22 15:24*	*1*

Lab Sample ID: LCS 400-585311/1002
Matrix: Water
Analysis Batch: 585311

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	225		ug/L		112	43 - 160
Acrolein	500	518		ug/L		104	38 - 160
Acrylonitrile	500	557		ug/L		111	64 - 142
Benzene	50.0	47.9		ug/L		96	70 - 130
Bromobenzene	50.0	51.8		ug/L		104	70 - 132
Bromochloromethane	50.0	51.9		ug/L		104	70 - 130
Bromodichloromethane	50.0	51.0		ug/L		102	67 - 133
Bromoform	50.0	54.9		ug/L		110	57 - 140
Bromomethane	50.0	53.4		ug/L		107	10 - 160
2-Butanone (MEK)	200	210		ug/L		105	61 - 145
Carbon disulfide	50.0	47.6		ug/L		95	61 - 137
Carbon tetrachloride	50.0	49.4		ug/L		99	61 - 137
Chlorobenzene	50.0	49.9		ug/L		100	70 - 130
Dibromochloromethane	50.0	52.8		ug/L		106	67 - 135
Chloroethane	50.0	50.1		ug/L		100	55 - 141

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

Lab Sample ID: LCS 400-585311/1002
Matrix: Water
Analysis Batch: 585311

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	63.9		ug/L		128	10 - 160
Chloroform	50.0	48.4		ug/L		97	69 - 130
1-Chlorohexane	50.0	51.8		ug/L		104	69 - 130
Chloromethane	50.0	47.7		ug/L		95	58 - 137
cis-1,2-Dichloroethene	50.0	48.2		ug/L		96	68 - 130
cis-1,3-Dichloropropene	50.0	48.4		ug/L		97	69 - 132
1,2-Dichlorobenzene	50.0	52.4		ug/L		105	67 - 130
1,3-Dichlorobenzene	50.0	53.2		ug/L		106	70 - 130
1,4-Dichlorobenzene	50.0	53.3		ug/L		107	70 - 130
Dichlorodifluoromethane	50.0	39.4		ug/L		79	41 - 146
1,1-Dichloroethane	50.0	48.2		ug/L		96	70 - 130
1,2-Dichloroethane	50.0	50.0		ug/L		100	69 - 130
1,1-Dichloroethene	50.0	47.9		ug/L		96	63 - 134
1,2-Dichloropropane	50.0	49.3		ug/L		99	70 - 130
1,3-Dichloropropane	50.0	50.1		ug/L		100	70 - 130
2,2-Dichloropropane	50.0	36.0		ug/L		72	52 - 135
1,1-Dichloropropene	50.0	49.0		ug/L		98	70 - 130
Ethylbenzene	50.0	50.1		ug/L		100	70 - 130
Ethyl methacrylate	50.0	49.5		ug/L		99	68 - 130
Hexachlorobutadiene	50.0	56.7		ug/L		113	53 - 140
2-Hexanone	200	222		ug/L		111	65 - 137
Isopropy benzene	50.0	52.0		ug/L		104	70 - 130
Methylene bromide	50.0	51.2		ug/L		102	70 - 130
Methylene Chloride	50.0	48.5		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	230		ug/L		115	69 - 138
Methyl tert-butyl ether	50.0	46.8		ug/L		94	66 - 130
m-Xylene & p-Xylene	50.0	49.9		ug/L		100	70 - 130
Naphthalene	50.0	52.7		ug/L		105	47 - 149
n-Butylbenzene	50.0	56.2		ug/L		112	67 - 130
N-Propylbenzene	50.0	53.1		ug/L		106	70 - 130
o-Chlorotoluene	50.0	50.2		ug/L		100	70 - 130
o-Xylene	50.0	50.2		ug/L		100	70 - 130
p-Chlorotoluene	50.0	51.1		ug/L		102	70 - 130
p-Isopropyltoluene	50.0	53.6		ug/L		107	65 - 130
sec-Butylbenzene	50.0	54.2		ug/L		108	66 - 130
Styrene	50.0	50.7		ug/L		101	70 - 130
tert-Butylbenzene	50.0	50.5		ug/L		101	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.6		ug/L		101	67 - 131
1,1,2,2-Tetrachloroethane	50.0	52.1		ug/L		104	70 - 131
Tetrachloroethene	50.0	51.0		ug/L		102	65 - 130
Toluene	50.0	48.3		ug/L		97	70 - 130
trans-1,2-Dichloroethene	50.0	49.7		ug/L		99	70 - 130
trans-1,3-Dichloropropene	50.0	45.5		ug/L		91	63 - 130
1,2,3-Trichlorobenzene	50.0	54.7		ug/L		109	60 - 138
1,2,4-Trichlorobenzene	50.0	54.9		ug/L		110	60 - 140
1,1,1-Trichloroethane	50.0	46.9		ug/L		94	68 - 130
1,1,2-Trichloroethane	50.0	50.1		ug/L		100	70 - 130
Trichloroethene	50.0	50.6		ug/L		101	70 - 130
Trichlorofluoromethane	50.0	50.4		ug/L		101	65 - 138

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

Lab Sample ID: LCS 400-585311/1002
Matrix: Water
Analysis Batch: 585311

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	53.4		ug/L		107	70 - 130
1,2,4-Trimethy benzene	50.0	51.9		ug/L		104	70 - 130
1,3,5-Trimethy benzene	50.0	51.6		ug/L		103	69 - 130
Vinyl acetate	100	100		ug/L		100	26 - 160
Vinyl chloride	50.0	47.7		ug/L		95	59 - 136
Xylenes, Total	100	100		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 119*
Dibromofluoromethane	*110*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzenethiol	ND		10	1.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzoic acid	ND		30	7.3	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzyl alcohol	ND		10	2.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/20/22 15:41	07/22/22 16:25	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chloroaniline	ND		10	3.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Chlorophenol	ND		10	2.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dibenzofuran	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Diethyl phthalate	ND		10	0.24	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/20/22 15:41	07/22/22 16:25	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
1,4-Dioxane	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachloroethane	ND		10	4.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
Indene	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Isophorone	ND		10	0.14	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Methylphenol	ND		10	1.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Nitroaniline	ND		10	2.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
3-Nitroaniline	ND		10	1.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Nitroaniline	ND		10	1.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
Nitrobenzene	ND		10	0.13	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Nitrophenol	ND		10	5.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Nitrophenol	ND		10	2.1	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/20/22 15:41	07/22/22 16:25	1
Pentachlorophenol	ND		20	1.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
Phenol	ND		10	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
Pyridine	ND		10	3.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
Quinoline	ND		10	4.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
2-Fluorophenol	*49*		*13 - 113*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Phenol-d5	*67*		*17 - 127*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Terphenyl-d14	*84*		*44 - 149*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
2,4,6-Tribromophenol	*55*		*26 - 150*	*07/20/22 15:41*	*07/22/22 16:25*	*1*

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	89.9		ug/L		75	21 - 120
Benzoic acid	513	292		ug/L		57	10 - 144
Benzyl alcohol	120	96.2		ug/L		80	28 - 120
Bis(2-chloroethoxy)methane	120	88.0		ug/L		73	47 - 120
Bis(2-chloroethyl)ether	120	87.9		ug/L		73	44 - 120
bis (2-chloroisopropyl) ether	120	82.7		ug/L		69	33 - 121
Bis(2-ethylhexyl) phthalate	120	110		ug/L		92	52 - 147
4-Bromophenyl phenyl ether	120	111		ug/L		92	54 - 122
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133
4-Chloroaniline	120	66.0		ug/L		55	26 - 120
4-Chloro-3-methylphenol	120	102		ug/L		85	48 - 131

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

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	98.1		ug/L		82	52 - 121
2-Chlorophenol	120	94.2		ug/L		79	40 - 120
4-Chlorophenyl phenyl ether	120	99.4		ug/L		83	56 - 125
Dibenz[a,h]acridine	120	118		ug/L		99	31 - 150
Dibenzofuran	120	95.2		ug/L		79	56 - 122
3,3'-Dichlorobenzidine	160	226	*+	ug/L		141	36 - 132
2,4-Dichlorophenol	120	98.2		ug/L		82	49 - 120
Diethyl phthalate	120	96.9		ug/L		81	50 - 137
2,4-Dimethylphenol	120	94.7		ug/L		79	48 - 120
Dimethyl phthalate	120	99.3		ug/L		83	57 - 124
Di-n-butyl phthalate	120	116		ug/L		97	58 - 126
4,6-Dinitro-ortho-cresol	240	231		ug/L		96	23 - 148
2,4-Dinitrophenol	240	213		ug/L		89	10 - 150
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142
2,6-Dinitrotoluene	120	107		ug/L		89	55 - 130
Di-n-octyl phthalate	120	110		ug/L		92	57 - 138
1,4-Dioxane	120	65.2		ug/L		54	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	97.6		ug/L		81	45 - 124
Hexachlorobenzene	120	110		ug/L		92	52 - 129
Hexachlorocyclopentadiene	120	85.0		ug/L		71	10 - 134
Hexachloroethane	120	75.9		ug/L		63	20 - 120
Indene	120	93.0		ug/L		78	49 - 120
Isophorone	120	89.9		ug/L		75	48 - 120
2-Methylphenol	120	95.5		ug/L		80	46 - 124
3 & 4 Methylphenol	120	90.5		ug/L		75	45 - 120
2-Nitroaniline	120	101		ug/L		84	51 - 145
3-Nitroaniline	120	105		ug/L		87	37 - 127
4-Nitroaniline	120	119		ug/L		99	36 - 137
Nitrobenzene	120	86.9		ug/L		72	45 - 120
2-Nitrophenol	120	78.3		ug/L		65	40 - 124
4-Nitrophenol	240	196		ug/L		82	23 - 146
N-Nitrosodimethylamine	120	91.2		ug/L		76	29 - 137
N-Nitrosodi-n-propylamine	120	90.7		ug/L		76	45 - 120
N-Nitrosodiphenylamine	119	109		ug/L		92	54 - 120
Pentachlorophenol	240	191		ug/L		80	31 - 130
Phenol	120	88.1		ug/L		73	11 - 120
Pyridine	240	145		ug/L		60	16 - 120
Quinoline	120	103		ug/L		86	49 - 130
2,4,5-Trichlorophenol	120	110		ug/L		91	51 - 136
2,4,6-Trichlorophenol	120	111		ug/L		92	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*67*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*

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

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*91*		*26 - 150*

Lab Sample ID: LCS 400-585529/4-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzenethiol			120	35.5		ug/L		30	10 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*46 - 124*
2-Fluorophenol	*76*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*87*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	96.5		ug/L		80	21 - 120	7	30
Benzoic acid			513	347		ug/L		68	10 - 144	17	30
Benzyl alcohol			120	102		ug/L		85	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	92.5		ug/L		77	47 - 120	5	30
Bis(2-chloroethyl)ether			120	89.8		ug/L		75	44 - 120	2	30
bis (2-chloroisopropyl) ether			120	86.4		ug/L		72	33 - 121	4	30
Bis(2-ethylhexyl) phthalate			120	119		ug/L		99	52 - 147	7	30
4-Bromophenyl phenyl ether			120	120		ug/L		100	54 - 122	8	30
Butyl benzyl phthalate			120	111		ug/L		92	54 - 133	7	30
4-Chloroaniline			120	92.7	*1	ug/L		77	26 - 120	34	30
4-Chloro-3-methylphenol			120	107		ug/L		89	48 - 131	5	30
2-Chloronaphthalene			120	103		ug/L		86	52 - 121	5	30
2-Chlorophenol			120	91.5		ug/L		76	40 - 120	3	30
4-Chlorophenyl phenyl ether			120	105		ug/L		88	56 - 125	6	30
Dibenz[a,h]acridine			120	126		ug/L		105	31 - 150	6	30
Dibenzofuran			120	100		ug/L		84	56 - 122	5	30
3,3'-Dichlorobenzidine			160	247	*+	ug/L		154	36 - 132	9	30
2,4-Dichlorophenol			120	101		ug/L		84	49 - 120	3	30
Diethyl phthalate			120	103		ug/L		86	50 - 137	6	30
2,4-Dimethylphenol			120	98.7		ug/L		82	48 - 120	4	30
Dimethyl phthalate			120	107		ug/L		89	57 - 124	7	30
Di-n-butyl phthalate			120	121		ug/L		101	58 - 126	4	30
4,6-Dinitro-ortho-cresol			240	255		ug/L		106	23 - 148	10	30
2,4-Dinitrophenol			240	233		ug/L		97	10 - 150	9	30
2,4-Dinitrotoluene			120	116		ug/L		97	54 - 142	7	30
2,6-Dinitrotoluene			120	113		ug/L		94	55 - 130	6	30

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

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	118		ug/L		98	57 - 138	7	30
1,4-Dioxane			120	64.5		ug/L		54	31 - 120	1	30
1,2-Diphenylhydrazine (as Azobenzene)			120	104		ug/L		86	45 - 124	6	30
Hexachlorobenzene			120	116		ug/L		97	52 - 129	5	30
Hexachlorocyclopentadiene			120	82.6		ug/L		69	10 - 134	3	30
Hexachloroethane			120	80.3		ug/L		67	20 - 120	6	30
Indene			120	101		ug/L		84	49 - 120	8	30
Isophorone			120	95.0		ug/L		79	48 - 120	6	30
2-Methylphenol			120	98.3		ug/L		82	46 - 124	3	30
3 & 4 Methylphenol			120	93.8		ug/L		78	45 - 120	4	30
2-Nitroaniline			120	110		ug/L		91	51 - 145	8	30
3-Nitroaniline			120	114		ug/L		95	37 - 127	9	30
4-Nitroaniline			120	128		ug/L		106	36 - 137	7	30
Nitrobenzene			120	91.2		ug/L		76	45 - 120	5	30
2-Nitrophenol			120	80.7		ug/L		67	40 - 124	3	30
4-Nitrophenol			240	214		ug/L		89	23 - 146	9	30
N-Nitrosodimethylamine			120	96.6		ug/L		81	29 - 137	6	30
N-Nitrosodi-n-propylamine			120	94.6		ug/L		79	45 - 120	4	30
N-Nitrosodiphenylamine			119	120		ug/L		101	54 - 120	10	30
Pentachlorophenol			240	209		ug/L		87	31 - 130	9	30
Phenol			120	89.3		ug/L		74	11 - 120	1	30
Pyridine			240	151		ug/L		63	16 - 120	4	30
Quinoline			120	112		ug/L		94	49 - 130	8	30
2,4,5-Trichlorophenol			120	117		ug/L		98	51 - 136	7	30
2,4,6-Trichlorophenol			120	116		ug/L		96	50 - 127	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*57*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*93*		*26 - 150*

Lab Sample ID: LCSD 400-585529/5-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	5.09	J *- *1	ug/L		4	10 - 120	150	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*72*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*87*		*17 - 127*
Terphenyl-d14	*112*		*44 - 149*

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

Lab Sample ID: LCSD 400-585529/5-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	56		26 - 150

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/20/22 15:41	07/27/22 16:19	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/20/22 15:41	07/27/22 16:19	1
Anthracene	ND		0.20	0.032	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/20/22 15:41	07/27/22 16:19	1
Chrysene	ND		0.20	0.074	ug/L		07/20/22 15:41	07/27/22 16:19	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/20/22 15:41	07/27/22 16:19	1
Fluoranthene	ND		0.20	0.068	ug/L		07/20/22 15:41	07/27/22 16:19	1
Fluorene	ND		0.20	0.11	ug/L		07/20/22 15:41	07/27/22 16:19	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/20/22 15:41	07/27/22 16:19	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/20/22 15:41	07/27/22 16:19	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/20/22 15:41	07/27/22 16:19	1
Phenanthrene	ND		0.20	0.036	ug/L		07/20/22 15:41	07/27/22 16:19	1
Pyrene	ND		0.20	0.040	ug/L		07/20/22 15:41	07/27/22 16:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	99		15 - 122	07/20/22 15:41	07/27/22 16:19	1
Nitrobenzene-d5	96		19 - 130	07/20/22 15:41	07/27/22 16:19	1
Terphenyl-d14	114		33 - 138	07/20/22 15:41	07/27/22 16:19	1

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	114		ug/L		95	41 - 120
Acenaphthylene	120	114		ug/L		95	44 - 120
Anthracene	120	121		ug/L		101	49 - 120
Benzo[a]anthracene	120	121		ug/L		101	61 - 135
Benzo[a]pyrene	120	105		ug/L		88	52 - 120
Benzo[b]fluoranthene	120	126		ug/L		105	53 - 134
Benzo[g,h,i]perylene	120	104		ug/L		86	47 - 133
Benzo[k]fluoranthene	120	113		ug/L		94	57 - 134
Chrysene	120	102		ug/L		85	55 - 122
Dibenz(a,h)anthracene	120	126		ug/L		105	48 - 146
Fluoranthene	120	120		ug/L		100	54 - 128

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

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Fluorene			120	120		ug/L		100	45 - 125		
Indeno[1,2,3-cd]pyrene			120	115		ug/L		96	43 - 142		
1-Methylnaphthalene			120	94.3		ug/L		79	41 - 120		
2-Methylnaphthalene			120	91.6		ug/L		76	32 - 124		
Phenanthrene			120	121		ug/L		101	48 - 120		
Pyrene			120	115		ug/L		96	48 - 132		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*
Nitrobenzene-d5	*72*		*19 - 130*
Terphenyl-d14	*108*		*33 - 138*

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			120	129		ug/L		107	41 - 120	12	56
Acenaphthylene			120	128		ug/L		106	44 - 120	11	56
Anthracene			120	140		ug/L		117	49 - 120	14	51
Benzo[a]anthracene			120	138		ug/L		115	61 - 135	13	49
Benzo[a]pyrene			120	123		ug/L		102	52 - 120	15	50
Benzo[b]fluoranthene			120	142		ug/L		118	53 - 134	12	54
Benzo[g,h,i]perylene			120	114		ug/L		95	47 - 133	10	50
Benzo[k]fluoranthene			120	131		ug/L		109	57 - 134	14	52
Chrysene			120	116		ug/L		97	55 - 122	13	50
Dibenz(a,h)anthracene			120	142		ug/L		118	48 - 146	12	50
Fluoranthene			120	138		ug/L		115	54 - 128	14	52
Fluorene			120	137		ug/L		114	45 - 125	14	56
Indeno[1,2,3-cd]pyrene			120	128		ug/L		107	43 - 142	11	51
1-Methylnaphthalene			120	102		ug/L		85	41 - 120	7	55
2-Methylnaphthalene			120	99.5		ug/L		83	32 - 124	8	57
Phenanthrene			120	138		ug/L		115	48 - 120	14	56
Pyrene			120	129		ug/L		108	48 - 132	12	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*104*		*15 - 122*
Nitrobenzene-d5	*91*		*19 - 130*
Terphenyl-d14	*110*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-585620/1-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585620

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/21/22 10:46	07/21/22 16:16	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-585620/1-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585620

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromoethane	ND		0.020	0.015	ug/L		07/21/22 10:46	07/21/22 16:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*51 - 149*	*07/21/22 10:46*	*07/21/22 16:16*	*1*

Lab Sample ID: LCS 400-585620/2-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585620

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.115		ug/L		114	60 - 140		
1,2-D bromoethane			0.101	0.108		ug/L		107	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*51 - 149*

Lab Sample ID: LCSD 400-585620/3-A
Matrix: Water
Analysis Batch: 585690

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585620

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.113		ug/L		112	60 - 140	4	30
1,2-D bromoethane			0.101	0.109		ug/L		108	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*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
Melissa Remiger	25278
PO #	**GSAP Project ID**
60674381 – 3.3.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 7/13/22
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 Quarterly GW 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Heintz; M. Massa
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; andrei.zamfir@aecom.com

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

REQUESTED ANALYSIS
60674381 – 3.3.2

400-222958 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-071322-8260-B	7/13/2022	0000	Water	2					2	X			
	TB-ROX-071322-8011-B	7/13/2022	0000	Water	2					2		X		
	P74-ROX-071322-EB	7/13/2022	0840	Water	6			2		8	X	X	X	X
	P74-ROX-071322	7/13/2022	1030	Water	6			2		8	X	X	X	X
	P56-ROX-071322	7/13/2022	1210	Water	6			2		8	X	X	X	X
	P93C-ROX-071322	7/13/2022	1320	Water	6			2		8	X	X	X	X

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 5564 3930 5431	Date: 7/13/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 7/14/22	Time: 830
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 979468, 979469

Version: 11July22

Page 48 of 50

7/28/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-222958-1

Login Number: 222958
List Number: 1
Creator: DeKlerk, Michaela

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	1.1°C IR9
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: 400-222958-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 3rd Quarter 2022 Data Review

Laboratory SDG: 400-223012-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Andreia Vladimirescu

Date Reviewed: 9/13/2022

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

Sample Identification	Sample Identification
TB-ROX-071422-8260-B	TB-ROX-071422-8011-B
T12-ROX-071422	P59-ROX-071422
P58-ROX-071422	P58-ROX-071422-DUP
TB-ROX-071422-8260-A	TB-ROX-071422-8011-A
MW3-ROX-071422	ROST4PZC-ROX-071422
MW2-ROX-071422	MW22-ROX-071422
MW22-ROX-071422-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 bis(2-ethylhexyl) phthalate in sample MW22-ROX-071422 was re-extracted outside of the extraction time criteria. Several SVOC and VOC by 8011 LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in samples P58-ROX-071422 and MW3-ROX-071422. Acetone and 2-chloroethyl vinyl ether MS/MSD recoveries were outside evaluation criteria in sample MW3-ROX-071422. Fluorene and phenol in field duplicate pair P58-ROX-071422/P58-ROX-071422-DUP, and 1,3,5-trimethylbenzene and 2-methylnaphthalene in field duplicate pair MW22-ROX-071422/MW22-ROX-071422-DUP, were qualified due to field duplicate RPD above evaluation criteria; therefore, results were qualified as estimated (**J**). VOCs in samples T12-ROX-071422, P59-ROX-071422, MW2-ROX-071422, and field duplicate pair P58-ROX-071422/P58-ROX-071422-DUP were diluted to bring target analytes into calibration range of the instrument. PAHs in samples P59-ROX-071422 and P58-ROX-071422-DUP were diluted due to the nature of the sample matrix. The continuing calibration verification for several analytes, and the relative response factor (RRF) for acenaphthene in the initial calibration verification, were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (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 MW22-ROX-071422 was re-extracted 6 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. Analytical data requiring qualification is summarized in the table below.

Sample ID	Parameter	Analyte	Qualification
MW22-ROX-071422 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**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 400-585529/4-A/5-A	SVOCs	Benzenethiol	30/**4**	**150**	10-120/30
LCS/LCSD 400-585529/2-A/3-A	SVOCs	4-Chloroaniline	55/77	**34**	26-120/30
LCS/LCSD 400-585529/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	**141/154**	9	36-132/30
LCS/LCSD 586135/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**148/160**	8	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
T12-ROX-071422	SVOCs	Benzenethiol	**UJ**
P59-ROX-071422	SVOCs	Benzenethiol	**UJ**
P58-ROX-071422	SVOCs	Benzenethiol	**UJ**
P58-ROX-071422-DUP	SVOCs	Benzenethiol	**UJ**
MW3-ROX-071422	SVOCs	Benzenethiol	**UJ**
ROST4PZC-ROX-071422	SVOCs	Benzenethiol	**UJ**
MW2-ROX-071422	SVOCs	Benzenethiol	**UJ**
MW22-ROX-071422	SVOCs	Benzenethiol	**UJ**
MW22-ROX-071422-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P58-ROX-071422	PAHs	Nitrobenzene-d_5	**132**	19-130
MW3-ROX-071422	PAHs	2-Fluorobiphenyl	**139**	15-122
MW3-ROX-071422	PAHs	Terphenyl-d_{14}	**183**	33-138

Analytical data that required qualification based on surrogate data are included in the table below. Qualifications due to surrogate recoveries were not required if only one of three base/neutral surrogate recoveries were outside evaluation criteria. Analytical data reported as non-detect and associated with surrogate recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-071422	PAHs	1-Methylnaphthalene	**J**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

Yes, although not requested, sample MW3-ROX-071422 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
MW3-ROX-071422 MS/MSD	VOCs	Acetone	**154/154**	0	43-150/30
MW3-ROX-071422 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
MW3-ROX-071422	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
P58-ROX-071422	P58-ROX-071422-DUP
MW22-ROX-071422	MW22-ROX-071422-DUP

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
P58-ROX-071422	P58-ROX-071422-DUP	PAHs	Fluorene	**55**	**J/J**
P58-ROX-071422	P58-ROX-071422-DUP	SVOCs	Phenol	**82**	**J/J**
MW22-ROX-071422	MW22-ROX-071422-DUP	VOCs	1,3,5-Trimethylbenzene	**25**	**J/J**
MW22-ROX-071422	MW22-ROX-071422-DUP	PAHs	2-Methylnaphthalene	**26**	**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 continuing calibration verification for several analytes, and the relative response factor (RRF) for acenaphthene in the initial calibration verification, were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-071422	PAHs	Benzo[g,h,i]perylene	**UJ**
MW3-ROX-071422	PAHs	Dibenz(a,h)anthracene	**UJ**
MW3-ROX-071422	PAHs	Indeno[1,2,3-cd]pyrene	**UJ**
MW3-ROX-071422	PAHs	Pyrene	**UJ**
P59-ROX-071422	PAHs	Acenaphthene	**J**
ROST4PZC-ROX-071422	PAHs	Acenaphthene	**J**
MW2-ROX-071422	PAHs	Acenaphthene	**UJ**
MW22-ROX-071422	PAHs	Acenaphthene	**UJ**
MW22-ROX-071422-DUP	PAHs	Acenaphthene	**UJ**

Sample ID	Parameter	Analyte	Qualification
T12-ROX-071422	PAHs	Acenaphthene	**UJ**

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-223012-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
8/4/2022 2:21:32 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

LINKS

Review your project results through myEOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Sample Summary 5
Detection Summary 6
Client Sample Results 11
Definitions 53
Surrogate Summary 54
Method Summary 56
Chronicle 57
QC Association 63
QC Sample Results 66
Chain of Custody 84
Receipt Checklists 86
Certification Summary 87

Job ID: 400-223012-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-223012-1

Comments
No additional comments.

Receipt
The samples were received on 7/15/2022 9:07 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 0.6º C and 1.3º C.

GC/MS VOA
Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-071422-8260-B (400-223012-1), T12-ROX-071422 (400-223012-3), P59-ROX-071422 (400-223012-4), P58-ROX-071422 (400-223012-5), P58-ROX-071422-DUP (400-223012-6), TB-ROX-071422-8260-A (400-223012-7), MW3-ROX-071422 (400-223012-9), ROST4PZC-ROX-071422 (400-223012-10), MW2-ROX-071422 (400-223012-11), MW22-ROX-071422 (400-223012-12) and MW22-ROX-071422-DUP (400-223012-13). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: T12-ROX-071422 (400-223012-3), P59-ROX-071422 (400-223012-4), P58-ROX-071422 (400-223012-5), P58-ROX-071422-DUP (400-223012-6), MW2-ROX-071422 (400-223012-11). Elevated reporting limits (RLs) are provided.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-585577 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-585577 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-585577 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 8270D: The continuing calibration verification (CCV) associated with batch 400-585995 recovered above the upper control limit for 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: 4-Chloroaniline.

Method 8270D: The following samples were diluted due to the nature of the sample matrix: P59-ROX-071422 (400-223012-4) and P58-ROX-071422-DUP (400-223012-6). Elevated reporting limits (RLs) are provided.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-585529 and analytical batch 400-585828 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte

Job ID: 400-223012-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The 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): 400-223012-G-12-A. Samples were re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: P58-ROX-071422 (400-223012-5). These results have been reported and qualified.

Method 8270D LL: Surrogate recovery for the following sample was outside the upper control limit: MW3-ROX-071422 (400-223012-9). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D LL: The following sample was diluted due to the nature of the sample matrix: P59-ROX-071422 (400-223012-4), P58-ROX-071422-DUP (400-223012-6). Elevated reporting limits (RLs) are provided.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-585862 recovered outside acceptance criteria, low biased, for Indeno[1,2,3-cd]pyrene, Benzo[g,h,i]perylene, Dibenz(a,h)anthracene and Pyrene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: The initial calibration verification (ICV) analyzed in batch 400-586279 was outside method criteria for the following analyte(s): Acenaphthene. 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 400-586163 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-586163 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-586135 and analytical batch 400-586163 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

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

Job ID: 400-223012-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-223012-1	TB-ROX-071422-8260-B	Water	07/14/22 12:00	07/15/22 09:07
400-223012-2	TB-ROX-071422-8011-B	Water	07/14/22 12:00	07/15/22 09:07
400-223012-3	T12-ROX-071422	Water	07/14/22 09:30	07/15/22 09:07
400-223012-4	P59-ROX-071422	Water	07/14/22 10:30	07/15/22 09:07
400-223012-5	P58-ROX-071422	Water	07/14/22 11:50	07/15/22 09:07
400-223012-6	P58-ROX-071422-DUP	Water	07/14/22 11:50	07/15/22 09:07
400-223012-7	TB-ROX-071422-8260-A	Water	07/14/22 12:00	07/15/22 09:07
400-223012-8	TB-ROX-071422-8011-A	Water	07/14/22 12:00	07/15/22 09:07
400-223012-9	MW3-ROX-071422	Water	07/14/22 09:05	07/15/22 09:07
400-223012-10	ROST4PZC-ROX-071422	Water	07/14/22 09:50	07/15/22 09:07
400-223012-11	MW2-ROX-071422	Water	07/14/22 11:50	07/15/22 09:07
400-223012-12	MW22-ROX-071422	Water	07/14/22 12:55	07/15/22 09:07
400-223012-13	MW22-ROX-071422-DUP	Water	07/14/22 12:55	07/15/22 09:07

Detection Summary

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

Job ID: 400-223012-1

Client Sample ID: TB-ROX-071422-8260-B — Lab Sample ID: 400-223012-1

No Detections.

Client Sample ID: TB-ROX-071422-8011-B — Lab Sample ID: 400-223012-2

No Detections.

Client Sample ID: T12-ROX-071422 — Lab Sample ID: 400-223012-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1300		10	1.3	ug/L	10		8260B	Total/NA
Ethylbenzene	12		10	5.0	ug/L	10		8260B	Total/NA
Isopropy benzene	7.1	J	10	5.3	ug/L	10		8260B	Total/NA
m-Xylene & p-Xylene	67		50	6.3	ug/L	10		8260B	Total/NA
N-Propylbenzene	14		10	6.9	ug/L	10		8260B	Total/NA
Toluene	30		10	4.1	ug/L	10		8260B	Total/NA
1,3,5-Trimethy benzene	11		10	5.6	ug/L	10		8260B	Total/NA
Xylenes, Total	67	J	100	16	ug/L	10		8260B	Total/NA
Benzo[a]anthracene	0.12	J	0.20	0.045	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.20		0.20	0.041	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.067	J	0.20	0.033	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.063	J	0.20	0.049	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.070	J	0.20	0.067	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.042	J	0.20	0.042	ug/L	1		8270D LL	Total/NA
Pyrene	0.084	J	0.20	0.039	ug/L	1		8270D LL	Total/NA
2,4-Dimethylphenol	6.0	J	9.8	3.4	ug/L	1		8270D	Total/NA
Indene	3.1	J	9.8	0.98	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	0.62	J	20	0.38	ug/L	1		8270D	Total/NA
Phenol	130		9.8	2.6	ug/L	1		8270D	Total/NA

Client Sample ID: P59-ROX-071422 — Lab Sample ID: 400-223012-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1900		20	2.6	ug/L	20		8260B	Total/NA
Ethylbenzene	300		20	10	ug/L	20		8260B	Total/NA
Isopropy benzene	56		20	11	ug/L	20		8260B	Total/NA
m-Xylene & p-Xylene	280		100	13	ug/L	20		8260B	Total/NA
Naphthalene	130		100	60	ug/L	20		8260B	Total/NA
N-Propylbenzene	86		20	14	ug/L	20		8260B	Total/NA
Toluene	140		20	8.2	ug/L	20		8260B	Total/NA
1,2,4-Trimethy benzene	140		20	16	ug/L	20		8260B	Total/NA
1,3,5-Trimethy benzene	64		20	11	ug/L	20		8260B	Total/NA
Xylenes, Total	290		200	32	ug/L	20		8260B	Total/NA
Acenaphthene	0.46	J	0.38	0.060	ug/L	2		8270D LL	Total/NA
Anthracene	0.39		0.38	0.060	ug/L	2		8270D LL	Total/NA
Benzo[a]anthracene	0.25	J	0.38	0.087	ug/L	2		8270D LL	Total/NA
Benzo[a]pyrene	0.35	J	0.38	0.079	ug/L	2		8270D LL	Total/NA
Benzo[b]fluoranthene	0.11	J	0.38	0.064	ug/L	2		8270D LL	Total/NA
Fluoranthene	0.23	J	0.38	0.13	ug/L	2		8270D LL	Total/NA
Fluorene	0.44		0.38	0.21	ug/L	2		8270D LL	Total/NA
1-Methylnaphthalene	14		0.38	0.14	ug/L	2		8270D LL	Total/NA
2-Methylnaphthalene	20		0.38	0.11	ug/L	2		8270D LL	Total/NA
Phenanthrene	1.3		0.38	0.068	ug/L	2		8270D LL	Total/NA
Pyrene	0.47		0.38	0.075	ug/L	2		8270D LL	Total/NA
Phenol	23		19	4.9	ug/L	2		8270D	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: 400-223012-1

Client Sample ID: P58-ROX-071422

Lab Sample ID: 400-223012-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	230000		1000	130	ug/L	1000		8260B	Total/NA
Ethylbenzene	690	J	1000	500	ug/L	1000		8260B	Total/NA
Toluene	750	J	1000	410	ug/L	1000		8260B	Total/NA
Acenaphthene	1.3		0.18	0.029	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.69		0.18	0.041	ug/L	1		8270D LL	Total/NA
Anthracene	0.75		0.18	0.029	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.38		0.18	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.39		0.18	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.28		0.18	0.031	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.21		0.18	0.12	ug/L	1		8270D LL	Total/NA
Chrysene	0.49		0.18	0.068	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.18		0.18	0.046	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.25		0.18	0.063	ug/L	1		8270D LL	Total/NA
Fluorene	3.0	J	0.18	0.10	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.17	J	0.18	0.040	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	71		0.18	0.068	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	59		0.18	0.055	ug/L	1		8270D LL	Total/NA
Phenanthrene	2.6		0.18	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	1.1		0.18	0.037	ug/L	1		8270D LL	Total/NA
Dibenzofuran	2.6	J	9.2	0.16	ug/L	1		8270D	Total/NA
2,4-Dimethylphenol	13		9.2	3.2	ug/L	1		8270D	Total/NA
2-Methylphenol	24		9.2	1.7	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	18		18	0.36	ug/L	1		8270D	Total/NA
Phenol	310	J	9.2	2.4	ug/L	1		8270D	Total/NA

Client Sample ID: P58-ROX-071422-DUP

Lab Sample ID: 400-223012-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	230000		1000	130	ug/L	1000		8260B	Total/NA
Ethylbenzene	570	J	1000	500	ug/L	1000		8260B	Total/NA
Toluene	580	J	1000	410	ug/L	1000		8260B	Total/NA
Acenaphthene	1.1		0.37	0.059	ug/L	2		8270D LL	Total/NA
Acenaphthylene	0.60		0.37	0.082	ug/L	2		8270D LL	Total/NA
Anthracene	0.72		0.37	0.059	ug/L	2		8270D LL	Total/NA
Benzo[a]anthracene	0.57		0.37	0.084	ug/L	2		8270D LL	Total/NA
Benzo[a]pyrene	0.47		0.37	0.077	ug/L	2		8270D LL	Total/NA
Benzo[b]fluoranthene	0.23	J	0.37	0.062	ug/L	2		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.17	J	0.18	0.12	ug/L	1		8270D LL	Total/NA
Chrysene	0.35	J	0.37	0.14	ug/L	2		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.14	J	0.18	0.046	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.29	J	0.37	0.12	ug/L	2		8270D LL	Total/NA
Fluorene	1.7	J	0.37	0.20	ug/L	2		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.088	J	0.18	0.039	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	88		0.37	0.14	ug/L	2		8270D LL	Total/NA
2-Methylnaphthalene	51		0.37	0.11	ug/L	2		8270D LL	Total/NA
Phenanthrene	2.4		0.37	0.066	ug/L	2		8270D LL	Total/NA
Pyrene	1.3		0.18	0.037	ug/L	1		8270D LL	Total/NA
2,4-Dimethylphenol	12	J	18	6.4	ug/L	2		8270D	Total/NA
2-Methylphenol	23		18	3.3	ug/L	2		8270D	Total/NA
3 & 4 Methylphenol	16	J	37	0.71	ug/L	2		8270D	Total/NA
Phenol	130	J	18	4.8	ug/L	2		8270D	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: 400-223012-1

Client Sample ID: TB-ROX-071422-8260-A — Lab Sample ID: 400-223012-7

No Detections.

Client Sample ID: TB-ROX-071422-8011-A — Lab Sample ID: 400-223012-8

No Detections.

Client Sample ID: MW3-ROX-071422 — Lab Sample ID: 400-223012-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.85	J	1.0	0.22	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	0.11	J J	0.19	0.070	ug/L	1		8270D LL	Total/NA
Benzoic acid	23	J	29	6.9	ug/L	1		8270D	Total/NA

Client Sample ID: ROST4PZC-ROX-071422 — Lab Sample ID: 400-223012-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.9		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	2.7		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	4.7		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	41		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	50		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	7.7		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	1.1	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	0.94	J	1.0	0.71	ug/L	1		8260B	Total/NA
Toluene	7.5		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	9.9		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	2.3		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	42		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	1.5	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Anthracene	0.43		0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.082	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.17	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.075	J	0.19	0.065	ug/L	1		8270D LL	Total/NA
Fluorene	1.1		0.19	0.10	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	34		0.19	0.070	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	11		0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	3.0		0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.15	J	0.19	0.038	ug/L	1		8270D LL	Total/NA
Dibenzofuran	0.77	J	9.5	0.16	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	0.66	J	19	0.37	ug/L	1		8270D	Total/NA

Client Sample ID: MW2-ROX-071422 — Lab Sample ID: 400-223012-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	420		5.0	2.5	ug/L	5		8260B	Total/NA
Isopropy benzene	69		5.0	2.7	ug/L	5		8260B	Total/NA
m-Xylene & p-Xylene	240		25	3.2	ug/L	5		8260B	Total/NA
Naphthalene	45		25	15	ug/L	5		8260B	Total/NA
N-Propylbenzene	95		5.0	3.5	ug/L	5		8260B	Total/NA
o-Xylene	21	J	25	3.0	ug/L	5		8260B	Total/NA
p-Isopropyltoluene	7.5		5.0	3.6	ug/L	5		8260B	Total/NA
sec-Butylbenzene	6.0		5.0	3.5	ug/L	5		8260B	Total/NA
Toluene	5.4		5.0	2.1	ug/L	5		8260B	Total/NA
1,2,4-Trimethy benzene	92		5.0	4.1	ug/L	5		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW2-ROX-071422 (Continued) — Lab Sample ID: 400-223012-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethy benzene	49		5.0	2.8	ug/L	5		8260B	Total/NA
Xylenes, Total	260		50	8.0	ug/L	5		8260B	Total/NA
Benzo[a]anthracene	0.056	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	11		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	23		0.19	0.058	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.047	J	0.19	0.035	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.35	J	9.7	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: MW22-ROX-071422 — Lab Sample ID: 400-223012-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.6		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	55		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	17		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	80		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	34		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	29		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	7.6		5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	2.7		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	2.1		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	2.8		1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	5.7		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	150		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	31	J	1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	88		10	1.6	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	4.2		0.19	0.070	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	4.6	J	0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.054	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	7.8	J	9.4	4.7	ug/L	1		8270D	Total/NA

Client Sample ID: MW22-ROX-071422-DUP — Lab Sample ID: 400-223012-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.4		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	52		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	21		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	97		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	39		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	37		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	8.0		5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	2.8		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	2.7		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	4.5		1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	5.7		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	180		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	40	J	1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	100		10	1.6	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.10	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.19		0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.072	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.083	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.073	J	0.19	0.064	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW22-ROX-071422-DUP (Continued)

Lab Sample ID: 400-223012-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Indeno[1,2,3-cd]pyrene	0.065	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	5.1		0.19	0.070	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	6.0	J	0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.11	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.067	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-223012-1

Client Sample ID: TB-ROX-071422-8260-B
Date Collected: 07/14/22 12:00
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/20/22 17:31	1
Acrolein	ND		20	3.3	ug/L			07/20/22 17:31	1
Acrylonitrile	ND		10	2.8	ug/L			07/20/22 17:31	1
Benzene	ND		1.0	0.13	ug/L			07/20/22 17:31	1
Bromobenzene	ND		1.0	0.54	ug/L			07/20/22 17:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/20/22 17:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/22 17:31	1
Bromoform	ND		5.0	0.25	ug/L			07/20/22 17:31	1
Bromomethane	ND		1.0	0.98	ug/L			07/20/22 17:31	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/20/22 17:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/20/22 17:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/20/22 17:31	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/20/22 17:31	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/20/22 17:31	1
Chloroethane	ND		1.0	0.76	ug/L			07/20/22 17:31	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 17:31	1
Chloroform	ND		1.0	1.0	ug/L			07/20/22 17:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/20/22 17:31	1
Chloromethane	ND		1.0	0.32	ug/L			07/20/22 17:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/20/22 17:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/20/22 17:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/22 17:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/20/22 17:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/20/22 17:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/20/22 17:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/22 17:31	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/20/22 17:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 17:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 17:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 17:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 17:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/22 17:31	1
Ethy benzene	ND		1.0	0.50	ug/L			07/20/22 17:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/20/22 17:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/20/22 17:31	1
2-Hexanone	ND		25	1.4	ug/L			07/20/22 17:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/20/22 17:31	1
Methylene bromide	ND		5.0	0.22	ug/L			07/20/22 17:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/20/22 17:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/20/22 17:31	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/20/22 17:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/20/22 17:31	1
Naphthalene	ND		5.0	3.0	ug/L			07/20/22 17:31	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/20/22 17:31	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/20/22 17:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/20/22 17:31	1
o-Xylene	ND		5.0	0.60	ug/L			07/20/22 17:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/20/22 17:31	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/20/22 17:31	1

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

Job ID: 400-223012-1

Client Sample ID: TB-ROX-071422-8260-B
Date Collected: 07/14/22 12:00
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/20/22 17:31	1
Styrene	ND		1.0	1.0	ug/L			07/20/22 17:31	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/20/22 17:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/20/22 17:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/22 17:31	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/20/22 17:31	1
Toluene	ND		1.0	0.41	ug/L			07/20/22 17:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 17:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/20/22 17:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/20/22 17:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/20/22 17:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/20/22 17:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/20/22 17:31	1
Trichloroethene	ND		1.0	0.15	ug/L			07/20/22 17:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/20/22 17:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/20/22 17:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/20/22 17:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/20/22 17:31	1
Vinyl acetate	ND		25	0.93	ug/L			07/20/22 17:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/22 17:31	1
Xylenes, Total	ND		10	1.6	ug/L			07/20/22 17:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*87*		*72 - 119*		*07/20/22 17:31*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/20/22 17:31*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/20/22 17:31*	*1*

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

Job ID: 400-223012-1

Client Sample ID: TB-ROX-071422-8011-B
Date Collected: 07/14/22 12:00
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/25/22 16:48	07/25/22 22:07	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/25/22 16:48	07/25/22 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*07/25/22 16:48*	*07/25/22 22:07*	*1*

Client Sample ID: T12-ROX-071422
Date Collected: 07/14/22 09:30
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		250	100	ug/L			07/20/22 17:59	10
Acrolein	ND		200	33	ug/L			07/20/22 17:59	10
Acrylonitrile	ND		100	28	ug/L			07/20/22 17:59	10
Benzene	**1300**		10	1.3	ug/L			07/20/22 17:59	10
Bromobenzene	ND		10	5.4	ug/L			07/20/22 17:59	10
Bromochloromethane	ND		10	2.1	ug/L			07/20/22 17:59	10
Bromodichloromethane	ND		10	5.0	ug/L			07/20/22 17:59	10
Bromoform	ND		50	2.5	ug/L			07/20/22 17:59	10
Bromomethane	ND		10	9.8	ug/L			07/20/22 17:59	10
2-Butanone (MEK)	ND		250	26	ug/L			07/20/22 17:59	10
Carbon disulfide	ND		10	5.0	ug/L			07/20/22 17:59	10
Carbon tetrachloride	ND		10	1.9	ug/L			07/20/22 17:59	10
Chlorobenzene	ND		10	1.5	ug/L			07/20/22 17:59	10
D bromochloromethane	ND		10	2.4	ug/L			07/20/22 17:59	10
Chloroethane	ND		10	7.6	ug/L			07/20/22 17:59	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			07/20/22 17:59	10
Chloroform	ND		10	10	ug/L			07/20/22 17:59	10
1-Chlorohexane	ND		10	3.2	ug/L			07/20/22 17:59	10
Chloromethane	ND		10	3.2	ug/L			07/20/22 17:59	10
cis-1,2-Dichloroethene	ND		10	2.0	ug/L			07/20/22 17:59	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			07/20/22 17:59	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			07/20/22 17:59	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			07/20/22 17:59	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			07/20/22 17:59	10
Dichlorodifluoromethane	ND		10	8.5	ug/L			07/20/22 17:59	10
1,1-Dichloroethane	ND		10	5.0	ug/L			07/20/22 17:59	10
1,2-Dichloroethane	ND		10	1.9	ug/L			07/20/22 17:59	10
1,1-Dichloroethene	ND		10	5.0	ug/L			07/20/22 17:59	10
1,2-Dichloropropane	ND		10	5.0	ug/L			07/20/22 17:59	10
1,3-Dichloropropane	ND		10	5.0	ug/L			07/20/22 17:59	10
2,2-Dichloropropane	ND		10	5.0	ug/L			07/20/22 17:59	10
1,1-Dichloropropene	ND		10	5.0	ug/L			07/20/22 17:59	10
Ethylbenzene	**12**		10	5.0	ug/L			07/20/22 17:59	10
Ethyl methacrylate	ND		10	6.0	ug/L			07/20/22 17:59	10
Hexachlorobutadiene	ND		50	9.0	ug/L			07/20/22 17:59	10
2-Hexanone	ND		250	14	ug/L			07/20/22 17:59	10
Isopropylbenzene	**7.1**	**J**	10	5.3	ug/L			07/20/22 17:59	10
Methylene bromide	ND		50	2.2	ug/L			07/20/22 17:59	10
Methylene Chloride	ND		50	30	ug/L			07/20/22 17:59	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			07/20/22 17:59	10
Methyl tert-butyl ether	ND		10	2.2	ug/L			07/20/22 17:59	10
m-Xylene & p-Xylene	**67**		50	6.3	ug/L			07/20/22 17:59	10
Naphthalene	ND		50	30	ug/L			07/20/22 17:59	10
n-Buty benzene	ND		10	7.6	ug/L			07/20/22 17:59	10
N-Propylbenzene	**14**		10	6.9	ug/L			07/20/22 17:59	10
o-Chlorotoluene	ND		10	5.7	ug/L			07/20/22 17:59	10
o-Xylene	ND		50	6.0	ug/L			07/20/22 17:59	10
p-Chlorotoluene	ND		10	5.6	ug/L			07/20/22 17:59	10
p-Isopropyltoluene	ND		10	7.1	ug/L			07/20/22 17:59	10

Client Sample ID: T12-ROX-071422

Date Collected: 07/14/22 09:30
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		10	7.0	ug/L			07/20/22 17:59	10
Styrene	ND		10	10	ug/L			07/20/22 17:59	10
tert-Buty benzene	ND		10	6.3	ug/L			07/20/22 17:59	10
1,1,1,2-Tetrachloroethane	ND		10	1.6	ug/L			07/20/22 17:59	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			07/20/22 17:59	10
Tetrachloroethene	ND		10	9.0	ug/L			07/20/22 17:59	10
Toluene	**30**		10	4.1	ug/L			07/20/22 17:59	10
trans-1,2-Dichloroethene	ND		10	5.0	ug/L			07/20/22 17:59	10
trans-1,3-Dichloropropene	ND		50	2.0	ug/L			07/20/22 17:59	10
1,2,3-Trichlorobenzene	ND		10	9.0	ug/L			07/20/22 17:59	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			07/20/22 17:59	10
1,1,1-Trichloroethane	ND		10	1.8	ug/L			07/20/22 17:59	10
1,1,2-Trichloroethane	ND		50	2.1	ug/L			07/20/22 17:59	10
Trichloroethene	ND		10	1.5	ug/L			07/20/22 17:59	10
Trichlorofluoromethane	ND		10	5.2	ug/L			07/20/22 17:59	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			07/20/22 17:59	10
1,2,4-Trimethylbenzene	ND		10	8.2	ug/L			07/20/22 17:59	10
1,3,5-Trimethylbenzene	**11**		10	5.6	ug/L			07/20/22 17:59	10
Vinyl acetate	ND		250	9.3	ug/L			07/20/22 17:59	10
Vinyl chloride	ND		10	5.0	ug/L			07/20/22 17:59	10
Xylenes, Total	**67**	**J**	100	16	ug/L			07/20/22 17:59	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/20/22 17:59*	*10*
Dibromofluoromethane	*107*		*75 - 126*		*07/20/22 17:59*	*10*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/20/22 17:59*	*10*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.20	0.031	ug/L		07/20/22 15:41	07/27/22 17:05	1
Acenaphthylene	ND		0.20	0.044	ug/L		07/20/22 15:41	07/27/22 17:05	1
Anthracene	ND		0.20	0.031	ug/L		07/20/22 15:41	07/27/22 17:05	1
Benzo[a]anthracene	**0.12**	**J**	0.20	0.045	ug/L		07/20/22 15:41	07/27/22 17:05	1
Benzo[a]pyrene	**0.20**		0.20	0.041	ug/L		07/20/22 15:41	07/27/22 17:05	1
Benzo[b]fluoranthene	**0.067**	**J**	0.20	0.033	ug/L		07/20/22 15:41	07/27/22 17:05	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/20/22 15:41	07/27/22 17:05	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		07/20/22 15:41	07/27/22 17:05	1
Chrysene	ND		0.20	0.073	ug/L		07/20/22 15:41	07/27/22 17:05	1
Dibenz(a,h)anthracene	**0.063**	**J**	0.20	0.049	ug/L		07/20/22 15:41	07/27/22 17:05	1
Fluoranthene	**0.070**	**J**	0.20	0.067	ug/L		07/20/22 15:41	07/27/22 17:05	1
Fluorene	ND		0.20	0.11	ug/L		07/20/22 15:41	07/27/22 17:05	1
Indeno[1,2,3-cd]pyrene	**0.042**	**J**	0.20	0.042	ug/L		07/20/22 15:41	07/27/22 17:05	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		07/20/22 15:41	07/27/22 17:05	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		07/20/22 15:41	07/27/22 17:05	1
Phenanthrene	ND		0.20	0.035	ug/L		07/20/22 15:41	07/27/22 17:05	1
Pyrene	**0.084**	**J**	0.20	0.039	ug/L		07/20/22 15:41	07/27/22 17:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*07/20/22 15:41*	*07/27/22 17:05*	*1*
Nitrobenzene-d5	*111*		*19 - 130*	*07/20/22 15:41*	*07/27/22 17:05*	*1*

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

Job ID: 400-223012-1

Client Sample ID: T12-ROX-071422
Date Collected: 07/14/22 09:30
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*123*		*33 - 138*	*07/20/22 15:41*	*07/27/22 17:05*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		07/20/22 15:41	07/25/22 11:59	1
Benzenethiol	ND	*- *1 UJ	9.8	1.7	ug/L		07/20/22 15:41	07/25/22 11:59	1
Benzoic acid	ND		30	7.2	ug/L		07/20/22 15:41	07/25/22 11:59	1
Benzyl alcohol	ND		9.8	2.0	ug/L		07/20/22 15:41	07/25/22 11:59	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		07/20/22 15:41	07/25/22 11:59	1
Bis(2-chloroethyl)ether	ND		9.8	2.7	ug/L		07/20/22 15:41	07/25/22 11:59	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		07/20/22 15:41	07/25/22 11:59	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		07/20/22 15:41	07/25/22 11:59	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		07/20/22 15:41	07/25/22 11:59	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		07/20/22 15:41	07/25/22 11:59	1
4-Chloroaniline	ND	*1	9.8	3.3	ug/L		07/20/22 15:41	07/25/22 11:59	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		07/20/22 15:41	07/25/22 11:59	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		07/20/22 15:41	07/25/22 11:59	1
2-Chlorophenol	ND		9.8	2.2	ug/L		07/20/22 15:41	07/25/22 11:59	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		07/20/22 15:41	07/25/22 11:59	1
D benz[a,h]acridine	ND		9.8	0.98	ug/L		07/20/22 15:41	07/25/22 11:59	1
D benzofuran	ND		9.8	0.17	ug/L		07/20/22 15:41	07/25/22 11:59	1
3,3'-Dichlorobenzidine	ND	*+	9.8	2.6	ug/L		07/20/22 15:41	07/25/22 11:59	1
2,4-Dichlorophenol	ND		9.8	3.0	ug/L		07/20/22 15:41	07/25/22 11:59	1
Diethyl phthalate	ND		9.8	0.24	ug/L		07/20/22 15:41	07/25/22 11:59	1
2,4-Dimethylphenol	**6.0**	**J**	9.8	3.4	ug/L		07/20/22 15:41	07/25/22 11:59	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		07/20/22 15:41	07/25/22 11:59	1
Di-n-butyl phthalate	ND		9.8	2.7	ug/L		07/20/22 15:41	07/25/22 11:59	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		07/20/22 15:41	07/25/22 11:59	1
2,4-Dinitrophenol	ND		30	3.3	ug/L		07/20/22 15:41	07/25/22 11:59	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		07/20/22 15:41	07/25/22 11:59	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		07/20/22 15:41	07/25/22 11:59	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		07/20/22 15:41	07/25/22 11:59	1
1,4-Dioxane	ND		9.8	0.98	ug/L		07/20/22 15:41	07/25/22 11:59	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		07/20/22 15:41	07/25/22 11:59	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		07/20/22 15:41	07/25/22 11:59	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/20/22 15:41	07/25/22 11:59	1
Hexachloroethane	ND		9.8	4.1	ug/L		07/20/22 15:41	07/25/22 11:59	1
Indene	**3.1**	**J**	9.8	0.98	ug/L		07/20/22 15:41	07/25/22 11:59	1
Isophorone	ND		9.8	0.14	ug/L		07/20/22 15:41	07/25/22 11:59	1
2-Methylphenol	ND		9.8	1.8	ug/L		07/20/22 15:41	07/25/22 11:59	1
3 & 4 Methylphenol	**0.62**	**J**	20	0.38	ug/L		07/20/22 15:41	07/25/22 11:59	1
2-Nitroaniline	ND		9.8	2.2	ug/L		07/20/22 15:41	07/25/22 11:59	1
3-Nitroaniline	ND		9.8	1.8	ug/L		07/20/22 15:41	07/25/22 11:59	1
4-Nitroaniline	ND		9.8	1.5	ug/L		07/20/22 15:41	07/25/22 11:59	1
Nitrobenzene	ND		9.8	0.13	ug/L		07/20/22 15:41	07/25/22 11:59	1
2-Nitrophenol	ND		9.8	5.1	ug/L		07/20/22 15:41	07/25/22 11:59	1
4-Nitrophenol	ND		9.8	2.1	ug/L		07/20/22 15:41	07/25/22 11:59	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		07/20/22 15:41	07/25/22 11:59	1

Client Sample ID: T12-ROX-071422
Date Collected: 07/14/22 09:30
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		07/20/22 15:41	07/25/22 11:59	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		07/20/22 15:41	07/25/22 11:59	1
Pentachlorophenol	ND		20	1.4	ug/L		07/20/22 15:41	07/25/22 11:59	1
Phenol	**130**		9.8	2.6	ug/L		07/20/22 15:41	07/25/22 11:59	1
Pyridine	ND		9.8	3.1	ug/L		07/20/22 15:41	07/25/22 11:59	1
Quinoline	ND		9.8	4.4	ug/L		07/20/22 15:41	07/25/22 11:59	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		07/20/22 15:41	07/25/22 11:59	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		07/20/22 15:41	07/25/22 11:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*07/20/22 15:41*	*07/25/22 11:59*	*1*
2-Fluorophenol	*59*		*13 - 113*	*07/20/22 15:41*	*07/25/22 11:59*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*07/20/22 15:41*	*07/25/22 11:59*	*1*
Phenol-d5	*77*		*17 - 127*	*07/20/22 15:41*	*07/25/22 11:59*	*1*
Terphenyl-d14	*104*		*44 - 149*	*07/20/22 15:41*	*07/25/22 11:59*	*1*
2,4,6-Tribromophenol	*107*		*26 - 150*	*07/20/22 15:41*	*07/25/22 11:59*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.033	0.018	ug/L		07/25/22 16:48	07/25/22 22:28	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		07/25/22 16:48	07/25/22 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*51 - 149*	*07/25/22 16:48*	*07/25/22 22:28*	*1*

Client Sample ID: P59-ROX-071422
Date Collected: 07/14/22 10:30
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		500	200	ug/L			07/20/22 18:26	20
Acrolein	ND		400	66	ug/L			07/20/22 18:26	20
Acrylonitrile	ND		200	56	ug/L			07/20/22 18:26	20
Benzene	**1900**		20	2.6	ug/L			07/20/22 18:26	20
Bromobenzene	ND		20	11	ug/L			07/20/22 18:26	20
Bromochloromethane	ND		20	4.2	ug/L			07/20/22 18:26	20
Bromodichloromethane	ND		20	10	ug/L			07/20/22 18:26	20
Bromoform	ND		100	5.0	ug/L			07/20/22 18:26	20
Bromomethane	ND		20	20	ug/L			07/20/22 18:26	20
2-Butanone (MEK)	ND		500	52	ug/L			07/20/22 18:26	20
Carbon disulfide	ND		20	10	ug/L			07/20/22 18:26	20
Carbon tetrachloride	ND		20	3.8	ug/L			07/20/22 18:26	20
Chlorobenzene	ND		20	3.0	ug/L			07/20/22 18:26	20
D bromochloromethane	ND		20	4.8	ug/L			07/20/22 18:26	20
Chloroethane	ND		20	15	ug/L			07/20/22 18:26	20
2-Chloroethyl vinyl ether	ND		100	40	ug/L			07/20/22 18:26	20
Chloroform	ND		20	20	ug/L			07/20/22 18:26	20
1-Chlorohexane	ND		20	6.4	ug/L			07/20/22 18:26	20
Chloromethane	ND		20	6.4	ug/L			07/20/22 18:26	20
cis-1,2-Dichloroethene	ND		20	4.0	ug/L			07/20/22 18:26	20
cis-1,3-Dichloropropene	ND		100	10	ug/L			07/20/22 18:26	20
1,2-Dichlorobenzene	ND		20	10	ug/L			07/20/22 18:26	20
1,3-Dichlorobenzene	ND		20	11	ug/L			07/20/22 18:26	20
1,4-Dichlorobenzene	ND		20	13	ug/L			07/20/22 18:26	20
Dichlorodifluoromethane	ND		20	17	ug/L			07/20/22 18:26	20
1,1-Dichloroethane	ND		20	10	ug/L			07/20/22 18:26	20
1,2-Dichloroethane	ND		20	3.8	ug/L			07/20/22 18:26	20
1,1-Dichloroethene	ND		20	10	ug/L			07/20/22 18:26	20
1,2-Dichloropropane	ND		20	10	ug/L			07/20/22 18:26	20
1,3-Dichloropropane	ND		20	10	ug/L			07/20/22 18:26	20
2,2-Dichloropropane	ND		20	10	ug/L			07/20/22 18:26	20
1,1-Dichloropropene	ND		20	10	ug/L			07/20/22 18:26	20
Ethylbenzene	**300**		20	10	ug/L			07/20/22 18:26	20
Ethyl methacrylate	ND		20	12	ug/L			07/20/22 18:26	20
Hexachlorobutadiene	ND		100	18	ug/L			07/20/22 18:26	20
2-Hexanone	ND		500	28	ug/L			07/20/22 18:26	20
Isopropylbenzene	**56**		20	11	ug/L			07/20/22 18:26	20
Methylene bromide	ND		100	4.4	ug/L			07/20/22 18:26	20
Methylene Chloride	ND		100	60	ug/L			07/20/22 18:26	20
4-Methyl-2-pentanone (MIBK)	ND		500	36	ug/L			07/20/22 18:26	20
Methyl tert-butyl ether	ND		20	4.4	ug/L			07/20/22 18:26	20
m-Xylene & p-Xylene	**280**		100	13	ug/L			07/20/22 18:26	20
Naphthalene	**130**		100	60	ug/L			07/20/22 18:26	20
n-Buty benzene	ND		20	15	ug/L			07/20/22 18:26	20
N-Propylbenzene	**86**		20	14	ug/L			07/20/22 18:26	20
o-Chlorotoluene	ND		20	11	ug/L			07/20/22 18:26	20
o-Xylene	ND		100	12	ug/L			07/20/22 18:26	20
p-Chlorotoluene	ND		20	11	ug/L			07/20/22 18:26	20
p-Isopropyltoluene	ND		20	14	ug/L			07/20/22 18:26	20

Client Sample ID: P59-ROX-071422
Date Collected: 07/14/22 10:30
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		20	14	ug/L			07/20/22 18:26	20
Styrene	ND		20	20	ug/L			07/20/22 18:26	20
tert-Buty benzene	ND		20	13	ug/L			07/20/22 18:26	20
1,1,1,2-Tetrachloroethane	ND		20	3.2	ug/L			07/20/22 18:26	20
1,1,2,2-Tetrachloroethane	ND		20	10	ug/L			07/20/22 18:26	20
Tetrachloroethene	ND		20	18	ug/L			07/20/22 18:26	20
Toluene	**140**		20	8.2	ug/L			07/20/22 18:26	20
trans-1,2-Dichloroethene	ND		20	10	ug/L			07/20/22 18:26	20
trans-1,3-Dichloropropene	ND		100	4.0	ug/L			07/20/22 18:26	20
1,2,3-Trichlorobenzene	ND		20	18	ug/L			07/20/22 18:26	20
1,2,4-Trichlorobenzene	ND		20	16	ug/L			07/20/22 18:26	20
1,1,1-Trichloroethane	ND		20	3.6	ug/L			07/20/22 18:26	20
1,1,2-Trichloroethane	ND		100	4.2	ug/L			07/20/22 18:26	20
Trichloroethene	ND		20	3.0	ug/L			07/20/22 18:26	20
Trichlorofluoromethane	ND		20	10	ug/L			07/20/22 18:26	20
1,2,3-Trichloropropane	ND		100	17	ug/L			07/20/22 18:26	20
1,2,4-Trimethylbenzene	**140**		20	16	ug/L			07/20/22 18:26	20
1,3,5-Trimethylbenzene	**64**		20	11	ug/L			07/20/22 18:26	20
Vinyl acetate	ND		500	19	ug/L			07/20/22 18:26	20
Vinyl chloride	ND		20	10	ug/L			07/20/22 18:26	20
Xylenes, Total	**290**		200	32	ug/L			07/20/22 18:26	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/20/22 18:26*	*20*
Dibromofluoromethane	*109*		*75 - 126*		*07/20/22 18:26*	*20*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/20/22 18:26*	*20*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.46**	J	0.38	0.060	ug/L		07/20/22 15:41	07/27/22 17:21	2
Acenaphthylene	ND		0.38	0.085	ug/L		07/20/22 15:41	07/27/22 17:21	2
Anthracene	**0.39**		0.38	0.060	ug/L		07/20/22 15:41	07/27/22 17:21	2
Benzo[a]anthracene	**0.25**	J	0.38	0.087	ug/L		07/20/22 15:41	07/27/22 17:21	2
Benzo[a]pyrene	**0.35**	J	0.38	0.079	ug/L		07/20/22 15:41	07/27/22 17:21	2
Benzo[b]fluoranthene	**0.11**	J	0.38	0.064	ug/L		07/20/22 15:41	07/27/22 17:21	2
Benzo[g,h,i]perylene	ND		0.38	0.24	ug/L		07/20/22 15:41	07/27/22 17:21	2
Benzo[k]fluoranthene	ND		0.38	0.19	ug/L		07/20/22 15:41	07/27/22 17:21	2
Chrysene	ND		0.38	0.14	ug/L		07/20/22 15:41	07/27/22 17:21	2
D benz(a,h)anthracene	ND		0.38	0.094	ug/L		07/20/22 15:41	07/27/22 17:21	2
Fluoranthene	**0.23**	J	0.38	0.13	ug/L		07/20/22 15:41	07/27/22 17:21	2
Fluorene	**0.44**		0.38	0.21	ug/L		07/20/22 15:41	07/27/22 17:21	2
Indeno[1,2,3-cd]pyrene	ND		0.38	0.081	ug/L		07/20/22 15:41	07/27/22 17:21	2
1-Methylnaphthalene	**14**		0.38	0.14	ug/L		07/20/22 15:41	07/27/22 17:21	2
2-Methylnaphthalene	**20**		0.38	0.11	ug/L		07/20/22 15:41	07/27/22 17:21	2
Phenanthrene	**1.3**		0.38	0.068	ug/L		07/20/22 15:41	07/27/22 17:21	2
Pyrene	**0.47**		0.38	0.075	ug/L		07/20/22 15:41	07/27/22 17:21	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*99*		*15 - 122*	*07/20/22 15:41*	*07/27/22 17:21*	*2*
Nitrobenzene-d5	*95*		*19 - 130*	*07/20/22 15:41*	*07/27/22 17:21*	*2*

Client Sample ID: P59-ROX-071422
Date Collected: 07/14/22 10:30
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-4
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*120*		*33 - 138*	*07/20/22 15:41*	*07/27/22 17:21*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		19	7.2	ug/L		07/20/22 15:41	07/25/22 12:20	2
Benzenethiol	ND	*- *1 UJ	19	3.2	ug/L		07/20/22 15:41	07/25/22 12:20	2
Benzoic acid	ND		56	14	ug/L		07/20/22 15:41	07/25/22 12:20	2
Benzyl alcohol	ND		19	3.8	ug/L		07/20/22 15:41	07/25/22 12:20	2
Bis(2-chloroethoxy)methane	ND		19	0.30	ug/L		07/20/22 15:41	07/25/22 12:20	2
Bis(2-chloroethyl)ether	ND		19	5.1	ug/L		07/20/22 15:41	07/25/22 12:20	2
bis (2-chloroisopropyl) ether	ND		19	0.30	ug/L		07/20/22 15:41	07/25/22 12:20	2
Bis(2-ethylhexyl) phthalate	ND		19	9.4	ug/L		07/20/22 15:41	07/25/22 12:20	2
4-Bromophenyl phenyl ether	ND		19	0.38	ug/L		07/20/22 15:41	07/25/22 12:20	2
Butyl benzyl phthalate	ND		19	0.36	ug/L		07/20/22 15:41	07/25/22 12:20	2
4-Chloroaniline	ND	*1	19	6.4	ug/L		07/20/22 15:41	07/25/22 12:20	2
4-Chloro-3-methylphenol	ND		19	7.2	ug/L		07/20/22 15:41	07/25/22 12:20	2
2-Chloronaphthalene	ND		19	0.26	ug/L		07/20/22 15:41	07/25/22 12:20	2
2-Chlorophenol	ND		19	4.1	ug/L		07/20/22 15:41	07/25/22 12:20	2
4-Chlorophenyl phenyl ether	ND		19	3.8	ug/L		07/20/22 15:41	07/25/22 12:20	2
D benz[a,h]acridine	ND		19	1.9	ug/L		07/20/22 15:41	07/25/22 12:20	2
D benzofuran	ND		19	0.32	ug/L		07/20/22 15:41	07/25/22 12:20	2
3,3'-Dichlorobenzidine	ND	*+	19	4.9	ug/L		07/20/22 15:41	07/25/22 12:20	2
2,4-Dichlorophenol	ND		19	5.6	ug/L		07/20/22 15:41	07/25/22 12:20	2
Diethyl phthalate	ND		19	0.45	ug/L		07/20/22 15:41	07/25/22 12:20	2
2,4-Dimethylphenol	ND		19	6.6	ug/L		07/20/22 15:41	07/25/22 12:20	2
Dimethyl phthalate	ND		19	0.32	ug/L		07/20/22 15:41	07/25/22 12:20	2
Di-n-butyl phthalate	ND		19	5.1	ug/L		07/20/22 15:41	07/25/22 12:20	2
4,6-Dinitro-ortho-cresol	ND		19	3.0	ug/L		07/20/22 15:41	07/25/22 12:20	2
2,4-Dinitrophenol	ND		56	6.4	ug/L		07/20/22 15:41	07/25/22 12:20	2
2,4-Dinitrotoluene	ND		19	3.6	ug/L		07/20/22 15:41	07/25/22 12:20	2
2,6-Dinitrotoluene	ND		19	3.6	ug/L		07/20/22 15:41	07/25/22 12:20	2
Di-n-octyl phthalate	ND		19	0.32	ug/L		07/20/22 15:41	07/25/22 12:20	2
1,4-Dioxane	ND		19	1.9	ug/L		07/20/22 15:41	07/25/22 12:20	2
1,2-Diphenylhydrazine (as Azobenzene)	ND		19	1.9	ug/L		07/20/22 15:41	07/25/22 12:20	2
Hexachlorobenzene	ND		19	0.32	ug/L		07/20/22 15:41	07/25/22 12:20	2
Hexachlorocyclopentadiene	ND		38	4.9	ug/L		07/20/22 15:41	07/25/22 12:20	2
Hexachloroethane	ND		19	7.9	ug/L		07/20/22 15:41	07/25/22 12:20	2
Indene	ND		19	1.9	ug/L		07/20/22 15:41	07/25/22 12:20	2
Isophorone	ND		19	0.26	ug/L		07/20/22 15:41	07/25/22 12:20	2
2-Methylphenol	ND		19	3.4	ug/L		07/20/22 15:41	07/25/22 12:20	2
3 & 4 Methylphenol	ND		38	0.73	ug/L		07/20/22 15:41	07/25/22 12:20	2
2-Nitroaniline	ND		19	4.1	ug/L		07/20/22 15:41	07/25/22 12:20	2
3-Nitroaniline	ND		19	3.4	ug/L		07/20/22 15:41	07/25/22 12:20	2
4-Nitroaniline	ND		19	2.8	ug/L		07/20/22 15:41	07/25/22 12:20	2
Nitrobenzene	ND		19	0.24	ug/L		07/20/22 15:41	07/25/22 12:20	2
2-Nitrophenol	ND		19	9.8	ug/L		07/20/22 15:41	07/25/22 12:20	2
4-Nitrophenol	ND		19	4.0	ug/L		07/20/22 15:41	07/25/22 12:20	2
N-Nitrosodimethylamine	ND		19	6.6	ug/L		07/20/22 15:41	07/25/22 12:20	2

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

Job ID: 400-223012-1

Client Sample ID: P59-ROX-071422
Date Collected: 07/14/22 10:30
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		19	6.2	ug/L		07/20/22 15:41	07/25/22 12:20	2
N-Nitrosodiphenylamine	ND		19	0.34	ug/L		07/20/22 15:41	07/25/22 12:20	2
Pentachlorophenol	ND		38	2.6	ug/L		07/20/22 15:41	07/25/22 12:20	2
Phenol	**23**		19	4.9	ug/L		07/20/22 15:41	07/25/22 12:20	2
Pyridine	ND		19	6.0	ug/L		07/20/22 15:41	07/25/22 12:20	2
Quinoline	ND		19	8.5	ug/L		07/20/22 15:41	07/25/22 12:20	2
2,4,5-Trichlorophenol	ND		19	7.0	ug/L		07/20/22 15:41	07/25/22 12:20	2
2,4,6-Trichlorophenol	ND		19	6.6	ug/L		07/20/22 15:41	07/25/22 12:20	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*07/20/22 15:41*	*07/25/22 12:20*	*2*
2-Fluorophenol	*43*		*13 - 113*	*07/20/22 15:41*	*07/25/22 12:20*	*2*
Nitrobenzene-d5	*81*		*36 - 126*	*07/20/22 15:41*	*07/25/22 12:20*	*2*
Phenol-d5	*65*		*17 - 127*	*07/20/22 15:41*	*07/25/22 12:20*	*2*
Terphenyl-d14	*107*		*44 - 149*	*07/20/22 15:41*	*07/25/22 12:20*	*2*
2,4,6-Tribromophenol	*87*		*26 - 150*	*07/20/22 15:41*	*07/25/22 12:20*	*2*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.033	0.019	ug/L		07/25/22 16:48	07/25/22 22:48	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		07/25/22 16:48	07/25/22 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*07/25/22 16:48*	*07/25/22 22:48*	*1*

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

Job ID: 400-223012-1

Client Sample ID: P58-ROX-071422
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25000	10000	ug/L			07/20/22 18:54	1000
Acrolein	ND		20000	3300	ug/L			07/20/22 18:54	1000
Acrylonitrile	ND		10000	2800	ug/L			07/20/22 18:54	1000
Benzene	**230000**		1000	130	ug/L			07/20/22 18:54	1000
Bromobenzene	ND		1000	540	ug/L			07/20/22 18:54	1000
Bromochloromethane	ND		1000	210	ug/L			07/20/22 18:54	1000
Bromodichloromethane	ND		1000	500	ug/L			07/20/22 18:54	1000
Bromoform	ND		5000	250	ug/L			07/20/22 18:54	1000
Bromomethane	ND		1000	980	ug/L			07/20/22 18:54	1000
2-Butanone (MEK)	ND		25000	2600	ug/L			07/20/22 18:54	1000
Carbon disulfide	ND		1000	500	ug/L			07/20/22 18:54	1000
Carbon tetrachloride	ND		1000	190	ug/L			07/20/22 18:54	1000
Chlorobenzene	ND		1000	150	ug/L			07/20/22 18:54	1000
D bromochloromethane	ND		1000	240	ug/L			07/20/22 18:54	1000
Chloroethane	ND		1000	760	ug/L			07/20/22 18:54	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			07/20/22 18:54	1000
Chloroform	ND		1000	1000	ug/L			07/20/22 18:54	1000
1-Chlorohexane	ND		1000	320	ug/L			07/20/22 18:54	1000
Chloromethane	ND		1000	320	ug/L			07/20/22 18:54	1000
cis-1,2-Dichloroethene	ND		1000	200	ug/L			07/20/22 18:54	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			07/20/22 18:54	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			07/20/22 18:54	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			07/20/22 18:54	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			07/20/22 18:54	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			07/20/22 18:54	1000
1,1-Dichloroethane	ND		1000	500	ug/L			07/20/22 18:54	1000
1,2-Dichloroethane	ND		1000	190	ug/L			07/20/22 18:54	1000
1,1-Dichloroethene	ND		1000	500	ug/L			07/20/22 18:54	1000
1,2-Dichloropropane	ND		1000	500	ug/L			07/20/22 18:54	1000
1,3-Dichloropropane	ND		1000	500	ug/L			07/20/22 18:54	1000
2,2-Dichloropropane	ND		1000	500	ug/L			07/20/22 18:54	1000
1,1-Dichloropropene	ND		1000	500	ug/L			07/20/22 18:54	1000
Ethylbenzene	**690**	**J**	1000	500	ug/L			07/20/22 18:54	1000
Ethyl methacrylate	ND		1000	600	ug/L			07/20/22 18:54	1000
Hexachlorobutadiene	ND		5000	900	ug/L			07/20/22 18:54	1000
2-Hexanone	ND		25000	1400	ug/L			07/20/22 18:54	1000
Isopropylbenzene	ND		1000	530	ug/L			07/20/22 18:54	1000
Methylene bromide	ND		5000	220	ug/L			07/20/22 18:54	1000
Methylene Chloride	ND		5000	3000	ug/L			07/20/22 18:54	1000
4-Methyl-2-pentanone (MIBK)	ND		25000	1800	ug/L			07/20/22 18:54	1000
Methyl tert-butyl ether	ND		1000	220	ug/L			07/20/22 18:54	1000
m-Xylene & p-Xylene	ND		5000	630	ug/L			07/20/22 18:54	1000
Naphthalene	ND		5000	3000	ug/L			07/20/22 18:54	1000
n-Buty benzene	ND		1000	760	ug/L			07/20/22 18:54	1000
N-Propy benzene	ND		1000	690	ug/L			07/20/22 18:54	1000
o-Chlorotoluene	ND		1000	570	ug/L			07/20/22 18:54	1000
o-Xylene	ND		5000	600	ug/L			07/20/22 18:54	1000
p-Chlorotoluene	ND		1000	560	ug/L			07/20/22 18:54	1000
p-Isopropyltoluene	ND		1000	710	ug/L			07/20/22 18:54	1000

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

Job ID: 400-223012-1

Client Sample ID: P58-ROX-071422
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1000	700	ug/L			07/20/22 18:54	1000
Styrene	ND		1000	1000	ug/L			07/20/22 18:54	1000
tert-Buty benzene	ND		1000	630	ug/L			07/20/22 18:54	1000
1,1,1,2-Tetrachloroethane	ND		1000	160	ug/L			07/20/22 18:54	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			07/20/22 18:54	1000
Tetrachloroethene	ND		1000	900	ug/L			07/20/22 18:54	1000
Toluene	**750**	**J**	1000	410	ug/L			07/20/22 18:54	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			07/20/22 18:54	1000
trans-1,3-Dichloropropene	ND		5000	200	ug/L			07/20/22 18:54	1000
1,2,3-Trichlorobenzene	ND		1000	900	ug/L			07/20/22 18:54	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			07/20/22 18:54	1000
1,1,1-Trichloroethane	ND		1000	180	ug/L			07/20/22 18:54	1000
1,1,2-Trichloroethane	ND		5000	210	ug/L			07/20/22 18:54	1000
Trichloroethene	ND		1000	150	ug/L			07/20/22 18:54	1000
Trichlorofluoromethane	ND		1000	520	ug/L			07/20/22 18:54	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			07/20/22 18:54	1000
1,2,4-Trimethylbenzene	ND		1000	820	ug/L			07/20/22 18:54	1000
1,3,5-Trimethylbenzene	ND		1000	560	ug/L			07/20/22 18:54	1000
Vinyl acetate	ND		25000	930	ug/L			07/20/22 18:54	1000
Vinyl chloride	ND		1000	500	ug/L			07/20/22 18:54	1000
Xylenes, Total	ND		10000	1600	ug/L			07/20/22 18:54	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/20/22 18:54*	*1000*
Dibromofluoromethane	*115*		*75 - 126*		*07/20/22 18:54*	*1000*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/20/22 18:54*	*1000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**1.3**		0.18	0.029	ug/L		07/20/22 15:41	07/22/22 23:24	1
Acenaphthylene	**0.69**		0.18	0.041	ug/L		07/20/22 15:41	07/22/22 23:24	1
Anthracene	**0.75**		0.18	0.029	ug/L		07/20/22 15:41	07/22/22 23:24	1
Benzo[a]anthracene	**0.38**		0.18	0.042	ug/L		07/20/22 15:41	07/22/22 23:24	1
Benzo[a]pyrene	**0.39**		0.18	0.039	ug/L		07/20/22 15:41	07/22/22 23:24	1
Benzo[b]fluoranthene	**0.28**		0.18	0.031	ug/L		07/20/22 15:41	07/28/22 14:52	1
Benzo[g,h,i]perylene	**0.21**		0.18	0.12	ug/L		07/20/22 15:41	07/28/22 14:52	1
Benzo[k]fluoranthene	ND		0.18	0.092	ug/L		07/20/22 15:41	07/22/22 23:24	1
Chrysene	**0.49**		0.18	0.068	ug/L		07/20/22 15:41	07/22/22 23:24	1
Dibenz(a,h)anthracene	**0.18**		0.18	0.046	ug/L		07/20/22 15:41	07/28/22 14:52	1
Fluoranthene	**0.25**		0.18	0.063	ug/L		07/20/22 15:41	07/22/22 23:24	1
Fluorene	**3.0**	J	0.18	0.10	ug/L		07/20/22 15:41	07/22/22 23:24	1
Indeno[1,2,3-cd]pyrene	**0.17**	**J**	0.18	0.040	ug/L		07/20/22 15:41	07/28/22 14:52	1
1-Methylnaphthalene	**71**		0.18	0.068	ug/L		07/20/22 15:41	07/22/22 23:24	1
2-Methylnaphthalene	**59**		0.18	0.055	ug/L		07/20/22 15:41	07/22/22 23:24	1
Phenanthrene	**2.6**		0.18	0.033	ug/L		07/20/22 15:41	07/22/22 23:24	1
Pyrene	**1.1**		0.18	0.037	ug/L		07/20/22 15:41	07/28/22 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*36*		*15 - 122*	*07/20/22 15:41*	*07/22/22 23:24*	*1*
Nitrobenzene-d5	*132*	*S1+*	*19 - 130*	*07/20/22 15:41*	*07/22/22 23:24*	*1*

Client Sample ID: P58-ROX-071422
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-5
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*120*		*33 - 138*	*07/20/22 15:41*	*07/22/22 23:24*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		07/20/22 15:41	07/25/22 12:40	1
Benzenethiol	ND	*- *1 UJ	9.2	1.6	ug/L		07/20/22 15:41	07/25/22 12:40	1
Benzoic acid	ND		28	6.7	ug/L		07/20/22 15:41	07/25/22 12:40	1
Benzyl alcohol	ND		9.2	1.8	ug/L		07/20/22 15:41	07/25/22 12:40	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		07/20/22 15:41	07/25/22 12:40	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		07/20/22 15:41	07/25/22 12:40	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		07/20/22 15:41	07/25/22 12:40	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		07/20/22 15:41	07/25/22 12:40	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		07/20/22 15:41	07/25/22 12:40	1
Butyl benzyl phthalate	ND		9.2	0.17	ug/L		07/20/22 15:41	07/25/22 12:40	1
4-Chloroaniline	ND	*1	9.2	3.1	ug/L		07/20/22 15:41	07/25/22 12:40	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		07/20/22 15:41	07/25/22 12:40	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		07/20/22 15:41	07/25/22 12:40	1
2-Chlorophenol	ND		9.2	2.0	ug/L		07/20/22 15:41	07/25/22 12:40	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		07/20/22 15:41	07/25/22 12:40	1
D benz[a,h]acridine	ND		9.2	0.92	ug/L		07/20/22 15:41	07/25/22 12:40	1
Dibenzofuran	**2.6**	**J**	9.2	0.16	ug/L		07/20/22 15:41	07/25/22 12:40	1
3,3'-Dichlorobenzidine	ND	*+	9.2	2.4	ug/L		07/20/22 15:41	07/25/22 12:40	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		07/20/22 15:41	07/25/22 12:40	1
Diethyl phthalate	ND		9.2	0.22	ug/L		07/20/22 15:41	07/25/22 12:40	1
2,4-Dimethylphenol	**13**		9.2	3.2	ug/L		07/20/22 15:41	07/25/22 12:40	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		07/20/22 15:41	07/25/22 12:40	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		07/20/22 15:41	07/25/22 12:40	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		07/20/22 15:41	07/25/22 12:40	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		07/20/22 15:41	07/25/22 12:40	1
2,4-Dinitrotoluene	ND		9.2	1.7	ug/L		07/20/22 15:41	07/25/22 12:40	1
2,6-Dinitrotoluene	ND		9.2	1.7	ug/L		07/20/22 15:41	07/25/22 12:40	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		07/20/22 15:41	07/25/22 12:40	1
1,4-Dioxane	ND		9.2	0.92	ug/L		07/20/22 15:41	07/25/22 12:40	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		07/20/22 15:41	07/25/22 12:40	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		07/20/22 15:41	07/25/22 12:40	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		07/20/22 15:41	07/25/22 12:40	1
Hexachloroethane	ND		9.2	3.9	ug/L		07/20/22 15:41	07/25/22 12:40	1
Indene	ND		9.2	0.92	ug/L		07/20/22 15:41	07/25/22 12:40	1
Isophorone	ND		9.2	0.13	ug/L		07/20/22 15:41	07/25/22 12:40	1
2-Methylphenol	**24**		9.2	1.7	ug/L		07/20/22 15:41	07/25/22 12:40	1
3 & 4 Methylphenol	**18**		18	0.36	ug/L		07/20/22 15:41	07/25/22 12:40	1
2-Nitroaniline	ND		9.2	2.0	ug/L		07/20/22 15:41	07/25/22 12:40	1
3-Nitroaniline	ND		9.2	1.7	ug/L		07/20/22 15:41	07/25/22 12:40	1
4-Nitroaniline	ND		9.2	1.4	ug/L		07/20/22 15:41	07/25/22 12:40	1
Nitrobenzene	ND		9.2	0.12	ug/L		07/20/22 15:41	07/25/22 12:40	1
2-Nitrophenol	ND		9.2	4.8	ug/L		07/20/22 15:41	07/25/22 12:40	1
4-Nitrophenol	ND		9.2	1.9	ug/L		07/20/22 15:41	07/25/22 12:40	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		07/20/22 15:41	07/25/22 12:40	1

Client Sample ID: P58-ROX-071422
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		07/20/22 15:41	07/25/22 12:40	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		07/20/22 15:41	07/25/22 12:40	1
Pentachlorophenol	ND		18	1.3	ug/L		07/20/22 15:41	07/25/22 12:40	1
Phenol	**310**	J	9.2	2.4	ug/L		07/20/22 15:41	07/25/22 12:40	1
Pyridine	ND		9.2	2.9	ug/L		07/20/22 15:41	07/25/22 12:40	1
Quinoline	ND		9.2	4.1	ug/L		07/20/22 15:41	07/25/22 12:40	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		07/20/22 15:41	07/25/22 12:40	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		07/20/22 15:41	07/25/22 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*07/20/22 15:41*	*07/25/22 12:40*	*1*
2-Fluorophenol	*65*		*13 - 113*	*07/20/22 15:41*	*07/25/22 12:40*	*1*
Nitrobenzene-d5	*83*		*36 - 126*	*07/20/22 15:41*	*07/25/22 12:40*	*1*
Phenol-d5	*82*		*17 - 127*	*07/20/22 15:41*	*07/25/22 12:40*	*1*
Terphenyl-d14	*94*		*44 - 149*	*07/20/22 15:41*	*07/25/22 12:40*	*1*
2,4,6-Tribromophenol	*120*		*26 - 150*	*07/20/22 15:41*	*07/25/22 12:40*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/25/22 16:48	07/25/22 23:09	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/25/22 16:48	07/25/22 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*51 - 149*	*07/25/22 16:48*	*07/25/22 23:09*	*1*

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

Job ID: 400-223012-1

Client Sample ID: P58-ROX-071422-DUP
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25000	10000	ug/L			07/20/22 19:22	1000
Acrolein	ND		20000	3300	ug/L			07/20/22 19:22	1000
Acrylonitrile	ND		10000	2800	ug/L			07/20/22 19:22	1000
Benzene	**230000**		1000	130	ug/L			07/20/22 19:22	1000
Bromobenzene	ND		1000	540	ug/L			07/20/22 19:22	1000
Bromochloromethane	ND		1000	210	ug/L			07/20/22 19:22	1000
Bromodichloromethane	ND		1000	500	ug/L			07/20/22 19:22	1000
Bromoform	ND		5000	250	ug/L			07/20/22 19:22	1000
Bromomethane	ND		1000	980	ug/L			07/20/22 19:22	1000
2-Butanone (MEK)	ND		25000	2600	ug/L			07/20/22 19:22	1000
Carbon disulfide	ND		1000	500	ug/L			07/20/22 19:22	1000
Carbon tetrachloride	ND		1000	190	ug/L			07/20/22 19:22	1000
Chlorobenzene	ND		1000	150	ug/L			07/20/22 19:22	1000
D bromochloromethane	ND		1000	240	ug/L			07/20/22 19:22	1000
Chloroethane	ND		1000	760	ug/L			07/20/22 19:22	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			07/20/22 19:22	1000
Chloroform	ND		1000	1000	ug/L			07/20/22 19:22	1000
1-Chlorohexane	ND		1000	320	ug/L			07/20/22 19:22	1000
Chloromethane	ND		1000	320	ug/L			07/20/22 19:22	1000
cis-1,2-Dichloroethene	ND		1000	200	ug/L			07/20/22 19:22	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			07/20/22 19:22	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			07/20/22 19:22	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			07/20/22 19:22	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			07/20/22 19:22	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			07/20/22 19:22	1000
1,1-Dichloroethane	ND		1000	500	ug/L			07/20/22 19:22	1000
1,2-Dichloroethane	ND		1000	190	ug/L			07/20/22 19:22	1000
1,1-Dichloroethene	ND		1000	500	ug/L			07/20/22 19:22	1000
1,2-Dichloropropane	ND		1000	500	ug/L			07/20/22 19:22	1000
1,3-Dichloropropane	ND		1000	500	ug/L			07/20/22 19:22	1000
2,2-Dichloropropane	ND		1000	500	ug/L			07/20/22 19:22	1000
1,1-Dichloropropene	ND		1000	500	ug/L			07/20/22 19:22	1000
Ethylbenzene	**570**	**J**	1000	500	ug/L			07/20/22 19:22	1000
Ethyl methacrylate	ND		1000	600	ug/L			07/20/22 19:22	1000
Hexachlorobutadiene	ND		5000	900	ug/L			07/20/22 19:22	1000
2-Hexanone	ND		25000	1400	ug/L			07/20/22 19:22	1000
Isopropylbenzene	ND		1000	530	ug/L			07/20/22 19:22	1000
Methylene bromide	ND		5000	220	ug/L			07/20/22 19:22	1000
Methylene Chloride	ND		5000	3000	ug/L			07/20/22 19:22	1000
4-Methyl-2-pentanone (MIBK)	ND		25000	1800	ug/L			07/20/22 19:22	1000
Methyl tert-butyl ether	ND		1000	220	ug/L			07/20/22 19:22	1000
m-Xylene & p-Xylene	ND		5000	630	ug/L			07/20/22 19:22	1000
Naphthalene	ND		5000	3000	ug/L			07/20/22 19:22	1000
n-Buty benzene	ND		1000	760	ug/L			07/20/22 19:22	1000
N-Propy benzene	ND		1000	690	ug/L			07/20/22 19:22	1000
o-Chlorotoluene	ND		1000	570	ug/L			07/20/22 19:22	1000
o-Xylene	ND		5000	600	ug/L			07/20/22 19:22	1000
p-Chlorotoluene	ND		1000	560	ug/L			07/20/22 19:22	1000
p-Isopropyltoluene	ND		1000	710	ug/L			07/20/22 19:22	1000

Client Sample ID: P58-ROX-071422-DUP
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1000	700	ug/L			07/20/22 19:22	1000
Styrene	ND		1000	1000	ug/L			07/20/22 19:22	1000
tert-Buty benzene	ND		1000	630	ug/L			07/20/22 19:22	1000
1,1,1,2-Tetrachloroethane	ND		1000	160	ug/L			07/20/22 19:22	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			07/20/22 19:22	1000
Tetrachloroethene	ND		1000	900	ug/L			07/20/22 19:22	1000
Toluene	**580**	**J**	1000	410	ug/L			07/20/22 19:22	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			07/20/22 19:22	1000
trans-1,3-Dichloropropene	ND		5000	200	ug/L			07/20/22 19:22	1000
1,2,3-Trichlorobenzene	ND		1000	900	ug/L			07/20/22 19:22	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			07/20/22 19:22	1000
1,1,1-Trichloroethane	ND		1000	180	ug/L			07/20/22 19:22	1000
1,1,2-Trichloroethane	ND		5000	210	ug/L			07/20/22 19:22	1000
Trichloroethene	ND		1000	150	ug/L			07/20/22 19:22	1000
Trichlorofluoromethane	ND		1000	520	ug/L			07/20/22 19:22	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			07/20/22 19:22	1000
1,2,4-Trimethylbenzene	ND		1000	820	ug/L			07/20/22 19:22	1000
1,3,5-Trimethylbenzene	ND		1000	560	ug/L			07/20/22 19:22	1000
Vinyl acetate	ND		25000	930	ug/L			07/20/22 19:22	1000
Vinyl chloride	ND		1000	500	ug/L			07/20/22 19:22	1000
Xylenes, Total	ND		10000	1600	ug/L			07/20/22 19:22	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*72 - 119*		*07/20/22 19:22*	*1000*
Dibromofluoromethane	*115*		*75 - 126*		*07/20/22 19:22*	*1000*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/20/22 19:22*	*1000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**1.1**		0.37	0.059	ug/L		07/20/22 15:41	07/22/22 23:40	2
Acenaphthylene	**0.60**		0.37	0.082	ug/L		07/20/22 15:41	07/22/22 23:40	2
Anthracene	**0.72**		0.37	0.059	ug/L		07/20/22 15:41	07/22/22 23:40	2
Benzo[a]anthracene	**0.57**		0.37	0.084	ug/L		07/20/22 15:41	07/22/22 23:40	2
Benzo[a]pyrene	**0.47**		0.37	0.077	ug/L		07/20/22 15:41	07/22/22 23:40	2
Benzo[b]fluoranthene	**0.23**	**J**	0.37	0.062	ug/L		07/20/22 15:41	07/22/22 23:40	2
Benzo[g,h,i]perylene	**0.17**	**J**	0.18	0.12	ug/L		07/20/22 15:41	07/28/22 15:07	1
Benzo[k]fluoranthene	ND		0.37	0.18	ug/L		07/20/22 15:41	07/22/22 23:40	2
Chrysene	**0.35**	**J**	0.37	0.14	ug/L		07/20/22 15:41	07/22/22 23:40	2
Dibenz(a,h)anthracene	**0.14**	**J**	0.18	0.046	ug/L		07/20/22 15:41	07/28/22 15:07	1
Fluoranthene	**0.29**	**J**	0.37	0.12	ug/L		07/20/22 15:41	07/22/22 23:40	2
Fluorene	**1.7**	J	0.37	0.20	ug/L		07/20/22 15:41	07/22/22 23:40	2
Indeno[1,2,3-cd]pyrene	**0.088**	**J**	0.18	0.039	ug/L		07/20/22 15:41	07/28/22 15:07	1
1-Methylnaphthalene	**88**		0.37	0.14	ug/L		07/20/22 15:41	07/22/22 23:40	2
2-Methylnaphthalene	**51**		0.37	0.11	ug/L		07/20/22 15:41	07/22/22 23:40	2
Phenanthrene	**2.4**		0.37	0.066	ug/L		07/20/22 15:41	07/22/22 23:40	2
Pyrene	**1.3**		0.18	0.037	ug/L		07/20/22 15:41	07/28/22 15:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*15 - 122*	*07/20/22 15:41*	*07/22/22 23:40*	*2*
Nitrobenzene-d5	*129*		*19 - 130*	*07/20/22 15:41*	*07/22/22 23:40*	*2*

Client Sample ID: P58-ROX-071422-DUP
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*134*		*33 - 138*	*07/20/22 15:41*	*07/22/22 23:40*	*2*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		18	7.0	ug/L		07/20/22 15:41	07/25/22 13:01	2
Benzenethiol	ND	*- *1 UJ	18	3.1	ug/L		07/20/22 15:41	07/25/22 13:01	2
Benzoic acid	ND		55	13	ug/L		07/20/22 15:41	07/25/22 13:01	2
Benzyl alcohol	ND		18	3.7	ug/L		07/20/22 15:41	07/25/22 13:01	2
Bis(2-chloroethoxy)methane	ND		18	0.29	ug/L		07/20/22 15:41	07/25/22 13:01	2
Bis(2-chloroethyl)ether	ND		18	4.9	ug/L		07/20/22 15:41	07/25/22 13:01	2
bis (2-chloroisopropyl) ether	ND		18	0.29	ug/L		07/20/22 15:41	07/25/22 13:01	2
Bis(2-ethylhexyl) phthalate	ND		18	9.2	ug/L		07/20/22 15:41	07/25/22 13:01	2
4-Bromophenyl phenyl ether	ND		18	0.37	ug/L		07/20/22 15:41	07/25/22 13:01	2
Butyl benzyl phthalate	ND		18	0.35	ug/L		07/20/22 15:41	07/25/22 13:01	2
4-Chloroaniline	ND	*1	18	6.2	ug/L		07/20/22 15:41	07/25/22 13:01	2
4-Chloro-3-methylphenol	ND		18	7.0	ug/L		07/20/22 15:41	07/25/22 13:01	2
2-Chloronaphthalene	ND		18	0.26	ug/L		07/20/22 15:41	07/25/22 13:01	2
2-Chlorophenol	ND		18	4.0	ug/L		07/20/22 15:41	07/25/22 13:01	2
4-Chlorophenyl phenyl ether	ND		18	3.7	ug/L		07/20/22 15:41	07/25/22 13:01	2
D benz[a,h]acridine	ND		18	1.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
D benzofuran	ND		18	0.31	ug/L		07/20/22 15:41	07/25/22 13:01	2
3,3'-Dichlorobenzidine	ND	*+	18	4.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
2,4-Dichlorophenol	ND		18	5.5	ug/L		07/20/22 15:41	07/25/22 13:01	2
Diethyl phthalate	ND		18	0.44	ug/L		07/20/22 15:41	07/25/22 13:01	2
2,4-Dimethylphenol	**12**	**J**	18	6.4	ug/L		07/20/22 15:41	07/25/22 13:01	2
Dimethyl phthalate	ND		18	0.31	ug/L		07/20/22 15:41	07/25/22 13:01	2
Di-n-butyl phthalate	ND		18	4.9	ug/L		07/20/22 15:41	07/25/22 13:01	2
4,6-Dinitro-ortho-cresol	ND		18	2.9	ug/L		07/20/22 15:41	07/25/22 13:01	2
2,4-Dinitrophenol	ND		55	6.2	ug/L		07/20/22 15:41	07/25/22 13:01	2
2,4-Dinitrotoluene	ND		18	3.5	ug/L		07/20/22 15:41	07/25/22 13:01	2
2,6-Dinitrotoluene	ND		18	3.5	ug/L		07/20/22 15:41	07/25/22 13:01	2
Di-n-octyl phthalate	ND		18	0.31	ug/L		07/20/22 15:41	07/25/22 13:01	2
1,4-Dioxane	ND		18	1.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
1,2-Diphenylhydrazine (as Azobenzene)	ND		18	1.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
Hexachlorobenzene	ND		18	0.31	ug/L		07/20/22 15:41	07/25/22 13:01	2
Hexachlorocyclopentadiene	ND		37	4.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
Hexachloroethane	ND		18	7.7	ug/L		07/20/22 15:41	07/25/22 13:01	2
Indene	ND		18	1.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
Isophorone	ND		18	0.26	ug/L		07/20/22 15:41	07/25/22 13:01	2
2-Methylphenol	**23**		18	3.3	ug/L		07/20/22 15:41	07/25/22 13:01	2
3 & 4 Methylphenol	**16**	**J**	37	0.71	ug/L		07/20/22 15:41	07/25/22 13:01	2
2-Nitroaniline	ND		18	4.0	ug/L		07/20/22 15:41	07/25/22 13:01	2
3-Nitroaniline	ND		18	3.3	ug/L		07/20/22 15:41	07/25/22 13:01	2
4-Nitroaniline	ND		18	2.7	ug/L		07/20/22 15:41	07/25/22 13:01	2
Nitrobenzene	ND		18	0.24	ug/L		07/20/22 15:41	07/25/22 13:01	2
2-Nitrophenol	ND		18	9.5	ug/L		07/20/22 15:41	07/25/22 13:01	2
4-Nitrophenol	ND		18	3.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
N-Nitrosodimethylamine	ND		18	6.4	ug/L		07/20/22 15:41	07/25/22 13:01	2

Client Sample ID: P58-ROX-071422-DUP

Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		18	6.0	ug/L		07/20/22 15:41	07/25/22 13:01	2
N-Nitrosodiphenylamine	ND		18	0.33	ug/L		07/20/22 15:41	07/25/22 13:01	2
Pentachlorophenol	ND		37	2.6	ug/L		07/20/22 15:41	07/25/22 13:01	2
Phenol	**130**	J	18	4.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
Pyridine	ND		18	5.9	ug/L		07/20/22 15:41	07/25/22 13:01	2
Quinoline	ND		18	8.2	ug/L		07/20/22 15:41	07/25/22 13:01	2
2,4,5-Trichlorophenol	ND		18	6.8	ug/L		07/20/22 15:41	07/25/22 13:01	2
2,4,6-Trichlorophenol	ND		18	6.4	ug/L		07/20/22 15:41	07/25/22 13:01	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*07/20/22 15:41*	*07/25/22 13:01*	*2*
2-Fluorophenol	*60*		*13 - 113*	*07/20/22 15:41*	*07/25/22 13:01*	*2*
Nitrobenzene-d5	*81*		*36 - 126*	*07/20/22 15:41*	*07/25/22 13:01*	*2*
Phenol-d5	*81*		*17 - 127*	*07/20/22 15:41*	*07/25/22 13:01*	*2*
Terphenyl-d14	*102*		*44 - 149*	*07/20/22 15:41*	*07/25/22 13:01*	*2*
2,4,6-Tribromophenol	*117*		*26 - 150*	*07/20/22 15:41*	*07/25/22 13:01*	*2*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		07/25/22 16:48	07/25/22 23:30	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/25/22 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*07/25/22 16:48*	*07/25/22 23:30*	*1*

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

Job ID: 400-223012-1

Client Sample ID: TB-ROX-071422-8260-A
Date Collected: 07/14/22 12:00
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 09:08	1
Acrolein	ND		20	3.3	ug/L			07/21/22 09:08	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 09:08	1
Benzene	ND		1.0	0.13	ug/L			07/21/22 09:08	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 09:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 09:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 09:08	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 09:08	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 09:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 09:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 09:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 09:08	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 09:08	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 09:08	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 09:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 09:08	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 09:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 09:08	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 09:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 09:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 09:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 09:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 09:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 09:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 09:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 09:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 09:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 09:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 09:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 09:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 09:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 09:08	1
Ethy benzene	ND		1.0	0.50	ug/L			07/21/22 09:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 09:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 09:08	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 09:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/21/22 09:08	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 09:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 09:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 09:08	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 09:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/21/22 09:08	1
Naphthalene	ND		5.0	3.0	ug/L			07/21/22 09:08	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 09:08	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/21/22 09:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 09:08	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 09:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 09:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/21/22 09:08	1

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

Job ID: 400-223012-1

Client Sample ID: TB-ROX-071422-8260-A
Date Collected: 07/14/22 12:00
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 09:08	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 09:08	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 09:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 09:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 09:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 09:08	1
Toluene	ND		1.0	0.41	ug/L			07/21/22 09:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 09:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 09:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 09:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 09:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 09:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 09:08	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 09:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 09:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 09:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/21/22 09:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/21/22 09:08	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 09:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 09:08	1
Xylenes, Total	ND		10	1.6	ug/L			07/21/22 09:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*72 - 119*		*07/21/22 09:08*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*07/21/22 09:08*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/21/22 09:08*	*1*

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

Job ID: 400-223012-1

Client Sample ID: TB-ROX-071422-8011-A
Date Collected: 07/14/22 12:00
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-8
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		07/25/22 16:48	07/25/22 23:50	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/25/22 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*51 - 149*	*07/25/22 16:48*	*07/25/22 23:50*	*1*

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

Job ID: 400-223012-1

Client Sample ID: MW3-ROX-071422
Date Collected: 07/14/22 09:05
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	F1	25	10	ug/L			07/21/22 09:31	1
Acrolein	ND		20	3.3	ug/L			07/21/22 09:31	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 09:31	1
Benzene	ND		1.0	0.13	ug/L			07/21/22 09:31	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 09:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 09:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 09:31	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 09:31	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 09:31	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 09:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 09:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 09:31	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 09:31	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 09:31	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 09:31	1
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			07/21/22 09:31	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 09:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 09:31	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 09:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 09:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 09:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 09:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 09:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 09:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 09:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 09:31	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 09:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 09:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 09:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 09:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 09:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 09:31	1
Ethy benzene	ND		1.0	0.50	ug/L			07/21/22 09:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 09:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 09:31	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 09:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/21/22 09:31	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 09:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 09:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 09:31	1
Methyl tert-butyl ether	**0.85**	**J**	1.0	0.22	ug/L			07/21/22 09:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/21/22 09:31	1
Naphthalene	ND		5.0	3.0	ug/L			07/21/22 09:31	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 09:31	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/21/22 09:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 09:31	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 09:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 09:31	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/21/22 09:31	1

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

Job ID: 400-223012-1

Client Sample ID: MW3-ROX-071422
Date Collected: 07/14/22 09:05
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 09:31	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 09:31	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 09:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 09:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 09:31	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 09:31	1
Toluene	ND		1.0	0.41	ug/L			07/21/22 09:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 09:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 09:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 09:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 09:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 09:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 09:31	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 09:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 09:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 09:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/21/22 09:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/21/22 09:31	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 09:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 09:31	1
Xylenes, Total	ND		10	1.6	ug/L			07/21/22 09:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*72 - 119*		*07/21/22 09:31*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/21/22 09:31*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/21/22 09:31*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/22/22 23:55	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/20/22 15:41	07/22/22 23:55	1
Anthracene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/22/22 23:55	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		07/20/22 15:41	07/22/22 23:55	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/20/22 15:41	07/22/22 23:55	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/20/22 15:41	07/22/22 23:55	1
Benzo[g,h,i]perylene	ND	UJ	0.19	0.12	ug/L		07/20/22 15:41	07/22/22 23:55	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/20/22 15:41	07/22/22 23:55	1
Chrysene	ND		0.19	0.070	ug/L		07/20/22 15:41	07/22/22 23:55	1
D benz(a,h)anthracene	ND	UJ	0.19	0.048	ug/L		07/20/22 15:41	07/22/22 23:55	1
Fluoranthene	ND		0.19	0.065	ug/L		07/20/22 15:41	07/22/22 23:55	1
Fluorene	ND		0.19	0.10	ug/L		07/20/22 15:41	07/22/22 23:55	1
Indeno[1,2,3-cd]pyrene	ND	UJ	0.19	0.041	ug/L		07/20/22 15:41	07/22/22 23:55	1
1-Methylnaphthalene	**0.11**	**J** J	0.19	0.070	ug/L		07/20/22 15:41	07/22/22 23:55	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/20/22 15:41	07/22/22 23:55	1
Phenanthrene	ND		0.19	0.034	ug/L		07/20/22 15:41	07/22/22 23:55	1
Pyrene	ND	UJ	0.19	0.038	ug/L		07/20/22 15:41	07/22/22 23:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*139*	*S1+*	*15 - 122*	*07/20/22 15:41*	*07/22/22 23:55*	*1*
Nitrobenzene-d5	*122*		*19 - 130*	*07/20/22 15:41*	*07/22/22 23:55*	*1*

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

Job ID: 400-223012-1

Client Sample ID: MW3-ROX-071422
Date Collected: 07/14/22 09:05
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-9
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*183*	*S1+*	*33 - 138*	*07/20/22 15:41*	*07/22/22 23:55*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 13:22	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/20/22 15:41	07/25/22 13:22	1
Benzoic acid	**23**	**J**	29	6.9	ug/L		07/20/22 15:41	07/25/22 13:22	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 13:22	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 13:22	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 13:22	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 13:22	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		07/20/22 15:41	07/25/22 13:22	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/20/22 15:41	07/25/22 13:22	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/20/22 15:41	07/25/22 13:22	1
4-Chloroaniline	ND	*1	9.5	3.2	ug/L		07/20/22 15:41	07/25/22 13:22	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 13:22	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 13:22	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 13:22	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 13:22	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 13:22	1
D benzofuran	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 13:22	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/20/22 15:41	07/25/22 13:22	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		07/20/22 15:41	07/25/22 13:22	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/20/22 15:41	07/25/22 13:22	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 13:22	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 13:22	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 13:22	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/20/22 15:41	07/25/22 13:22	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		07/20/22 15:41	07/25/22 13:22	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 13:22	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 13:22	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 13:22	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 13:22	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 13:22	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 13:22	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/20/22 15:41	07/25/22 13:22	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/20/22 15:41	07/25/22 13:22	1
Indene	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 13:22	1
Isophorone	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 13:22	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 13:22	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/20/22 15:41	07/25/22 13:22	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 13:22	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 13:22	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/20/22 15:41	07/25/22 13:22	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/20/22 15:41	07/25/22 13:22	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/20/22 15:41	07/25/22 13:22	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/20/22 15:41	07/25/22 13:22	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 13:22	1

Client Sample ID: MW3-ROX-071422
Date Collected: 07/14/22 09:05
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/20/22 15:41	07/25/22 13:22	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/20/22 15:41	07/25/22 13:22	1
Pentachlorophenol	ND		19	1.3	ug/L		07/20/22 15:41	07/25/22 13:22	1
Phenol	ND		9.5	2.5	ug/L		07/20/22 15:41	07/25/22 13:22	1
Pyridine	ND		9.5	3.0	ug/L		07/20/22 15:41	07/25/22 13:22	1
Quinoline	ND		9.5	4.3	ug/L		07/20/22 15:41	07/25/22 13:22	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/20/22 15:41	07/25/22 13:22	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*07/20/22 15:41*	*07/25/22 13:22*	*1*
2-Fluorophenol	*67*		*13 - 113*	*07/20/22 15:41*	*07/25/22 13:22*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*07/20/22 15:41*	*07/25/22 13:22*	*1*
Phenol-d5	*81*		*17 - 127*	*07/20/22 15:41*	*07/25/22 13:22*	*1*
Terphenyl-d14	*101*		*44 - 149*	*07/20/22 15:41*	*07/25/22 13:22*	*1*
2,4,6-Tribromophenol	*107*		*26 - 150*	*07/20/22 15:41*	*07/25/22 13:22*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.033	0.019	ug/L		07/25/22 16:48	07/26/22 00:11	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		07/25/22 16:48	07/26/22 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*51 - 149*	*07/25/22 16:48*	*07/26/22 00:11*	*1*

Client Sample ID: ROST4PZC-ROX-071422
Date Collected: 07/14/22 09:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 16:30	1
Acrolein	ND		20	3.3	ug/L			07/21/22 16:30	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 16:30	1
Benzene	**2.9**		1.0	0.13	ug/L			07/21/22 16:30	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 16:30	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 16:30	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 16:30	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 16:30	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 16:30	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 16:30	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 16:30	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 16:30	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 16:30	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 16:30	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 16:30	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 16:30	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 16:30	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 16:30	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 16:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 16:30	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 16:30	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 16:30	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 16:30	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 16:30	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 16:30	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 16:30	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 16:30	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 16:30	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:30	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:30	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:30	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 16:30	1
Ethylbenzene	**2.7**		1.0	0.50	ug/L			07/21/22 16:30	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 16:30	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 16:30	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 16:30	1
Isopropylbenzene	**4.7**		1.0	0.53	ug/L			07/21/22 16:30	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 16:30	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 16:30	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 16:30	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 16:30	1
m-Xylene & p-Xylene	**41**		5.0	0.63	ug/L			07/21/22 16:30	1
Naphthalene	**50**		5.0	3.0	ug/L			07/21/22 16:30	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 16:30	1
N-Propylbenzene	**7.7**		1.0	0.69	ug/L			07/21/22 16:30	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 16:30	1
o-Xylene	**1.1**	**J**	5.0	0.60	ug/L			07/21/22 16:30	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 16:30	1
p-Isopropyltoluene	**0.94**	**J**	1.0	0.71	ug/L			07/21/22 16:30	1

Client Sample ID: ROST4PZC-ROX-071422
Date Collected: 07/14/22 09:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 16:30	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 16:30	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 16:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 16:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 16:30	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 16:30	1
Toluene	**7.5**		1.0	0.41	ug/L			07/21/22 16:30	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 16:30	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 16:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 16:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 16:30	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 16:30	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 16:30	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 16:30	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 16:30	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 16:30	1
1,2,4-Trimethylbenzene	**9.9**		1.0	0.82	ug/L			07/21/22 16:30	1
1,3,5-Trimethylbenzene	**2.3**		1.0	0.56	ug/L			07/21/22 16:30	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 16:30	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 16:30	1
Xylenes, Total	**42**		10	1.6	ug/L			07/21/22 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/21/22 16:30*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/21/22 16:30*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/21/22 16:30*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**1.5**	J	0.19	0.030	ug/L		07/20/22 15:41	07/27/22 17:36	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/20/22 15:41	07/27/22 17:36	1
Anthracene	**0.43**		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 17:36	1
Benzo[a]anthracene	**0.082**	J	0.19	0.044	ug/L		07/20/22 15:41	07/27/22 17:36	1
Benzo[a]pyrene	**0.17**	J	0.19	0.040	ug/L		07/20/22 15:41	07/27/22 17:36	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/20/22 15:41	07/27/22 17:36	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/20/22 15:41	07/27/22 17:36	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/20/22 15:41	07/27/22 17:36	1
Chrysene	ND		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 17:36	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/20/22 15:41	07/27/22 17:36	1
Fluoranthene	**0.075**	J	0.19	0.065	ug/L		07/20/22 15:41	07/27/22 17:36	1
Fluorene	**1.1**		0.19	0.10	ug/L		07/20/22 15:41	07/27/22 17:36	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/20/22 15:41	07/27/22 17:36	1
1-Methylnaphthalene	**34**		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 17:36	1
2-Methylnaphthalene	**11**		0.19	0.057	ug/L		07/20/22 15:41	07/27/22 17:36	1
Phenanthrene	**3.0**		0.19	0.034	ug/L		07/20/22 15:41	07/27/22 17:36	1
Pyrene	**0.15**	J	0.19	0.038	ug/L		07/20/22 15:41	07/27/22 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*07/20/22 15:41*	*07/27/22 17:36*	*1*
Nitrobenzene-d5	*101*		*19 - 130*	*07/20/22 15:41*	*07/27/22 17:36*	*1*

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

Job ID: 400-223012-1

Client Sample ID: ROST4PZC-ROX-071422
Date Collected: 07/14/22 09:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-10
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*127*		*33 - 138*	*07/20/22 15:41*	*07/27/22 17:36*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 13:43	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/20/22 15:41	07/25/22 13:43	1
Benzoic acid	ND		29	6.9	ug/L		07/20/22 15:41	07/25/22 13:43	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 13:43	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 13:43	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 13:43	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 13:43	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		07/20/22 15:41	07/25/22 13:43	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/20/22 15:41	07/25/22 13:43	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/20/22 15:41	07/25/22 13:43	1
4-Chloroaniline	ND	*1	9.5	3.2	ug/L		07/20/22 15:41	07/25/22 13:43	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 13:43	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 13:43	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 13:43	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 13:43	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 13:43	1
Dibenzofuran	**0.77**	**J**	9.5	0.16	ug/L		07/20/22 15:41	07/25/22 13:43	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/20/22 15:41	07/25/22 13:43	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		07/20/22 15:41	07/25/22 13:43	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/20/22 15:41	07/25/22 13:43	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 13:43	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 13:43	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 13:43	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/20/22 15:41	07/25/22 13:43	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		07/20/22 15:41	07/25/22 13:43	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 13:43	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 13:43	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 13:43	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 13:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 13:43	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 13:43	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/20/22 15:41	07/25/22 13:43	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/20/22 15:41	07/25/22 13:43	1
Indene	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 13:43	1
Isophorone	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 13:43	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 13:43	1
3 & 4 Methylphenol	**0.66**	**J**	19	0.37	ug/L		07/20/22 15:41	07/25/22 13:43	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 13:43	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 13:43	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/20/22 15:41	07/25/22 13:43	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/20/22 15:41	07/25/22 13:43	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/20/22 15:41	07/25/22 13:43	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/20/22 15:41	07/25/22 13:43	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 13:43	1

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

Job ID: 400-223012-1

Client Sample ID: ROST4PZC-ROX-071422
Date Collected: 07/14/22 09:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-10
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/20/22 15:41	07/25/22 13:43	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/20/22 15:41	07/25/22 13:43	1
Pentachlorophenol	ND		19	1.3	ug/L		07/20/22 15:41	07/25/22 13:43	1
Phenol	ND		9.5	2.5	ug/L		07/20/22 15:41	07/25/22 13:43	1
Pyridine	ND		9.5	3.0	ug/L		07/20/22 15:41	07/25/22 13:43	1
Quinoline	ND		9.5	4.3	ug/L		07/20/22 15:41	07/25/22 13:43	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/20/22 15:41	07/25/22 13:43	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 13:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*07/20/22 15:41*	*07/25/22 13:43*	*1*
2-Fluorophenol	*64*		*13 - 113*	*07/20/22 15:41*	*07/25/22 13:43*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*07/20/22 15:41*	*07/25/22 13:43*	*1*
Phenol-d5	*80*		*17 - 127*	*07/20/22 15:41*	*07/25/22 13:43*	*1*
Terphenyl-d14	*102*		*44 - 149*	*07/20/22 15:41*	*07/25/22 13:43*	*1*
2,4,6-Tribromophenol	*102*		*26 - 150*	*07/20/22 15:41*	*07/25/22 13:43*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		07/25/22 16:48	07/26/22 00:53	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/26/22 00:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*51 - 149*	*07/25/22 16:48*	*07/26/22 00:53*	*1*

Client Sample ID: MW2-ROX-071422
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130	50	ug/L			07/21/22 11:29	5
Acrolein	ND		100	17	ug/L			07/21/22 11:29	5
Acrylonitrile	ND		50	14	ug/L			07/21/22 11:29	5
Benzene	ND		5.0	0.65	ug/L			07/21/22 11:29	5
Bromobenzene	ND		5.0	2.7	ug/L			07/21/22 11:29	5
Bromochloromethane	ND		5.0	1.1	ug/L			07/21/22 11:29	5
Bromodichloromethane	ND		5.0	2.5	ug/L			07/21/22 11:29	5
Bromoform	ND		25	1.3	ug/L			07/21/22 11:29	5
Bromomethane	ND		5.0	4.9	ug/L			07/21/22 11:29	5
2-Butanone (MEK)	ND		130	13	ug/L			07/21/22 11:29	5
Carbon disulfide	ND		5.0	2.5	ug/L			07/21/22 11:29	5
Carbon tetrachloride	ND		5.0	0.95	ug/L			07/21/22 11:29	5
Chlorobenzene	ND		5.0	0.75	ug/L			07/21/22 11:29	5
D bromochloromethane	ND		5.0	1.2	ug/L			07/21/22 11:29	5
Chloroethane	ND		5.0	3.8	ug/L			07/21/22 11:29	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			07/21/22 11:29	5
Chloroform	ND		5.0	5.0	ug/L			07/21/22 11:29	5
1-Chlorohexane	ND		5.0	1.6	ug/L			07/21/22 11:29	5
Chloromethane	ND		5.0	1.6	ug/L			07/21/22 11:29	5
cis-1,2-Dichloroethene	ND		5.0	1.0	ug/L			07/21/22 11:29	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			07/21/22 11:29	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			07/21/22 11:29	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			07/21/22 11:29	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			07/21/22 11:29	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			07/21/22 11:29	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			07/21/22 11:29	5
1,2-Dichloroethane	ND		5.0	0.95	ug/L			07/21/22 11:29	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			07/21/22 11:29	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			07/21/22 11:29	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			07/21/22 11:29	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			07/21/22 11:29	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			07/21/22 11:29	5
Ethylbenzene	**420**		5.0	2.5	ug/L			07/21/22 11:29	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			07/21/22 11:29	5
Hexachlorobutadiene	ND		25	4.5	ug/L			07/21/22 11:29	5
2-Hexanone	ND		130	7.0	ug/L			07/21/22 11:29	5
Isopropylbenzene	**69**		5.0	2.7	ug/L			07/21/22 11:29	5
Methylene bromide	ND		25	1.1	ug/L			07/21/22 11:29	5
Methylene Chloride	ND		25	15	ug/L			07/21/22 11:29	5
4-Methyl-2-pentanone (MIBK)	ND		130	9.0	ug/L			07/21/22 11:29	5
Methyl tert-butyl ether	ND		5.0	1.1	ug/L			07/21/22 11:29	5
m-Xylene & p-Xylene	**240**		25	3.2	ug/L			07/21/22 11:29	5
Naphthalene	**45**		25	15	ug/L			07/21/22 11:29	5
n-Buty benzene	ND		5.0	3.8	ug/L			07/21/22 11:29	5
N-Propylbenzene	**95**		5.0	3.5	ug/L			07/21/22 11:29	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			07/21/22 11:29	5
o-Xylene	**21**	**J**	25	3.0	ug/L			07/21/22 11:29	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			07/21/22 11:29	5
p-Isopropyltoluene	**7.5**		5.0	3.6	ug/L			07/21/22 11:29	5

Client Sample ID: MW2-ROX-071422

Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-11

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**6.0**		5.0	3.5	ug/L			07/21/22 11:29	5
Styrene	ND		5.0	5.0	ug/L			07/21/22 11:29	5
tert-Buty benzene	ND		5.0	3.2	ug/L			07/21/22 11:29	5
1,1,1,2-Tetrachloroethane	ND		5.0	0.80	ug/L			07/21/22 11:29	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			07/21/22 11:29	5
Tetrachloroethene	ND		5.0	4.5	ug/L			07/21/22 11:29	5
Toluene	**5.4**		5.0	2.1	ug/L			07/21/22 11:29	5
trans-1,2-Dichloroethene	ND		5.0	2.5	ug/L			07/21/22 11:29	5
trans-1,3-Dichloropropene	ND		25	1.0	ug/L			07/21/22 11:29	5
1,2,3-Trichlorobenzene	ND		5.0	4.5	ug/L			07/21/22 11:29	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			07/21/22 11:29	5
1,1,1-Trichloroethane	ND		5.0	0.90	ug/L			07/21/22 11:29	5
1,1,2-Trichloroethane	ND		25	1.1	ug/L			07/21/22 11:29	5
Trichloroethene	ND		5.0	0.75	ug/L			07/21/22 11:29	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			07/21/22 11:29	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			07/21/22 11:29	5
1,2,4-Trimethylbenzene	**92**		5.0	4.1	ug/L			07/21/22 11:29	5
1,3,5-Trimethylbenzene	**49**		5.0	2.8	ug/L			07/21/22 11:29	5
Vinyl acetate	ND		130	4.7	ug/L			07/21/22 11:29	5
Vinyl chloride	ND		5.0	2.5	ug/L			07/21/22 11:29	5
Xylenes, Total	**260**		50	8.0	ug/L			07/21/22 11:29	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/21/22 11:29*	*5*
Dibromofluoromethane	*103*		*75 - 126*		*07/21/22 11:29*	*5*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/21/22 11:29*	*5*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.19	0.031	ug/L		07/20/22 15:41	07/27/22 17:52	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/20/22 15:41	07/27/22 17:52	1
Anthracene	ND		0.19	0.031	ug/L		07/20/22 15:41	07/27/22 17:52	1
Benzo[a]anthracene	**0.056**	**J**	0.19	0.044	ug/L		07/20/22 15:41	07/27/22 17:52	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		07/20/22 15:41	07/27/22 17:52	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		07/20/22 15:41	07/27/22 17:52	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		07/20/22 15:41	07/27/22 17:52	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		07/20/22 15:41	07/27/22 17:52	1
Chrysene	ND		0.19	0.071	ug/L		07/20/22 15:41	07/27/22 17:52	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/20/22 15:41	07/27/22 17:52	1
Fluoranthene	ND		0.19	0.066	ug/L		07/20/22 15:41	07/27/22 17:52	1
Fluorene	ND		0.19	0.11	ug/L		07/20/22 15:41	07/27/22 17:52	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		07/20/22 15:41	07/27/22 17:52	1
1-Methylnaphthalene	**11**		0.19	0.071	ug/L		07/20/22 15:41	07/27/22 17:52	1
2-Methylnaphthalene	**23**		0.19	0.058	ug/L		07/20/22 15:41	07/27/22 17:52	1
Phenanthrene	**0.047**	**J**	0.19	0.035	ug/L		07/20/22 15:41	07/27/22 17:52	1
Pyrene	ND		0.19	0.039	ug/L		07/20/22 15:41	07/27/22 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*07/20/22 15:41*	*07/27/22 17:52*	*1*
Nitrobenzene-d5	*88*		*19 - 130*	*07/20/22 15:41*	*07/27/22 17:52*	*1*

Client Sample ID: MW2-ROX-071422
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-11
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*130*		*33 - 138*	*07/20/22 15:41*	*07/27/22 17:52*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		07/20/22 15:41	07/25/22 14:04	1
Benzenethiol	ND	*- *1 UJ	9.7	1.6	ug/L		07/20/22 15:41	07/25/22 14:04	1
Benzoic acid	ND		29	7.0	ug/L		07/20/22 15:41	07/25/22 14:04	1
Benzyl alcohol	ND		9.7	1.9	ug/L		07/20/22 15:41	07/25/22 14:04	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		07/20/22 15:41	07/25/22 14:04	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		07/20/22 15:41	07/25/22 14:04	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		07/20/22 15:41	07/25/22 14:04	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		07/20/22 15:41	07/25/22 14:04	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		07/20/22 15:41	07/25/22 14:04	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		07/20/22 15:41	07/25/22 14:04	1
4-Chloroaniline	ND	*1	9.7	3.3	ug/L		07/20/22 15:41	07/25/22 14:04	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		07/20/22 15:41	07/25/22 14:04	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		07/20/22 15:41	07/25/22 14:04	1
2-Chlorophenol	ND		9.7	2.1	ug/L		07/20/22 15:41	07/25/22 14:04	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		07/20/22 15:41	07/25/22 14:04	1
D benz[a,h]acridine	ND		9.7	0.97	ug/L		07/20/22 15:41	07/25/22 14:04	1
D benzofuran	ND		9.7	0.16	ug/L		07/20/22 15:41	07/25/22 14:04	1
3,3'-Dichlorobenzidine	ND	*+	9.7	2.5	ug/L		07/20/22 15:41	07/25/22 14:04	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		07/20/22 15:41	07/25/22 14:04	1
Diethyl phthalate	**0.35**	**J**	9.7	0.23	ug/L		07/20/22 15:41	07/25/22 14:04	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		07/20/22 15:41	07/25/22 14:04	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		07/20/22 15:41	07/25/22 14:04	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		07/20/22 15:41	07/25/22 14:04	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		07/20/22 15:41	07/25/22 14:04	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		07/20/22 15:41	07/25/22 14:04	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		07/20/22 15:41	07/25/22 14:04	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		07/20/22 15:41	07/25/22 14:04	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		07/20/22 15:41	07/25/22 14:04	1
1,4-Dioxane	ND		9.7	0.97	ug/L		07/20/22 15:41	07/25/22 14:04	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		07/20/22 15:41	07/25/22 14:04	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		07/20/22 15:41	07/25/22 14:04	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/20/22 15:41	07/25/22 14:04	1
Hexachloroethane	ND		9.7	4.1	ug/L		07/20/22 15:41	07/25/22 14:04	1
Indene	ND		9.7	0.97	ug/L		07/20/22 15:41	07/25/22 14:04	1
Isophorone	ND		9.7	0.14	ug/L		07/20/22 15:41	07/25/22 14:04	1
2-Methylphenol	ND		9.7	1.7	ug/L		07/20/22 15:41	07/25/22 14:04	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		07/20/22 15:41	07/25/22 14:04	1
2-Nitroaniline	ND		9.7	2.1	ug/L		07/20/22 15:41	07/25/22 14:04	1
3-Nitroaniline	ND		9.7	1.7	ug/L		07/20/22 15:41	07/25/22 14:04	1
4-Nitroaniline	ND		9.7	1.4	ug/L		07/20/22 15:41	07/25/22 14:04	1
Nitrobenzene	ND		9.7	0.13	ug/L		07/20/22 15:41	07/25/22 14:04	1
2-Nitrophenol	ND		9.7	5.0	ug/L		07/20/22 15:41	07/25/22 14:04	1
4-Nitrophenol	ND		9.7	2.0	ug/L		07/20/22 15:41	07/25/22 14:04	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		07/20/22 15:41	07/25/22 14:04	1

Client Sample ID: MW2-ROX-071422
Date Collected: 07/14/22 11:50
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-11
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		07/20/22 15:41	07/25/22 14:04	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		07/20/22 15:41	07/25/22 14:04	1
Pentachlorophenol	ND		19	1.4	ug/L		07/20/22 15:41	07/25/22 14:04	1
Phenol	ND		9.7	2.5	ug/L		07/20/22 15:41	07/25/22 14:04	1
Pyridine	ND		9.7	3.1	ug/L		07/20/22 15:41	07/25/22 14:04	1
Quinoline	ND		9.7	4.3	ug/L		07/20/22 15:41	07/25/22 14:04	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		07/20/22 15:41	07/25/22 14:04	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		07/20/22 15:41	07/25/22 14:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*07/20/22 15:41*	*07/25/22 14:04*	*1*
2-Fluorophenol	*58*		*13 - 113*	*07/20/22 15:41*	*07/25/22 14:04*	*1*
Nitrobenzene-d5	*82*		*36 - 126*	*07/20/22 15:41*	*07/25/22 14:04*	*1*
Phenol-d5	*79*		*17 - 127*	*07/20/22 15:41*	*07/25/22 14:04*	*1*
Terphenyl-d14	*112*		*44 - 149*	*07/20/22 15:41*	*07/25/22 14:04*	*1*
2,4,6-Tribromophenol	*106*		*26 - 150*	*07/20/22 15:41*	*07/25/22 14:04*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		07/25/22 16:48	07/26/22 01:13	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/26/22 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*51 - 149*	*07/25/22 16:48*	*07/26/22 01:13*	*1*

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

Job ID: 400-223012-1

Client Sample ID: MW22-ROX-071422
Date Collected: 07/14/22 12:55
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 10:18	1
Acrolein	ND		20	3.3	ug/L			07/21/22 10:18	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 10:18	1
Benzene	**2.6**		1.0	0.13	ug/L			07/21/22 10:18	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 10:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 10:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 10:18	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 10:18	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 10:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 10:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 10:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 10:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 10:18	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 10:18	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 10:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 10:18	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 10:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 10:18	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 10:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 10:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 10:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 10:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 10:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 10:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 10:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 10:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 10:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 10:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 10:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 10:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 10:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 10:18	1
Ethylbenzene	**55**		1.0	0.50	ug/L			07/21/22 10:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 10:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 10:18	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 10:18	1
Isopropylbenzene	**17**		1.0	0.53	ug/L			07/21/22 10:18	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 10:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 10:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 10:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 10:18	1
m-Xylene & p-Xylene	**80**		5.0	0.63	ug/L			07/21/22 10:18	1
Naphthalene	**34**		5.0	3.0	ug/L			07/21/22 10:18	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 10:18	1
N-Propylbenzene	**29**		1.0	0.69	ug/L			07/21/22 10:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 10:18	1
o-Xylene	**7.6**		5.0	0.60	ug/L			07/21/22 10:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 10:18	1
p-Isopropyltoluene	**2.7**		1.0	0.71	ug/L			07/21/22 10:18	1

Client Sample ID: MW22-ROX-071422
Date Collected: 07/14/22 12:55
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-12
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**2.1**		1.0	0.70	ug/L			07/21/22 10:18	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 10:18	1
tert-Butylbenzene	**2.8**		1.0	0.63	ug/L			07/21/22 10:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 10:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 10:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 10:18	1
Toluene	**5.7**		1.0	0.41	ug/L			07/21/22 10:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 10:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 10:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 10:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 10:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 10:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 10:18	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 10:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 10:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 10:18	1
1,2,4-Trimethylbenzene	**150**		1.0	0.82	ug/L			07/21/22 10:18	1
1,3,5-Trimethylbenzene	**31**	J	1.0	0.56	ug/L			07/21/22 10:18	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 10:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 10:18	1
Xylenes, Total	**88**		10	1.6	ug/L			07/21/22 10:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/21/22 10:18*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*07/21/22 10:18*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/21/22 10:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.19	0.030	ug/L		07/20/22 15:41	07/27/22 18:07	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/20/22 15:41	07/27/22 18:07	1
Anthracene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 18:07	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		07/20/22 15:41	07/27/22 18:07	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/20/22 15:41	07/27/22 18:07	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/20/22 15:41	07/27/22 18:07	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/20/22 15:41	07/27/22 18:07	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/20/22 15:41	07/27/22 18:07	1
Chrysene	ND		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 18:07	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/20/22 15:41	07/27/22 18:07	1
Fluoranthene	ND		0.19	0.064	ug/L		07/20/22 15:41	07/27/22 18:07	1
Fluorene	ND		0.19	0.10	ug/L		07/20/22 15:41	07/27/22 18:07	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/20/22 15:41	07/27/22 18:07	1
1-Methylnaphthalene	**4.2**		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 18:07	1
2-Methylnaphthalene	**4.6**	J	0.19	0.057	ug/L		07/20/22 15:41	07/27/22 18:07	1
Phenanthrene	**0.054**	**J**	0.19	0.034	ug/L		07/20/22 15:41	07/27/22 18:07	1
Pyrene	ND		0.19	0.038	ug/L		07/20/22 15:41	07/27/22 18:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*07/20/22 15:41*	*07/27/22 18:07*	*1*
Nitrobenzene-d5	*74*		*19 - 130*	*07/20/22 15:41*	*07/27/22 18:07*	*1*

Client Sample ID: MW22-ROX-071422
Date Collected: 07/14/22 12:55
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-12
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*132*		*33 - 138*	*07/20/22 15:41*	*07/27/22 18:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		07/20/22 15:41	07/25/22 14:25	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/20/22 15:41	07/25/22 14:25	1
Benzoic acid	ND		28	6.9	ug/L		07/20/22 15:41	07/25/22 14:25	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/20/22 15:41	07/25/22 14:25	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/20/22 15:41	07/25/22 14:25	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		07/20/22 15:41	07/25/22 14:25	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/20/22 15:41	07/25/22 14:25	1
Bis(2-ethylhexyl) phthalate	**7.8**	**J**	9.4	4.7	ug/L		07/20/22 15:41	07/25/22 14:25	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/20/22 15:41	07/25/22 14:25	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/20/22 15:41	07/25/22 14:25	1
4-Chloroaniline	ND	*1	9.4	3.2	ug/L		07/20/22 15:41	07/25/22 14:25	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/20/22 15:41	07/25/22 14:25	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/20/22 15:41	07/25/22 14:25	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/20/22 15:41	07/25/22 14:25	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/20/22 15:41	07/25/22 14:25	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/20/22 15:41	07/25/22 14:25	1
D benzofuran	ND		9.4	0.16	ug/L		07/20/22 15:41	07/25/22 14:25	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		07/20/22 15:41	07/25/22 14:25	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/20/22 15:41	07/25/22 14:25	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/20/22 15:41	07/25/22 14:25	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/20/22 15:41	07/25/22 14:25	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/20/22 15:41	07/25/22 14:25	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/20/22 15:41	07/25/22 14:25	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/20/22 15:41	07/25/22 14:25	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/20/22 15:41	07/25/22 14:25	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/20/22 15:41	07/25/22 14:25	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/20/22 15:41	07/25/22 14:25	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/20/22 15:41	07/25/22 14:25	1
1,4-Dioxane	ND		9.4	0.94	ug/L		07/20/22 15:41	07/25/22 14:25	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/20/22 15:41	07/25/22 14:25	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/20/22 15:41	07/25/22 14:25	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/20/22 15:41	07/25/22 14:25	1
Hexachloroethane	ND		9.4	4.0	ug/L		07/20/22 15:41	07/25/22 14:25	1
Indene	ND		9.4	0.94	ug/L		07/20/22 15:41	07/25/22 14:25	1
Isophorone	ND		9.4	0.13	ug/L		07/20/22 15:41	07/25/22 14:25	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/20/22 15:41	07/25/22 14:25	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/20/22 15:41	07/25/22 14:25	1
2-Nitroaniline	ND		9.4	2.1	ug/L		07/20/22 15:41	07/25/22 14:25	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/20/22 15:41	07/25/22 14:25	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/20/22 15:41	07/25/22 14:25	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/20/22 15:41	07/25/22 14:25	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/20/22 15:41	07/25/22 14:25	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/20/22 15:41	07/25/22 14:25	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/20/22 15:41	07/25/22 14:25	1

Client Sample ID: MW22-ROX-071422
Date Collected: 07/14/22 12:55
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-12
Matrix: Water

Method: 8270D - 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		07/20/22 15:41	07/25/22 14:25	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/20/22 15:41	07/25/22 14:25	1
Pentachlorophenol	ND		19	1.3	ug/L		07/20/22 15:41	07/25/22 14:25	1
Phenol	ND		9.4	2.5	ug/L		07/20/22 15:41	07/25/22 14:25	1
Pyridine	ND		9.4	3.0	ug/L		07/20/22 15:41	07/25/22 14:25	1
Quinoline	ND		9.4	4.2	ug/L		07/20/22 15:41	07/25/22 14:25	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/20/22 15:41	07/25/22 14:25	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/20/22 15:41	07/25/22 14:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*07/20/22 15:41*	*07/25/22 14:25*	*1*
2-Fluorophenol	*42*		*13 - 113*	*07/20/22 15:41*	*07/25/22 14:25*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*07/20/22 15:41*	*07/25/22 14:25*	*1*
Phenol-d5	*64*		*17 - 127*	*07/20/22 15:41*	*07/25/22 14:25*	*1*
Terphenyl-d14	*108*		*44 - 149*	*07/20/22 15:41*	*07/25/22 14:25*	*1*
2,4,6-Tribromophenol	*101*		*26 - 150*	*07/20/22 15:41*	*07/25/22 14:25*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.5	4.7	ug/L		07/27/22 13:48	08/03/22 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*46 - 124*	*07/27/22 13:48*	*08/03/22 17:50*	*1*
Nitrobenzene-d5	*83*		*36 - 126*	*07/27/22 13:48*	*08/03/22 17:50*	*1*
Terphenyl-d14	*116*		*44 - 149*	*07/27/22 13:48*	*08/03/22 17:50*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		07/25/22 16:48	07/26/22 01:34	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/26/22 01:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*51 - 149*	*07/25/22 16:48*	*07/26/22 01:34*	*1*

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

Job ID: 400-223012-1

Client Sample ID: MW22-ROX-071422-DUP

Date Collected: 07/14/22 12:55
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-13

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 10:42	1
Acrolein	ND		20	3.3	ug/L			07/21/22 10:42	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 10:42	1
Benzene	**2.4**		1.0	0.13	ug/L			07/21/22 10:42	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 10:42	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 10:42	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 10:42	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 10:42	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 10:42	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 10:42	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 10:42	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 10:42	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 10:42	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 10:42	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 10:42	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 10:42	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 10:42	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 10:42	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 10:42	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 10:42	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 10:42	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 10:42	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 10:42	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 10:42	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 10:42	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 10:42	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 10:42	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 10:42	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 10:42	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 10:42	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 10:42	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 10:42	1
Ethylbenzene	**52**		1.0	0.50	ug/L			07/21/22 10:42	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 10:42	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 10:42	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 10:42	1
Isopropylbenzene	**21**		1.0	0.53	ug/L			07/21/22 10:42	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 10:42	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 10:42	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 10:42	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 10:42	1
m-Xylene & p-Xylene	**97**		5.0	0.63	ug/L			07/21/22 10:42	1
Naphthalene	**39**		5.0	3.0	ug/L			07/21/22 10:42	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 10:42	1
N-Propylbenzene	**37**		1.0	0.69	ug/L			07/21/22 10:42	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 10:42	1
o-Xylene	**8.0**		5.0	0.60	ug/L			07/21/22 10:42	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 10:42	1
p-Isopropyltoluene	**2.8**		1.0	0.71	ug/L			07/21/22 10:42	1

Client Sample ID: MW22-ROX-071422-DUP
Date Collected: 07/14/22 12:55
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**2.7**		1.0	0.70	ug/L			07/21/22 10:42	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 10:42	1
tert-Butylbenzene	**4.5**		1.0	0.63	ug/L			07/21/22 10:42	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 10:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 10:42	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 10:42	1
Toluene	**5.7**		1.0	0.41	ug/L			07/21/22 10:42	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 10:42	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 10:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 10:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 10:42	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 10:42	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 10:42	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 10:42	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 10:42	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 10:42	1
1,2,4-Trimethylbenzene	**180**		1.0	0.82	ug/L			07/21/22 10:42	1
1,3,5-Trimethylbenzene	**40**	J	1.0	0.56	ug/L			07/21/22 10:42	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 10:42	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 10:42	1
Xylenes, Total	**100**		10	1.6	ug/L			07/21/22 10:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*72 - 119*		*07/21/22 10:42*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*07/21/22 10:42*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*07/21/22 10:42*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.19	0.030	ug/L		07/20/22 15:41	07/27/22 18:22	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/20/22 15:41	07/27/22 18:22	1
Anthracene	ND		0.19	0.030	ug/L		07/20/22 15:41	07/27/22 18:22	1
Benzo[a]anthracene	**0.10**	**J**	0.19	0.044	ug/L		07/20/22 15:41	07/27/22 18:22	1
Benzo[a]pyrene	**0.19**		0.19	0.040	ug/L		07/20/22 15:41	07/27/22 18:22	1
Benzo[b]fluoranthene	**0.072**	**J**	0.19	0.032	ug/L		07/20/22 15:41	07/27/22 18:22	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/20/22 15:41	07/27/22 18:22	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/20/22 15:41	07/27/22 18:22	1
Chrysene	ND		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 18:22	1
Dibenz(a,h)anthracene	**0.083**	**J**	0.19	0.047	ug/L		07/20/22 15:41	07/27/22 18:22	1
Fluoranthene	**0.073**	**J**	0.19	0.064	ug/L		07/20/22 15:41	07/27/22 18:22	1
Fluorene	ND		0.19	0.10	ug/L		07/20/22 15:41	07/27/22 18:22	1
Indeno[1,2,3-cd]pyrene	**0.065**	**J**	0.19	0.041	ug/L		07/20/22 15:41	07/27/22 18:22	1
1-Methylnaphthalene	**5.1**		0.19	0.070	ug/L		07/20/22 15:41	07/27/22 18:22	1
2-Methylnaphthalene	**6.0**	J	0.19	0.057	ug/L		07/20/22 15:41	07/27/22 18:22	1
Phenanthrene	**0.11**	**J**	0.19	0.034	ug/L		07/20/22 15:41	07/27/22 18:22	1
Pyrene	**0.067**	**J**	0.19	0.038	ug/L		07/20/22 15:41	07/27/22 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*07/20/22 15:41*	*07/27/22 18:22*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*07/20/22 15:41*	*07/27/22 18:22*	*1*

Client Sample ID: MW22-ROX-071422-DUP
Date Collected: 07/14/22 12:55
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-13
Matrix: Water

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*127*		*33 - 138*	*07/20/22 15:41*	*07/27/22 18:22*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 14:46	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/20/22 15:41	07/25/22 14:46	1
Benzoic acid	ND		28	6.9	ug/L		07/20/22 15:41	07/25/22 14:46	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 14:46	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 14:46	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 14:46	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/20/22 15:41	07/25/22 14:46	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		07/20/22 15:41	07/25/22 14:46	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/20/22 15:41	07/25/22 14:46	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/20/22 15:41	07/25/22 14:46	1
4-Chloroaniline	ND	*1	9.5	3.2	ug/L		07/20/22 15:41	07/25/22 14:46	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/20/22 15:41	07/25/22 14:46	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 14:46	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 14:46	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/20/22 15:41	07/25/22 14:46	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 14:46	1
D benzofuran	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 14:46	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		07/20/22 15:41	07/25/22 14:46	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/20/22 15:41	07/25/22 14:46	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/20/22 15:41	07/25/22 14:46	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 14:46	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 14:46	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/20/22 15:41	07/25/22 14:46	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/20/22 15:41	07/25/22 14:46	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/20/22 15:41	07/25/22 14:46	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 14:46	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/20/22 15:41	07/25/22 14:46	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 14:46	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 14:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 14:46	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/20/22 15:41	07/25/22 14:46	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/20/22 15:41	07/25/22 14:46	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/20/22 15:41	07/25/22 14:46	1
Indene	ND		9.5	0.95	ug/L		07/20/22 15:41	07/25/22 14:46	1
Isophorone	ND		9.5	0.13	ug/L		07/20/22 15:41	07/25/22 14:46	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 14:46	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/20/22 15:41	07/25/22 14:46	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/20/22 15:41	07/25/22 14:46	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/20/22 15:41	07/25/22 14:46	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/20/22 15:41	07/25/22 14:46	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/20/22 15:41	07/25/22 14:46	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/20/22 15:41	07/25/22 14:46	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/20/22 15:41	07/25/22 14:46	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 14:46	1

Client Sample ID: MW22-ROX-071422-DUP
Date Collected: 07/14/22 12:55
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-13
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/20/22 15:41	07/25/22 14:46	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/20/22 15:41	07/25/22 14:46	1
Pentachlorophenol	ND		19	1.3	ug/L		07/20/22 15:41	07/25/22 14:46	1
Phenol	ND		9.5	2.5	ug/L		07/20/22 15:41	07/25/22 14:46	1
Pyridine	ND		9.5	3.0	ug/L		07/20/22 15:41	07/25/22 14:46	1
Quinoline	ND		9.5	4.3	ug/L		07/20/22 15:41	07/25/22 14:46	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/20/22 15:41	07/25/22 14:46	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/20/22 15:41	07/25/22 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*07/20/22 15:41*	*07/25/22 14:46*	*1*
2-Fluorophenol	*39*		*13 - 113*	*07/20/22 15:41*	*07/25/22 14:46*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*07/20/22 15:41*	*07/25/22 14:46*	*1*
Phenol-d5	*64*		*17 - 127*	*07/20/22 15:41*	*07/25/22 14:46*	*1*
Terphenyl-d14	*113*		*44 - 149*	*07/20/22 15:41*	*07/25/22 14:46*	*1*
2,4,6-Tribromophenol	*97*		*26 - 150*	*07/20/22 15:41*	*07/25/22 14:46*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		07/25/22 16:48	07/26/22 01:55	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/26/22 01:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*51 - 149*	*07/25/22 16:48*	*07/26/22 01:55*	*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.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

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

Job ID: 400-223012-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-223012-1	TB-ROX-071422-8260-B	87	106	97
400-223012-3	T12-ROX-071422	83	107	99
400-223012-4	P59-ROX-071422	85	109	98
400-223012-5	P58-ROX-071422	85	115	97
400-223012-6	P58-ROX-071422-DUP	82	115	99
400-223012-7	TB-ROX-071422-8260-A	80	111	98
400-223012-9	MW3-ROX-071422	86	109	97
400-223012-9 MS	MW3-ROX-071422	91	98	99
400-223012-9 MSD	MW3-ROX-071422	88	103	100
400-223012-10	ROST4PZC-ROX-071422	84	104	98
400-223012-11	MW2-ROX-071422	85	103	98
400-223012-12	MW22-ROX-071422	85	105	98
400-223012-13	MW22-ROX-071422-DUP	89	105	96
LCS 400-585405/1002	Lab Control Sample	89	98	102
LCS 400-585577/1002	Lab Control Sample	90	98	101
MB 400-585405/5	Method Blank	83	106	99
MB 400-585577/4	Method Blank	83	112	100

Surrogate Legend

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

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-223012-3	T12-ROX-071422	84	59	86	77	104	107
400-223012-4	P59-ROX-071422	81	43	81	65	107	87
400-223012-5	P58-ROX-071422	73	65	83	82	94	120
400-223012-6	P58-ROX-071422-DUP	79	60	81	81	102	117
400-223012-9	MW3-ROX-071422	80	67	81	81	101	107
400-223012-10	ROST4PZC-ROX-071422	78	64	80	80	102	102
400-223012-11	MW2-ROX-071422	81	58	82	79	112	106
400-223012-12	MW22-ROX-071422	78	42	76	64	108	101
400-223012-12 - RERA	MW22-ROX-071422	85		83		116	
400-223012-13	MW22-ROX-071422-DUP	79	39	79	64	113	97
LCS 400-585529/2-A	Lab Control Sample	81	67	83	81	95	91
LCS 400-585529/4-A	Lab Control Sample	90	76	83	87	104	70
LCS 400-586247/2-A	Lab Control Sample	80		86		106	
LCSD 400-585529/3-A	Lab Control Sample Dup	81	57	84	78	96	93
LCSD 400-585529/5-A	Lab Control Sample Dup	91	72	86	87	112	56
MB 400-585529/1-A	Method Blank	72	49	70	67	84	55
MB 400-586247/1-A	Method Blank	80		79		111	

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5

PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

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

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

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-223012-3	T12-ROX-071422	109	111	123
400-223012-4	P59-ROX-071422	99	95	120
400-223012-5	P58-ROX-071422	36	132 S1+	120
400-223012-6	P58-ROX-071422-DUP	81	129	134
400-223012-9	MW3-ROX-071422	139 S1+	122	183 S1+
400-223012-10	ROST4PZC-ROX-071422	110	101	127
400-223012-11	MW2-ROX-071422	113	88	130
400-223012-12	MW22-ROX-071422	112	74	132
400-223012-13	MW22-ROX-071422-DUP	113	108	127
LCS 400-585529/2-A	Lab Control Sample	102	72	108
LCSD 400-585529/3-A	Lab Control Sample Dup	104	91	110
MB 400-585529/1-A	Method Blank	99	96	114

Surrogate Legend

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

Method: 8011 - EDB and DBCP in Water by Microextraction

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

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51 149)
400-223012-2	TB-ROX-071422-8011-B	99
400-223012-3	T12-ROX-071422	91
400-223012-4	P59-ROX-071422	98
400-223012-5	P58-ROX-071422	102
400-223012-6	P58-ROX-071422-DUP	83
400-223012-8	TB-ROX-071422-8011-A	111
400-223012-9	MW3-ROX-071422	92
400-223012-10	ROST4PZC-ROX-071422	95
400-223012-11	MW2-ROX-071422	84
400-223012-12	MW22-ROX-071422	85
400-223012-13	MW22-ROX-071422-DUP	95
LCS 400-586135/2-A	Lab Control Sample	91
LCSD 400-586135/3-A	Lab Control Sample Dup	102
MB 400-586135/1-A	Method Blank	96

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-223012-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL 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:

TAL 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: 400-223012-1

Client Sample ID: TB-ROX-071422-8260-B
Lab Sample ID: 400-223012-1
Date Collected: 07/14/22 12:00
Matrix: Water
Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585405	07/20/22 17:31	WPD	TAL PEN

Client Sample ID: TB-ROX-071422-8011-B
Lab Sample ID: 400-223012-2
Date Collected: 07/14/22 12:00
Matrix: Water
Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.3 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 22:07	JAW	TAL PEN

Client Sample ID: T12-ROX-071422
Lab Sample ID: 400-223012-3
Date Collected: 07/14/22 09:30
Matrix: Water
Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	585405	07/20/22 17:59	WPD	TAL PEN
Total/NA	Prep	3520C			254.2 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 11:59	VC1	TAL PEN
Total/NA	Prep	3520C			254.2 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 17:05	KJA	TAL PEN
Total/NA	Prep	8011			32.2 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 22:28	JAW	TAL PEN

Client Sample ID: P59-ROX-071422
Lab Sample ID: 400-223012-4
Date Collected: 07/14/22 10:30
Matrix: Water
Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	5 mL	5 mL	585405	07/20/22 18:26	WPD	TAL PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		2			585995	07/25/22 12:20	VC1	TAL PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		2			586444	07/27/22 17:21	KJA	TAL PEN
Total/NA	Prep	8011			31.9 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 22:48	JAW	TAL PEN

Client Sample ID: P58-ROX-071422
Lab Sample ID: 400-223012-5
Date Collected: 07/14/22 11:50
Matrix: Water
Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	5 mL	5 mL	585405	07/20/22 18:54	WPD	TAL PEN
Total/NA	Prep	3520C			272 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 12:40	VC1	TAL PEN

Client Sample ID: P58-ROX-071422

Lab Sample ID: 400-223012-5

Date Collected: 07/14/22 11:50

Matrix: Water

Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			272 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			585862	07/22/22 23:24	PP1	TAL PEN
Total/NA	Prep	3520C			272 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586629	07/28/22 14:52	PP1	TAL PEN
Total/NA	Prep	8011			34.2 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 23:09	JAW	TAL PEN

Client Sample ID: P58-ROX-071422-DUP

Lab Sample ID: 400-223012-6

Date Collected: 07/14/22 11:50

Matrix: Water

Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	5 mL	5 mL	585405	07/20/22 19:22	WPD	TAL PEN
Total/NA	Prep	3520C			273 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		2			585995	07/25/22 13:01	VC1	TAL PEN
Total/NA	Prep	3520C			273 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		2			585862	07/22/22 23:40	PP1	TAL PEN
Total/NA	Prep	3520C			273 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586629	07/28/22 15:07	PP1	TAL PEN
Total/NA	Prep	8011			33.8 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 23:30	JAW	TAL PEN

Client Sample ID: TB-ROX-071422-8260-A

Lab Sample ID: 400-223012-7

Date Collected: 07/14/22 12:00

Matrix: Water

Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 09:08	WPD	TAL PEN

Client Sample ID: TB-ROX-071422-8011-A

Lab Sample ID: 400-223012-8

Date Collected: 07/14/22 12:00

Matrix: Water

Date Received: 07/15/22 09:07

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	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 23:50	JAW	TAL PEN

Client Sample ID: MW3-ROX-071422

Lab Sample ID: 400-223012-9

Date Collected: 07/14/22 09:05

Matrix: Water

Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 09:31	WPD	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 13:22	VC1	TAL PEN

Client Sample ID: MW3-ROX-071422

Lab Sample ID: 400-223012-9

Date Collected: 07/14/22 09:05

Matrix: Water

Date Received: 07/15/22 09:07

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 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			585862	07/22/22 23:55	PP1	TAL PEN
Total/NA	Prep	8011			32 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/26/22 00:11	JAW	TAL PEN

Client Sample ID: ROST4PZC-ROX-071422

Lab Sample ID: 400-223012-10

Date Collected: 07/14/22 09:50

Matrix: Water

Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 16:30	WPD	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 13:43	VC1	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 17:36	KJA	TAL PEN
Total/NA	Prep	8011			33.2 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/26/22 00:53	JAW	TAL PEN

Client Sample ID: MW2-ROX-071422

Lab Sample ID: 400-223012-11

Date Collected: 07/14/22 11:50

Matrix: Water

Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	585577	07/21/22 11:29	WPD	TAL PEN
Total/NA	Prep	3520C			259 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 14:04	VC1	TAL PEN
Total/NA	Prep	3520C			259 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 17:52	KJA	TAL PEN
Total/NA	Prep	8011			33.1 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/26/22 01:13	JAW	TAL PEN

Client Sample ID: MW22-ROX-071422

Lab Sample ID: 400-223012-12

Date Collected: 07/14/22 12:55

Matrix: Water

Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 10:18	WPD	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 14:25	VC1	TAL PEN
Total/NA	Prep	3520C	RERA		263.4 mL	1 mL	586247	07/27/22 13:48	BKL	TAL PEN
Total/NA	Analysis	8270D	RERA	1			587390	08/03/22 17:50	S1B	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 18:07	KJA	TAL PEN
Total/NA	Prep	8011			33.7 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/26/22 01:34	JAW	TAL PEN

Client Sample ID: MW22-ROX-071422-DUP

Lab Sample ID: 400-223012-13

Date Collected: 07/14/22 12:55

Matrix: Water

Date Received: 07/15/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 10:42	WPD	TAL PEN
Total/NA	Prep	3520C			263.6 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585995	07/25/22 14:46	VC1	TAL PEN
Total/NA	Prep	3520C			263.6 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 18:22	KJA	TAL PEN
Total/NA	Prep	8011			33 mL	35 mL	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/26/22 01:55	JAW	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-585405/5

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585405	07/20/22 09:47	WPD	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-585529/1-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:25	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		1			586444	07/27/22 16:19	KJA	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-585577/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 08:44	WPD	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-586135/1-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	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 21:04	JAW	TAL PEN

Lab Chronicle

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

Job ID: 400-223012-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-586247/1-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	586247	07/26/22 13:58	BKL	TAL PEN
Total/NA	Analysis	8270D		1			587390	08/03/22 16:05	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585405/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585405	07/20/22 08:24	WPD	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585529/2-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 16:46	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			586444	07/27/22 16:34	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585529/4-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:28	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585577/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 07:47	WPD	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-586135/2-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	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 21:25	JAW	TAL PEN

Lab Chronicle

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

Job ID: 400-223012-1

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

Lab Sample ID: LCS 400-586247/2-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	586247	07/26/22 13:58	BKL	TAL PEN
Total/NA	Analysis	8270D		1			587390	08/03/22 16:26	S1B	TAL PEN

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

Lab Sample ID: LCSD 400-585529/3-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:07	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D LL		5			586444	07/27/22 16:50	KJA	TAL PEN

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

Lab Sample ID: LCSD 400-585529/5-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	585529	07/20/22 15:41	BKL	TAL PEN
Total/NA	Analysis	8270D		1			585828	07/22/22 17:49	S1B	TAL PEN

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

Lab Sample ID: LCSD 400-586135/3-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	586135	07/25/22 16:48	JAW	TAL PEN
Total/NA	Analysis	8011		1			586163	07/25/22 21:46	JAW	TAL PEN

Client Sample ID: MW3-ROX-071422
Date Collected: 07/14/22 09:05
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-9 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 13:04	WPD	TAL PEN

Client Sample ID: MW3-ROX-071422
Date Collected: 07/14/22 09:05
Date Received: 07/15/22 09:07

Lab Sample ID: 400-223012-9 MSD
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 13:27	WPD	TAL PEN

Laboratory References:

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

GC/MS VOA

Analysis Batch: 585405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-1	TB-ROX-071422-8260-B	Total/NA	Water	8260B	
400-223012-3	T12-ROX-071422	Total/NA	Water	8260B	
400-223012-4	P59-ROX-071422	Total/NA	Water	8260B	
400-223012-5	P58-ROX-071422	Total/NA	Water	8260B	
400-223012-6	P58-ROX-071422-DUP	Total/NA	Water	8260B	
MB 400-585405/5	Method Blank	Total/NA	Water	8260B	
LCS 400-585405/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 585577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-7	TB-ROX-071422-8260-A	Total/NA	Water	8260B	
400-223012-9	MW3-ROX-071422	Total/NA	Water	8260B	
400-223012-10	ROST4PZC-ROX-071422	Total/NA	Water	8260B	
400-223012-11	MW2-ROX-071422	Total/NA	Water	8260B	
400-223012-12	MW22-ROX-071422	Total/NA	Water	8260B	
400-223012-13	MW22-ROX-071422-DUP	Total/NA	Water	8260B	
MB 400-585577/4	Method Blank	Total/NA	Water	8260B	
LCS 400-585577/1002	Lab Control Sample	Total/NA	Water	8260B	
400-223012-9 MS	MW3-ROX-071422	Total/NA	Water	8260B	
400-223012-9 MSD	MW3-ROX-071422	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 585529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-3	T12-ROX-071422	Total/NA	Water	3520C	
400-223012-4	P59-ROX-071422	Total/NA	Water	3520C	
400-223012-5	P58-ROX-071422	Total/NA	Water	3520C	
400-223012-6	P58-ROX-071422-DUP	Total/NA	Water	3520C	
400-223012-9	MW3-ROX-071422	Total/NA	Water	3520C	
400-223012-10	ROST4PZC-ROX-071422	Total/NA	Water	3520C	
400-223012-11	MW2-ROX-071422	Total/NA	Water	3520C	
400-223012-12	MW22-ROX-071422	Total/NA	Water	3520C	
400-223012-13	MW22-ROX-071422-DUP	Total/NA	Water	3520C	
MB 400-585529/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-585529/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-585529/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 585828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-585529/1-A	Method Blank	Total/NA	Water	8270D	585529
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	8270D	585529
LCS 400-585529/4-A	Lab Control Sample	Total/NA	Water	8270D	585529
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	585529
LCSD 400-585529/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	585529

Analysis Batch: 585862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-5	P58-ROX-071422	Total/NA	Water	8270D LL	585529

GC/MS Semi VOA (Continued)

Analysis Batch: 585862 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-6	P58-ROX-071422-DUP	Total/NA	Water	8270D LL	585529
400-223012-9	MW3-ROX-071422	Total/NA	Water	8270D LL	585529

Analysis Batch: 585995

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-3	T12-ROX-071422	Total/NA	Water	8270D	585529
400-223012-4	P59-ROX-071422	Total/NA	Water	8270D	585529
400-223012-5	P58-ROX-071422	Total/NA	Water	8270D	585529
400-223012-6	P58-ROX-071422-DUP	Total/NA	Water	8270D	585529
400-223012-9	MW3-ROX-071422	Total/NA	Water	8270D	585529
400-223012-10	ROST4PZC-ROX-071422	Total/NA	Water	8270D	585529
400-223012-11	MW2-ROX-071422	Total/NA	Water	8270D	585529
400-223012-12	MW22-ROX-071422	Total/NA	Water	8270D	585529
400-223012-13	MW22-ROX-071422-DUP	Total/NA	Water	8270D	585529

Prep Batch: 586247

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-12 - RERA	MW22-ROX-071422	Total/NA	Water	3520C	
MB 400-586247/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-586247/2-A	Lab Control Sample	Total/NA	Water	3520C	

Analysis Batch: 586444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-3	T12-ROX-071422	Total/NA	Water	8270D LL	585529
400-223012-4	P59-ROX-071422	Total/NA	Water	8270D LL	585529
400-223012-10	ROST4PZC-ROX-071422	Total/NA	Water	8270D LL	585529
400-223012-11	MW2-ROX-071422	Total/NA	Water	8270D LL	585529
400-223012-12	MW22-ROX-071422	Total/NA	Water	8270D LL	585529
400-223012-13	MW22-ROX-071422-DUP	Total/NA	Water	8270D LL	585529
MB 400-585529/1-A	Method Blank	Total/NA	Water	8270D LL	585529
LCS 400-585529/2-A	Lab Control Sample	Total/NA	Water	8270D LL	585529
LCSD 400-585529/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	585529

Analysis Batch: 586629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-5	P58-ROX-071422	Total/NA	Water	8270D LL	585529
400-223012-6	P58-ROX-071422-DUP	Total/NA	Water	8270D LL	585529

Analysis Batch: 587390

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-12 - RERA	MW22-ROX-071422	Total/NA	Water	8270D	586247
MB 400-586247/1-A	Method Blank	Total/NA	Water	8270D	586247
LCS 400-586247/2-A	Lab Control Sample	Total/NA	Water	8270D	586247

GC Semi VOA

Prep Batch: 586135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-2	TB-ROX-071422-8011-B	Total/NA	Water	8011	
400-223012-3	T12-ROX-071422	Total/NA	Water	8011	
400-223012-4	P59-ROX-071422	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 586135 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-5	P58-ROX-071422	Total/NA	Water	8011	
400-223012-6	P58-ROX-071422-DUP	Total/NA	Water	8011	
400-223012-8	TB-ROX-071422-8011-A	Total/NA	Water	8011	
400-223012-9	MW3-ROX-071422	Total/NA	Water	8011	
400-223012-10	ROST4PZC-ROX-071422	Total/NA	Water	8011	
400-223012-11	MW2-ROX-071422	Total/NA	Water	8011	
400-223012-12	MW22-ROX-071422	Total/NA	Water	8011	
400-223012-13	MW22-ROX-071422-DUP	Total/NA	Water	8011	
MB 400-586135/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-586135/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-586135/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 586163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223012-2	TB-ROX-071422-8011-B	Total/NA	Water	8011	586135
400-223012-3	T12-ROX-071422	Total/NA	Water	8011	586135
400-223012-4	P59-ROX-071422	Total/NA	Water	8011	586135
400-223012-5	P58-ROX-071422	Total/NA	Water	8011	586135
400-223012-6	P58-ROX-071422-DUP	Total/NA	Water	8011	586135
400-223012-8	TB-ROX-071422-8011-A	Total/NA	Water	8011	586135
400-223012-9	MW3-ROX-071422	Total/NA	Water	8011	586135
400-223012-10	ROST4PZC-ROX-071422	Total/NA	Water	8011	586135
400-223012-11	MW2-ROX-071422	Total/NA	Water	8011	586135
400-223012-12	MW22-ROX-071422	Total/NA	Water	8011	586135
400-223012-13	MW22-ROX-071422-DUP	Total/NA	Water	8011	586135
MB 400-586135/1-A	Method Blank	Total/NA	Water	8011	586135
LCS 400-586135/2-A	Lab Control Sample	Total/NA	Water	8011	586135
LCSD 400-586135/3-A	Lab Control Sample Dup	Total/NA	Water	8011	586135

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

Lab Sample ID: MB 400-585405/5
Matrix: Water
Analysis Batch: 585405

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			07/20/22 09:47	1
Acrolein	ND		20	3.3	ug/L			07/20/22 09:47	1
Acrylonitrile	ND		10	2.8	ug/L			07/20/22 09:47	1
Benzene	ND		1.0	0.13	ug/L			07/20/22 09:47	1
Bromobenzene	ND		1.0	0.54	ug/L			07/20/22 09:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/20/22 09:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Bromoform	ND		5.0	0.25	ug/L			07/20/22 09:47	1
Bromomethane	ND		1.0	0.98	ug/L			07/20/22 09:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/20/22 09:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/20/22 09:47	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/20/22 09:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/20/22 09:47	1
Chloroethane	ND		1.0	0.76	ug/L			07/20/22 09:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/20/22 09:47	1
Chloroform	ND		1.0	1.0	ug/L			07/20/22 09:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/20/22 09:47	1
Chloromethane	ND		1.0	0.32	ug/L			07/20/22 09:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/20/22 09:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/20/22 09:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/20/22 09:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/20/22 09:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/20/22 09:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/20/22 09:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/20/22 09:47	1
2-Hexanone	ND		25	1.4	ug/L			07/20/22 09:47	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/20/22 09:47	1
Methylene bromide	ND		5.0	0.22	ug/L			07/20/22 09:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/20/22 09:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/20/22 09:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/20/22 09:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/20/22 09:47	1
Naphthalene	ND		5.0	3.0	ug/L			07/20/22 09:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/20/22 09:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/20/22 09:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/20/22 09:47	1
o-Xylene	ND		5.0	0.60	ug/L			07/20/22 09:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/20/22 09:47	1

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

Lab Sample ID: MB 400-585405/5
Matrix: Water
Analysis Batch: 585405

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			07/20/22 09:47	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/20/22 09:47	1
Styrene	ND		1.0	1.0	ug/L			07/20/22 09:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/20/22 09:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/20/22 09:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/20/22 09:47	1
Toluene	ND		1.0	0.41	ug/L			07/20/22 09:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/20/22 09:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/20/22 09:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/20/22 09:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/20/22 09:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/20/22 09:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/20/22 09:47	1
Trichloroethene	ND		1.0	0.15	ug/L			07/20/22 09:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/20/22 09:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/20/22 09:47	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/20/22 09:47	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/20/22 09:47	1
Vinyl acetate	ND		25	0.93	ug/L			07/20/22 09:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/20/22 09:47	1
Xylenes, Total	ND		10	1.6	ug/L			07/20/22 09:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/20/22 09:47*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/20/22 09:47*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/20/22 09:47*	*1*

Lab Sample ID: LCS 400-585405/1002
Matrix: Water
Analysis Batch: 585405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	212		ug/L		106	43 - 160
Acrolein	500	516		ug/L		103	38 - 160
Acrylonitrile	500	542		ug/L		108	64 - 142
Benzene	50.0	47.0		ug/L		94	70 - 130
Bromobenzene	50.0	52.8		ug/L		106	70 - 132
Bromochloromethane	50.0	49.1		ug/L		98	70 - 130
Bromodichloromethane	50.0	47.2		ug/L		94	67 - 133
Bromoform	50.0	60.2		ug/L		120	57 - 140
Bromomethane	50.0	46.6		ug/L		93	10 - 160
2-Butanone (MEK)	200	216		ug/L		108	61 - 145
Carbon disulfide	50.0	47.4		ug/L		95	61 - 137
Carbon tetrachloride	50.0	49.3		ug/L		99	61 - 137
Chlorobenzene	50.0	51.9		ug/L		104	70 - 130
Dibromochloromethane	50.0	57.0		ug/L		114	67 - 135
Chloroethane	50.0	44.8		ug/L		90	55 - 141

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

Lab Sample ID: LCS 400-585405/1002
Matrix: Water
Analysis Batch: 585405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	16.7		ug/L		33	10 - 160
Chloroform	50.0	46.2		ug/L		92	69 - 130
1-Chlorohexane	50.0	52.6		ug/L		105	69 - 130
Chloromethane	50.0	49.4		ug/L		99	58 - 137
cis-1,2-Dichloroethene	50.0	48.8		ug/L		98	68 - 130
cis-1,3-Dichloropropene	50.0	47.9		ug/L		96	69 - 132
1,2-Dichlorobenzene	50.0	53.7		ug/L		107	67 - 130
1,3-Dichlorobenzene	50.0	56.6		ug/L		113	70 - 130
1,4-Dichlorobenzene	50.0	54.7		ug/L		109	70 - 130
Dichlorodifluoromethane	50.0	53.0		ug/L		106	41 - 146
1,1-Dichloroethane	50.0	48.8		ug/L		98	70 - 130
1,2-Dichloroethane	50.0	48.6		ug/L		97	69 - 130
1,1-Dichloroethene	50.0	48.1		ug/L		96	63 - 134
1,2-Dichloropropane	50.0	45.5		ug/L		91	70 - 130
1,3-Dichloropropane	50.0	52.0		ug/L		104	70 - 130
2,2-Dichloropropane	50.0	50.0		ug/L		100	52 - 135
1,1-Dichloropropene	50.0	51.9		ug/L		104	70 - 130
Ethylbenzene	50.0	51.0		ug/L		102	70 - 130
Ethyl methacrylate	50.0	52.0		ug/L		104	68 - 130
Hexachlorobutadiene	50.0	63.8		ug/L		128	53 - 140
2-Hexanone	200	201		ug/L		101	65 - 137
Isopropy benzene	50.0	51.8		ug/L		104	70 - 130
Methylene bromide	50.0	47.2		ug/L		94	70 - 130
Methylene Chloride	50.0	46.7		ug/L		93	66 - 135
4-Methyl-2-pentanone (MIBK)	200	205		ug/L		103	69 - 138
Methyl tert-butyl ether	50.0	49.8		ug/L		100	66 - 130
m-Xylene & p-Xylene	50.0	51.4		ug/L		103	70 - 130
Naphthalene	50.0	54.0		ug/L		108	47 - 149
n-Butylbenzene	50.0	52.8		ug/L		106	67 - 130
N-Propylbenzene	50.0	50.2		ug/L		100	70 - 130
o-Chlorotoluene	50.0	50.1		ug/L		100	70 - 130
o-Xylene	50.0	50.4		ug/L		101	70 - 130
p-Chlorotoluene	50.0	51.0		ug/L		102	70 - 130
p-Isopropyltoluene	50.0	53.5		ug/L		107	65 - 130
sec-Butylbenzene	50.0	51.3		ug/L		103	66 - 130
Styrene	50.0	49.5		ug/L		99	70 - 130
tert-Butylbenzene	50.0	51.2		ug/L		102	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.9		ug/L		102	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.8		ug/L		98	70 - 131
Tetrachloroethene	50.0	55.8		ug/L		112	65 - 130
Toluene	50.0	51.3		ug/L		103	70 - 130
trans-1,2-Dichloroethene	50.0	50.1		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	52.4		ug/L		105	63 - 130
1,2,3-Trichlorobenzene	50.0	58.7		ug/L		117	60 - 138
1,2,4-Trichlorobenzene	50.0	57.4		ug/L		115	60 - 140
1,1,1-Trichloroethane	50.0	50.5		ug/L		101	68 - 130
1,1,2-Trichloroethane	50.0	51.4		ug/L		103	70 - 130
Trichloroethene	50.0	50.7		ug/L		101	70 - 130
Trichlorofluoromethane	50.0	50.2		ug/L		100	65 - 138

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

Lab Sample ID: LCS 400-585405/1002
Matrix: Water
Analysis Batch: 585405

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	51.0		ug/L		102	70 - 130
1,2,4-Trimethy benzene	50.0	52.6		ug/L		105	70 - 130
1,3,5-Trimethy benzene	50.0	50.3		ug/L		101	69 - 130
Vinyl acetate	100	109		ug/L		109	26 - 160
Vinyl chloride	50.0	50.0		ug/L		100	59 - 136
Xylenes, Total	100	102		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

Lab Sample ID: MB 400-585577/4
Matrix: Water
Analysis Batch: 585577

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			07/21/22 08:44	1
Acrolein	ND		20	3.3	ug/L			07/21/22 08:44	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 08:44	1
Benzene	ND		1.0	0.13	ug/L			07/21/22 08:44	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 08:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 08:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 08:44	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 08:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 08:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 08:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 08:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/21/22 08:44	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 08:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 08:44	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 08:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 08:44	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 08:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 08:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 08:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 08:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 08:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 08:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 08:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 08:44	1

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

Lab Sample ID: MB 400-585577/4
Matrix: Water
Analysis Batch: 585577

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			07/21/22 08:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 08:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 08:44	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 08:44	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/21/22 08:44	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 08:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 08:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 08:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 08:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/21/22 08:44	1
Naphthalene	ND		5.0	3.0	ug/L			07/21/22 08:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/21/22 08:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/21/22 08:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 08:44	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 08:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 08:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/21/22 08:44	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 08:44	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 08:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/21/22 08:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 08:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 08:44	1
Toluene	ND		1.0	0.41	ug/L			07/21/22 08:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 08:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 08:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 08:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 08:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 08:44	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 08:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 08:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 08:44	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/21/22 08:44	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/21/22 08:44	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 08:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Xylenes, Total	ND		10	1.6	ug/L			07/21/22 08:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/21/22 08:44*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*07/21/22 08:44*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/21/22 08:44*	*1*

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

Lab Sample ID: LCS 400-585577/1002
Matrix: Water
Analysis Batch: 585577

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	480		ug/L		96	38 - 160
Acrylonitrile	500	542		ug/L		108	64 - 142
Benzene	50.0	51.9		ug/L		104	70 - 130
Bromobenzene	50.0	57.4		ug/L		115	70 - 132
Bromochloromethane	50.0	51.2		ug/L		102	70 - 130
Bromodichloromethane	50.0	50.4		ug/L		101	67 - 133
Bromoform	50.0	60.2		ug/L		120	57 - 140
Bromomethane	50.0	47.9		ug/L		96	10 - 160
2-Butanone (MEK)	200	226		ug/L		113	61 - 145
Carbon disulfide	50.0	53.0		ug/L		106	61 - 137
Carbon tetrachloride	50.0	57.5		ug/L		115	61 - 137
Chlorobenzene	50.0	55.5		ug/L		111	70 - 130
Dibromochloromethane	50.0	58.9		ug/L		118	67 - 135
Chloroethane	50.0	50.4		ug/L		101	55 - 141
2-Chloroethyl vinyl ether	50.0	16.8		ug/L		34	10 - 160
Chloroform	50.0	50.5		ug/L		101	69 - 130
1-Chlorohexane	50.0	60.3		ug/L		121	69 - 130
Chloromethane	50.0	51.5		ug/L		103	58 - 137
cis-1,2-Dichloroethene	50.0	53.9		ug/L		108	68 - 130
cis-1,3-Dichloropropene	50.0	51.8		ug/L		104	69 - 132
1,2-Dichlorobenzene	50.0	58.0		ug/L		116	67 - 130
1,3-Dichlorobenzene	50.0	59.7		ug/L		119	70 - 130
1,4-Dichlorobenzene	50.0	59.8		ug/L		120	70 - 130
Dichlorodifluoromethane	50.0	53.4		ug/L		107	41 - 146
1,1-Dichloroethane	50.0	54.6		ug/L		109	70 - 130
1,2-Dichloroethane	50.0	50.2		ug/L		100	69 - 130
1,1-Dichloroethene	50.0	53.9		ug/L		108	63 - 134
1,2-Dichloropropane	50.0	48.7		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	54.3		ug/L		109	70 - 130
2,2-Dichloropropane	50.0	55.9		ug/L		112	52 - 135
1,1-Dichloropropene	50.0	55.4		ug/L		111	70 - 130
Ethylbenzene	50.0	56.4		ug/L		113	70 - 130
Ethyl methacrylate	50.0	53.1		ug/L		106	68 - 130
Hexachlorobutadiene	50.0	68.3		ug/L		137	53 - 140
2-Hexanone	200	210		ug/L		105	65 - 137
Isopropy benzene	50.0	58.3		ug/L		117	70 - 130
Methylene bromide	50.0	48.3		ug/L		97	70 - 130
Methylene Chloride	50.0	49.9		ug/L		100	66 - 135
4-Methyl-2-pentanone (MIBK)	200	217		ug/L		108	69 - 138
Methyl tert-butyl ether	50.0	54.4		ug/L		109	66 - 130
m-Xylene & p-Xylene	50.0	56.5		ug/L		113	70 - 130
Naphthalene	50.0	56.5		ug/L		113	47 - 149
n-Butylbenzene	50.0	59.4		ug/L		119	67 - 130
N-Propylbenzene	50.0	56.1		ug/L		112	70 - 130
o-Chlorotoluene	50.0	54.8		ug/L		110	70 - 130
o-Xylene	50.0	56.4		ug/L		113	70 - 130
p-Chlorotoluene	50.0	56.8		ug/L		114	70 - 130

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

Lab Sample ID: LCS 400-585577/1002
Matrix: Water
Analysis Batch: 585577

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	60.3		ug/L		121	65 - 130
sec-Butylbenzene	50.0	58.2		ug/L		116	66 - 130
Styrene	50.0	53.9		ug/L		108	70 - 130
tert-Butylbenzene	50.0	56.9		ug/L		114	64 - 139
1,1,1,2-Tetrachloroethane	50.0	57.6		ug/L		115	67 - 131
1,1,2,2-Tetrachloroethane	50.0	53.6		ug/L		107	70 - 131
Tetrachloroethene	50.0	61.3		ug/L		123	65 - 130
Toluene	50.0	55.5		ug/L		111	70 - 130
trans-1,2-Dichloroethene	50.0	54.7		ug/L		109	70 - 130
trans-1,3-Dichloropropene	50.0	55.8		ug/L		112	63 - 130
1,2,3-Trichlorobenzene	50.0	60.3		ug/L		121	60 - 138
1,2,4-Trichlorobenzene	50.0	61.2		ug/L		122	60 - 140
1,1,1-Trichloroethane	50.0	55.2		ug/L		110	68 - 130
1,1,2-Trichloroethane	50.0	51.5		ug/L		103	70 - 130
Trichloroethene	50.0	55.8		ug/L		112	70 - 130
Trichlorofluoromethane	50.0	56.8		ug/L		114	65 - 138
1,2,3-Trichloropropane	50.0	53.5		ug/L		107	70 - 130
1,2,4-Trimethy benzene	50.0	57.8		ug/L		116	70 - 130
1,3,5-Trimethy benzene	50.0	56.7		ug/L		113	69 - 130
Vinyl acetate	100	102		ug/L		102	26 - 160
Vinyl chloride	50.0	53.3		ug/L		107	59 - 136
Xylenes, Total	100	113		ug/L		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: 400-223012-9 MS
Matrix: Water
Analysis Batch: 585577

Client Sample ID: MW3-ROX-071422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND	F1	200	308	F1	ug/L		154	43 - 150
Acrolein	ND		500	491		ug/L		98	38 - 150
Acrylonitrile	ND		500	597		ug/L		119	62 - 149
Benzene	ND		50.0	51.1		ug/L		102	56 - 142
Bromobenzene	ND		50.0	50.9		ug/L		102	59 - 136
Bromochloromethane	ND		50.0	53.6		ug/L		107	64 - 140
Bromodichloromethane	ND		50.0	51.2		ug/L		102	59 - 143
Bromoform	ND		50.0	63.6		ug/L		127	50 - 140
Bromomethane	ND		50.0	46.1		ug/L		92	10 - 150
2-Butanone (MEK)	ND		200	254		ug/L		127	55 - 150
Carbon disulfide	ND		50.0	50.8		ug/L		102	48 - 150
Carbon tetrachloride	ND		50.0	53.9		ug/L		108	55 - 145
Chlorobenzene	ND		50.0	51.9		ug/L		104	64 - 130
Dibromochloromethane	ND		50.0	59.4		ug/L		119	56 - 143
Chloroethane	ND		50.0	46.2		ug/L		92	50 - 150

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

Lab Sample ID: 400-223012-9 MS
Matrix: Water
Analysis Batch: 585577

Client Sample ID: MW3-ROX-071422
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	49.7		ug/L		99	60 - 141
1-Chlorohexane	ND		50.0	50.5		ug/L		101	56 - 136
Chloromethane	ND		50.0	45.4		ug/L		91	49 - 148
cis-1,2-Dichloroethene	ND		50.0	50.9		ug/L		102	59 - 143
cis-1,3-Dichloropropene	ND		50.0	53.0		ug/L		106	57 - 140
1,2-Dichlorobenzene	ND		50.0	52.7		ug/L		105	52 - 137
1,3-Dichlorobenzene	ND		50.0	54.2		ug/L		108	54 - 135
1,4-Dichlorobenzene	ND		50.0	52.9		ug/L		106	53 - 135
Dichlorodifluoromethane	ND		50.0	47.7		ug/L		95	16 - 150
1,1-Dichloroethane	ND		50.0	52.0		ug/L		104	61 - 144
1,2-Dichloroethane	ND		50.0	51.3		ug/L		103	60 - 141
1,1-Dichloroethene	ND		50.0	54.0		ug/L		108	54 - 147
1,2-Dichloropropane	ND		50.0	50.0		ug/L		100	66 - 137
1,3-Dichloropropane	ND		50.0	54.9		ug/L		110	66 - 133
2,2-Dichloropropane	ND		50.0	54.3		ug/L		109	42 - 144
1,1-Dichloropropene	ND		50.0	53.1		ug/L		106	65 - 136
Ethylbenzene	ND		50.0	51.7		ug/L		103	58 - 131
Ethyl methacrylate	ND		50.0	55.4		ug/L		111	64 - 130
Hexachlorobutadiene	ND		50.0	55.0		ug/L		110	31 - 149
2-Hexanone	ND		200	210		ug/L		105	65 - 140
Isopropy benzene	ND		50.0	52.0		ug/L		104	56 - 133
Methylene bromide	ND		50.0	51.3		ug/L		103	63 - 138
Methylene Chloride	ND		50.0	51.2		ug/L		102	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	231		ug/L		116	63 - 146
Methyl tert-butyl ether	0.85	J	50.0	56.7		ug/L		112	59 - 137
m-Xylene & p-Xylene	ND		50.0	52.1		ug/L		104	57 - 130
Naphthalene	ND		50.0	54.3		ug/L		109	25 - 150
n-Butylbenzene	ND		50.0	47.2		ug/L		94	41 - 142
N-Propylbenzene	ND		50.0	49.3		ug/L		99	51 - 138
o-Chlorotoluene	ND		50.0	47.4		ug/L		95	53 - 134
o-Xylene	ND		50.0	53.1		ug/L		106	61 - 130
p-Chlorotoluene	ND		50.0	49.7		ug/L		99	54 - 133
p-Isopropyltoluene	ND		50.0	49.8		ug/L		100	48 - 139
sec-Butylbenzene	ND		50.0	49.8		ug/L		100	50 - 138
Styrene	ND		50.0	50.3		ug/L		101	58 - 131
tert-Butylbenzene	ND		50.0	48.9		ug/L		98	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	54.1		ug/L		108	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	51.2		ug/L		102	66 - 135
Tetrachloroethene	ND		50.0	54.9		ug/L		110	52 - 133
Toluene	ND		50.0	51.5		ug/L		103	65 - 130
trans-1,2-Dichloroethene	ND		50.0	53.3		ug/L		107	61 - 143
trans-1,3-Dichloropropene	ND		50.0	54.1		ug/L		108	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	54.6		ug/L		109	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	54.4		ug/L		109	39 - 148
1,1,1-Trichloroethane	ND		50.0	54.0		ug/L		108	57 - 142
1,1,2-Trichloroethane	ND		50.0	52.8		ug/L		106	66 - 131
Trichloroethene	ND		50.0	54.9		ug/L		110	64 - 136
Trichlorofluoromethane	ND		50.0	49.2		ug/L		98	54 - 150

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

Lab Sample ID: 400-223012-9 MS
Matrix: Water
Analysis Batch: 585577

Client Sample ID: MW3-ROX-071422
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	52.1		ug/L		104	65 - 133
1,2,4-Trimethy benzene	ND		50.0	50.6		ug/L		101	50 - 139
1,3,5-Trimethy benzene	ND		50.0	49.5		ug/L		99	52 - 135
Vinyl acetate	ND		100	103		ug/L		103	26 - 150
Vinyl chloride	ND		50.0	46.3		ug/L		93	46 - 150
Xylenes, Total	ND		100	105		ug/L		105	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Lab Sample ID: 400-223012-9 MSD
Matrix: Water
Analysis Batch: 585577

Client Sample ID: MW3-ROX-071422
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	307	F1	ug/L		154	43 - 150	0	30
Acrolein	ND		500	529		ug/L		106	38 - 150	7	31
Acrylonitrile	ND		500	575		ug/L		115	62 - 149	4	30
Benzene	ND		50.0	48.0		ug/L		96	56 - 142	6	30
Bromobenzene	ND		50.0	45.2		ug/L		90	59 - 136	12	30
Bromochloromethane	ND		50.0	49.4		ug/L		99	64 - 140	8	30
Bromodichloromethane	ND		50.0	50.2		ug/L		100	59 - 143	2	30
Bromoform	ND		50.0	59.2		ug/L		118	50 - 140	7	30
Bromomethane	ND		50.0	52.9		ug/L		106	10 - 150	14	50
2-Butanone (MEK)	ND		200	214		ug/L		107	55 - 150	17	30
Carbon disulfide	ND		50.0	47.9		ug/L		96	48 - 150	6	30
Carbon tetrachloride	ND		50.0	52.9		ug/L		106	55 - 145	2	30
Chlorobenzene	ND		50.0	49.6		ug/L		99	64 - 130	5	30
Dibromochloromethane	ND		50.0	55.4		ug/L		111	56 - 143	7	30
Chloroethane	ND		50.0	47.9		ug/L		96	50 - 150	4	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	48.2		ug/L		96	60 - 141	3	30
1-Chlorohexane	ND		50.0	48.4		ug/L		97	56 - 136	4	30
Chloromethane	ND		50.0	48.4		ug/L		97	49 - 148	7	31
cis-1,2-Dichloroethene	ND		50.0	50.4		ug/L		101	59 - 143	1	30
cis-1,3-Dichloropropene	ND		50.0	50.1		ug/L		100	57 - 140	6	30
1,2-Dichlorobenzene	ND		50.0	45.2		ug/L		90	52 - 137	15	30
1,3-Dichlorobenzene	ND		50.0	47.5		ug/L		95	54 - 135	13	30
1,4-Dichlorobenzene	ND		50.0	44.0		ug/L		88	53 - 135	18	30
Dichlorodifluoromethane	ND		50.0	48.5		ug/L		97	16 - 150	2	31
1,1-Dichloroethane	ND		50.0	50.0		ug/L		100	61 - 144	4	30
1,2-Dichloroethane	ND		50.0	50.3		ug/L		101	60 - 141	2	30
1,1-Dichloroethene	ND		50.0	50.9		ug/L		102	54 - 147	6	30
1,2-Dichloropropane	ND		50.0	46.7		ug/L		93	66 - 137	7	30
1,3-Dichloropropane	ND		50.0	52.3		ug/L		105	66 - 133	5	30
2,2-Dichloropropane	ND		50.0	51.4		ug/L		103	42 - 144	6	31

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

Lab Sample ID: 400-223012-9 MSD
Matrix: Water
Analysis Batch: 585577

Client Sample ID: MW3-ROX-071422
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	50.0		ug/L		100	65 - 136	6	30
Ethylbenzene	ND		50.0	49.3		ug/L		99	58 - 131	5	30
Ethyl methacrylate	ND		50.0	53.3		ug/L		107	64 - 130	4	30
Hexachlorobutadiene	ND		50.0	45.3		ug/L		91	31 - 149	19	36
2-Hexanone	ND		200	210		ug/L		105	65 - 140	0	30
Isopropy benzene	ND		50.0	48.6		ug/L		97	56 - 133	7	30
Methylene bromide	ND		50.0	49.3		ug/L		99	63 - 138	4	30
Methylene Chloride	ND		50.0	50.3		ug/L		101	60 - 146	2	32
4-Methyl-2-pentanone (MIBK)	ND		200	223		ug/L		112	63 - 146	3	30
Methyl tert-butyl ether	0.85	J	50.0	53.3		ug/L		105	59 - 137	6	30
m-Xylene & p-Xylene	ND		50.0	49.1		ug/L		98	57 - 130	6	30
Naphthalene	ND		50.0	47.7		ug/L		95	25 - 150	13	30
n-Butylbenzene	ND		50.0	42.3		ug/L		85	41 - 142	11	31
N-Propylbenzene	ND		50.0	43.2		ug/L		86	51 - 138	13	30
o-Chlorotoluene	ND		50.0	43.7		ug/L		87	53 - 134	8	30
o-Xylene	ND		50.0	50.1		ug/L		100	61 - 130	6	30
p-Chlorotoluene	ND		50.0	43.5		ug/L		87	54 - 133	13	30
p-Isopropyltoluene	ND		50.0	44.1		ug/L		88	48 - 139	12	30
sec-Butylbenzene	ND		50.0	43.8		ug/L		88	50 - 138	13	30
Styrene	ND		50.0	48.7		ug/L		97	58 - 131	3	30
tert-Butylbenzene	ND		50.0	45.3		ug/L		91	54 - 146	8	30
1,1,1,2-Tetrachloroethane	ND		50.0	54.7		ug/L		109	59 - 137	1	30
1,1,2,2-Tetrachloroethane	ND		50.0	49.3		ug/L		99	66 - 135	4	30
Tetrachloroethene	ND		50.0	53.5		ug/L		107	52 - 133	3	30
Toluene	ND		50.0	50.1		ug/L		100	65 - 130	3	30
trans-1,2-Dichloroethene	ND		50.0	52.0		ug/L		104	61 - 143	3	30
trans-1,3-Dichloropropene	ND		50.0	51.6		ug/L		103	53 - 133	5	30
1,2,3-Trichlorobenzene	ND		50.0	44.5		ug/L		89	43 - 145	20	30
1,2,4-Trichlorobenzene	ND		50.0	43.0		ug/L		86	39 - 148	24	30
1,1,1-Trichloroethane	ND		50.0	50.5		ug/L		101	57 - 142	7	30
1,1,2-Trichloroethane	ND		50.0	53.2		ug/L		106	66 - 131	1	30
Trichloroethene	ND		50.0	52.1		ug/L		104	64 - 136	5	30
Trichlorofluoromethane	ND		50.0	53.2		ug/L		106	54 - 150	8	30
1,2,3-Trichloropropane	ND		50.0	51.4		ug/L		103	65 - 133	1	30
1,2,4-Trimethy benzene	ND		50.0	44.7		ug/L		89	50 - 139	12	30
1,3,5-Trimethy benzene	ND		50.0	44.5		ug/L		89	52 - 135	11	30
Vinyl acetate	ND		100	112		ug/L		112	26 - 150	8	33
Vinyl chloride	ND		50.0	50.8		ug/L		102	46 - 150	9	30
Xylenes, Total	ND		100	99.1		ug/L		99	59 - 130	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*72 - 119*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzenethiol	ND		10	1.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzoic acid	ND		30	7.3	ug/L		07/20/22 15:41	07/22/22 16:25	1
Benzyl alcohol	ND		10	2.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/20/22 15:41	07/22/22 16:25	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/20/22 15:41	07/22/22 16:25	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chloroaniline	ND		10	3.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Chlorophenol	ND		10	2.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dibenzofuran	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Diethyl phthalate	ND		10	0.24	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/20/22 15:41	07/22/22 16:25	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
1,4-Dioxane	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1
Hexachloroethane	ND		10	4.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
Indene	ND		10	1.0	ug/L		07/20/22 15:41	07/22/22 16:25	1
Isophorone	ND		10	0.14	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Methylphenol	ND		10	1.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Nitroaniline	ND		10	2.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
3-Nitroaniline	ND		10	1.8	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Nitroaniline	ND		10	1.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
Nitrobenzene	ND		10	0.13	ug/L		07/20/22 15:41	07/22/22 16:25	1
2-Nitrophenol	ND		10	5.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
4-Nitrophenol	ND		10	2.1	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/20/22 15:41	07/22/22 16:25	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/20/22 15:41	07/22/22 16:25	1
Pentachlorophenol	ND		20	1.4	ug/L		07/20/22 15:41	07/22/22 16:25	1
Phenol	ND		10	2.6	ug/L		07/20/22 15:41	07/22/22 16:25	1

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		07/20/22 15:41	07/22/22 16:25	1
Quinoline	ND		10	4.5	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/20/22 15:41	07/22/22 16:25	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/20/22 15:41	07/22/22 16:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
2-Fluorophenol	*49*		*13 - 113*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Phenol-d5	*67*		*17 - 127*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
Terphenyl-d14	*84*		*44 - 149*	*07/20/22 15:41*	*07/22/22 16:25*	*1*
2,4,6-Tribromophenol	*55*		*26 - 150*	*07/20/22 15:41*	*07/22/22 16:25*	*1*

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	89.9		ug/L		75	21 - 120
Benzoic acid	513	292		ug/L		57	10 - 144
Benzyl alcohol	120	96.2		ug/L		80	28 - 120
Bis(2-chloroethoxy)methane	120	88.0		ug/L		73	47 - 120
Bis(2-chloroethyl)ether	120	87.9		ug/L		73	44 - 120
bis (2-chloroisopropyl) ether	120	82.7		ug/L		69	33 - 121
Bis(2-ethylhexyl) phthalate	120	110		ug/L		92	52 - 147
4-Bromophenyl phenyl ether	120	111		ug/L		92	54 - 122
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133
4-Chloroaniline	120	66.0		ug/L		55	26 - 120
4-Chloro-3-methylphenol	120	102		ug/L		85	48 - 131
2-Chloronaphthalene	120	98.1		ug/L		82	52 - 121
2-Chlorophenol	120	94.2		ug/L		79	40 - 120
4-Chlorophenyl phenyl ether	120	99.4		ug/L		83	56 - 125
Dibenz[a,h]acridine	120	118		ug/L		99	31 - 150
Dibenzofuran	120	95.2		ug/L		79	56 - 122
3,3'-Dichlorobenzidine	160	226	*+	ug/L		141	36 - 132
2,4-Dichlorophenol	120	98.2		ug/L		82	49 - 120
Diethyl phthalate	120	96.9		ug/L		81	50 - 137
2,4-Dimethylphenol	120	94.7		ug/L		79	48 - 120
Dimethyl phthalate	120	99.3		ug/L		83	57 - 124
Di-n-butyl phthalate	120	116		ug/L		97	58 - 126
4,6-Dinitro-ortho-cresol	240	231		ug/L		96	23 - 148
2,4-Dinitrophenol	240	213		ug/L		89	10 - 150
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142
2,6-Dinitrotoluene	120	107		ug/L		89	55 - 130
Di-n-octyl phthalate	120	110		ug/L		92	57 - 138
1,4-Dioxane	120	65.2		ug/L		54	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	97.6		ug/L		81	45 - 124
Hexachlorobenzene	120	110		ug/L		92	52 - 129

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

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	120	85.0		ug/L		71	10 - 134
Hexachloroethane	120	75.9		ug/L		63	20 - 120
Indene	120	93.0		ug/L		78	49 - 120
Isophorone	120	89.9		ug/L		75	48 - 120
2-Methylphenol	120	95.5		ug/L		80	46 - 124
3 & 4 Methylphenol	120	90.5		ug/L		75	45 - 120
2-Nitroaniline	120	101		ug/L		84	51 - 145
3-Nitroaniline	120	105		ug/L		87	37 - 127
4-Nitroaniline	120	119		ug/L		99	36 - 137
Nitrobenzene	120	86.9		ug/L		72	45 - 120
2-Nitrophenol	120	78.3		ug/L		65	40 - 124
4-Nitrophenol	240	196		ug/L		82	23 - 146
N-Nitrosodimethylamine	120	91.2		ug/L		76	29 - 137
N-Nitrosodi-n-propylamine	120	90.7		ug/L		76	45 - 120
N-Nitrosodiphenylamine	119	109		ug/L		92	54 - 120
Pentachlorophenol	240	191		ug/L		80	31 - 130
Phenol	120	88.1		ug/L		73	11 - 120
Pyridine	240	145		ug/L		60	16 - 120
Quinoline	120	103		ug/L		86	49 - 130
2,4,5-Trichlorophenol	120	110		ug/L		91	51 - 136
2,4,6-Trichlorophenol	120	111		ug/L		92	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*67*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*91*		*26 - 150*

Lab Sample ID: LCS 400-585529/4-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	35.5		ug/L		30	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*46 - 124*
2-Fluorophenol	*76*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*87*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

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

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	96.5		ug/L		80	21 - 120	7	30
Benzoic acid			513	347		ug/L		68	10 - 144	17	30
Benzyl alcohol			120	102		ug/L		85	28 - 120	6	30
Bis(2-chloroethoxy)methane			120	92.5		ug/L		77	47 - 120	5	30
Bis(2-chloroethyl)ether			120	89.8		ug/L		75	44 - 120	2	30
bis (2-chloroisopropyl) ether			120	86.4		ug/L		72	33 - 121	4	30
Bis(2-ethylhexyl) phthalate			120	119		ug/L		99	52 - 147	7	30
4-Bromophenyl phenyl ether			120	120		ug/L		100	54 - 122	8	30
Butyl benzyl phthalate			120	111		ug/L		92	54 - 133	7	30
4-Chloroaniline			120	92.7	*1	ug/L		77	26 - 120	34	30
4-Chloro-3-methylphenol			120	107		ug/L		89	48 - 131	5	30
2-Chloronaphthalene			120	103		ug/L		86	52 - 121	5	30
2-Chlorophenol			120	91.5		ug/L		76	40 - 120	3	30
4-Chlorophenyl phenyl ether			120	105		ug/L		88	56 - 125	6	30
Dibenz[a,h]acridine			120	126		ug/L		105	31 - 150	6	30
Dibenzofuran			120	100		ug/L		84	56 - 122	5	30
3,3'-Dichlorobenzidine			160	247	*+	ug/L		154	36 - 132	9	30
2,4-Dichlorophenol			120	101		ug/L		84	49 - 120	3	30
Diethyl phthalate			120	103		ug/L		86	50 - 137	6	30
2,4-Dimethylphenol			120	98.7		ug/L		82	48 - 120	4	30
Dimethyl phthalate			120	107		ug/L		89	57 - 124	7	30
Di-n-butyl phthalate			120	121		ug/L		101	58 - 126	4	30
4,6-Dinitro-ortho-cresol			240	255		ug/L		106	23 - 148	10	30
2,4-Dinitrophenol			240	233		ug/L		97	10 - 150	9	30
2,4-Dinitrotoluene			120	116		ug/L		97	54 - 142	7	30
2,6-Dinitrotoluene			120	113		ug/L		94	55 - 130	6	30
Di-n-octyl phthalate			120	118		ug/L		98	57 - 138	7	30
1,4-Dioxane			120	64.5		ug/L		54	31 - 120	1	30
1,2-Diphenylhydrazine (as Azobenzene)			120	104		ug/L		86	45 - 124	6	30
Hexachlorobenzene			120	116		ug/L		97	52 - 129	5	30
Hexachlorocyclopentadiene			120	82.6		ug/L		69	10 - 134	3	30
Hexachloroethane			120	80.3		ug/L		67	20 - 120	6	30
Indene			120	101		ug/L		84	49 - 120	8	30
Isophorone			120	95.0		ug/L		79	48 - 120	6	30
2-Methylphenol			120	98.3		ug/L		82	46 - 124	3	30
3 & 4 Methylphenol			120	93.8		ug/L		78	45 - 120	4	30
2-Nitroaniline			120	110		ug/L		91	51 - 145	8	30
3-Nitroaniline			120	114		ug/L		95	37 - 127	9	30
4-Nitroaniline			120	128		ug/L		106	36 - 137	7	30
Nitrobenzene			120	91.2		ug/L		76	45 - 120	5	30
2-Nitrophenol			120	80.7		ug/L		67	40 - 124	3	30
4-Nitrophenol			240	214		ug/L		89	23 - 146	9	30
N-Nitrosodimethylamine			120	96.6		ug/L		81	29 - 137	6	30
N-Nitrosodi-n-propylamine			120	94.6		ug/L		79	45 - 120	4	30
N-Nitrosodiphenylamine			119	120		ug/L		101	54 - 120	10	30
Pentachlorophenol			240	209		ug/L		87	31 - 130	9	30
Phenol			120	89.3		ug/L		74	11 - 120	1	30
Pyridine			240	151		ug/L		63	16 - 120	4	30

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

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Quinoline			120	112		ug/L		94	49 - 130	8	30
2,4,5-Trichlorophenol			120	117		ug/L		98	51 - 136	7	30
2,4,6-Trichlorophenol			120	116		ug/L		96	50 - 127	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*81*		*46 - 124*
2-Fluorophenol	*57*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*93*		*26 - 150*

Lab Sample ID: LCSD 400-585529/5-A
Matrix: Water
Analysis Batch: 585828

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	5.09	J *- *1	ug/L		4	10 - 120	150	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*72*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*87*		*17 - 127*
Terphenyl-d14	*112*		*44 - 149*
2,4,6-Tribromophenol	*56*		*26 - 150*

Lab Sample ID: MB 400-586247/1-A
Matrix: Water
Analysis Batch: 587390

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 586247

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/26/22 13:58	08/03/22 16:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*07/26/22 13:58*	*08/03/22 16:05*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*07/26/22 13:58*	*08/03/22 16:05*	*1*
Terphenyl-d14	*111*		*44 - 149*	*07/26/22 13:58*	*08/03/22 16:05*	*1*

Lab Sample ID: LCS 400-586247/2-A
Matrix: Water
Analysis Batch: 587390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586247

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Bis(2-ethylhexyl) phthalate			120	118		ug/L		99	52 - 147		

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

Lab Sample ID: LCS 400-586247/2-A
Matrix: Water
Analysis Batch: 587390

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586247

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	80		46 - 124
Nitrobenzene-d5	86		36 - 126
Terphenyl-d14	106		44 - 149

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

Lab Sample ID: MB 400-585529/1-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/20/22 15:41	07/27/22 16:19	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/20/22 15:41	07/27/22 16:19	1
Anthracene	ND		0.20	0.032	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/20/22 15:41	07/27/22 16:19	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/20/22 15:41	07/27/22 16:19	1
Chrysene	ND		0.20	0.074	ug/L		07/20/22 15:41	07/27/22 16:19	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/20/22 15:41	07/27/22 16:19	1
Fluoranthene	ND		0.20	0.068	ug/L		07/20/22 15:41	07/27/22 16:19	1
Fluorene	ND		0.20	0.11	ug/L		07/20/22 15:41	07/27/22 16:19	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/20/22 15:41	07/27/22 16:19	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/20/22 15:41	07/27/22 16:19	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/20/22 15:41	07/27/22 16:19	1
Phenanthrene	ND		0.20	0.036	ug/L		07/20/22 15:41	07/27/22 16:19	1
Pyrene	ND		0.20	0.040	ug/L		07/20/22 15:41	07/27/22 16:19	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	99		15 - 122	07/20/22 15:41	07/27/22 16:19	1
Nitrobenzene-d5	96		19 - 130	07/20/22 15:41	07/27/22 16:19	1
Terphenyl-d14	114		33 - 138	07/20/22 15:41	07/27/22 16:19	1

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	114		ug/L		95	41 - 120
Acenaphthylene	120	114		ug/L		95	44 - 120
Anthracene	120	121		ug/L		101	49 - 120
Benzo[a]anthracene	120	121		ug/L		101	61 - 135
Benzo[a]pyrene	120	105		ug/L		88	52 - 120
Benzo[b]fluoranthene	120	126		ug/L		105	53 - 134
Benzo[g,h,i]perylene	120	104		ug/L		86	47 - 133
Benzo[k]fluoranthene	120	113		ug/L		94	57 - 134
Chrysene	120	102		ug/L		85	55 - 122

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

Lab Sample ID: LCS 400-585529/2-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenz(a,h)anthracene	120	126		ug/L		105	48 - 146
Fluoranthene	120	120		ug/L		100	54 - 128
Fluorene	120	120		ug/L		100	45 - 125
Indeno[1,2,3-cd]pyrene	120	115		ug/L		96	43 - 142
1-Methylnaphthalene	120	94.3		ug/L		79	41 - 120
2-Methylnaphthalene	120	91.6		ug/L		76	32 - 124
Phenanthrene	120	121		ug/L		101	48 - 120
Pyrene	120	115		ug/L		96	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*
Nitrobenzene-d5	*72*		*19 - 130*
Terphenyl-d14	*108*		*33 - 138*

Lab Sample ID: LCSD 400-585529/3-A
Matrix: Water
Analysis Batch: 586444

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585529

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	129		ug/L		107	41 - 120	12	56
Acenaphthylene	120	128		ug/L		106	44 - 120	11	56
Anthracene	120	140		ug/L		117	49 - 120	14	51
Benzo[a]anthracene	120	138		ug/L		115	61 - 135	13	49
Benzo[a]pyrene	120	123		ug/L		102	52 - 120	15	50
Benzo[b]fluoranthene	120	142		ug/L		118	53 - 134	12	54
Benzo[g,h,i]perylene	120	114		ug/L		95	47 - 133	10	50
Benzo[k]fluoranthene	120	131		ug/L		109	57 - 134	14	52
Chrysene	120	116		ug/L		97	55 - 122	13	50
Dibenz(a,h)anthracene	120	142		ug/L		118	48 - 146	12	50
Fluoranthene	120	138		ug/L		115	54 - 128	14	52
Fluorene	120	137		ug/L		114	45 - 125	14	56
Indeno[1,2,3-cd]pyrene	120	128		ug/L		107	43 - 142	11	51
1-Methylnaphthalene	120	102		ug/L		85	41 - 120	7	55
2-Methylnaphthalene	120	99.5		ug/L		83	32 - 124	8	57
Phenanthrene	120	138		ug/L		115	48 - 120	14	56
Pyrene	120	129		ug/L		108	48 - 132	12	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*104*		*15 - 122*
Nitrobenzene-d5	*91*		*19 - 130*
Terphenyl-d14	*110*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-586135/1-A
Matrix: Water
Analysis Batch: 586163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 586135

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/25/22 16:48	07/25/22 21:04	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		07/25/22 16:48	07/25/22 21:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*07/25/22 16:48*	*07/25/22 21:04*	*1*

Lab Sample ID: LCS 400-586135/2-A
Matrix: Water
Analysis Batch: 586163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586135

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.148	*+	ug/L		148	60 - 140		
1,2-D bromoethane			0.101	0.118		ug/L		117	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*91*		*51 - 149*

Lab Sample ID: LCSD 400-586135/3-A
Matrix: Water
Analysis Batch: 586163

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 586135

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.161	*+	ug/L		160	60 - 140	8	30
1,2-D bromoethane			0.101	0.126		ug/L		125	60 - 140	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*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
Melissa Remiger	25278
PO #	**GSAP Project ID**
60674381 – 3.3.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 7/14/22
PAGE: 1 of 2

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Heintz; M. Massa
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

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

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

REQUESTED ANALYSIS 60674381 – 3.3.2

FIELD NOTES: 0.6 cc 1.3 g IKS

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

400-223012 COC

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-071422-8260-B	7/14/2022	0000	Water	2					2	X			
	TB-ROX-071422-8011-B	7/14/2022	0000	Water	2					2		X		
	T12-ROX-071422	7/14/2022	0930	Water	6			2		8	X	X	X	X
	P59-ROX-071422	7/14/2022	1030	Water	6			2		8	X	X	X	X
	P58-ROX-071422	7/14/2022	1150	Water	6			2		8	X	X	X	X
	P58-ROX-071422-DUP	7/14/2022	1150	Water	6			2		8	X	X	X	X

7/14/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3930 5453, 5564 3930 5442	7/14/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 907	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 7/15/22	Time:

CUSTODY SEALS: 979473, 979472, 979471, 979470

Version: 11July22

8/4/2022

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: 7/14/2022
PO #	**GSAP Project ID**	PAGE: 2 of 2
60674381 – 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 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): J. Mayer, J. Nichols
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; andrei.zamfir@aecom.com

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

REQUESTED ANALYSIS
60674381 – 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-071422-8260-A	7/14/2022	0000	Water	2					2	X			
	TB-ROX-071422-8011-A	7/14/2022	0000	Water	2					2		X		
	MW3-ROX-071422	7/14/2022	0905	Water	6			2		8	X	X	X	X
	ROST4PZC-ROX-071422	7/14/2022	0950	Water	6			2		8	X	X	X	X
	MW2-ROX-071422	7/14/2022	1150	Water	6			2		8	X	X	X	X
	MW22-ROX-071422	7/14/2022	1255	Water	6			2		8	X	X	X	X
	MW22-ROX-071422-DUP	7/14/2022	1255	Water	6			2		8	X	X	X	X

Relinquished by: (Signature) *Joe Mayer*	Received by: (Signature) FEDEX: see page 1	Date: 7/14/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 907	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 7/15/22	Time:

CUSTODY SEALS: see page 1

Version 11July22

Page 85 of 87

8/4/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-223012-1

Login Number: 223012
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.6, 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").	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: 400-223012-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 3rd Quarter 2022 Data Review

Laboratory SDG: 400-223083-1-Rev.1

Data Reviewer: Melissa Remiger

Peer Reviewer: Andreia Vladimirescu

Date Reviewed: 9/13/2022

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

Sample Identification	Sample Identification
TB-ROX-071522-8260-B	TB-ROX-071522-8011-B
P93B-ROX-071522	P93B-ROX-071522-DUP
P93D-ROX-071522	TB-ROX-071522-8260-A
TB-ROX-071522-8011-A	P93A-ROX-071522
P57-ROX-071522	ROST4PZE-ROX-071522
ROST4PZE-ROX-071522-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 SVOCs were re-extracted outside extraction time criteria in samples P93D-ROX-071522 and P57-ROX-071522; bis(2-ethylhexyl) phthalate in sample ROST4PZE-ROX-071522 was also re-extracted outside of the extraction time criteria. Several SVOC and VOC by 8011 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. Results for fluorene, 1-methylnaphthalene, and 2-methylnaphthalene in field duplicate pair P93B-ROX-071522/P93B-ROX-071522-DUP were qualified as estimated (**UJ**/**J**) because the difference in results was greater than two times (2X) the reporting level. Several VOCs and PAHs in field duplicate pair ROST4PZE-ROX-071522/ROST4PZE-ROX-071522-DUP were qualified as estimated (**J**/**J**) due to field duplicate RPD above evaluation criteria, or because the difference in results was greater than two times (2X) the reporting level. VOCs in field duplicate pair P93B-ROX-071522/P93B-ROX-071522-DUP were diluted to bring target analytes into calibration range of the instrument. The continuing calibration verification (CCV) for dibenzofuran and benzo[b]fluoranthene was outside evaluation criteria, biased high. The CCV for 1,4-dioxane and pyridine, and the initial calibration verification for acenaphthene, 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 August 26, 2022 to correct a laboratory transcription error in sample ID P57-ROX-071522.

Three of 69 (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 samples P93D-ROX-071522 and P57-ROX-071522 were re-extracted 14 days outside extraction time criteria (7 days) due to initial failing surrogate recoveries. bis(2-Ethylhexyl) phthalate in sample ROST4PZE-ROX-071522 was also re-extracted 14 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. Professional judgement was used to qualify as estimated, however, not reject the out of holding time data. Holding time exceedances were not greater than two times (2X) criteria; data requiring qualification is summarized in the following table. SVOCs in sample P93D-ROX-071522 were reported from the initial run due to non-detect data in the re-extracted secondary run; qualifications due to surrogate recovery are reported in Section 6.0 of this data review.

Sample ID	Parameter	Analyte	Qualification
P57-ROX-071522 – RERA	SVOCs	All non-detects	**UJ**
P57-ROX-071522 – RERA	SVOCs	2,4-Dimethylphenol	**J**
P57-ROX-071522 – RERA	SVOCs	3 & 4 Methylphenol	**J**
ROST4PZE-ROX-071522 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**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 400-585779/4-A/5-A	SVOCs	Benzenethiol	**4/2**	**47**	10-120/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	Aniline	87/**2**	**189**	21-120/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	Benzoic acid	18/68	**118**	10-144/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	bis(2-Chloroethyl)ether	88/**160**	**58**	44-120/30
LCS/LCSD 400-587683/4-A/5-A	SVOCs	Benzenethiol	**1/5**	**126**	10-120/30
LCS/LCSD 400-587683/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	**134**/120	10	36-132/30
LCS/LCSD 586135/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**148/160**	8	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with

benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
P93B-ROX-071522	SVOCs	Aniline	**UJ**
P93B-ROX-071522	SVOCs	Benzenethiol	**UJ**
P93B-ROX-071522-DUP	SVOCs	Aniline	**UJ**
P93B-ROX-071522-DUP	SVOCs	Benzenethiol	**UJ**
P93D-ROX-071522	SVOCs	Aniline	**UJ**
P93D-ROX-071522	SVOCs	Benzenethiol	**UJ**
P93A-ROX-071522	SVOCs	Aniline	**UJ**
P93A-ROX-071522	SVOCs	Benzenethiol	**UJ**
ROST4PZE-ROX-071522	SVOCs	Aniline	**UJ**
ROST4PZE-ROX-071522	SVOCs	Benzenethiol	**UJ**
ROST4PZE-ROX-071522-DUP	SVOCs	Aniline	**UJ**
ROST4PZE-ROX-071522-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P93D-ROX-071522	SVOCs	2-Fluorophenol	**0**	13-113
P93D-ROX-071522	SVOCs	Phenol-d_5	**0.6**	17-127
P93D-ROX-071522	SVOCs	2,4,6-Tribromophenol	**0**	26-150
P57-ROX-071522	SVOCs	2-Fluorobiphenyl	**40**	46-124
P57-ROX-071522	SVOCs	Nitrobenzene-d_5	**31**	36-126
P57-ROX-071522	SVOCs	Terphenyl-d_{14}	**41**	44-149
P57-ROX-071522 – RERA	SVOCs	2-Fluorophenol	**5**	13-113
ROST4PZE-ROX-071522-DUP	SVOCs	2-Fluorophenol	**9**	13-113
MB 400-585779/1-A	SVOCs	2-Fluorophenol	**3**	13-113
MB 400-587683/1-A	SVOCs	2-Fluorophenol	**7**	13-113

Analytical data that required qualification based on surrogate data are included in the table below. Qualifications due to surrogate recoveries were not required if only one of three acid surrogate recoveries were outside evaluation criteria. SVOCs in sample P57-ROX-071522 were reported from the re-extracted secondary run due to non-detect data in the initial run; qualifications due to extraction time criteria were reported in Section 3.0 of this data review. Method blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-071522	SVOCs	Benzyl alcohol	**UJ**
P93D-ROX-071522	SVOCs	4-Chloro-3-methylphenol	**UJ**
P93D-ROX-071522	SVOCs	2-Chlorophenol	**UJ**
P93D-ROX-071522	SVOCs	2,4-Dichlorophenol	**UJ**

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-071522	SVOCs	2,4-Dimethylphenol	UJ
P93D-ROX-071522	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P93D-ROX-071522	SVOCs	2,4-Dinitrophenol	UJ
P93D-ROX-071522	SVOCs	2-Methylphenol	UJ
P93D-ROX-071522	SVOCs	3&4-Methylphenol	UJ
P93D-ROX-071522	SVOCs	2-Nitrophenol	UJ
P93D-ROX-071522	SVOCs	4-Nitrophenol	UJ
P93D-ROX-071522	SVOCs	Pentachlorophenol	UJ
P93D-ROX-071522	SVOCs	Phenol	UJ
P93D-ROX-071522	SVOCs	2,4,5-Trichlorophenol	UJ
P93D-ROX-071522	SVOCs	2,4,6-Trichlorophenol	UJ

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
P93B-ROX-071522	P93B-ROX-071522-DUP
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
P93B-ROX-071522	P93B-ROX-071522-DUP	PAHs	Fluorene	>2X RL	UJ/J
P93B-ROX-071522	P93B-ROX-071522-DUP	PAHs	1-Methylnaphthalene	>2X RL	UJ/J
P93B-ROX-071522	P93B-ROX-071522-DUP	PAHs	2-Methylnaphthalene	>2X RL	J/J
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	VOCs	Isopropylbenzene	27	J/J

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	VOCs	m & p-Xylene	**25**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	VOCs	N-Propylbenzene	**33**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	VOCs	1,2,4-Trimethylbenzene	**29**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	VOCs	1,3,5-Trimethylbenzene	**29**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	VOCs	Xylenes, total	**30**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	PAHs	Acenaphthene	**53**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	PAHs	Anthracene	**113**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	PAHs	Fluoranthene	**>2X RL**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	PAHs	Fluorene	**63**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	PAHs	2-Methylnaphthalene	**26**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	PAHs	Phenanthrene	**111**	**J/J**
ROST4PZE-ROX-071522	ROST4PZE-ROX-071522-DUP	PAHs	Pyrene	**>2X RL**	**J/J**

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 field duplicate pair P93B-ROX-071522/P93B-ROX-071522-DUP to bring benzene into calibration range of the instrument. VOCs were non-detect at a dilution factor of 2000X, with raised reporting limits of between 2,000 and 50,000 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 verification (CCV) for dibenzofuran and benzo[b]fluoranthene was outside evaluation criteria, biased high. The CCV for 1,4-dioxane and pyridine, and the initial calibration verification for acenaphthene, were outside evaluation criteria, biased low. Acenaphthene in in field duplicate pair ROST4PZE-ROX-071522/ROST4PZE-ROX-071522-DUP was previously qualified in Section 10.0 of this data review due to field duplicate RPD outside evaluation criteria; no further qualification is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93B-ROX-071522-DUP	SVOCs	Dibenzofuran	**J**
P93B-ROX-071522	SVOCs	1-4-Dioxane	**UJ**

Sample ID	Parameter	Analyte	Qualification
P93B-ROX-071522	SVOCs	Pyridine	**UJ**
P93D-ROX-071522	SVOCs	1-4-Dioxane	**UJ**
P93D-ROX-071522	SVOCs	Pyridine	**J**
P93A-ROX-071522	SVOCs	1-4-Dioxane	**UJ**
P93A-ROX-071522	SVOCs	Pyridine	**UJ**
ROST4PZE-ROX-071522	SVOCs	1-4-Dioxane	**UJ**
ROST4PZE-ROX-071522	SVOCs	Pyridine	**UJ**
ROST4PZE-ROX-071522-DUP	SVOCs	1-4-Dioxane	**UJ**
ROST4PZE-ROX-071522-DUP	SVOCs	Pyridine	**UJ**
P93B-ROX-071522	PAHs	Benzo[b]fluoranthene	**J**
ROST4PZE-ROX-071522	PAHs	Benzo[b]fluoranthene	**J**
P93B-ROX-071522	PAHs	Acenaphthene	**UJ**
P93B-ROX-071522-DUP	PAHs	Acenaphthene	**J**
P93D-ROX-071522	PAHs	Acenaphthene	**UJ**
P93A-ROX-071522	PAHs	Acenaphthene	**UJ**
P57-ROX-071522	PAHs	Acenaphthene	**J**

Additionally, VOCs in field duplicate pair P93B-ROX-071522/P93B-ROX-071522-DUP were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
P93B-ROX-071522	VOCs	All non-detects	**UJ**
P93B-ROX-071522-DUP	VOCs	All non-detects	**UJ**

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-223083-1
Client Project/Site: ROXANA QUARTERLY GW
Revision: 1

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
8/26/2022 7:50:00 AM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Sample Summary 6
Detection Summary 7
Client Sample Results 10
Definitions 46
Surrogate Summary 47
Method Summary 49
Chronicle 50
QC Association 56
QC Sample Results 59
Chain of Custody 75
Receipt Checklists 77
Certification Summary 78

Job ID: 400-223083-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-223083-1

Comments
Revised Report
Report revised to correct sample ID P57-ROX-071522 (400-223083-9).
Supersedes report dated 8-10-2022.

Receipt
The samples were received on 7/16/2022 11:18 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 0.0º C and 0.0º C.

GC/MS VOA
Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-071522-8260-B (400-223083-1), P93B-ROX-071522 (400-223083-3), P93B-ROX-071522-DUP (400-223083-4), P93D-ROX-071522 (400-223083-5), TB-ROX-071522-8260-A (400-223083-6), P93A-ROX-071522 (400-223083-8), P57-ROX-071522 (400-223083-9), ROST4PZE-ROX-071522 (400-223083-10) and ROST4PZE-ROX-071522-DUP (400-223083-11). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: P93B-ROX-071522 (400-223083-3) and P93B-ROX-071522-DUP (400-223083-4). Elevated reporting limits (RLs) are provided.

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

GC/MS Semi VOA
Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Benzoic acid, Aniline and Bis(2-chloroethyl)ether.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Bis(2-chloroethyl)ether. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-586042 recovered above the upper control limit for 2,4,6-Trichlorophenol, Di-n-butyl phthalate, 4-Chlorophenyl phenyl ether, Hexachlorobenzene, 2,4-Dinitrotoluene and Dibenzofuran. The samples associated with this CCV were less than the reporting limit for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-586042 recovered outside acceptance criteria, low biased, for 1,4-Dioxane 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 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-585779/1-A). These results have been reported and qualified.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-585779 and

Job ID: 400-223083-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

analytical batch 400-586042: Aniline. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-586255 recovered above the upper control limit for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, Bis(2-ethylhexyl) phthalate, Di-n-butyl phthalate, Butyl benzyl phthalate, 4-Chlorophenyl phenyl ether, Hexachlorobenzene, 2,4-Dichlorophenol, 2,4-Dinitrotoluene, Dibenzofuran 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 8270D: The continuing calibration verification (CCV) associated with batch 400-586255 recovered outside acceptance criteria, low biased, for 1,4-Dioxane 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 8270D: The continuing calibration verification (CCV) associated with batch 400-586255 recovered outside acceptance criteria, low biased, for 1,4-Dioxane . A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: 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: ROST4PZE-ROX-071522-DUP (400-223083-11). These results have been reported and qualified.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-587683 and analytical batch 400-588089 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-587683 and analytical batch 400-588089 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-587683 and analytical batch 400-588089 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. The analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-588089 recovered above the upper control limit for 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-588089 recovered outside acceptance criteria, low biased, for Pyridine, Hexachlorocyclopentadiene and 1,4-Dioxane. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: 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: P57-ROX-071522 (400-223083-9) and (MB 400-587683/1-A). These results have been reported and qualified.

Method 8270D: The sample was re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL) for the following sample: ROST4PZE-ROX-071522 (400-223083-10). Samples were re-prepared and/or re-analyzed outside holding time, and both sets of data have been reported.

Method 8270D: Surrogate recovery for the following samples were outside control limits: P93D-ROX-071522 (400-223083-5) and P57-ROX-071522 (400-223083-9). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results. Both sets of data have been reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-586295 recovered above the upper control limit for Benzo[b]fluoranthene. The samples associated with this CCV were not-detected above the reporting limit for the affected analytes; therefore, the data have been reported.

Job ID: 400-223083-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D LL: The initial calibration verification (ICV) analyzed in batch 400-586279 was outside method criteria for the following analyte(s): Acenaphthene. 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 400-586163 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-586163 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-586135 and analytical batch 400-586163 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

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

Job ID: 400-223083-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-223083-1	TB-ROX-071522-8260-B	Water	07/15/22 12:00	07/16/22 11:18
400-223083-2	TB-ROX-071522-8011-B	Water	07/15/22 12:00	07/16/22 11:18
400-223083-3	P93B-ROX-071522	Water	07/15/22 10:00	07/16/22 11:18
400-223083-4	P93B-ROX-071522-DUP	Water	07/15/22 10:00	07/16/22 11:18
400-223083-5	P93D-ROX-071522	Water	07/15/22 10:50	07/16/22 11:18
400-223083-6	TB-ROX-071522-8260-A	Water	07/15/22 12:00	07/16/22 11:18
400-223083-7	TB-ROX-071522-8011-A	Water	07/15/22 12:00	07/16/22 11:18
400-223083-8	P93A-ROX-071522	Water	07/15/22 09:50	07/16/22 11:18
400-223083-9	P57-ROX-071522	Water	07/15/22 10:45	07/16/22 11:18
400-223083-10	ROST4PZE-ROX-071522	Water	07/15/22 12:40	07/16/22 11:18
400-223083-11	ROST4PZE-ROX-071522-DUP	Water	07/15/22 12:40	07/16/22 11:18

Detection Summary

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

Job ID: 400-223083-1

Client Sample ID: TB-ROX-071522-8260-B — Lab Sample ID: 400-223083-1

No Detections.

Client Sample ID: TB-ROX-071522-8011-B — Lab Sample ID: 400-223083-2

No Detections.

Client Sample ID: P93B-ROX-071522 — Lab Sample ID: 400-223083-3

Analyte	Result	Qualifier		RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	1100000			5000	650	ug/L	5000		8260B	Total/NA
Benzo[a]anthracene	0.099	J		0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.18	J		0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.051	J		0.19	0.032	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.065	J		0.19	0.046	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.061	J		0.19	0.040	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.12	J	J	0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.041	J		0.19	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.040	J		0.19	0.037	ug/L	1		8270D LL	Total/NA
2,4-Dimethylphenol	5.0	J		9.3	3.3	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	1.2	J		19	0.36	ug/L	1		8270D	Total/NA
Phenol	320			9.3	2.4	ug/L	1		8270D	Total/NA

Client Sample ID: P93B-ROX-071522-DUP — Lab Sample ID: 400-223083-4

Analyte	Result	Qualifier		RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	1100000			5000	650	ug/L	5000		8260B	Total/NA
Acenaphthene	0.35			0.18	0.029	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.36			0.18	0.041	ug/L	1		8270D LL	Total/NA
Anthracene	0.046	J		0.18	0.029	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.082	J		0.18	0.042	ug/L	1		8270D LL	Total/NA
Fluorene	0.40		J	0.18	0.10	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	12		J	0.18	0.068	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	15		J	0.18	0.055	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.27			0.18	0.033	ug/L	1		8270D LL	Total/NA
Dibenzofuran	0.42	J		9.2	0.16	ug/L	1		8270D	Total/NA
Diethyl phthalate	1.5	J		9.2	0.22	ug/L	1		8270D	Total/NA
2,4-Dimethylphenol	5.4	J		9.2	3.2	ug/L	1		8270D	Total/NA
Indene	1.3	J		9.2	0.92	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	1.5	J		18	0.36	ug/L	1		8270D	Total/NA
Phenol	300			9.2	2.4	ug/L	1		8270D	Total/NA

Client Sample ID: P93D-ROX-071522 — Lab Sample ID: 400-223083-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.3		1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	1.0		1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.060	J	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.15	J	0.19	0.039	ug/L	1		8270D LL	Total/NA
Pyrene	0.039	J	0.19	0.037	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.83	J	9.4	0.22	ug/L	1		8270D	Total/NA
Pyridine	3.6	J	9.4	3.0	ug/L	1		8270D	Total/NA

Client Sample ID: TB-ROX-071522-8260-A — Lab Sample ID: 400-223083-6

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Pensacola

Detection Summary

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

Job ID: 400-223083-1

Client Sample ID: TB-ROX-071522-8011-A — Lab Sample ID: 400-223083-7

No Detections.

Client Sample ID: P93A-ROX-071522 — Lab Sample ID: 400-223083-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.050	J	0.19	0.044	ug/L	1		8270D LL	Total/NA

Client Sample ID: P57-ROX-071522 — Lab Sample ID: 400-223083-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	14		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	0.82	J	1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	24		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	1.5	J	5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	18		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	3.3		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	23		1.0	0.69	ug/L	1		8260B	Total/NA
sec-Butylbenzene	5.3		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	7.4		1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	4.0		1.0	0.41	ug/L	1		8260B	Total/NA
Xylenes, Total	1.8	J	10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	0.15	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Fluorene	0.27		0.19	0.10	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	9.6		0.19	0.070	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	12		0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.18	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
2,4-Dimethylphenol - RERA	23	H J	9.5	3.3	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol - RERA	1.5	J H J	19	0.37	ug/L	1		8270D	Total/NA

Client Sample ID: ROST4PZE-ROX-071522 — Lab Sample ID: 400-223083-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	21		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	200		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	8.9	J	1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	270	J	5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	110		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	13	J	1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	33		5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.8		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	1.2		1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	25		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	160	J	1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	24	J	1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	310	J	10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	5.0	J	0.19	0.031	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.65		0.19	0.043	ug/L	1		8270D LL	Total/NA
Anthracene	4.3	J	0.19	0.031	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.22		0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.18	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.059	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Chrysene	0.32		0.19	0.071	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.72	J	0.19	0.065	ug/L	1		8270D LL	Total/NA
Fluorene	4.6	J	0.19	0.11	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: ROST4PZE-ROX-071522 (Continued) — Lab Sample ID: 400-223083-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1-Methylnaphthalene	77		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	75	J	0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	19	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	1.7	J	0.19	0.038	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	54		9.6	4.8	ug/L	1		8270D	Total/NA
Dibenzofuran	3.6	J	9.6	0.16	ug/L	1		8270D	Total/NA
2,4-Dimethylphenol	24		9.6	3.4	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	2.1	J	19	0.37	ug/L	1		8270D	Total/NA
Phenol	2.6	J	9.6	2.5	ug/L	1		8270D	Total/NA

Client Sample ID: ROST4PZE-ROX-071522-DUP — Lab Sample ID: 400-223083-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	17		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	160		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	6.8	J	1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	210	J	5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	110		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	9.3	J	1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	26		5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.2		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	1.0		1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	20		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	120	J	1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	18	J	1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	230	J	10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	2.9	J	0.19	0.031	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.33		0.19	0.043	ug/L	1		8270D LL	Total/NA
Anthracene	1.2	J	0.19	0.031	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.095	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.17	J J	0.19	0.066	ug/L	1		8270D LL	Total/NA
Fluorene	2.4	J	0.19	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	66		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	58	J	0.19	0.058	ug/L	1		8270D LL	Total/NA
Phenanthrene	5.4	J	0.19	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.42	J	0.19	0.039	ug/L	1		8270D LL	Total/NA
Dibenzofuran	2.0	J	9.6	0.16	ug/L	1		8270D	Total/NA
2,4-Dimethylphenol	19		9.6	3.4	ug/L	1		8270D	Total/NA
Indene	3.2	J	9.6	0.96	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	1.7	J	19	0.38	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-223083-1

Client Sample ID: TB-ROX-071522-8260-B
Date Collected: 07/15/22 12:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 14:19	1
Acrolein	ND		20	3.3	ug/L			07/21/22 14:19	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 14:19	1
Benzene	ND		1.0	0.13	ug/L			07/21/22 14:19	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 14:19	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 14:19	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 14:19	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 14:19	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 14:19	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 14:19	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 14:19	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 14:19	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 14:19	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 14:19	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 14:19	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 14:19	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 14:19	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 14:19	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 14:19	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 14:19	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 14:19	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 14:19	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 14:19	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 14:19	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 14:19	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 14:19	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 14:19	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 14:19	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 14:19	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 14:19	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 14:19	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 14:19	1
Ethy benzene	ND		1.0	0.50	ug/L			07/21/22 14:19	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 14:19	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 14:19	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 14:19	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/21/22 14:19	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 14:19	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 14:19	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 14:19	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 14:19	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/21/22 14:19	1
Naphthalene	ND		5.0	3.0	ug/L			07/21/22 14:19	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 14:19	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/21/22 14:19	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 14:19	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 14:19	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 14:19	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/21/22 14:19	1

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

Job ID: 400-223083-1

Client Sample ID: TB-ROX-071522-8260-B
Date Collected: 07/15/22 12:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 14:19	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 14:19	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 14:19	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 14:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 14:19	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 14:19	1
Toluene	ND		1.0	0.41	ug/L			07/21/22 14:19	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 14:19	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 14:19	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 14:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 14:19	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 14:19	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 14:19	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 14:19	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 14:19	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 14:19	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/21/22 14:19	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/21/22 14:19	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 14:19	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 14:19	1
Xylenes, Total	ND		10	1.6	ug/L			07/21/22 14:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/21/22 14:19*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/21/22 14:19*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/21/22 14:19*	*1*

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

Job ID: 400-223083-1

Client Sample ID: TB-ROX-071522-8011-B
Date Collected: 07/15/22 12:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/25/22 16:48	07/26/22 02:15	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/25/22 16:48	07/26/22 02:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*07/25/22 16:48*	*07/26/22 02:15*	*1*

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

Job ID: 400-223083-1

Client Sample ID: P93B-ROX-071522
Date Collected: 07/15/22 10:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	UJ	50000	20000	ug/L			07/21/22 12:16	2000
Acrolein	ND		40000	6600	ug/L			07/21/22 12:16	2000
Acrylonitrile	ND		20000	5600	ug/L			07/21/22 12:16	2000
Bromobenzene	ND		2000	1100	ug/L			07/21/22 12:16	2000
Bromochloromethane	ND		2000	420	ug/L			07/21/22 12:16	2000
Bromodichloromethane	ND		2000	1000	ug/L			07/21/22 12:16	2000
Bromoform	ND		10000	500	ug/L			07/21/22 12:16	2000
Bromomethane	ND		2000	2000	ug/L			07/21/22 12:16	2000
2-Butanone (MEK)	ND		50000	5200	ug/L			07/21/22 12:16	2000
Carbon disulfide	ND		2000	1000	ug/L			07/21/22 12:16	2000
Carbon tetrachloride	ND		2000	380	ug/L			07/21/22 12:16	2000
Chlorobenzene	ND		2000	300	ug/L			07/21/22 12:16	2000
D bromochloromethane	ND		2000	480	ug/L			07/21/22 12:16	2000
Chloroethane	ND		2000	1500	ug/L			07/21/22 12:16	2000
2-Chloroethyl vinyl ether	ND		10000	4000	ug/L			07/21/22 12:16	2000
Chloroform	ND		2000	2000	ug/L			07/21/22 12:16	2000
1-Chlorohexane	ND		2000	640	ug/L			07/21/22 12:16	2000
Chloromethane	ND		2000	640	ug/L			07/21/22 12:16	2000
cis-1,2-Dichloroethene	ND		2000	400	ug/L			07/21/22 12:16	2000
cis-1,3-Dichloropropene	ND		10000	1000	ug/L			07/21/22 12:16	2000
1,2-Dichlorobenzene	ND		2000	1000	ug/L			07/21/22 12:16	2000
1,3-Dichlorobenzene	ND		2000	1100	ug/L			07/21/22 12:16	2000
1,4-Dichlorobenzene	ND		2000	1300	ug/L			07/21/22 12:16	2000
Dichlorodifluoromethane	ND		2000	1700	ug/L			07/21/22 12:16	2000
1,1-Dichloroethane	ND		2000	1000	ug/L			07/21/22 12:16	2000
1,2-Dichloroethane	ND		2000	380	ug/L			07/21/22 12:16	2000
1,1-Dichloroethene	ND		2000	1000	ug/L			07/21/22 12:16	2000
1,2-Dichloropropane	ND		2000	1000	ug/L			07/21/22 12:16	2000
1,3-Dichloropropane	ND		2000	1000	ug/L			07/21/22 12:16	2000
2,2-Dichloropropane	ND		2000	1000	ug/L			07/21/22 12:16	2000
1,1-Dichloropropene	ND		2000	1000	ug/L			07/21/22 12:16	2000
Ethy benzene	ND		2000	1000	ug/L			07/21/22 12:16	2000
Ethyl methacrylate	ND		2000	1200	ug/L			07/21/22 12:16	2000
Hexachlorobutadiene	ND		10000	1800	ug/L			07/21/22 12:16	2000
2-Hexanone	ND		50000	2800	ug/L			07/21/22 12:16	2000
Isopropylbenzene	ND		2000	1100	ug/L			07/21/22 12:16	2000
Methylene bromide	ND		10000	440	ug/L			07/21/22 12:16	2000
Methylene Chloride	ND		10000	6000	ug/L			07/21/22 12:16	2000
4-Methyl-2-pentanone (MIBK)	ND		50000	3600	ug/L			07/21/22 12:16	2000
Methyl tert-butyl ether	ND		2000	440	ug/L			07/21/22 12:16	2000
m-Xylene & p-Xylene	ND		10000	1300	ug/L			07/21/22 12:16	2000
Naphthalene	ND		10000	6000	ug/L			07/21/22 12:16	2000
n-Buty benzene	ND		2000	1500	ug/L			07/21/22 12:16	2000
N-Propy benzene	ND		2000	1400	ug/L			07/21/22 12:16	2000
o-Chlorotoluene	ND		2000	1100	ug/L			07/21/22 12:16	2000
o-Xylene	ND		10000	1200	ug/L			07/21/22 12:16	2000
p-Chlorotoluene	ND		2000	1100	ug/L			07/21/22 12:16	2000
p-Isopropyltoluene	ND		2000	1400	ug/L			07/21/22 12:16	2000
sec-Butylbenzene	ND		2000	1400	ug/L			07/21/22 12:16	2000

Client Sample ID: P93B-ROX-071522
Date Collected: 07/15/22 10:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	UJ	2000	2000	ug/L			07/21/22 12:16	2000
tert-Buty benzene	ND		2000	1300	ug/L			07/21/22 12:16	2000
1,1,1,2-Tetrachloroethane	ND		2000	320	ug/L			07/21/22 12:16	2000
1,1,2,2-Tetrachloroethane	ND		2000	1000	ug/L			07/21/22 12:16	2000
Tetrachloroethene	ND		2000	1800	ug/L			07/21/22 12:16	2000
Toluene	ND		2000	820	ug/L			07/21/22 12:16	2000
trans-1,2-Dichloroethene	ND		2000	1000	ug/L			07/21/22 12:16	2000
trans-1,3-Dichloropropene	ND		10000	400	ug/L			07/21/22 12:16	2000
1,2,3-Trichlorobenzene	ND		2000	1800	ug/L			07/21/22 12:16	2000
1,2,4-Trichlorobenzene	ND		2000	1600	ug/L			07/21/22 12:16	2000
1,1,1-Trichloroethane	ND		2000	360	ug/L			07/21/22 12:16	2000
1,1,2-Trichloroethane	ND		10000	420	ug/L			07/21/22 12:16	2000
Trichloroethene	ND		2000	300	ug/L			07/21/22 12:16	2000
Trichlorofluoromethane	ND		2000	1000	ug/L			07/21/22 12:16	2000
1,2,3-Trichloropropane	ND		10000	1700	ug/L			07/21/22 12:16	2000
1,2,4-Trimethylbenzene	ND		2000	1600	ug/L			07/21/22 12:16	2000
1,3,5-Trimethylbenzene	ND		2000	1100	ug/L			07/21/22 12:16	2000
Vinyl acetate	ND		50000	1900	ug/L			07/21/22 12:16	2000
Vinyl chloride	ND		2000	1000	ug/L			07/21/22 12:16	2000
Xylenes, Total	ND		20000	3200	ug/L			07/21/22 12:16	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*72 - 119*		*07/21/22 12:16*	*2000*
Dibromofluoromethane	*113*		*75 - 126*		*07/21/22 12:16*	*2000*
Toluene-d8 (Surr)	*101*		*64 - 132*		*07/21/22 12:16*	*2000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1100000**		5000	650	ug/L			07/21/22 17:53	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/21/22 17:53*	*5000*
Dibromofluoromethane	*107*		*75 - 126*		*07/21/22 17:53*	*5000*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/21/22 17:53*	*5000*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.19	0.030	ug/L		07/22/22 10:11	07/26/22 23:16	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/22/22 10:11	07/26/22 23:16	1
Anthracene	ND		0.19	0.030	ug/L		07/22/22 10:11	07/26/22 23:16	1
Benzo[a]anthracene	**0.099**	**J**	0.19	0.043	ug/L		07/22/22 10:11	07/26/22 23:16	1
Benzo[a]pyrene	**0.18**	**J**	0.19	0.039	ug/L		07/22/22 10:11	07/26/22 23:16	1
Benzo[b]fluoranthene	**0.051**	**J J**	0.19	0.032	ug/L		07/22/22 10:11	07/26/22 23:16	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/26/22 23:16	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		07/22/22 10:11	07/26/22 23:16	1
Chrysene	ND		0.19	0.069	ug/L		07/22/22 10:11	07/26/22 23:16	1
Dibenz(a,h)anthracene	**0.065**	**J**	0.19	0.046	ug/L		07/22/22 10:11	07/26/22 23:16	1
Fluoranthene	ND		0.19	0.063	ug/L		07/22/22 10:11	07/26/22 23:16	1
Fluorene	ND	UJ	0.19	0.10	ug/L		07/22/22 10:11	07/26/22 23:16	1
Indeno[1,2,3-cd]pyrene	**0.061**	**J**	0.19	0.040	ug/L		07/22/22 10:11	07/26/22 23:16	1

Client Sample ID: P93B-ROX-071522
Date Collected: 07/15/22 10:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND	UJ	0.19	0.069	ug/L		07/22/22 10:11	07/26/22 23:16	1
2-Methylnaphthalene	**0.12**	**J** J	0.19	0.056	ug/L		07/22/22 10:11	07/26/22 23:16	1
Phenanthrene	**0.041**	**J**	0.19	0.033	ug/L		07/22/22 10:11	07/26/22 23:16	1
Pyrene	**0.040**	**J**	0.19	0.037	ug/L		07/22/22 10:11	07/26/22 23:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*07/22/22 10:11*	*07/26/22 23:16*	*1*
Nitrobenzene-d5	*104*		*19 - 130*	*07/22/22 10:11*	*07/26/22 23:16*	*1*
Terphenyl-d14	*96*		*33 - 138*	*07/22/22 10:11*	*07/26/22 23:16*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.3	3.5	ug/L		07/22/22 10:11	07/25/22 22:18	1
Benzenethiol	ND	*- *1 UJ	9.3	1.6	ug/L		07/22/22 10:11	07/25/22 22:18	1
Benzoic acid	ND	*1	28	6.8	ug/L		07/22/22 10:11	07/25/22 22:18	1
Benzyl alcohol	ND		9.3	1.9	ug/L		07/22/22 10:11	07/25/22 22:18	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		07/22/22 10:11	07/25/22 22:18	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.3	2.5	ug/L		07/22/22 10:11	07/25/22 22:18	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		07/22/22 10:11	07/25/22 22:18	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.6	ug/L		07/22/22 10:11	07/25/22 22:18	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		07/22/22 10:11	07/25/22 22:18	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		07/22/22 10:11	07/25/22 22:18	1
4-Chloroaniline	ND		9.3	3.2	ug/L		07/22/22 10:11	07/25/22 22:18	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		07/22/22 10:11	07/25/22 22:18	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		07/22/22 10:11	07/25/22 22:18	1
2-Chlorophenol	ND		9.3	2.0	ug/L		07/22/22 10:11	07/25/22 22:18	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		07/22/22 10:11	07/25/22 22:18	1
D benz[a,h]acridine	ND		9.3	0.93	ug/L		07/22/22 10:11	07/25/22 22:18	1
D benzofuran	ND		9.3	0.16	ug/L		07/22/22 10:11	07/25/22 22:18	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		07/22/22 10:11	07/25/22 22:18	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		07/22/22 10:11	07/25/22 22:18	1
Diethyl phthalate	ND		9.3	0.22	ug/L		07/22/22 10:11	07/25/22 22:18	1
2,4-Dimethylphenol	**5.0**	**J**	9.3	3.3	ug/L		07/22/22 10:11	07/25/22 22:18	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		07/22/22 10:11	07/25/22 22:18	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		07/22/22 10:11	07/25/22 22:18	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		07/22/22 10:11	07/25/22 22:18	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/22/22 10:11	07/25/22 22:18	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		07/22/22 10:11	07/25/22 22:18	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		07/22/22 10:11	07/25/22 22:18	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		07/22/22 10:11	07/25/22 22:18	1
1,4-Dioxane	ND	UJ	9.3	0.93	ug/L		07/22/22 10:11	07/25/22 22:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		07/22/22 10:11	07/25/22 22:18	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		07/22/22 10:11	07/25/22 22:18	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/22/22 10:11	07/25/22 22:18	1
Hexachloroethane	ND		9.3	3.9	ug/L		07/22/22 10:11	07/25/22 22:18	1
Indene	ND		9.3	0.93	ug/L		07/22/22 10:11	07/25/22 22:18	1
Isophorone	ND		9.3	0.13	ug/L		07/22/22 10:11	07/25/22 22:18	1
2-Methylphenol	ND		9.3	1.7	ug/L		07/22/22 10:11	07/25/22 22:18	1
3 & 4 Methylphenol	**1.2**	**J**	19	0.36	ug/L		07/22/22 10:11	07/25/22 22:18	1

Client Sample ID: P93B-ROX-071522
Date Collected: 07/15/22 10:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.3	2.0	ug/L		07/22/22 10:11	07/25/22 22:18	1
3-Nitroaniline	ND		9.3	1.7	ug/L		07/22/22 10:11	07/25/22 22:18	1
4-Nitroaniline	ND		9.3	1.4	ug/L		07/22/22 10:11	07/25/22 22:18	1
Nitrobenzene	ND		9.3	0.12	ug/L		07/22/22 10:11	07/25/22 22:18	1
2-Nitrophenol	ND		9.3	4.8	ug/L		07/22/22 10:11	07/25/22 22:18	1
4-Nitrophenol	ND		9.3	2.0	ug/L		07/22/22 10:11	07/25/22 22:18	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		07/22/22 10:11	07/25/22 22:18	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		07/22/22 10:11	07/25/22 22:18	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		07/22/22 10:11	07/25/22 22:18	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/25/22 22:18	1
Phenol	**320**		9.3	2.4	ug/L		07/22/22 10:11	07/25/22 22:18	1
Pyridine	ND	UJ	9.3	3.0	ug/L		07/22/22 10:11	07/25/22 22:18	1
Quinoline	ND		9.3	4.2	ug/L		07/22/22 10:11	07/25/22 22:18	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		07/22/22 10:11	07/25/22 22:18	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		07/22/22 10:11	07/25/22 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*94*		*46 - 124*	*07/22/22 10:11*	*07/25/22 22:18*	*1*
2-Fluorophenol	*45*		*13 - 113*	*07/22/22 10:11*	*07/25/22 22:18*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/22/22 10:11*	*07/25/22 22:18*	*1*
Phenol-d5	*68*		*17 - 127*	*07/22/22 10:11*	*07/25/22 22:18*	*1*
Terphenyl-d14	*79*		*44 - 149*	*07/22/22 10:11*	*07/25/22 22:18*	*1*
2,4,6-Tribromophenol	*104*		*26 - 150*	*07/22/22 10:11*	*07/25/22 22:18*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		07/25/22 16:48	07/26/22 02:36	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/26/22 02:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*07/25/22 16:48*	*07/26/22 02:36*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: P93B-ROX-071522-DUP
Date Collected: 07/15/22 10:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	UJ	50000	20000	ug/L			07/21/22 12:40	2000
Acrolein	ND		40000	6600	ug/L			07/21/22 12:40	2000
Acrylonitrile	ND		20000	5600	ug/L			07/21/22 12:40	2000
Bromobenzene	ND		2000	1100	ug/L			07/21/22 12:40	2000
Bromochloromethane	ND		2000	420	ug/L			07/21/22 12:40	2000
Bromodichloromethane	ND		2000	1000	ug/L			07/21/22 12:40	2000
Bromoform	ND		10000	500	ug/L			07/21/22 12:40	2000
Bromomethane	ND		2000	2000	ug/L			07/21/22 12:40	2000
2-Butanone (MEK)	ND		50000	5200	ug/L			07/21/22 12:40	2000
Carbon disulfide	ND		2000	1000	ug/L			07/21/22 12:40	2000
Carbon tetrachloride	ND		2000	380	ug/L			07/21/22 12:40	2000
Chlorobenzene	ND		2000	300	ug/L			07/21/22 12:40	2000
D bromochloromethane	ND		2000	480	ug/L			07/21/22 12:40	2000
Chloroethane	ND		2000	1500	ug/L			07/21/22 12:40	2000
2-Chloroethyl vinyl ether	ND		10000	4000	ug/L			07/21/22 12:40	2000
Chloroform	ND		2000	2000	ug/L			07/21/22 12:40	2000
1-Chlorohexane	ND		2000	640	ug/L			07/21/22 12:40	2000
Chloromethane	ND		2000	640	ug/L			07/21/22 12:40	2000
cis-1,2-Dichloroethene	ND		2000	400	ug/L			07/21/22 12:40	2000
cis-1,3-Dichloropropene	ND		10000	1000	ug/L			07/21/22 12:40	2000
1,2-Dichlorobenzene	ND		2000	1000	ug/L			07/21/22 12:40	2000
1,3-Dichlorobenzene	ND		2000	1100	ug/L			07/21/22 12:40	2000
1,4-Dichlorobenzene	ND		2000	1300	ug/L			07/21/22 12:40	2000
Dichlorodifluoromethane	ND		2000	1700	ug/L			07/21/22 12:40	2000
1,1-Dichloroethane	ND		2000	1000	ug/L			07/21/22 12:40	2000
1,2-Dichloroethane	ND		2000	380	ug/L			07/21/22 12:40	2000
1,1-Dichloroethene	ND		2000	1000	ug/L			07/21/22 12:40	2000
1,2-Dichloropropane	ND		2000	1000	ug/L			07/21/22 12:40	2000
1,3-Dichloropropane	ND		2000	1000	ug/L			07/21/22 12:40	2000
2,2-Dichloropropane	ND		2000	1000	ug/L			07/21/22 12:40	2000
1,1-Dichloropropene	ND		2000	1000	ug/L			07/21/22 12:40	2000
Ethy benzene	ND		2000	1000	ug/L			07/21/22 12:40	2000
Ethyl methacrylate	ND		2000	1200	ug/L			07/21/22 12:40	2000
Hexachlorobutadiene	ND		10000	1800	ug/L			07/21/22 12:40	2000
2-Hexanone	ND		50000	2800	ug/L			07/21/22 12:40	2000
Isopropylbenzene	ND		2000	1100	ug/L			07/21/22 12:40	2000
Methylene bromide	ND		10000	440	ug/L			07/21/22 12:40	2000
Methylene Chloride	ND		10000	6000	ug/L			07/21/22 12:40	2000
4-Methyl-2-pentanone (MIBK)	ND		50000	3600	ug/L			07/21/22 12:40	2000
Methyl tert-butyl ether	ND		2000	440	ug/L			07/21/22 12:40	2000
m-Xylene & p-Xylene	ND		10000	1300	ug/L			07/21/22 12:40	2000
Naphthalene	ND		10000	6000	ug/L			07/21/22 12:40	2000
n-Buty benzene	ND		2000	1500	ug/L			07/21/22 12:40	2000
N-Propy benzene	ND		2000	1400	ug/L			07/21/22 12:40	2000
o-Chlorotoluene	ND		2000	1100	ug/L			07/21/22 12:40	2000
o-Xylene	ND		10000	1200	ug/L			07/21/22 12:40	2000
p-Chlorotoluene	ND		2000	1100	ug/L			07/21/22 12:40	2000
p-Isopropyltoluene	ND		2000	1400	ug/L			07/21/22 12:40	2000
sec-Butylbenzene	ND		2000	1400	ug/L			07/21/22 12:40	2000

Client Sample ID: P93B-ROX-071522-DUP
Date Collected: 07/15/22 10:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	UJ	2000	2000	ug/L			07/21/22 12:40	2000
tert-Buty benzene	ND		2000	1300	ug/L			07/21/22 12:40	2000
1,1,1,2-Tetrachloroethane	ND		2000	320	ug/L			07/21/22 12:40	2000
1,1,2,2-Tetrachloroethane	ND		2000	1000	ug/L			07/21/22 12:40	2000
Tetrachloroethene	ND		2000	1800	ug/L			07/21/22 12:40	2000
Toluene	ND		2000	820	ug/L			07/21/22 12:40	2000
trans-1,2-Dichloroethene	ND		2000	1000	ug/L			07/21/22 12:40	2000
trans-1,3-Dichloropropene	ND		10000	400	ug/L			07/21/22 12:40	2000
1,2,3-Trichlorobenzene	ND		2000	1800	ug/L			07/21/22 12:40	2000
1,2,4-Trichlorobenzene	ND		2000	1600	ug/L			07/21/22 12:40	2000
1,1,1-Trichloroethane	ND		2000	360	ug/L			07/21/22 12:40	2000
1,1,2-Trichloroethane	ND		10000	420	ug/L			07/21/22 12:40	2000
Trichloroethene	ND		2000	300	ug/L			07/21/22 12:40	2000
Trichlorofluoromethane	ND		2000	1000	ug/L			07/21/22 12:40	2000
1,2,3-Trichloropropane	ND		10000	1700	ug/L			07/21/22 12:40	2000
1,2,4-Trimethylbenzene	ND		2000	1600	ug/L			07/21/22 12:40	2000
1,3,5-Trimethylbenzene	ND		2000	1100	ug/L			07/21/22 12:40	2000
Vinyl acetate	ND		50000	1900	ug/L			07/21/22 12:40	2000
Vinyl chloride	ND		2000	1000	ug/L			07/21/22 12:40	2000
Xylenes, Total	ND		20000	3200	ug/L			07/21/22 12:40	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/21/22 12:40*	*2000*
Dibromofluoromethane	*110*		*75 - 126*		*07/21/22 12:40*	*2000*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/21/22 12:40*	*2000*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1100000**		5000	650	ug/L			07/21/22 18:21	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/21/22 18:21*	*5000*
Dibromofluoromethane	*113*		*75 - 126*		*07/21/22 18:21*	*5000*
Toluene-d8 (Surr)	*96*		*64 - 132*		*07/21/22 18:21*	*5000*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.35**	J	0.18	0.029	ug/L		07/22/22 10:11	07/26/22 23:31	1
Acenaphthylene	**0.36**		0.18	0.041	ug/L		07/22/22 10:11	07/26/22 23:31	1
Anthracene	**0.046**	J	0.18	0.029	ug/L		07/22/22 10:11	07/26/22 23:31	1
Benzo[a]anthracene	**0.082**	J	0.18	0.042	ug/L		07/22/22 10:11	07/26/22 23:31	1
Benzo[a]pyrene	ND		0.18	0.039	ug/L		07/22/22 10:11	07/26/22 23:31	1
Benzo[b]fluoranthene	ND		0.18	0.031	ug/L		07/22/22 10:11	07/26/22 23:31	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		07/22/22 10:11	07/26/22 23:31	1
Benzo[k]fluoranthene	ND		0.18	0.092	ug/L		07/22/22 10:11	07/26/22 23:31	1
Chrysene	ND		0.18	0.068	ug/L		07/22/22 10:11	07/26/22 23:31	1
D benz(a,h)anthracene	ND		0.18	0.046	ug/L		07/22/22 10:11	07/26/22 23:31	1
Fluoranthene	ND		0.18	0.063	ug/L		07/22/22 10:11	07/26/22 23:31	1
Fluorene	**0.40**	J	0.18	0.10	ug/L		07/22/22 10:11	07/26/22 23:31	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.040	ug/L		07/22/22 10:11	07/26/22 23:31	1

Client Sample ID: P93B-ROX-071522-DUP

Date Collected: 07/15/22 10:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-4

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**12**	J	0.18	0.068	ug/L		07/22/22 10:11	07/26/22 23:31	1
2-Methylnaphthalene	**15**	J	0.18	0.055	ug/L		07/22/22 10:11	07/26/22 23:31	1
Phenanthrene	**0.27**		0.18	0.033	ug/L		07/22/22 10:11	07/26/22 23:31	1
Pyrene	ND		0.18	0.037	ug/L		07/22/22 10:11	07/26/22 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*15 - 122*	*07/22/22 10:11*	*07/26/22 23:31*	*1*
Nitrobenzene-d5	*81*		*19 - 130*	*07/22/22 10:11*	*07/26/22 23:31*	*1*
Terphenyl-d14	*84*		*33 - 138*	*07/22/22 10:11*	*07/26/22 23:31*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.2	3.5	ug/L		07/22/22 10:11	07/25/22 22:44	1
Benzenethiol	ND	*- *1 UJ	9.2	1.6	ug/L		07/22/22 10:11	07/25/22 22:44	1
Benzoic acid	ND	*1	28	6.7	ug/L		07/22/22 10:11	07/25/22 22:44	1
Benzyl alcohol	ND		9.2	1.8	ug/L		07/22/22 10:11	07/25/22 22:44	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		07/22/22 10:11	07/25/22 22:44	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.2	2.5	ug/L		07/22/22 10:11	07/25/22 22:44	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		07/22/22 10:11	07/25/22 22:44	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		07/22/22 10:11	07/25/22 22:44	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		07/22/22 10:11	07/25/22 22:44	1
Butyl benzyl phthalate	ND		9.2	0.17	ug/L		07/22/22 10:11	07/25/22 22:44	1
4-Chloroaniline	ND		9.2	3.1	ug/L		07/22/22 10:11	07/25/22 22:44	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		07/22/22 10:11	07/25/22 22:44	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		07/22/22 10:11	07/25/22 22:44	1
2-Chlorophenol	ND		9.2	2.0	ug/L		07/22/22 10:11	07/25/22 22:44	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		07/22/22 10:11	07/25/22 22:44	1
D benz[a,h]acridine	ND		9.2	0.92	ug/L		07/22/22 10:11	07/25/22 22:44	1
Dibenzofuran	**0.42**	**J** J	9.2	0.16	ug/L		07/22/22 10:11	07/25/22 22:44	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		07/22/22 10:11	07/25/22 22:44	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		07/22/22 10:11	07/25/22 22:44	1
Diethyl phthalate	**1.5**	**J**	9.2	0.22	ug/L		07/22/22 10:11	07/25/22 22:44	1
2,4-Dimethylphenol	**5.4**	**J**	9.2	3.2	ug/L		07/22/22 10:11	07/25/22 22:44	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		07/22/22 10:11	07/25/22 22:44	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		07/22/22 10:11	07/25/22 22:44	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		07/22/22 10:11	07/25/22 22:44	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		07/22/22 10:11	07/25/22 22:44	1
2,4-Dinitrotoluene	ND		9.2	1.7	ug/L		07/22/22 10:11	07/25/22 22:44	1
2,6-Dinitrotoluene	ND		9.2	1.7	ug/L		07/22/22 10:11	07/25/22 22:44	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		07/22/22 10:11	07/25/22 22:44	1
1,4-Dioxane	ND		9.2	0.92	ug/L		07/22/22 10:11	07/25/22 22:44	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		07/22/22 10:11	07/25/22 22:44	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		07/22/22 10:11	07/25/22 22:44	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		07/22/22 10:11	07/25/22 22:44	1
Hexachloroethane	ND		9.2	3.9	ug/L		07/22/22 10:11	07/25/22 22:44	1
Indene	**1.3**	**J**	9.2	0.92	ug/L		07/22/22 10:11	07/25/22 22:44	1
Isophorone	ND		9.2	0.13	ug/L		07/22/22 10:11	07/25/22 22:44	1
2-Methylphenol	ND		9.2	1.7	ug/L		07/22/22 10:11	07/25/22 22:44	1
3 & 4 Methylphenol	**1.5**	**J**	18	0.36	ug/L		07/22/22 10:11	07/25/22 22:44	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: P93B-ROX-071522-DUP
Date Collected: 07/15/22 10:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.2	2.0	ug/L		07/22/22 10:11	07/25/22 22:44	1
3-Nitroaniline	ND		9.2	1.7	ug/L		07/22/22 10:11	07/25/22 22:44	1
4-Nitroaniline	ND		9.2	1.4	ug/L		07/22/22 10:11	07/25/22 22:44	1
Nitrobenzene	ND		9.2	0.12	ug/L		07/22/22 10:11	07/25/22 22:44	1
2-Nitrophenol	ND		9.2	4.8	ug/L		07/22/22 10:11	07/25/22 22:44	1
4-Nitrophenol	ND		9.2	1.9	ug/L		07/22/22 10:11	07/25/22 22:44	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		07/22/22 10:11	07/25/22 22:44	1
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		07/22/22 10:11	07/25/22 22:44	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		07/22/22 10:11	07/25/22 22:44	1
Pentachlorophenol	ND		18	1.3	ug/L		07/22/22 10:11	07/25/22 22:44	1
Phenol	**300**		9.2	2.4	ug/L		07/22/22 10:11	07/25/22 22:44	1
Pyridine	ND		9.2	2.9	ug/L		07/22/22 10:11	07/25/22 22:44	1
Quinoline	ND		9.2	4.1	ug/L		07/22/22 10:11	07/25/22 22:44	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		07/22/22 10:11	07/25/22 22:44	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		07/22/22 10:11	07/25/22 22:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*07/22/22 10:11*	*07/25/22 22:44*	*1*
2-Fluorophenol	*27*		*13 - 113*	*07/22/22 10:11*	*07/25/22 22:44*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*07/22/22 10:11*	*07/25/22 22:44*	*1*
Phenol-d5	*56*		*17 - 127*	*07/22/22 10:11*	*07/25/22 22:44*	*1*
Terphenyl-d14	*87*		*44 - 149*	*07/22/22 10:11*	*07/25/22 22:44*	*1*
2,4,6-Tribromophenol	*97*		*26 - 150*	*07/22/22 10:11*	*07/25/22 22:44*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		07/25/22 16:48	07/26/22 02:57	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/26/22 02:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*51 - 149*	*07/25/22 16:48*	*07/26/22 02:57*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: P93D-ROX-071522
Date Collected: 07/15/22 10:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 16:02	1
Acrolein	ND		20	3.3	ug/L			07/21/22 16:02	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 16:02	1
Benzene	**4.3**		1.0	0.13	ug/L			07/21/22 16:02	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 16:02	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 16:02	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 16:02	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 16:02	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 16:02	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 16:02	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 16:02	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 16:02	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 16:02	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 16:02	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 16:02	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 16:02	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 16:02	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 16:02	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 16:02	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 16:02	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 16:02	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 16:02	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 16:02	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 16:02	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 16:02	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 16:02	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 16:02	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 16:02	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:02	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:02	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:02	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 16:02	1
Ethy benzene	ND		1.0	0.50	ug/L			07/21/22 16:02	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 16:02	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 16:02	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 16:02	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/21/22 16:02	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 16:02	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 16:02	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 16:02	1
Methyl tert-butyl ether	**1.0**		1.0	0.22	ug/L			07/21/22 16:02	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/21/22 16:02	1
Naphthalene	ND		5.0	3.0	ug/L			07/21/22 16:02	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 16:02	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/21/22 16:02	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 16:02	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 16:02	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 16:02	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/21/22 16:02	1

Client Sample ID: P93D-ROX-071522
Date Collected: 07/15/22 10:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 16:02	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 16:02	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 16:02	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 16:02	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 16:02	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 16:02	1
Toluene	ND		1.0	0.41	ug/L			07/21/22 16:02	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 16:02	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 16:02	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 16:02	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 16:02	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 16:02	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 16:02	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 16:02	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 16:02	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 16:02	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/21/22 16:02	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/21/22 16:02	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 16:02	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 16:02	1
Xylenes, Total	ND		10	1.6	ug/L			07/21/22 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/21/22 16:02*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/21/22 16:02*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/21/22 16:02*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.19	0.030	ug/L		07/22/22 10:11	07/26/22 23:47	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/22/22 10:11	07/26/22 23:47	1
Anthracene	ND		0.19	0.030	ug/L		07/22/22 10:11	07/26/22 23:47	1
Benzo[a]anthracene	**0.060**	**J**	0.19	0.043	ug/L		07/22/22 10:11	07/26/22 23:47	1
Benzo[a]pyrene	**0.15**	**J**	0.19	0.039	ug/L		07/22/22 10:11	07/26/22 23:47	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/22/22 10:11	07/26/22 23:47	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/26/22 23:47	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/22/22 10:11	07/26/22 23:47	1
Chrysene	ND		0.19	0.069	ug/L		07/22/22 10:11	07/26/22 23:47	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/22/22 10:11	07/26/22 23:47	1
Fluoranthene	ND		0.19	0.064	ug/L		07/22/22 10:11	07/26/22 23:47	1
Fluorene	ND		0.19	0.10	ug/L		07/22/22 10:11	07/26/22 23:47	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		07/22/22 10:11	07/26/22 23:47	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		07/22/22 10:11	07/26/22 23:47	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		07/22/22 10:11	07/26/22 23:47	1
Phenanthrene	ND		0.19	0.034	ug/L		07/22/22 10:11	07/26/22 23:47	1
Pyrene	**0.039**	**J**	0.19	0.037	ug/L		07/22/22 10:11	07/26/22 23:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*15 - 122*	*07/22/22 10:11*	*07/26/22 23:47*	*1*
Nitrobenzene-d5	*92*		*19 - 130*	*07/22/22 10:11*	*07/26/22 23:47*	*1*

Client Sample ID: P93D-ROX-071522
Date Collected: 07/15/22 10:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*118*		*33 - 138*	*07/22/22 10:11*	*07/26/22 23:47*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.4	3.6	ug/L		07/22/22 10:11	07/26/22 21:34	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/22/22 10:11	07/26/22 21:34	1
Benzoic acid	ND	*1	28	6.8	ug/L		07/22/22 10:11	07/26/22 21:34	1
Benzyl alcohol	ND	UJ	9.4	1.9	ug/L		07/22/22 10:11	07/26/22 21:34	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/22/22 10:11	07/26/22 21:34	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.4	2.5	ug/L		07/22/22 10:11	07/26/22 21:34	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/22/22 10:11	07/26/22 21:34	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/22/22 10:11	07/26/22 21:34	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/22/22 10:11	07/26/22 21:34	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/22/22 10:11	07/26/22 21:34	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/22/22 10:11	07/26/22 21:34	1
4-Chloro-3-methylphenol	ND	UJ	9.4	3.6	ug/L		07/22/22 10:11	07/26/22 21:34	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/22/22 10:11	07/26/22 21:34	1
2-Chlorophenol	ND	UJ	9.4	2.1	ug/L		07/22/22 10:11	07/26/22 21:34	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/22/22 10:11	07/26/22 21:34	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 21:34	1
D benzofuran	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 21:34	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		07/22/22 10:11	07/26/22 21:34	1
2,4-Dichlorophenol	ND	UJ	9.4	2.8	ug/L		07/22/22 10:11	07/26/22 21:34	1
Diethyl phthalate	**0.83**	**J**	9.4	0.22	ug/L		07/22/22 10:11	07/26/22 21:34	1
2,4-Dimethylphenol	ND	UJ	9.4	3.3	ug/L		07/22/22 10:11	07/26/22 21:34	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 21:34	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/22/22 10:11	07/26/22 21:34	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.4	1.5	ug/L		07/22/22 10:11	07/26/22 21:34	1
2,4-Dinitrophenol	ND	UJ	28	3.2	ug/L		07/22/22 10:11	07/26/22 21:34	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/22/22 10:11	07/26/22 21:34	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/22/22 10:11	07/26/22 21:34	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 21:34	1
1,4-Dioxane	ND	UJ	9.4	0.94	ug/L		07/22/22 10:11	07/26/22 21:34	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 21:34	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 21:34	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/22/22 10:11	07/26/22 21:34	1
Hexachloroethane	ND		9.4	3.9	ug/L		07/22/22 10:11	07/26/22 21:34	1
Indene	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 21:34	1
Isophorone	ND		9.4	0.13	ug/L		07/22/22 10:11	07/26/22 21:34	1
2-Methylphenol	ND	UJ	9.4	1.7	ug/L		07/22/22 10:11	07/26/22 21:34	1
3 & 4 Methylphenol	ND	UJ	19	0.36	ug/L		07/22/22 10:11	07/26/22 21:34	1
2-Nitroaniline	ND		9.4	2.1	ug/L		07/22/22 10:11	07/26/22 21:34	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/22/22 10:11	07/26/22 21:34	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/22/22 10:11	07/26/22 21:34	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/22/22 10:11	07/26/22 21:34	1
2-Nitrophenol	ND	UJ	9.4	4.9	ug/L		07/22/22 10:11	07/26/22 21:34	1
4-Nitrophenol	ND	UJ	9.4	2.0	ug/L		07/22/22 10:11	07/26/22 21:34	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/22/22 10:11	07/26/22 21:34	1

Client Sample ID: P93D-ROX-071522

Date Collected: 07/15/22 10:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-5

Matrix: Water

Method: 8270D - 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		07/22/22 10:11	07/26/22 21:34	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/22/22 10:11	07/26/22 21:34	1
Pentachlorophenol	ND	UJ	19	1.3	ug/L		07/22/22 10:11	07/26/22 21:34	1
Phenol	ND	UJ	9.4	2.4	ug/L		07/22/22 10:11	07/26/22 21:34	1
Pyridine	**3.6**	**J** J	9.4	3.0	ug/L		07/22/22 10:11	07/26/22 21:34	1
Quinoline	ND		9.4	4.2	ug/L		07/22/22 10:11	07/26/22 21:34	1
2,4,5-Trichlorophenol	ND	UJ	9.4	3.5	ug/L		07/22/22 10:11	07/26/22 21:34	1
2,4,6-Trichlorophenol	ND	UJ	9.4	3.3	ug/L		07/22/22 10:11	07/26/22 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*94*		*46 - 124*	*07/22/22 10:11*	*07/26/22 21:34*	*1*
2-Fluorophenol	*0*	*S1-*	*13 - 113*	*07/22/22 10:11*	*07/26/22 21:34*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*07/22/22 10:11*	*07/26/22 21:34*	*1*
Phenol-d5	*0.6*	*S1-*	*17 - 127*	*07/22/22 10:11*	*07/26/22 21:34*	*1*
Terphenyl-d14	*115*		*44 - 149*	*07/22/22 10:11*	*07/26/22 21:34*	*1*
2,4,6-Tribromophenol	*0*	*S1-*	*26 - 150*	*07/22/22 10:11*	*07/26/22 21:34*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	H	9.4	3.6	ug/L		08/05/22 10:41	08/09/22 18:51	1
Benzenethiol	ND	H *- *1	9.4	1.6	ug/L		08/05/22 10:41	08/09/22 18:51	1
Benzoic acid	ND	H	28	6.9	ug/L		08/05/22 10:41	08/09/22 18:51	1
Benzyl alcohol	ND	H	9.4	1.9	ug/L		08/05/22 10:41	08/09/22 18:51	1
Bis(2-chloroethoxy)methane	ND	H	9.4	0.15	ug/L		08/05/22 10:41	08/09/22 18:51	1
Bis(2-chloroethyl)ether	ND	H	9.4	2.5	ug/L		08/05/22 10:41	08/09/22 18:51	1
bis (2-chloroisopropyl) ether	ND	H	9.4	0.15	ug/L		08/05/22 10:41	08/09/22 18:51	1
Bis(2-ethylhexyl) phthalate	ND	H	9.4	4.7	ug/L		08/05/22 10:41	08/09/22 18:51	1
4-Bromophenyl phenyl ether	ND	H	9.4	0.19	ug/L		08/05/22 10:41	08/09/22 18:51	1
Butyl benzyl phthalate	ND	H	9.4	0.18	ug/L		08/05/22 10:41	08/09/22 18:51	1
4-Chloroaniline	ND	H	9.4	3.2	ug/L		08/05/22 10:41	08/09/22 18:51	1
4-Chloro-3-methylphenol	ND	H	9.4	3.6	ug/L		08/05/22 10:41	08/09/22 18:51	1
2-Chloronaphthalene	ND	H	9.4	0.13	ug/L		08/05/22 10:41	08/09/22 18:51	1
2-Chlorophenol	ND	H	9.4	2.1	ug/L		08/05/22 10:41	08/09/22 18:51	1
4-Chlorophenyl phenyl ether	ND	H	9.4	1.9	ug/L		08/05/22 10:41	08/09/22 18:51	1
D benz[a,h]acridine	ND	H	9.4	0.94	ug/L		08/05/22 10:41	08/09/22 18:51	1
D benzofuran	ND	H	9.4	0.16	ug/L		08/05/22 10:41	08/09/22 18:51	1
3,3'-Dichlorobenzidine	ND	H *+	9.4	2.5	ug/L		08/05/22 10:41	08/09/22 18:51	1
2,4-Dichlorophenol	ND	H	9.4	2.8	ug/L		08/05/22 10:41	08/09/22 18:51	1
Diethyl phthalate	ND	H	9.4	0.23	ug/L		08/05/22 10:41	08/09/22 18:51	1
2,4-Dimethylphenol	ND	H	9.4	3.3	ug/L		08/05/22 10:41	08/09/22 18:51	1
Dimethyl phthalate	ND	H	9.4	0.16	ug/L		08/05/22 10:41	08/09/22 18:51	1
Di-n-butyl phthalate	ND	H	9.4	2.5	ug/L		08/05/22 10:41	08/09/22 18:51	1
4,6-Dinitro-ortho-cresol	ND	H	9.4	1.5	ug/L		08/05/22 10:41	08/09/22 18:51	1
2,4-Dinitrophenol	ND	H	28	3.2	ug/L		08/05/22 10:41	08/09/22 18:51	1
2,4-Dinitrotoluene	ND	H	9.4	1.8	ug/L		08/05/22 10:41	08/09/22 18:51	1
2,6-Dinitrotoluene	ND	H	9.4	1.8	ug/L		08/05/22 10:41	08/09/22 18:51	1
Di-n-octyl phthalate	ND	H	9.4	0.16	ug/L		08/05/22 10:41	08/09/22 18:51	1
1,4-Dioxane	ND	H	9.4	0.94	ug/L		08/05/22 10:41	08/09/22 18:51	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	H	9.4	0.94	ug/L		08/05/22 10:41	08/09/22 18:51	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: P93D-ROX-071522
Date Collected: 07/15/22 10:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND	H	9.4	0.16	ug/L		08/05/22 10:41	08/09/22 18:51	1
Hexachlorocyclopentadiene	ND	H	19	2.5	ug/L		08/05/22 10:41	08/09/22 18:51	1
Hexachloroethane	ND	H	9.4	4.0	ug/L		08/05/22 10:41	08/09/22 18:51	1
Indene	ND	H	9.4	0.94	ug/L		08/05/22 10:41	08/09/22 18:51	1
Isophorone	ND	H	9.4	0.13	ug/L		08/05/22 10:41	08/09/22 18:51	1
2-Methylphenol	ND	H	9.4	1.7	ug/L		08/05/22 10:41	08/09/22 18:51	1
3 & 4 Methylphenol	ND	H	19	0.37	ug/L		08/05/22 10:41	08/09/22 18:51	1
2-Nitroaniline	ND	H	9.4	2.1	ug/L		08/05/22 10:41	08/09/22 18:51	1
3-Nitroaniline	ND	H	9.4	1.7	ug/L		08/05/22 10:41	08/09/22 18:51	1
4-Nitroaniline	ND	H	9.4	1.4	ug/L		08/05/22 10:41	08/09/22 18:51	1
Nitrobenzene	ND	H	9.4	0.12	ug/L		08/05/22 10:41	08/09/22 18:51	1
2-Nitrophenol	ND	H	9.4	4.9	ug/L		08/05/22 10:41	08/09/22 18:51	1
4-Nitrophenol	ND	H	9.4	2.0	ug/L		08/05/22 10:41	08/09/22 18:51	1
N-Nitrosodimethylamine	ND	H	9.4	3.3	ug/L		08/05/22 10:41	08/09/22 18:51	1
N-Nitrosodi-n-propylamine	ND	H	9.4	3.1	ug/L		08/05/22 10:41	08/09/22 18:51	1
N-Nitrosodiphenylamine	ND	H	9.4	0.17	ug/L		08/05/22 10:41	08/09/22 18:51	1
Pentachlorophenol	ND	H	19	1.3	ug/L		08/05/22 10:41	08/09/22 18:51	1
Phenol	ND	H	9.4	2.5	ug/L		08/05/22 10:41	08/09/22 18:51	1
Pyridine	ND	H	9.4	3.0	ug/L		08/05/22 10:41	08/09/22 18:51	1
Quinoline	ND	H	9.4	4.2	ug/L		08/05/22 10:41	08/09/22 18:51	1
2,4,5-Trichlorophenol	ND	H	9.4	3.5	ug/L		08/05/22 10:41	08/09/22 18:51	1
2,4,6-Trichlorophenol	ND	H	9.4	3.3	ug/L		08/05/22 10:41	08/09/22 18:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*08/05/22 10:41*	*08/09/22 18:51*	*1*
2-Fluorophenol	*15*		*13 - 113*	*08/05/22 10:41*	*08/09/22 18:51*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*08/05/22 10:41*	*08/09/22 18:51*	*1*
Phenol-d5	*52*		*17 - 127*	*08/05/22 10:41*	*08/09/22 18:51*	*1*
Terphenyl-d14	*111*		*44 - 149*	*08/05/22 10:41*	*08/09/22 18:51*	*1*
2,4,6-Tribromophenol	*81*		*26 - 150*	*08/05/22 10:41*	*08/09/22 18:51*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/25/22 16:48	07/26/22 03:17	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/25/22 16:48	07/26/22 03:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*07/25/22 16:48*	*07/26/22 03:17*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: TB-ROX-071522-8260-A
Date Collected: 07/15/22 12:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 14:43	1
Acrolein	ND		20	3.3	ug/L			07/21/22 14:43	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 14:43	1
Benzene	ND		1.0	0.13	ug/L			07/21/22 14:43	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 14:43	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 14:43	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 14:43	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 14:43	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 14:43	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 14:43	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 14:43	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 14:43	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 14:43	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 14:43	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 14:43	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 14:43	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 14:43	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 14:43	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 14:43	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 14:43	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 14:43	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 14:43	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 14:43	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 14:43	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 14:43	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 14:43	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 14:43	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 14:43	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 14:43	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 14:43	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 14:43	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 14:43	1
Ethy benzene	ND		1.0	0.50	ug/L			07/21/22 14:43	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 14:43	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 14:43	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 14:43	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/21/22 14:43	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 14:43	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 14:43	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 14:43	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 14:43	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/21/22 14:43	1
Naphthalene	ND		5.0	3.0	ug/L			07/21/22 14:43	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 14:43	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/21/22 14:43	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 14:43	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 14:43	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 14:43	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/21/22 14:43	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: TB-ROX-071522-8260-A
Date Collected: 07/15/22 12:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 14:43	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 14:43	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 14:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 14:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 14:43	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 14:43	1
Toluene	ND		1.0	0.41	ug/L			07/21/22 14:43	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 14:43	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 14:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 14:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 14:43	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 14:43	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 14:43	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 14:43	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 14:43	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 14:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/21/22 14:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/21/22 14:43	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 14:43	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 14:43	1
Xylenes, Total	ND		10	1.6	ug/L			07/21/22 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/21/22 14:43*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*07/21/22 14:43*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/21/22 14:43*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: TB-ROX-071522-8011-A

Date Collected: 07/15/22 12:00
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-7

Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		07/25/22 16:48	07/26/22 03:38	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/25/22 16:48	07/26/22 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*51 - 149*	*07/25/22 16:48*	*07/26/22 03:38*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: P93A-ROX-071522
Date Collected: 07/15/22 09:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 15:11	1
Acrolein	ND		20	3.3	ug/L			07/21/22 15:11	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 15:11	1
Benzene	ND		1.0	0.13	ug/L			07/21/22 15:11	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 15:11	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 15:11	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 15:11	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 15:11	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 15:11	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 15:11	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 15:11	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 15:11	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 15:11	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 15:11	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 15:11	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 15:11	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 15:11	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 15:11	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 15:11	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 15:11	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 15:11	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 15:11	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 15:11	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 15:11	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 15:11	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 15:11	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 15:11	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 15:11	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 15:11	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 15:11	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 15:11	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 15:11	1
Ethy benzene	ND		1.0	0.50	ug/L			07/21/22 15:11	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 15:11	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 15:11	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 15:11	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/21/22 15:11	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 15:11	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 15:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 15:11	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 15:11	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/21/22 15:11	1
Naphthalene	ND		5.0	3.0	ug/L			07/21/22 15:11	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 15:11	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/21/22 15:11	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 15:11	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 15:11	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 15:11	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/21/22 15:11	1

Client Sample ID: P93A-ROX-071522
Date Collected: 07/15/22 09:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 15:11	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 15:11	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 15:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 15:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 15:11	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 15:11	1
Toluene	ND		1.0	0.41	ug/L			07/21/22 15:11	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 15:11	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 15:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 15:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 15:11	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 15:11	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 15:11	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 15:11	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 15:11	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 15:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/21/22 15:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/21/22 15:11	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 15:11	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 15:11	1
Xylenes, Total	ND		10	1.6	ug/L			07/21/22 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*72 - 119*		*07/21/22 15:11*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/21/22 15:11*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/21/22 15:11*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.19	0.030	ug/L		07/22/22 10:11	07/27/22 00:02	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/22/22 10:11	07/27/22 00:02	1
Anthracene	ND		0.19	0.030	ug/L		07/22/22 10:11	07/27/22 00:02	1
Benzo[a]anthracene	**0.050**	**J**	0.19	0.044	ug/L		07/22/22 10:11	07/27/22 00:02	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/22/22 10:11	07/27/22 00:02	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/22/22 10:11	07/27/22 00:02	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/27/22 00:02	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/22/22 10:11	07/27/22 00:02	1
Chrysene	ND		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 00:02	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/22/22 10:11	07/27/22 00:02	1
Fluoranthene	ND		0.19	0.064	ug/L		07/22/22 10:11	07/27/22 00:02	1
Fluorene	ND		0.19	0.10	ug/L		07/22/22 10:11	07/27/22 00:02	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/22/22 10:11	07/27/22 00:02	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 00:02	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/22/22 10:11	07/27/22 00:02	1
Phenanthrene	ND		0.19	0.034	ug/L		07/22/22 10:11	07/27/22 00:02	1
Pyrene	ND		0.19	0.038	ug/L		07/22/22 10:11	07/27/22 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*07/22/22 10:11*	*07/27/22 00:02*	*1*
Nitrobenzene-d5	*104*		*19 - 130*	*07/22/22 10:11*	*07/27/22 00:02*	*1*

Client Sample ID: P93A-ROX-071522

Date Collected: 07/15/22 09:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-8

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*126*		*33 - 138*	*07/22/22 10:11*	*07/27/22 00:02*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.5	3.6	ug/L		07/22/22 10:11	07/26/22 21:08	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/22/22 10:11	07/26/22 21:08	1
Benzoic acid	ND	*1	28	6.9	ug/L		07/22/22 10:11	07/26/22 21:08	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/22/22 10:11	07/26/22 21:08	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/22/22 10:11	07/26/22 21:08	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.5	2.6	ug/L		07/22/22 10:11	07/26/22 21:08	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/22/22 10:11	07/26/22 21:08	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		07/22/22 10:11	07/26/22 21:08	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/22/22 10:11	07/26/22 21:08	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/22/22 10:11	07/26/22 21:08	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/22/22 10:11	07/26/22 21:08	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/22/22 10:11	07/26/22 21:08	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/22/22 10:11	07/26/22 21:08	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/22/22 10:11	07/26/22 21:08	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/22/22 10:11	07/26/22 21:08	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 21:08	1
D benzofuran	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 21:08	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		07/22/22 10:11	07/26/22 21:08	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/22/22 10:11	07/26/22 21:08	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/22/22 10:11	07/26/22 21:08	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/22/22 10:11	07/26/22 21:08	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 21:08	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/22/22 10:11	07/26/22 21:08	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/22/22 10:11	07/26/22 21:08	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/22/22 10:11	07/26/22 21:08	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/22/22 10:11	07/26/22 21:08	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/22/22 10:11	07/26/22 21:08	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 21:08	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		07/22/22 10:11	07/26/22 21:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 21:08	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 21:08	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/22/22 10:11	07/26/22 21:08	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/22/22 10:11	07/26/22 21:08	1
Indene	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 21:08	1
Isophorone	ND		9.5	0.13	ug/L		07/22/22 10:11	07/26/22 21:08	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/22/22 10:11	07/26/22 21:08	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/22/22 10:11	07/26/22 21:08	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/22/22 10:11	07/26/22 21:08	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/22/22 10:11	07/26/22 21:08	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/22/22 10:11	07/26/22 21:08	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/22/22 10:11	07/26/22 21:08	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/22/22 10:11	07/26/22 21:08	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/22/22 10:11	07/26/22 21:08	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/22/22 10:11	07/26/22 21:08	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: P93A-ROX-071522
Date Collected: 07/15/22 09:50
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/22/22 10:11	07/26/22 21:08	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/22/22 10:11	07/26/22 21:08	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/26/22 21:08	1
Phenol	ND		9.5	2.5	ug/L		07/22/22 10:11	07/26/22 21:08	1
Pyridine	ND	UJ	9.5	3.0	ug/L		07/22/22 10:11	07/26/22 21:08	1
Quinoline	ND		9.5	4.3	ug/L		07/22/22 10:11	07/26/22 21:08	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/22/22 10:11	07/26/22 21:08	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/22/22 10:11	07/26/22 21:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*46 - 124*	*07/22/22 10:11*	*07/26/22 21:08*	*1*
2-Fluorophenol	*27*		*13 - 113*	*07/22/22 10:11*	*07/26/22 21:08*	*1*
Nitrobenzene-d5	*69*		*36 - 126*	*07/22/22 10:11*	*07/26/22 21:08*	*1*
Phenol-d5	*56*		*17 - 127*	*07/22/22 10:11*	*07/26/22 21:08*	*1*
Terphenyl-d14	*112*		*44 - 149*	*07/22/22 10:11*	*07/26/22 21:08*	*1*
2,4,6-Tribromophenol	*111*		*26 - 150*	*07/22/22 10:11*	*07/26/22 21:08*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/25/22 16:48	07/26/22 03:59	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		07/25/22 16:48	07/26/22 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*07/25/22 16:48*	*07/26/22 03:59*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: P57-ROX-071522
Date Collected: 07/15/22 10:45
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 15:38	1
Acrolein	ND		20	3.3	ug/L			07/21/22 15:38	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 15:38	1
Benzene	**14**		1.0	0.13	ug/L			07/21/22 15:38	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 15:38	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 15:38	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 15:38	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 15:38	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 15:38	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 15:38	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 15:38	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 15:38	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 15:38	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 15:38	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 15:38	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 15:38	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 15:38	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 15:38	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 15:38	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 15:38	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 15:38	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 15:38	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 15:38	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 15:38	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 15:38	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 15:38	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 15:38	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 15:38	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 15:38	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 15:38	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 15:38	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 15:38	1
Ethylbenzene	**0.82**	**J**	1.0	0.50	ug/L			07/21/22 15:38	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 15:38	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 15:38	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 15:38	1
Isopropylbenzene	**24**		1.0	0.53	ug/L			07/21/22 15:38	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 15:38	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 15:38	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 15:38	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 15:38	1
m-Xylene & p-Xylene	**1.5**	**J**	5.0	0.63	ug/L			07/21/22 15:38	1
Naphthalene	**18**		5.0	3.0	ug/L			07/21/22 15:38	1
n-Butylbenzene	**3.3**		1.0	0.76	ug/L			07/21/22 15:38	1
N-Propylbenzene	**23**		1.0	0.69	ug/L			07/21/22 15:38	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 15:38	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 15:38	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 15:38	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/21/22 15:38	1

Client Sample ID: P57-ROX-071522
Date Collected: 07/15/22 10:45
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-9
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**5.3**		1.0	0.70	ug/L			07/21/22 15:38	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 15:38	1
tert-Butylbenzene	**7.4**		1.0	0.63	ug/L			07/21/22 15:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 15:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 15:38	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 15:38	1
Toluene	**4.0**		1.0	0.41	ug/L			07/21/22 15:38	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 15:38	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 15:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 15:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 15:38	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 15:38	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 15:38	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 15:38	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 15:38	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 15:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/21/22 15:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/21/22 15:38	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 15:38	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 15:38	1
Xylenes, Total	**1.8**	**J**	10	1.6	ug/L			07/21/22 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/21/22 15:38*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*07/21/22 15:38*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/21/22 15:38*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.15**	**J** J	0.19	0.030	ug/L		07/22/22 10:11	07/27/22 00:18	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/22/22 10:11	07/27/22 00:18	1
Anthracene	ND		0.19	0.030	ug/L		07/22/22 10:11	07/27/22 00:18	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		07/22/22 10:11	07/27/22 00:18	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/22/22 10:11	07/27/22 00:18	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/22/22 10:11	07/27/22 00:18	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/27/22 00:18	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/22/22 10:11	07/27/22 00:18	1
Chrysene	ND		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 00:18	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/22/22 10:11	07/27/22 00:18	1
Fluoranthene	ND		0.19	0.065	ug/L		07/22/22 10:11	07/27/22 00:18	1
Fluorene	**0.27**		0.19	0.10	ug/L		07/22/22 10:11	07/27/22 00:18	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/22/22 10:11	07/27/22 00:18	1
1-Methylnaphthalene	**9.6**		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 00:18	1
2-Methylnaphthalene	**12**		0.19	0.057	ug/L		07/22/22 10:11	07/27/22 00:18	1
Phenanthrene	**0.18**	**J**	0.19	0.034	ug/L		07/22/22 10:11	07/27/22 00:18	1
Pyrene	ND		0.19	0.038	ug/L		07/22/22 10:11	07/27/22 00:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*44*		*15 - 122*	*07/22/22 10:11*	*07/27/22 00:18*	*1*
Nitrobenzene-d5	*33*		*19 - 130*	*07/22/22 10:11*	*07/27/22 00:18*	*1*

Client Sample ID: P57-ROX-071522
Date Collected: 07/15/22 10:45
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-9
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*45*		*33 - 138*	*07/22/22 10:11*	*07/27/22 00:18*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1	9.5	3.6	ug/L		07/22/22 10:11	07/26/22 20:42	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		07/22/22 10:11	07/26/22 20:42	1
Benzoic acid	ND	*1	29	6.9	ug/L		07/22/22 10:11	07/26/22 20:42	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/22/22 10:11	07/26/22 20:42	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/22/22 10:11	07/26/22 20:42	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.5	2.6	ug/L		07/22/22 10:11	07/26/22 20:42	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/22/22 10:11	07/26/22 20:42	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		07/22/22 10:11	07/27/22 15:14	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/22/22 10:11	07/27/22 15:14	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/22/22 10:11	07/27/22 15:14	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/22/22 10:11	07/26/22 20:42	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/22/22 10:11	07/26/22 20:42	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/22/22 10:11	07/26/22 20:42	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/22/22 10:11	07/26/22 20:42	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/22/22 10:11	07/27/22 15:14	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 20:42	1
D benzofuran	ND		9.5	0.16	ug/L		07/22/22 10:11	07/27/22 15:14	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		07/22/22 10:11	07/26/22 20:42	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		07/22/22 10:11	07/27/22 15:14	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/22/22 10:11	07/26/22 20:42	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/22/22 10:11	07/26/22 20:42	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 20:42	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/22/22 10:11	07/27/22 15:14	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/22/22 10:11	07/26/22 20:42	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		07/22/22 10:11	07/26/22 20:42	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/22/22 10:11	07/27/22 15:14	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/22/22 10:11	07/26/22 20:42	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 20:42	1
1,4-Dioxane	ND		9.5	0.95	ug/L		07/22/22 10:11	07/27/22 15:14	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 20:42	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/22/22 10:11	07/27/22 15:14	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/22/22 10:11	07/26/22 20:42	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/22/22 10:11	07/26/22 20:42	1
Indene	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 20:42	1
Isophorone	ND		9.5	0.13	ug/L		07/22/22 10:11	07/26/22 20:42	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/22/22 10:11	07/26/22 20:42	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/22/22 10:11	07/26/22 20:42	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/22/22 10:11	07/26/22 20:42	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/22/22 10:11	07/26/22 20:42	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/22/22 10:11	07/26/22 20:42	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/22/22 10:11	07/26/22 20:42	1
2-Nitrophenol	ND		9.5	5.0	ug/L		07/22/22 10:11	07/26/22 20:42	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/22/22 10:11	07/26/22 20:42	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/22/22 10:11	07/26/22 20:42	1

Client Sample ID: P57-ROX-071522

Date Collected: 07/15/22 10:45
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-9

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/22/22 10:11	07/26/22 20:42	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/22/22 10:11	07/26/22 20:42	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/26/22 20:42	1
Phenol	ND		9.5	2.5	ug/L		07/22/22 10:11	07/26/22 20:42	1
Pyridine	ND		9.5	3.0	ug/L		07/22/22 10:11	07/27/22 15:14	1
Quinoline	ND		9.5	4.3	ug/L		07/22/22 10:11	07/26/22 20:42	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/22/22 10:11	07/27/22 15:14	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/22/22 10:11	07/27/22 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*40*	*S1-*	*46 - 124*	*07/22/22 10:11*	*07/26/22 20:42*	*1*
2-Fluorophenol	*13*		*13 - 113*	*07/22/22 10:11*	*07/26/22 20:42*	*1*
Nitrobenzene-d5	*31*	*S1-*	*36 - 126*	*07/22/22 10:11*	*07/26/22 20:42*	*1*
Phenol-d5	*27*		*17 - 127*	*07/22/22 10:11*	*07/26/22 20:42*	*1*
Terphenyl-d14	*41*	*S1-*	*44 - 149*	*07/22/22 10:11*	*07/26/22 20:42*	*1*
2,4,6-Tribromophenol	*48*		*26 - 150*	*07/22/22 10:11*	*07/26/22 20:42*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	H UJ	9.5	3.6	ug/L		08/05/22 10:41	08/09/22 19:13	1
Benzenethiol	ND	H *- *1	9.5	1.6	ug/L		08/05/22 10:41	08/09/22 19:13	1
Benzoic acid	ND	H	29	7.0	ug/L		08/05/22 10:41	08/09/22 19:13	1
Benzyl alcohol	ND	H	9.5	1.9	ug/L		08/05/22 10:41	08/09/22 19:13	1
Bis(2-chloroethoxy)methane	ND	H	9.5	0.15	ug/L		08/05/22 10:41	08/09/22 19:13	1
Bis(2-chloroethyl)ether	ND	H	9.5	2.6	ug/L		08/05/22 10:41	08/09/22 19:13	1
bis (2-chloroisopropyl) ether	ND	H	9.5	0.15	ug/L		08/05/22 10:41	08/09/22 19:13	1
Bis(2-ethylhexyl) phthalate	ND	H	9.5	4.8	ug/L		08/05/22 10:41	08/09/22 19:13	1
4-Bromophenyl phenyl ether	ND	H	9.5	0.19	ug/L		08/05/22 10:41	08/09/22 19:13	1
Butyl benzyl phthalate	ND	H	9.5	0.18	ug/L		08/05/22 10:41	08/09/22 19:13	1
4-Chloroaniline	ND	H	9.5	3.2	ug/L		08/05/22 10:41	08/09/22 19:13	1
4-Chloro-3-methylphenol	ND	H	9.5	3.6	ug/L		08/05/22 10:41	08/09/22 19:13	1
2-Chloronaphthalene	ND	H	9.5	0.13	ug/L		08/05/22 10:41	08/09/22 19:13	1
2-Chlorophenol	ND	H	9.5	2.1	ug/L		08/05/22 10:41	08/09/22 19:13	1
4-Chlorophenyl phenyl ether	ND	H	9.5	1.9	ug/L		08/05/22 10:41	08/09/22 19:13	1
D benz[a,h]acridine	ND	H	9.5	0.95	ug/L		08/05/22 10:41	08/09/22 19:13	1
D benzofuran	ND	H	9.5	0.16	ug/L		08/05/22 10:41	08/09/22 19:13	1
3,3'-Dichlorobenzidine	ND	H *+	9.5	2.5	ug/L		08/05/22 10:41	08/09/22 19:13	1
2,4-Dichlorophenol	ND	H	9.5	2.9	ug/L		08/05/22 10:41	08/09/22 19:13	1
Diethyl phthalate	ND	H	9.5	0.23	ug/L		08/05/22 10:41	08/09/22 19:13	1
2,4-Dimethylphenol	**23**	**H J**	9.5	3.3	ug/L		08/05/22 10:41	08/09/22 19:13	1
Dimethyl phthalate	ND	H UJ	9.5	0.16	ug/L		08/05/22 10:41	08/09/22 19:13	1
Di-n-butyl phthalate	ND	H	9.5	2.6	ug/L		08/05/22 10:41	08/09/22 19:13	1
4,6-Dinitro-ortho-cresol	ND	H	9.5	1.5	ug/L		08/05/22 10:41	08/09/22 19:13	1
2,4-Dinitrophenol	ND	H	29	3.2	ug/L		08/05/22 10:41	08/09/22 19:13	1
2,4-Dinitrotoluene	ND	H	9.5	1.8	ug/L		08/05/22 10:41	08/09/22 19:13	1
2,6-Dinitrotoluene	ND	H	9.5	1.8	ug/L		08/05/22 10:41	08/09/22 19:13	1
Di-n-octyl phthalate	ND	H	9.5	0.16	ug/L		08/05/22 10:41	08/09/22 19:13	1
1,4-Dioxane	ND	H	9.5	0.95	ug/L		08/05/22 10:41	08/09/22 19:13	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	H	9.5	0.95	ug/L		08/05/22 10:41	08/09/22 19:13	1

Client Sample ID: P57-ROX-071522

Date Collected: 07/15/22 10:45
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-9

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND	H UJ	9.5	0.16	ug/L		08/05/22 10:41	08/09/22 19:13	1
Hexachlorocyclopentadiene	ND	H	19	2.5	ug/L		08/05/22 10:41	08/09/22 19:13	1
Hexachloroethane	ND	H	9.5	4.0	ug/L		08/05/22 10:41	08/09/22 19:13	1
Indene	ND	H	9.5	0.95	ug/L		08/05/22 10:41	08/09/22 19:13	1
Isophorone	ND	H	9.5	0.13	ug/L		08/05/22 10:41	08/09/22 19:13	1
2-Methylphenol	ND	H	9.5	1.7	ug/L		08/05/22 10:41	08/09/22 19:13	1
3 & 4 Methylphenol	**1.5**	**J H** J	19	0.37	ug/L		08/05/22 10:41	08/09/22 19:13	1
2-Nitroaniline	ND	H UJ	9.5	2.1	ug/L		08/05/22 10:41	08/09/22 19:13	1
3-Nitroaniline	ND	H	9.5	1.7	ug/L		08/05/22 10:41	08/09/22 19:13	1
4-Nitroaniline	ND	H	9.5	1.4	ug/L		08/05/22 10:41	08/09/22 19:13	1
Nitrobenzene	ND	H	9.5	0.12	ug/L		08/05/22 10:41	08/09/22 19:13	1
2-Nitrophenol	ND	H	9.5	5.0	ug/L		08/05/22 10:41	08/09/22 19:13	1
4-Nitrophenol	ND	H	9.5	2.0	ug/L		08/05/22 10:41	08/09/22 19:13	1
N-Nitrosodimethylamine	ND	H	9.5	3.3	ug/L		08/05/22 10:41	08/09/22 19:13	1
N-Nitrosodi-n-propylamine	ND	H	9.5	3.1	ug/L		08/05/22 10:41	08/09/22 19:13	1
N-Nitrosodiphenylamine	ND	H	9.5	0.17	ug/L		08/05/22 10:41	08/09/22 19:13	1
Pentachlorophenol	ND	H	19	1.3	ug/L		08/05/22 10:41	08/09/22 19:13	1
Phenol	ND	H	9.5	2.5	ug/L		08/05/22 10:41	08/09/22 19:13	1
Pyridine	ND	H	9.5	3.0	ug/L		08/05/22 10:41	08/09/22 19:13	1
Quinoline	ND	H	9.5	4.3	ug/L		08/05/22 10:41	08/09/22 19:13	1
2,4,5-Trichlorophenol	ND	H	9.5	3.5	ug/L		08/05/22 10:41	08/09/22 19:13	1
2,4,6-Trichlorophenol	ND	H	9.5	3.3	ug/L		08/05/22 10:41	08/09/22 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*08/05/22 10:41*	*08/09/22 19:13*	*1*
2-Fluorophenol	*5*	*S1-*	*13 - 113*	*08/05/22 10:41*	*08/09/22 19:13*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*08/05/22 10:41*	*08/09/22 19:13*	*1*
Phenol-d5	*26*		*17 - 127*	*08/05/22 10:41*	*08/09/22 19:13*	*1*
Terphenyl-d14	*85*		*44 - 149*	*08/05/22 10:41*	*08/09/22 19:13*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*08/05/22 10:41*	*08/09/22 19:13*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		07/25/22 16:48	07/26/22 04:40	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/25/22 16:48	07/26/22 04:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*51 - 149*	*07/25/22 16:48*	*07/26/22 04:40*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: ROST4PZE-ROX-071522
Date Collected: 07/15/22 12:40
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-10
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 16:58	1
Acrolein	ND		20	3.3	ug/L			07/21/22 16:58	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 16:58	1
Benzene	**21**		1.0	0.13	ug/L			07/21/22 16:58	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 16:58	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 16:58	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 16:58	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 16:58	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 16:58	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 16:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 16:58	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 16:58	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 16:58	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 16:58	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 16:58	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 16:58	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 16:58	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 16:58	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 16:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 16:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 16:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 16:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 16:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 16:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 16:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 16:58	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 16:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 16:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 16:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 16:58	1
Ethylbenzene	**200**		1.0	0.50	ug/L			07/21/22 16:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 16:58	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 16:58	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 16:58	1
Isopropylbenzene	**8.9**	J	1.0	0.53	ug/L			07/21/22 16:58	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 16:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 16:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 16:58	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 16:58	1
m-Xylene & p-Xylene	**270**	J	5.0	0.63	ug/L			07/21/22 16:58	1
Naphthalene	**110**		5.0	3.0	ug/L			07/21/22 16:58	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 16:58	1
N-Propylbenzene	**13**	J	1.0	0.69	ug/L			07/21/22 16:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 16:58	1
o-Xylene	**33**		5.0	0.60	ug/L			07/21/22 16:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 16:58	1
p-Isopropyltoluene	**1.8**		1.0	0.71	ug/L			07/21/22 16:58	1

Client Sample ID: ROST4PZE-ROX-071522

Lab Sample ID: 400-223083-10

Date Collected: 07/15/22 12:40

Matrix: Water

Date Received: 07/16/22 11:18

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**1.2**		1.0	0.70	ug/L			07/21/22 16:58	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 16:58	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 16:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 16:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 16:58	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 16:58	1
Toluene	**25**		1.0	0.41	ug/L			07/21/22 16:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 16:58	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 16:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 16:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 16:58	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 16:58	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 16:58	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 16:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 16:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 16:58	1
1,2,4-Trimethylbenzene	**160**	J	1.0	0.82	ug/L			07/21/22 16:58	1
1,3,5-Trimethylbenzene	**24**	J	1.0	0.56	ug/L			07/21/22 16:58	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 16:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 16:58	1
Xylenes, Total	**310**	J	10	1.6	ug/L			07/21/22 16:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*72 - 119*		*07/21/22 16:58*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*07/21/22 16:58*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*07/21/22 16:58*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**5.0**	J	0.19	0.031	ug/L		07/22/22 10:11	07/27/22 00:33	1
Acenaphthylene	**0.65**		0.19	0.043	ug/L		07/22/22 10:11	07/27/22 00:33	1
Anthracene	**4.3**	J	0.19	0.031	ug/L		07/22/22 10:11	07/27/22 00:33	1
Benzo[a]anthracene	**0.22**		0.19	0.044	ug/L		07/22/22 10:11	07/27/22 00:33	1
Benzo[a]pyrene	**0.18**	J	0.19	0.040	ug/L		07/22/22 10:11	07/27/22 00:33	1
Benzo[b]fluoranthene	**0.059**	J J	0.19	0.033	ug/L		07/22/22 10:11	07/27/22 00:33	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/27/22 00:33	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		07/22/22 10:11	07/27/22 00:33	1
Chrysene	**0.32**		0.19	0.071	ug/L		07/22/22 10:11	07/27/22 00:33	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/22/22 10:11	07/27/22 00:33	1
Fluoranthene	**0.72**	J	0.19	0.065	ug/L		07/22/22 10:11	07/27/22 00:33	1
Fluorene	**4.6**	J	0.19	0.11	ug/L		07/22/22 10:11	07/27/22 00:33	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/22/22 10:11	07/27/22 00:33	1
1-Methylnaphthalene	**77**		0.19	0.071	ug/L		07/22/22 10:11	07/27/22 00:33	1
2-Methylnaphthalene	**75**	J	0.19	0.057	ug/L		07/22/22 10:11	07/27/22 00:33	1
Phenanthrene	**19**	J	0.19	0.034	ug/L		07/22/22 10:11	07/27/22 00:33	1
Pyrene	**1.7**	J	0.19	0.038	ug/L		07/22/22 10:11	07/27/22 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*15 - 122*	*07/22/22 10:11*	*07/27/22 00:33*	*1*
Nitrobenzene-d5	*105*		*19 - 130*	*07/22/22 10:11*	*07/27/22 00:33*	*1*

Client Sample ID: ROST4PZE-ROX-071522

Date Collected: 07/15/22 12:40
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-10

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*118*		*33 - 138*	*07/22/22 10:11*	*07/27/22 00:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.6	3.6	ug/L		07/22/22 10:11	07/26/22 20:16	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		07/22/22 10:11	07/26/22 20:16	1
Benzoic acid	ND	*1	29	7.0	ug/L		07/22/22 10:11	07/26/22 20:16	1
Benzyl alcohol	ND		9.6	1.9	ug/L		07/22/22 10:11	07/26/22 20:16	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		07/22/22 10:11	07/26/22 20:16	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.6	2.6	ug/L		07/22/22 10:11	07/26/22 20:16	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		07/22/22 10:11	07/26/22 20:16	1
Bis(2-ethylhexyl) phthalate	**54**		9.6	4.8	ug/L		07/22/22 10:11	07/27/22 15:35	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		07/22/22 10:11	07/26/22 20:16	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		07/22/22 10:11	07/26/22 20:16	1
4-Chloroaniline	ND		9.6	3.3	ug/L		07/22/22 10:11	07/26/22 20:16	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		07/22/22 10:11	07/26/22 20:16	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		07/22/22 10:11	07/26/22 20:16	1
2-Chlorophenol	ND		9.6	2.1	ug/L		07/22/22 10:11	07/26/22 20:16	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		07/22/22 10:11	07/26/22 20:16	1
D benz[a,h]acridine	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 20:16	1
Dibenzofuran	**3.6**	**J**	9.6	0.16	ug/L		07/22/22 10:11	07/26/22 20:16	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		07/22/22 10:11	07/26/22 20:16	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		07/22/22 10:11	07/26/22 20:16	1
Diethyl phthalate	ND		9.6	0.23	ug/L		07/22/22 10:11	07/26/22 20:16	1
2,4-Dimethylphenol	**24**		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 20:16	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 20:16	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		07/22/22 10:11	07/26/22 20:16	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		07/22/22 10:11	07/26/22 20:16	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		07/22/22 10:11	07/26/22 20:16	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		07/22/22 10:11	07/26/22 20:16	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		07/22/22 10:11	07/26/22 20:16	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 20:16	1
1,4-Dioxane	ND	UJ	9.6	0.96	ug/L		07/22/22 10:11	07/26/22 20:16	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 20:16	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 20:16	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/22/22 10:11	07/26/22 20:16	1
Hexachloroethane	ND		9.6	4.0	ug/L		07/22/22 10:11	07/26/22 20:16	1
Indene	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 20:16	1
Isophorone	ND		9.6	0.13	ug/L		07/22/22 10:11	07/26/22 20:16	1
2-Methylphenol	ND		9.6	1.7	ug/L		07/22/22 10:11	07/26/22 20:16	1
3 & 4 Methylphenol	**2.1**	**J**	19	0.37	ug/L		07/22/22 10:11	07/26/22 20:16	1
2-Nitroaniline	ND		9.6	2.1	ug/L		07/22/22 10:11	07/26/22 20:16	1
3-Nitroaniline	ND		9.6	1.7	ug/L		07/22/22 10:11	07/26/22 20:16	1
4-Nitroaniline	ND		9.6	1.4	ug/L		07/22/22 10:11	07/26/22 20:16	1
Nitrobenzene	ND		9.6	0.12	ug/L		07/22/22 10:11	07/26/22 20:16	1
2-Nitrophenol	ND		9.6	5.0	ug/L		07/22/22 10:11	07/26/22 20:16	1
4-Nitrophenol	ND		9.6	2.0	ug/L		07/22/22 10:11	07/26/22 20:16	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 20:16	1

Client Sample ID: ROST4PZE-ROX-071522
Date Collected: 07/15/22 12:40
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-10
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		07/22/22 10:11	07/26/22 20:16	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		07/22/22 10:11	07/26/22 20:16	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/26/22 20:16	1
Phenol	**2.6**	**J**	9.6	2.5	ug/L		07/22/22 10:11	07/26/22 20:16	1
Pyridine	ND	UJ	9.6	3.1	ug/L		07/22/22 10:11	07/26/22 20:16	1
Quinoline	ND		9.6	4.3	ug/L		07/22/22 10:11	07/26/22 20:16	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		07/22/22 10:11	07/26/22 20:16	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*103*		*46 - 124*	*07/22/22 10:11*	*07/26/22 20:16*	*1*
2-Fluorophenol	*13*		*13 - 113*	*07/22/22 10:11*	*07/26/22 20:16*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*07/22/22 10:11*	*07/26/22 20:16*	*1*
Phenol-d5	*54*		*17 - 127*	*07/22/22 10:11*	*07/26/22 20:16*	*1*
Terphenyl-d14	*113*		*44 - 149*	*07/22/22 10:11*	*07/26/22 20:16*	*1*
2,4,6-Tribromophenol	*131*		*26 - 150*	*07/22/22 10:11*	*07/26/22 20:16*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.5	4.8	ug/L		08/05/22 10:41	08/09/22 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*68*		*46 - 124*	*08/05/22 10:41*	*08/09/22 19:34*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*08/05/22 10:41*	*08/09/22 19:34*	*1*
Terphenyl-d14	*76*		*44 - 149*	*08/05/22 10:41*	*08/09/22 19:34*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		07/25/22 16:48	07/26/22 05:01	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/25/22 16:48	07/26/22 05:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*07/25/22 16:48*	*07/26/22 05:01*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: ROST4PZE-ROX-071522-DUP

Date Collected: 07/15/22 12:40
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-11

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/21/22 17:25	1
Acrolein	ND		20	3.3	ug/L			07/21/22 17:25	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 17:25	1
Benzene	**17**		1.0	0.13	ug/L			07/21/22 17:25	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 17:25	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 17:25	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 17:25	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 17:25	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 17:25	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 17:25	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 17:25	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 17:25	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 17:25	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/21/22 17:25	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 17:25	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 17:25	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 17:25	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 17:25	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 17:25	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 17:25	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 17:25	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 17:25	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 17:25	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 17:25	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 17:25	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 17:25	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 17:25	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 17:25	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 17:25	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 17:25	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 17:25	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 17:25	1
Ethylbenzene	**160**		1.0	0.50	ug/L			07/21/22 17:25	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 17:25	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 17:25	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 17:25	1
Isopropylbenzene	**6.8**	J	1.0	0.53	ug/L			07/21/22 17:25	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 17:25	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 17:25	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 17:25	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 17:25	1
m-Xylene & p-Xylene	**210**	J	5.0	0.63	ug/L			07/21/22 17:25	1
Naphthalene	**110**		5.0	3.0	ug/L			07/21/22 17:25	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/21/22 17:25	1
N-Propylbenzene	**9.3**	J	1.0	0.69	ug/L			07/21/22 17:25	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 17:25	1
o-Xylene	**26**		5.0	0.60	ug/L			07/21/22 17:25	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 17:25	1
p-Isopropyltoluene	**1.2**		1.0	0.71	ug/L			07/21/22 17:25	1

Client Sample ID: ROST4PZE-ROX-071522-DUP
Date Collected: 07/15/22 12:40
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-11
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**1.0**		1.0	0.70	ug/L			07/21/22 17:25	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 17:25	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/21/22 17:25	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 17:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 17:25	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 17:25	1
Toluene	**20**		1.0	0.41	ug/L			07/21/22 17:25	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 17:25	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 17:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 17:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 17:25	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 17:25	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 17:25	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 17:25	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 17:25	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 17:25	1
1,2,4-Trimethylbenzene	**120**	J	1.0	0.82	ug/L			07/21/22 17:25	1
1,3,5-Trimethylbenzene	**18**	J	1.0	0.56	ug/L			07/21/22 17:25	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 17:25	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 17:25	1
Xylenes, Total	**230**	J	10	1.6	ug/L			07/21/22 17:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 119*		*07/21/22 17:25*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*07/21/22 17:25*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/21/22 17:25*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**2.9**	J	0.19	0.031	ug/L		07/22/22 10:11	07/27/22 00:49	1
Acenaphthylene	**0.33**		0.19	0.043	ug/L		07/22/22 10:11	07/27/22 00:49	1
Anthracene	**1.2**	J	0.19	0.031	ug/L		07/22/22 10:11	07/27/22 00:49	1
Benzo[a]anthracene	**0.095**	J	0.19	0.044	ug/L		07/22/22 10:11	07/27/22 00:49	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		07/22/22 10:11	07/27/22 00:49	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		07/22/22 10:11	07/27/22 00:49	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		07/22/22 10:11	07/27/22 00:49	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		07/22/22 10:11	07/27/22 00:49	1
Chrysene	ND		0.19	0.071	ug/L		07/22/22 10:11	07/27/22 00:49	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/22/22 10:11	07/27/22 00:49	1
Fluoranthene	**0.17**	J J	0.19	0.066	ug/L		07/22/22 10:11	07/27/22 00:49	1
Fluorene	**2.4**	J	0.19	0.11	ug/L		07/22/22 10:11	07/27/22 00:49	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/22/22 10:11	07/27/22 00:49	1
1-Methylnaphthalene	**66**		0.19	0.071	ug/L		07/22/22 10:11	07/27/22 00:49	1
2-Methylnaphthalene	**58**	J	0.19	0.058	ug/L		07/22/22 10:11	07/27/22 00:49	1
Phenanthrene	**5.4**	J	0.19	0.035	ug/L		07/22/22 10:11	07/27/22 00:49	1
Pyrene	**0.42**	J	0.19	0.039	ug/L		07/22/22 10:11	07/27/22 00:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*116*		*15 - 122*	*07/22/22 10:11*	*07/27/22 00:49*	*1*
Nitrobenzene-d5	*113*		*19 - 130*	*07/22/22 10:11*	*07/27/22 00:49*	*1*

Client Sample ID: ROST4PZE-ROX-071522-DUP
Date Collected: 07/15/22 12:40
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-11
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*134*		*33 - 138*	*07/22/22 10:11*	*07/27/22 00:49*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.6	3.7	ug/L		07/22/22 10:11	07/26/22 19:50	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		07/22/22 10:11	07/26/22 19:50	1
Benzoic acid	ND	*1	29	7.0	ug/L		07/22/22 10:11	07/26/22 19:50	1
Benzyl alcohol	ND		9.6	1.9	ug/L		07/22/22 10:11	07/26/22 19:50	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		07/22/22 10:11	07/26/22 19:50	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.6	2.6	ug/L		07/22/22 10:11	07/26/22 19:50	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		07/22/22 10:11	07/26/22 19:50	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		07/22/22 10:11	07/26/22 19:50	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		07/22/22 10:11	07/26/22 19:50	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		07/22/22 10:11	07/26/22 19:50	1
4-Chloroaniline	ND		9.6	3.3	ug/L		07/22/22 10:11	07/26/22 19:50	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		07/22/22 10:11	07/26/22 19:50	1
2-Chloronaphthalene	ND		9.6	0.14	ug/L		07/22/22 10:11	07/26/22 19:50	1
2-Chlorophenol	ND		9.6	2.1	ug/L		07/22/22 10:11	07/26/22 19:50	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		07/22/22 10:11	07/26/22 19:50	1
D benz[a,h]acridine	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 19:50	1
Dibenzofuran	**2.0**	**J**	9.6	0.16	ug/L		07/22/22 10:11	07/26/22 19:50	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		07/22/22 10:11	07/26/22 19:50	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		07/22/22 10:11	07/26/22 19:50	1
Diethyl phthalate	ND		9.6	0.23	ug/L		07/22/22 10:11	07/26/22 19:50	1
2,4-Dimethylphenol	**19**		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 19:50	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 19:50	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		07/22/22 10:11	07/26/22 19:50	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		07/22/22 10:11	07/26/22 19:50	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		07/22/22 10:11	07/26/22 19:50	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		07/22/22 10:11	07/26/22 19:50	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		07/22/22 10:11	07/26/22 19:50	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 19:50	1
1,4-Dioxane	ND	UJ	9.6	0.96	ug/L		07/22/22 10:11	07/26/22 19:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 19:50	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 19:50	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/22/22 10:11	07/26/22 19:50	1
Hexachloroethane	ND		9.6	4.1	ug/L		07/22/22 10:11	07/26/22 19:50	1
Indene	**3.2**	**J**	9.6	0.96	ug/L		07/22/22 10:11	07/26/22 19:50	1
Isophorone	ND		9.6	0.14	ug/L		07/22/22 10:11	07/26/22 19:50	1
2-Methylphenol	ND		9.6	1.7	ug/L		07/22/22 10:11	07/26/22 19:50	1
3 & 4 Methylphenol	**1.7**	**J**	19	0.38	ug/L		07/22/22 10:11	07/26/22 19:50	1
2-Nitroaniline	ND		9.6	2.1	ug/L		07/22/22 10:11	07/26/22 19:50	1
3-Nitroaniline	ND		9.6	1.7	ug/L		07/22/22 10:11	07/26/22 19:50	1
4-Nitroaniline	ND		9.6	1.4	ug/L		07/22/22 10:11	07/26/22 19:50	1
Nitrobenzene	ND		9.6	0.13	ug/L		07/22/22 10:11	07/26/22 19:50	1
2-Nitrophenol	ND		9.6	5.0	ug/L		07/22/22 10:11	07/26/22 19:50	1
4-Nitrophenol	ND		9.6	2.0	ug/L		07/22/22 10:11	07/26/22 19:50	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 19:50	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Client Sample ID: ROST4PZE-ROX-071522-DUP
Date Collected: 07/15/22 12:40
Date Received: 07/16/22 11:18

Lab Sample ID: 400-223083-11
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		07/22/22 10:11	07/26/22 19:50	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		07/22/22 10:11	07/26/22 19:50	1
Pentachlorophenol	ND		19	1.4	ug/L		07/22/22 10:11	07/26/22 19:50	1
Phenol	ND		9.6	2.5	ug/L		07/22/22 10:11	07/26/22 19:50	1
Pyridine	ND	UJ	9.6	3.1	ug/L		07/22/22 10:11	07/26/22 19:50	1
Quinoline	ND		9.6	4.3	ug/L		07/22/22 10:11	07/26/22 19:50	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		07/22/22 10:11	07/26/22 19:50	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*46 - 124*	*07/22/22 10:11*	*07/26/22 19:50*	*1*
2-Fluorophenol	*9*	*S1-*	*13 - 113*	*07/22/22 10:11*	*07/26/22 19:50*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*07/22/22 10:11*	*07/26/22 19:50*	*1*
Phenol-d5	*47*		*17 - 127*	*07/22/22 10:11*	*07/26/22 19:50*	*1*
Terphenyl-d14	*115*		*44 - 149*	*07/22/22 10:11*	*07/26/22 19:50*	*1*
2,4,6-Tribromophenol	*122*		*26 - 150*	*07/22/22 10:11*	*07/26/22 19:50*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/25/22 16:48	07/26/22 05:22	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/25/22 16:48	07/26/22 05:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*51 - 149*	*07/25/22 16:48*	*07/26/22 05:22*	*1*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
H	Sample was prepped or analyzed beyond the specified holding time
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
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-223083-1	TB-ROX-071522-8260-B	84	109	98
400-223083-3	P93B-ROX-071522	86	113	101
400-223083-3 - DL	P93B-ROX-071522	84	107	100
400-223083-4	P93B-ROX-071522-DUP	85	110	99
400-223083-4 - DL	P93B-ROX-071522-DUP	83	113	96
400-223083-5	P93D-ROX-071522	84	109	97
400-223083-6	TB-ROX-071522-8260-A	84	108	99
400-223083-8	P93A-ROX-071522	86	106	98
400-223083-9	P57-ROX-071522	83	104	97
400-223083-10	ROST4PZE-ROX-071522	86	99	96
400-223083-11	ROST4PZE-ROX-071522-DUP	90	100	98
LCS 400-585577/1002	Lab Control Sample	90	98	101
MB 400-585577/4	Method Blank	83	112	100

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-223083-3	P93B-ROX-071522	94	45	70	68	79	104
400-223083-4	P93B-ROX-071522-DUP	83	27	61	56	87	97
400-223083-5	P93D-ROX-071522	94	0 S1-	68	0.6 S1-	115	0 S1-
400-223083-5 - RERA	P93D-ROX-071522	73	15	71	52	111	81
400-223083-8	P93A-ROX-071522	95	27	69	56	112	111
400-223083-9	P57-ROX-071522	40 S1-	13	31 S1-	27	41 S1-	48
400-223083-9 - RERA	P57-ROX-071522	70	5 S1-	68	26	85	67
400-223083-10	ROST4PZE-ROX-071522	103	13	75	54	113	131
400-223083-10 - RERA	ROST4PZE-ROX-071522	68		67		76	
400-223083-11	ROST4PZE-ROX-071522-DUP	102	9 S1-	76	47	115	122
LCS 400-585779/2-A	Lab Control Sample	99	52	79	68	109	111
LCS 400-585779/4-A	Lab Control Sample	107	43	74	69	121	97
LCS 400-587683/2-A	Lab Control Sample	70	29	66	59	86	89
LCS 400-587683/4-A	Lab Control Sample	70	21	69	51	95	65
LCSD 400-585779/3-A	Lab Control Sample Dup	104	30	75	63	115	111
LCSD 400-585779/5-A	Lab Control Sample Dup	100	48	72	68	115	87
LCSD 400-587683/3-A	Lab Control Sample Dup	71	23	65	58	104	92
LCSD 400-587683/5-A	Lab Control Sample Dup	75	35	73	64	115	78
MB 400-585779/1-A	Method Blank	93	3 S1-	68	23	107	69
MB 400-587683/1-A	Method Blank	81	7 S1-	79	46	107	81

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5

TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-223083-3	P93B-ROX-071522	110	104	96
400-223083-4	P93B-ROX-071522-DUP	82	81	84
400-223083-5	P93D-ROX-071522	102	92	118
400-223083-8	P93A-ROX-071522	110	104	126
400-223083-9	P57-ROX-071522	44	33	45
400-223083-10	ROST4PZE-ROX-071522	98	105	118
400-223083-11	ROST4PZE-ROX-071522-DUP	116	113	134
LCS 400-585779/2-A	Lab Control Sample	100	68	104
LCSD 400-585779/3-A	Lab Control Sample Dup	106	95	107
MB 400-585779/1-A	Method Blank	112	109	125

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-223083-2	TB-ROX-071522-8011-B	110
400-223083-3	P93B-ROX-071522	96
400-223083-4	P93B-ROX-071522-DUP	104
400-223083-5	P93D-ROX-071522	110
400-223083-7	TB-ROX-071522-8011-A	117
400-223083-8	P93A-ROX-071522	101
400-223083-9	P57-ROX-071522	93
400-223083-10	ROST4PZE-ROX-071522	98
400-223083-11	ROST4PZE-ROX-071522-DUP	105
LCS 400-586135/2-A	Lab Control Sample	91
LCSD 400-586135/3-A	Lab Control Sample Dup	102
MB 400-586135/1-A	Method Blank	96

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Client Sample ID: TB-ROX-071522-8260-B

Lab Sample ID: 400-223083-1

Date Collected: 07/15/22 12:00

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 14:19	WPD	EET PEN

Client Sample ID: TB-ROX-071522-8011-B

Lab Sample ID: 400-223083-2

Date Collected: 07/15/22 12:00

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.2 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 02:15	JAW	EET PEN

Client Sample ID: P93B-ROX-071522

Lab Sample ID: 400-223083-3

Date Collected: 07/15/22 10:00

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2000	5 mL	5 mL	585577	07/21/22 12:16	WPD	EET PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	585577	07/21/22 17:53	WPD	EET PEN
Total/NA	Prep	3520C			269 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 22:18	S1B	EET PEN
Total/NA	Prep	3520C			269 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1			586295	07/26/22 23:16	PP1	EET PEN
Total/NA	Prep	8011			32.9 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 02:36	JAW	EET PEN

Client Sample ID: P93B-ROX-071522-DUP

Lab Sample ID: 400-223083-4

Date Collected: 07/15/22 10:00

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2000	5 mL	5 mL	585577	07/21/22 12:40	WPD	EET PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	585577	07/21/22 18:21	WPD	EET PEN
Total/NA	Prep	3520C			271.8 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 22:44	S1B	EET PEN
Total/NA	Prep	3520C			271.8 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1			586295	07/26/22 23:31	PP1	EET PEN
Total/NA	Prep	8011			33.8 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 02:57	JAW	EET PEN

Client Sample ID: P93D-ROX-071522

Lab Sample ID: 400-223083-5

Date Collected: 07/15/22 10:50

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 16:02	WPD	EET PEN

Client Sample ID: P93D-ROX-071522

Lab Sample ID: 400-223083-5

Date Collected: 07/15/22 10:50

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C	RERA		265 mL	1 mL	587683	08/05/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1			588089	08/09/22 18:51	S1B	EET PEN
Total/NA	Prep	3520C			267.2 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 21:34	S1B	EET PEN
Total/NA	Prep	3520C			267.2 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1			586295	07/26/22 23:47	PP1	EET PEN
Total/NA	Prep	8011			34.3 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 03:17	JAW	EET PEN

Client Sample ID: TB-ROX-071522-8260-A

Lab Sample ID: 400-223083-6

Date Collected: 07/15/22 12:00

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 14:43	WPD	EET PEN

Client Sample ID: TB-ROX-071522-8011-A

Lab Sample ID: 400-223083-7

Date Collected: 07/15/22 12:00

Matrix: Water

Date Received: 07/16/22 11:18

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 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 03:38	JAW	EET PEN

Client Sample ID: P93A-ROX-071522

Lab Sample ID: 400-223083-8

Date Collected: 07/15/22 09:50

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 15:11	WPD	EET PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 21:08	S1B	EET PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 00:02	PP1	EET PEN
Total/NA	Prep	8011			34.1 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 03:59	JAW	EET PEN

Client Sample ID: P57-ROX-071522

Lab Sample ID: 400-223083-9

Date Collected: 07/15/22 10:45

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 15:38	WPD	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586449	07/27/22 15:14	S1B	EET PEN

Client Sample ID: P57-ROX-071522

Lab Sample ID: 400-223083-9

Date Collected: 07/15/22 10:45

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C	RERA		262.4 mL	1 mL	587683	08/05/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1			588089	08/09/22 19:13	S1B	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 20:42	S1B	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 00:18	PP1	EET PEN
Total/NA	Prep	8011			35.3 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 04:40	JAW	EET PEN

Client Sample ID: ROST4PZE-ROX-071522

Lab Sample ID: 400-223083-10

Date Collected: 07/15/22 12:40

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 16:58	WPD	EET PEN
Total/NA	Prep	3520C			261 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586449	07/27/22 15:35	S1B	EET PEN
Total/NA	Prep	3520C	RERA		262 mL	1 mL	587683	08/05/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1			588089	08/09/22 19:34	S1B	EET PEN
Total/NA	Prep	3520C			261 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 20:16	S1B	EET PEN
Total/NA	Prep	3520C			261 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 00:33	PP1	EET PEN
Total/NA	Prep	8011			33.1 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 05:01	JAW	EET PEN

Client Sample ID: ROST4PZE-ROX-071522-DUP

Lab Sample ID: 400-223083-11

Date Collected: 07/15/22 12:40

Matrix: Water

Date Received: 07/16/22 11:18

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 17:25	WPD	EET PEN
Total/NA	Prep	3520C			259.2 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 19:50	S1B	EET PEN
Total/NA	Prep	3520C			259.2 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 00:49	PP1	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/26/22 05:22	JAW	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-585577/4

Date Collected: N/A

Matrix: Water

Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 08:44	WPD	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585779/1-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	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 19:21	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		1			586295	07/26/22 22:29	PP1	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-586135/1-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	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/25/22 21:04	JAW	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-587683/1-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	587683	08/05/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1			588089	08/09/22 17:04	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585577/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585577	07/21/22 07:47	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585779/2-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	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 20:37	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		5			586295	07/26/22 22:45	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585779/4-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	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 19:47	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-586135/2-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	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/25/22 21:25	JAW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-587683/2-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	587683	08/05/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1			588089	08/09/22 18:08	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-587683/4-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	587683	08/05/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1			588089	08/09/22 17:25	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585779/3-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	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	586042	07/25/22 21:03	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D LL		5			586295	07/26/22 23:00	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585779/5-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	585779	07/22/22 10:11	KWS	EET PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 20:12	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-586135/3-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	586135	07/25/22 16:48	JAW	EET PEN
Total/NA	Analysis	8011		1			586163	07/25/22 21:46	JAW	EET PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-223083-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-587683/3-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	587683	08/05/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1			588089	08/09/22 18:30	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-587683/5-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	587683	08/05/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1			588089	08/09/22 17:47	S1B	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223083-1

GC/MS VOA

Analysis Batch: 585577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-1	TB-ROX-071522-8260-B	Total/NA	Water	8260B	
400-223083-3	P93B-ROX-071522	Total/NA	Water	8260B	
400-223083-3 - DL	P93B-ROX-071522	Total/NA	Water	8260B	
400-223083-4	P93B-ROX-071522-DUP	Total/NA	Water	8260B	
400-223083-4 - DL	P93B-ROX-071522-DUP	Total/NA	Water	8260B	
400-223083-5	P93D-ROX-071522	Total/NA	Water	8260B	
400-223083-6	TB-ROX-071522-8260-A	Total/NA	Water	8260B	
400-223083-8	P93A-ROX-071522	Total/NA	Water	8260B	
400-223083-9	P57-ROX-071522	Total/NA	Water	8260B	
400-223083-10	ROST4PZE-ROX-071522	Total/NA	Water	8260B	
400-223083-11	ROST4PZE-ROX-071522-DUP	Total/NA	Water	8260B	
MB 400-585577/4	Method Blank	Total/NA	Water	8260B	
LCS 400-585577/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 585779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-3	P93B-ROX-071522	Total/NA	Water	3520C	
400-223083-4	P93B-ROX-071522-DUP	Total/NA	Water	3520C	
400-223083-5	P93D-ROX-071522	Total/NA	Water	3520C	
400-223083-8	P93A-ROX-071522	Total/NA	Water	3520C	
400-223083-9	P57-ROX-071522	Total/NA	Water	3520C	
400-223083-10	ROST4PZE-ROX-071522	Total/NA	Water	3520C	
400-223083-11	ROST4PZE-ROX-071522-DUP	Total/NA	Water	3520C	
MB 400-585779/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585779/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-585779/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585779/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-585779/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 586042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-3	P93B-ROX-071522	Total/NA	Water	8270D	585779
400-223083-4	P93B-ROX-071522-DUP	Total/NA	Water	8270D	585779
MB 400-585779/1-A	Method Blank	Total/NA	Water	8270D	585779
LCS 400-585779/2-A	Lab Control Sample	Total/NA	Water	8270D	585779
LCS 400-585779/4-A	Lab Control Sample	Total/NA	Water	8270D	585779
LCSD 400-585779/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	585779
LCSD 400-585779/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	585779

Analysis Batch: 586255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-5	P93D-ROX-071522	Total/NA	Water	8270D	585779
400-223083-8	P93A-ROX-071522	Total/NA	Water	8270D	585779
400-223083-9	P57-ROX-071522	Total/NA	Water	8270D	585779
400-223083-10	ROST4PZE-ROX-071522	Total/NA	Water	8270D	585779
400-223083-11	ROST4PZE-ROX-071522-DUP	Total/NA	Water	8270D	585779

GC/MS Semi VOA

Analysis Batch: 586295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-3	P93B-ROX-071522	Total/NA	Water	8270D LL	585779
400-223083-4	P93B-ROX-071522-DUP	Total/NA	Water	8270D LL	585779
400-223083-5	P93D-ROX-071522	Total/NA	Water	8270D LL	585779
400-223083-8	P93A-ROX-071522	Total/NA	Water	8270D LL	585779
400-223083-9	P57-ROX-071522	Total/NA	Water	8270D LL	585779
400-223083-10	ROST4PZE-ROX-071522	Total/NA	Water	8270D LL	585779
400-223083-11	ROST4PZE-ROX-071522-DUP	Total/NA	Water	8270D LL	585779
MB 400-585779/1-A	Method Blank	Total/NA	Water	8270D LL	585779
LCS 400-585779/2-A	Lab Control Sample	Total/NA	Water	8270D LL	585779
LCSD 400-585779/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	585779

Analysis Batch: 586449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-9	P57-ROX-071522	Total/NA	Water	8270D	585779
400-223083-10	ROST4PZE-ROX-071522	Total/NA	Water	8270D	585779

Prep Batch: 587683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-5 - RERA	P93D-ROX-071522	Total/NA	Water	3520C	
400-223083-9 - RERA	P57-ROX-071522	Total/NA	Water	3520C	
400-223083-10 - RERA	ROST4PZE-ROX-071522	Total/NA	Water	3520C	
MB 400-587683/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-587683/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-587683/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-587683/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-587683/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 588089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-5 - RERA	P93D-ROX-071522	Total/NA	Water	8270D	587683
400-223083-9 - RERA	P57-ROX-071522	Total/NA	Water	8270D	587683
400-223083-10 - RERA	ROST4PZE-ROX-071522	Total/NA	Water	8270D	587683
MB 400-587683/1-A	Method Blank	Total/NA	Water	8270D	587683
LCS 400-587683/2-A	Lab Control Sample	Total/NA	Water	8270D	587683
LCS 400-587683/4-A	Lab Control Sample	Total/NA	Water	8270D	587683
LCSD 400-587683/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	587683
LCSD 400-587683/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	587683

GC Semi VOA

Prep Batch: 586135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-2	TB-ROX-071522-8011-B	Total/NA	Water	8011	
400-223083-3	P93B-ROX-071522	Total/NA	Water	8011	
400-223083-4	P93B-ROX-071522-DUP	Total/NA	Water	8011	
400-223083-5	P93D-ROX-071522	Total/NA	Water	8011	
400-223083-7	TB-ROX-071522-8011-A	Total/NA	Water	8011	
400-223083-8	P93A-ROX-071522	Total/NA	Water	8011	
400-223083-9	P57-ROX-071522	Total/NA	Water	8011	
400-223083-10	ROST4PZE-ROX-071522	Total/NA	Water	8011	
400-223083-11	ROST4PZE-ROX-071522-DUP	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 586135 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-586135/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-586135/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-586135/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 586163

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223083-2	TB-ROX-071522-8011-B	Total/NA	Water	8011	586135
400-223083-3	P93B-ROX-071522	Total/NA	Water	8011	586135
400-223083-4	P93B-ROX-071522-DUP	Total/NA	Water	8011	586135
400-223083-5	P93D-ROX-071522	Total/NA	Water	8011	586135
400-223083-7	TB-ROX-071522-8011-A	Total/NA	Water	8011	586135
400-223083-8	P93A-ROX-071522	Total/NA	Water	8011	586135
400-223083-9	P57-ROX-071522	Total/NA	Water	8011	586135
400-223083-10	ROST4PZE-ROX-071522	Total/NA	Water	8011	586135
400-223083-11	ROST4PZE-ROX-071522-DUP	Total/NA	Water	8011	586135
MB 400-586135/1-A	Method Blank	Total/NA	Water	8011	586135
LCS 400-586135/2-A	Lab Control Sample	Total/NA	Water	8011	586135
LCSD 400-586135/3-A	Lab Control Sample Dup	Total/NA	Water	8011	586135

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-585577/4
Matrix: Water
Analysis Batch: 585577

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			07/21/22 08:44	1
Acrolein	ND		20	3.3	ug/L			07/21/22 08:44	1
Acrylonitrile	ND		10	2.8	ug/L			07/21/22 08:44	1
Benzene	ND		1.0	0.13	ug/L			07/21/22 08:44	1
Bromobenzene	ND		1.0	0.54	ug/L			07/21/22 08:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/21/22 08:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Bromoform	ND		5.0	0.25	ug/L			07/21/22 08:44	1
Bromomethane	ND		1.0	0.98	ug/L			07/21/22 08:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/21/22 08:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/21/22 08:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/21/22 08:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/21/22 08:44	1
Chloroethane	ND		1.0	0.76	ug/L			07/21/22 08:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/21/22 08:44	1
Chloroform	ND		1.0	1.0	ug/L			07/21/22 08:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/21/22 08:44	1
Chloromethane	ND		1.0	0.32	ug/L			07/21/22 08:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/21/22 08:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/21/22 08:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/21/22 08:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/21/22 08:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/21/22 08:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/21/22 08:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/21/22 08:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/21/22 08:44	1
2-Hexanone	ND		25	1.4	ug/L			07/21/22 08:44	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/21/22 08:44	1
Methylene bromide	ND		5.0	0.22	ug/L			07/21/22 08:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/21/22 08:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/21/22 08:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/21/22 08:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/21/22 08:44	1
Naphthalene	ND		5.0	3.0	ug/L			07/21/22 08:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/21/22 08:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/21/22 08:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/21/22 08:44	1
o-Xylene	ND		5.0	0.60	ug/L			07/21/22 08:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/21/22 08:44	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-585577/4
Matrix: Water
Analysis Batch: 585577

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			07/21/22 08:44	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/21/22 08:44	1
Styrene	ND		1.0	1.0	ug/L			07/21/22 08:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/21/22 08:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/21/22 08:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/21/22 08:44	1
Toluene	ND		1.0	0.41	ug/L			07/21/22 08:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/21/22 08:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/21/22 08:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/21/22 08:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/21/22 08:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/21/22 08:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/21/22 08:44	1
Trichloroethene	ND		1.0	0.15	ug/L			07/21/22 08:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/21/22 08:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/21/22 08:44	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/21/22 08:44	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/21/22 08:44	1
Vinyl acetate	ND		25	0.93	ug/L			07/21/22 08:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/21/22 08:44	1
Xylenes, Total	ND		10	1.6	ug/L			07/21/22 08:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/21/22 08:44*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*07/21/22 08:44*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*07/21/22 08:44*	*1*

Lab Sample ID: LCS 400-585577/1002
Matrix: Water
Analysis Batch: 585577

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	480		ug/L		96	38 - 160
Acrylonitrile	500	542		ug/L		108	64 - 142
Benzene	50.0	51.9		ug/L		104	70 - 130
Bromobenzene	50.0	57.4		ug/L		115	70 - 132
Bromochloromethane	50.0	51.2		ug/L		102	70 - 130
Bromodichloromethane	50.0	50.4		ug/L		101	67 - 133
Bromoform	50.0	60.2		ug/L		120	57 - 140
Bromomethane	50.0	47.9		ug/L		96	10 - 160
2-Butanone (MEK)	200	226		ug/L		113	61 - 145
Carbon disulfide	50.0	53.0		ug/L		106	61 - 137
Carbon tetrachloride	50.0	57.5		ug/L		115	61 - 137
Chlorobenzene	50.0	55.5		ug/L		111	70 - 130
Dibromochloromethane	50.0	58.9		ug/L		118	67 - 135
Chloroethane	50.0	50.4		ug/L		101	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-585577/1002
Matrix: Water
Analysis Batch: 585577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	16.8		ug/L		34	10 - 160
Chloroform	50.0	50.5		ug/L		101	69 - 130
1-Chlorohexane	50.0	60.3		ug/L		121	69 - 130
Chloromethane	50.0	51.5		ug/L		103	58 - 137
cis-1,2-Dichloroethene	50.0	53.9		ug/L		108	68 - 130
cis-1,3-Dichloropropene	50.0	51.8		ug/L		104	69 - 132
1,2-Dichlorobenzene	50.0	58.0		ug/L		116	67 - 130
1,3-Dichlorobenzene	50.0	59.7		ug/L		119	70 - 130
1,4-Dichlorobenzene	50.0	59.8		ug/L		120	70 - 130
Dichlorodifluoromethane	50.0	53.4		ug/L		107	41 - 146
1,1-Dichloroethane	50.0	54.6		ug/L		109	70 - 130
1,2-Dichloroethane	50.0	50.2		ug/L		100	69 - 130
1,1-Dichloroethene	50.0	53.9		ug/L		108	63 - 134
1,2-Dichloropropane	50.0	48.7		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	54.3		ug/L		109	70 - 130
2,2-Dichloropropane	50.0	55.9		ug/L		112	52 - 135
1,1-Dichloropropene	50.0	55.4		ug/L		111	70 - 130
Ethylbenzene	50.0	56.4		ug/L		113	70 - 130
Ethyl methacrylate	50.0	53.1		ug/L		106	68 - 130
Hexachlorobutadiene	50.0	68.3		ug/L		137	53 - 140
2-Hexanone	200	210		ug/L		105	65 - 137
Isopropy benzene	50.0	58.3		ug/L		117	70 - 130
Methylene bromide	50.0	48.3		ug/L		97	70 - 130
Methylene Chloride	50.0	49.9		ug/L		100	66 - 135
4-Methyl-2-pentanone (MIBK)	200	217		ug/L		108	69 - 138
Methyl tert-butyl ether	50.0	54.4		ug/L		109	66 - 130
m-Xylene & p-Xylene	50.0	56.5		ug/L		113	70 - 130
Naphthalene	50.0	56.5		ug/L		113	47 - 149
n-Butylbenzene	50.0	59.4		ug/L		119	67 - 130
N-Propylbenzene	50.0	56.1		ug/L		112	70 - 130
o-Chlorotoluene	50.0	54.8		ug/L		110	70 - 130
o-Xylene	50.0	56.4		ug/L		113	70 - 130
p-Chlorotoluene	50.0	56.8		ug/L		114	70 - 130
p-Isopropyltoluene	50.0	60.3		ug/L		121	65 - 130
sec-Butylbenzene	50.0	58.2		ug/L		116	66 - 130
Styrene	50.0	53.9		ug/L		108	70 - 130
tert-Butylbenzene	50.0	56.9		ug/L		114	64 - 139
1,1,1,2-Tetrachloroethane	50.0	57.6		ug/L		115	67 - 131
1,1,2,2-Tetrachloroethane	50.0	53.6		ug/L		107	70 - 131
Tetrachloroethene	50.0	61.3		ug/L		123	65 - 130
Toluene	50.0	55.5		ug/L		111	70 - 130
trans-1,2-Dichloroethene	50.0	54.7		ug/L		109	70 - 130
trans-1,3-Dichloropropene	50.0	55.8		ug/L		112	63 - 130
1,2,3-Trichlorobenzene	50.0	60.3		ug/L		121	60 - 138
1,2,4-Trichlorobenzene	50.0	61.2		ug/L		122	60 - 140
1,1,1-Trichloroethane	50.0	55.2		ug/L		110	68 - 130
1,1,2-Trichloroethane	50.0	51.5		ug/L		103	70 - 130
Trichloroethene	50.0	55.8		ug/L		112	70 - 130
Trichlorofluoromethane	50.0	56.8		ug/L		114	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-585577/1002
Matrix: Water
Analysis Batch: 585577

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	53.5		ug/L		107	70 - 130
1,2,4-Trimethy benzene	50.0	57.8		ug/L		116	70 - 130
1,3,5-Trimethy benzene	50.0	56.7		ug/L		113	69 - 130
Vinyl acetate	100	102		ug/L		102	26 - 160
Vinyl chloride	50.0	53.3		ug/L		107	59 - 136
Xylenes, Total	100	113		ug/L		113	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzenethiol	ND		10	1.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzoic acid	ND		30	7.3	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzyl alcohol	ND		10	2.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/22/22 10:11	07/25/22 19:21	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/22/22 10:11	07/25/22 19:21	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/22/22 10:11	07/25/22 19:21	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chloroaniline	ND		10	3.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Chlorophenol	ND		10	2.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dibenzofuran	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Diethyl phthalate	ND		10	0.24	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/22/22 10:11	07/25/22 19:21	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
1,4-Dioxane	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
Hexachloroethane	ND		10	4.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
Indene	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Isophorone	ND		10	0.14	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Methylphenol	ND		10	1.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Nitroaniline	ND		10	2.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
3-Nitroaniline	ND		10	1.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Nitroaniline	ND		10	1.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
Nitrobenzene	ND		10	0.13	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Nitrophenol	ND		10	5.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Nitrophenol	ND		10	2.1	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/22/22 10:11	07/25/22 19:21	1
Pentachlorophenol	ND		20	1.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
Phenol	ND		10	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
Pyridine	ND		10	3.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
Quinoline	ND		10	4.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*46 - 124*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
2-Fluorophenol	*3*	*S1-*	*13 - 113*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
Phenol-d5	*23*		*17 - 127*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
Terphenyl-d14	*107*		*44 - 149*	*07/22/22 10:11*	*07/25/22 19:21*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*07/22/22 10:11*	*07/25/22 19:21*	*1*

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	104		ug/L		87	21 - 120
Benzoic acid	513	90.1		ug/L		18	10 - 144
Benzyl alcohol	120	72.9		ug/L		61	28 - 120
Bis(2-chloroethoxy)methane	120	87.5		ug/L		73	47 - 120
Bis(2-chloroethyl)ether	120	106		ug/L		88	44 - 120
bis (2-chloroisopropyl) ether	120	65.3		ug/L		54	33 - 121
Bis(2-ethylhexyl) phthalate	120	121		ug/L		101	52 - 147
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122
Butyl benzyl phthalate	120	122		ug/L		102	54 - 133
4-Chloroaniline	120	99.5		ug/L		83	26 - 120
4-Chloro-3-methylphenol	120	110		ug/L		91	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	118		ug/L		98	52 - 121
2-Chlorophenol	120	93.7		ug/L		78	40 - 120
4-Chlorophenyl phenyl ether	120	127		ug/L		105	56 - 125
Dibenz[a,h]acridine	120	118		ug/L		99	31 - 150
Dibenzofuran	120	122		ug/L		102	56 - 122
3,3'-Dichlorobenzidine	160	152		ug/L		95	36 - 132
2,4-Dichlorophenol	120	109		ug/L		91	49 - 120
Diethyl phthalate	120	129		ug/L		108	50 - 137
2,4-Dimethylphenol	120	103		ug/L		86	48 - 120
Dimethyl phthalate	120	120		ug/L		100	57 - 124
Di-n-butyl phthalate	120	124		ug/L		103	58 - 126
4,6-Dinitro-ortho-cresol	240	176		ug/L		73	23 - 148
2,4-Dinitrophenol	240	143		ug/L		60	10 - 150
2,4-Dinitrotoluene	120	129		ug/L		107	54 - 142
2,6-Dinitrotoluene	120	119		ug/L		99	55 - 130
Di-n-octyl phthalate	120	116		ug/L		97	57 - 138
1,4-Dioxane	120	59.2		ug/L		49	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	90.6		ug/L		75	45 - 124
Hexachlorobenzene	120	126		ug/L		105	52 - 129
Hexachlorocyclopentadiene	120	82.9		ug/L		69	10 - 134
Hexachloroethane	120	94.9		ug/L		79	20 - 120
Indene	120	105		ug/L		87	49 - 120
Isophorone	120	86.5		ug/L		72	48 - 120
2-Methylphenol	120	112		ug/L		94	46 - 124
3 & 4 Methylphenol	120	109		ug/L		91	45 - 120
2-Nitroaniline	120	99.8		ug/L		83	51 - 145
3-Nitroaniline	120	88.7		ug/L		74	37 - 127
4-Nitroaniline	120	112		ug/L		93	36 - 137
Nitrobenzene	120	85.3		ug/L		71	45 - 120
2-Nitrophenol	120	105		ug/L		88	40 - 124
4-Nitrophenol	240	94.4		ug/L		39	23 - 146
N-Nitrosodimethylamine	120	76.1		ug/L		63	29 - 137
N-Nitrosodi-n-propylamine	120	90.9		ug/L		76	45 - 120
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120
Pentachlorophenol	240	218		ug/L		91	31 - 130
Phenol	120	84.8		ug/L		71	11 - 120
Pyridine	240	118		ug/L		49	16 - 120
Quinoline	120	114		ug/L		95	49 - 130
2,4,5-Trichlorophenol	120	122		ug/L		102	51 - 136
2,4,6-Trichlorophenol	120	118		ug/L		98	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*99*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*111*		*26 - 150*

Lab Sample ID: LCS 400-585779/4-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

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	*107*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*121*		*44 - 149*
2,4,6-Tribromophenol	*97*		*26 - 150*

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	ND	*- *1	ug/L		2	21 - 120	189	30
Benzoic acid			513	348	*1	ug/L		68	10 - 144	118	30
Benzyl alcohol			120	86.1		ug/L		72	28 - 120	17	30
Bis(2-chloroethoxy)methane			120	93.6		ug/L		78	47 - 120	7	30
Bis(2-chloroethyl)ether			120	192	*+ *1	ug/L		160	44 - 120	58	30
bis (2-chloroisopropyl) ether			120	68.7		ug/L		57	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	128		ug/L		107	52 - 147	5	30
4-Bromophenyl phenyl ether			120	126		ug/L		105	54 - 122	5	30
Butyl benzyl phthalate			120	126		ug/L		105	54 - 133	3	30
4-Chloroaniline			120	96.8		ug/L		81	26 - 120	3	30
4-Chloro-3-methylphenol			120	112		ug/L		93	48 - 131	2	30
2-Chloronaphthalene			120	125		ug/L		104	52 - 121	5	30
2-Chlorophenol			120	78.9		ug/L		66	40 - 120	17	30
4-Chlorophenyl phenyl ether			120	133		ug/L		111	56 - 125	5	30
Dibenz[a,h]acridine			120	125		ug/L		104	31 - 150	6	30
Dibenzofuran			120	130		ug/L		108	56 - 122	6	30
3,3'-Dichlorobenzidine			160	149		ug/L		93	36 - 132	2	30
2,4-Dichlorophenol			120	106		ug/L		89	49 - 120	3	30
Diethyl phthalate			120	134		ug/L		112	50 - 137	4	30
2,4-Dimethylphenol			120	110		ug/L		91	48 - 120	6	30
Dimethyl phthalate			120	127		ug/L		106	57 - 124	6	30
Di-n-butyl phthalate			120	131		ug/L		109	58 - 126	5	30
4,6-Dinitro-ortho-cresol			240	213		ug/L		89	23 - 148	19	30
2,4-Dinitrophenol			240	193		ug/L		80	10 - 150	30	30
2,4-Dinitrotoluene			120	136		ug/L		113	54 - 142	5	30
2,6-Dinitrotoluene			120	126		ug/L		105	55 - 130	6	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate			120	123		ug/L		102	57 - 138	6	30
1,4-Dioxane			120	56.5		ug/L		47	31 - 120	5	30
1,2-Diphenylhydrazine (as Azobenzene)			120	96.5		ug/L		80	45 - 124	6	30
Hexachlorobenzene			120	133		ug/L		111	52 - 129	5	30
Hexachlorocyclopentadiene			120	82.0		ug/L		68	10 - 134	1	30
Hexachloroethane			120	98.7		ug/L		82	20 - 120	4	30
Indene			120	110		ug/L		92	49 - 120	5	30
Isophorone			120	92.4		ug/L		77	48 - 120	7	30
2-Methylphenol			120	117		ug/L		97	46 - 124	4	30
3 & 4 Methylphenol			120	110		ug/L		92	45 - 120	1	30
2-Nitroaniline			120	106		ug/L		88	51 - 145	6	30
3-Nitroaniline			120	84.8		ug/L		71	37 - 127	5	30
4-Nitroaniline			120	115		ug/L		96	36 - 137	3	30
Nitrobenzene			120	91.1		ug/L		76	45 - 120	7	30
2-Nitrophenol			120	104		ug/L		87	40 - 124	1	30
4-Nitrophenol			240	92.6		ug/L		39	23 - 146	2	30
N-Nitrosodimethylamine			120	84.9		ug/L		71	29 - 137	11	30
N-Nitrosodi-n-propylamine			120	97.7		ug/L		81	45 - 120	7	30
N-Nitrosodiphenylamine			119	116		ug/L		98	54 - 120	5	30
Pentachlorophenol			240	233		ug/L		97	31 - 130	7	30
Phenol			120	78.3		ug/L		65	11 - 120	8	30
Pyridine			240	126		ug/L		52	16 - 120	7	30
Quinoline			120	119		ug/L		99	49 - 130	4	30
2,4,5-Trichlorophenol			120	125		ug/L		104	51 - 136	2	30
2,4,6-Trichlorophenol			120	122		ug/L		102	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*104*		*46 - 124*
2-Fluorophenol	*30*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*63*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*
2,4,6-Tribromophenol	*111*		*26 - 150*

Lab Sample ID: LCSD 400-585779/5-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.91	J *- *1	ug/L		2	10 - 120	47	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*100*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-585779/5-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	87		26 - 150

Lab Sample ID: MB 400-587683/1-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 587683

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		08/05/22 10:41	08/09/22 17:04	1
Benzenethiol	ND		10	1.7	ug/L		08/05/22 10:41	08/09/22 17:04	1
Benzoic acid	ND		30	7.3	ug/L		08/05/22 10:41	08/09/22 17:04	1
Benzyl alcohol	ND		10	2.0	ug/L		08/05/22 10:41	08/09/22 17:04	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		08/05/22 10:41	08/09/22 17:04	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		08/05/22 10:41	08/09/22 17:04	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		08/05/22 10:41	08/09/22 17:04	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		08/05/22 10:41	08/09/22 17:04	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		08/05/22 10:41	08/09/22 17:04	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		08/05/22 10:41	08/09/22 17:04	1
4-Chloroaniline	ND		10	3.4	ug/L		08/05/22 10:41	08/09/22 17:04	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		08/05/22 10:41	08/09/22 17:04	1
2-Chloronaphthalene	ND		10	0.14	ug/L		08/05/22 10:41	08/09/22 17:04	1
2-Chlorophenol	ND		10	2.2	ug/L		08/05/22 10:41	08/09/22 17:04	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		08/05/22 10:41	08/09/22 17:04	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		08/05/22 10:41	08/09/22 17:04	1
Dibenzofuran	ND		10	0.17	ug/L		08/05/22 10:41	08/09/22 17:04	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		08/05/22 10:41	08/09/22 17:04	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		08/05/22 10:41	08/09/22 17:04	1
Diethyl phthalate	ND		10	0.24	ug/L		08/05/22 10:41	08/09/22 17:04	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		08/05/22 10:41	08/09/22 17:04	1
Dimethyl phthalate	ND		10	0.17	ug/L		08/05/22 10:41	08/09/22 17:04	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		08/05/22 10:41	08/09/22 17:04	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		08/05/22 10:41	08/09/22 17:04	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		08/05/22 10:41	08/09/22 17:04	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		08/05/22 10:41	08/09/22 17:04	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		08/05/22 10:41	08/09/22 17:04	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		08/05/22 10:41	08/09/22 17:04	1
1,4-Dioxane	ND		10	1.0	ug/L		08/05/22 10:41	08/09/22 17:04	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		08/05/22 10:41	08/09/22 17:04	1
Hexachlorobenzene	ND		10	0.17	ug/L		08/05/22 10:41	08/09/22 17:04	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		08/05/22 10:41	08/09/22 17:04	1
Hexachloroethane	ND		10	4.2	ug/L		08/05/22 10:41	08/09/22 17:04	1
Indene	ND		10	1.0	ug/L		08/05/22 10:41	08/09/22 17:04	1
Isophorone	ND		10	0.14	ug/L		08/05/22 10:41	08/09/22 17:04	1
2-Methylphenol	ND		10	1.8	ug/L		08/05/22 10:41	08/09/22 17:04	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		08/05/22 10:41	08/09/22 17:04	1
2-Nitroaniline	ND		10	2.2	ug/L		08/05/22 10:41	08/09/22 17:04	1
3-Nitroaniline	ND		10	1.8	ug/L		08/05/22 10:41	08/09/22 17:04	1
4-Nitroaniline	ND		10	1.5	ug/L		08/05/22 10:41	08/09/22 17:04	1
Nitrobenzene	ND		10	0.13	ug/L		08/05/22 10:41	08/09/22 17:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-587683/1-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 587683

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	ND		10	5.2	ug/L		08/05/22 10:41	08/09/22 17:04	1
4-Nitrophenol	ND		10	2.1	ug/L		08/05/22 10:41	08/09/22 17:04	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		08/05/22 10:41	08/09/22 17:04	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		08/05/22 10:41	08/09/22 17:04	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		08/05/22 10:41	08/09/22 17:04	1
Pentachlorophenol	ND		20	1.4	ug/L		08/05/22 10:41	08/09/22 17:04	1
Phenol	ND		10	2.6	ug/L		08/05/22 10:41	08/09/22 17:04	1
Pyridine	ND		10	3.2	ug/L		08/05/22 10:41	08/09/22 17:04	1
Quinoline	ND		10	4.5	ug/L		08/05/22 10:41	08/09/22 17:04	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		08/05/22 10:41	08/09/22 17:04	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		08/05/22 10:41	08/09/22 17:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*08/05/22 10:41*	*08/09/22 17:04*	*1*
2-Fluorophenol	*7*	*S1-*	*13 - 113*	*08/05/22 10:41*	*08/09/22 17:04*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*08/05/22 10:41*	*08/09/22 17:04*	*1*
Phenol-d5	*46*		*17 - 127*	*08/05/22 10:41*	*08/09/22 17:04*	*1*
Terphenyl-d14	*107*		*44 - 149*	*08/05/22 10:41*	*08/09/22 17:04*	*1*
2,4,6-Tribromophenol	*81*		*26 - 150*	*08/05/22 10:41*	*08/09/22 17:04*	*1*

Lab Sample ID: LCS 400-587683/2-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 587683

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	81.6		ug/L		68	21 - 120
Benzoic acid	513	351		ug/L		68	10 - 144
Benzyl alcohol	120	82.5		ug/L		69	28 - 120
Bis(2-chloroethoxy)methane	120	81.7		ug/L		68	47 - 120
Bis(2-chloroethyl)ether	120	92.8		ug/L		77	44 - 120
bis (2-chloroisopropyl) ether	120	86.3		ug/L		72	33 - 121
Bis(2-ethylhexyl) phthalate	120	108		ug/L		90	52 - 147
4-Bromophenyl phenyl ether	120	108		ug/L		90	54 - 122
Butyl benzyl phthalate	120	101		ug/L		84	54 - 133
4-Chloroaniline	120	86.5		ug/L		72	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131
2-Chloronaphthalene	120	95.0		ug/L		79	52 - 121
2-Chlorophenol	120	70.8		ug/L		59	40 - 120
4-Chlorophenyl phenyl ether	120	99.5		ug/L		83	56 - 125
Dibenz[a,h]acridine	120	129		ug/L		108	31 - 150
Dibenzofuran	120	99.3		ug/L		83	56 - 122
3,3'-Dichlorobenzidine	160	214	*+	ug/L		134	36 - 132
2,4-Dichlorophenol	120	89.2		ug/L		74	49 - 120
Diethyl phthalate	120	108		ug/L		90	50 - 137
2,4-Dimethylphenol	120	99.4		ug/L		83	48 - 120
Dimethyl phthalate	120	99.6		ug/L		83	57 - 124
Di-n-butyl phthalate	120	116		ug/L		97	58 - 126
4,6-Dinitro-ortho-cresol	240	226		ug/L		94	23 - 148

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-587683/2-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 587683

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dinitrophenol	240	230		ug/L		96	10 - 150
2,4-Dinitrotoluene	120	109		ug/L		91	54 - 142
2,6-Dinitrotoluene	120	99.7		ug/L		83	55 - 130
Di-n-octyl phthalate	120	112		ug/L		93	57 - 138
1,4-Dioxane	120	65.7		ug/L		55	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	88.9		ug/L		74	45 - 124
Hexachlorobenzene	120	119		ug/L		99	52 - 129
Hexachlorocyclopentadiene	120	79.5		ug/L		66	10 - 134
Hexachloroethane	120	93.5		ug/L		78	20 - 120
Indene	120	97.0		ug/L		81	49 - 120
Isophorone	120	87.0		ug/L		72	48 - 120
2-Methylphenol	120	101		ug/L		84	46 - 124
3 & 4 Methylphenol	120	90.4		ug/L		75	45 - 120
2-Nitroaniline	120	91.1		ug/L		76	51 - 145
3-Nitroaniline	120	93.6		ug/L		78	37 - 127
4-Nitroaniline	120	109		ug/L		91	36 - 137
Nitrobenzene	120	83.0		ug/L		69	45 - 120
2-Nitrophenol	120	73.2		ug/L		61	40 - 124
4-Nitrophenol	240	234		ug/L		98	23 - 146
N-Nitrosodimethylamine	120	98.8		ug/L		82	29 - 137
N-Nitrosodi-n-propylamine	120	100		ug/L		84	45 - 120
N-Nitrosodiphenylamine	119	97.3		ug/L		82	54 - 120
Pentachlorophenol	240	212		ug/L		88	31 - 130
Phenol	120	82.5		ug/L		69	11 - 120
Pyridine	240	144		ug/L		60	16 - 120
Quinoline	120	98.3		ug/L		82	49 - 130
2,4,5-Trichlorophenol	120	103		ug/L		86	51 - 136
2,4,6-Trichlorophenol	120	101		ug/L		84	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*29*		*13 - 113*
Nitrobenzene-d5	*66*		*36 - 126*
Phenol-d5	*59*		*17 - 127*
Terphenyl-d14	*86*		*44 - 149*
2,4,6-Tribromophenol	*89*		*26 - 150*

Lab Sample ID: LCS 400-587683/4-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 587683

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	*70*		*46 - 124*
2-Fluorophenol	*21*		*13 - 113*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-587683/4-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 587683

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	69		36 - 126
Phenol-d5	51		17 - 127
Terphenyl-d14	95		44 - 149
2,4,6-Tribromophenol	65		26 - 150

Lab Sample ID: LCSD 400-587683/3-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 587683

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline			120	81.9		ug/L		68	21 - 120	0	30
Benzoic acid			513	288		ug/L		56	10 - 144	20	30
Benzyl alcohol			120	78.5		ug/L		65	28 - 120	5	30
Bis(2-chloroethoxy)methane			120	81.7		ug/L		68	47 - 120	0	30
Bis(2-chloroethyl)ether			120	92.5		ug/L		77	44 - 120	0	30
bis (2-chloroisopropyl) ether			120	85.8		ug/L		71	33 - 121	1	30
Bis(2-ethylhexyl) phthalate			120	118		ug/L		98	52 - 147	8	30
4-Bromophenyl phenyl ether			120	112		ug/L		93	54 - 122	3	30
Butyl benzyl phthalate			120	116		ug/L		97	54 - 133	14	30
4-Chloroaniline			120	83.6		ug/L		70	26 - 120	3	30
4-Chloro-3-methylphenol			120	103		ug/L		86	48 - 131	2	30
2-Chloronaphthalene			120	96.1		ug/L		80	52 - 121	1	30
2-Chlorophenol			120	69.3		ug/L		58	40 - 120	2	30
4-Chlorophenyl phenyl ether			120	101		ug/L		84	56 - 125	1	30
Dibenz[a,h]acridine			120	133		ug/L		111	31 - 150	3	30
Dibenzofuran			120	100		ug/L		83	56 - 122	1	30
3,3'-Dichlorobenzidine			160	193		ug/L		120	36 - 132	10	30
2,4-Dichlorophenol			120	94.0		ug/L		78	49 - 120	5	30
Diethyl phthalate			120	111		ug/L		92	50 - 137	3	30
2,4-Dimethylphenol			120	99.6		ug/L		83	48 - 120	0	30
Dimethyl phthalate			120	102		ug/L		85	57 - 124	2	30
Di-n-butyl phthalate			120	119		ug/L		99	58 - 126	3	30
4,6-Dinitro-ortho-cresol			240	221		ug/L		92	23 - 148	2	30
2,4-Dinitrophenol			240	204		ug/L		85	10 - 150	12	30
2,4-Dinitrotoluene			120	112		ug/L		93	54 - 142	3	30
2,6-Dinitrotoluene			120	101		ug/L		84	55 - 130	1	30
Di-n-octyl phthalate			120	111		ug/L		92	57 - 138	1	30
1,4-Dioxane			120	65.1		ug/L		54	31 - 120	1	30
1,2-Diphenylhydrazine (as Azobenzene)			120	92.5		ug/L		77	45 - 124	4	30
Hexachlorobenzene			120	122		ug/L		102	52 - 129	2	30
Hexachlorocyclopentadiene			120	75.1		ug/L		63	10 - 134	6	30
Hexachloroethane			120	94.1		ug/L		78	20 - 120	1	30
Indene			120	97.3		ug/L		81	49 - 120	0	30
Isophorone			120	87.9		ug/L		73	48 - 120	1	30
2-Methylphenol			120	105		ug/L		87	46 - 124	3	30
3 & 4 Methylphenol			120	93.1		ug/L		78	45 - 120	3	30
2-Nitroaniline			120	93.7		ug/L		78	51 - 145	3	30
3-Nitroaniline			120	93.2		ug/L		78	37 - 127	0	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-587683/3-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 587683

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
4-Nitroaniline			120	111		ug/L		92	36 - 137	1	30
Nitrobenzene			120	84.9		ug/L		71	45 - 120	2	30
2-Nitrophenol			120	79.9		ug/L		67	40 - 124	9	30
4-Nitrophenol			240	223		ug/L		93	23 - 146	5	30
N-Nitrosodimethylamine			120	98.1		ug/L		82	29 - 137	1	30
N-Nitrosodi-n-propylamine			120	101		ug/L		84	45 - 120	0	30
N-Nitrosodiphenylamine			119	102		ug/L		85	54 - 120	4	30
Pentachlorophenol			240	202		ug/L		84	31 - 130	5	30
Phenol			120	81.4		ug/L		68	11 - 120	1	30
Pyridine			240	142		ug/L		59	16 - 120	2	30
Quinoline			120	98.6		ug/L		82	49 - 130	0	30
2,4,5-Trichlorophenol			120	107		ug/L		89	51 - 136	3	30
2,4,6-Trichlorophenol			120	105		ug/L		87	50 - 127	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*71*		*46 - 124*
2-Fluorophenol	*23*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*58*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*92*		*26 - 150*

Lab Sample ID: LCSD 400-587683/5-A
Matrix: Water
Analysis Batch: 588089

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 587683

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	6.14	J *- *1	ug/L		5	10 - 120	126	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*35*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*
2,4,6-Tribromophenol	*78*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/22/22 10:11	07/26/22 22:29	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/22/22 10:11	07/26/22 22:29	1
Anthracene	ND		0.20	0.032	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		07/22/22 10:11	07/26/22 22:29	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/22/22 10:11	07/26/22 22:29	1
Chrysene	ND		0.20	0.074	ug/L		07/22/22 10:11	07/26/22 22:29	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/22/22 10:11	07/26/22 22:29	1
Fluoranthene	ND		0.20	0.068	ug/L		07/22/22 10:11	07/26/22 22:29	1
Fluorene	ND		0.20	0.11	ug/L		07/22/22 10:11	07/26/22 22:29	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/22/22 10:11	07/26/22 22:29	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/22/22 10:11	07/26/22 22:29	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/22/22 10:11	07/26/22 22:29	1
Phenanthrene	ND		0.20	0.036	ug/L		07/22/22 10:11	07/26/22 22:29	1
Pyrene	ND		0.20	0.040	ug/L		07/22/22 10:11	07/26/22 22:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*07/22/22 10:11*	*07/26/22 22:29*	*1*
Nitrobenzene-d5	*109*		*19 - 130*	*07/22/22 10:11*	*07/26/22 22:29*	*1*
Terphenyl-d14	*125*		*33 - 138*	*07/22/22 10:11*	*07/26/22 22:29*	*1*

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	115		ug/L		96	41 - 120
Acenaphthylene	120	117		ug/L		98	44 - 120
Anthracene	120	126		ug/L		105	49 - 120
Benzo[a]anthracene	120	127		ug/L		106	61 - 135
Benzo[a]pyrene	120	109		ug/L		91	52 - 120
Benzo[b]fluoranthene	120	126		ug/L		105	53 - 134
Benzo[g,h,i]perylene	120	123		ug/L		103	47 - 133
Benzo[k]fluoranthene	120	114		ug/L		95	57 - 134
Chrysene	120	107		ug/L		90	55 - 122
Dibenz(a,h)anthracene	120	139		ug/L		116	48 - 146
Fluoranthene	120	127		ug/L		106	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	127		ug/L		106	43 - 142
1-Methylnaphthalene	120	99.4		ug/L		83	41 - 120
2-Methylnaphthalene	120	97.6		ug/L		81	32 - 124
Phenanthrene	120	123		ug/L		103	48 - 120
Pyrene	120	116		ug/L		97	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*100*		*15 - 122*
Nitrobenzene-d5	*68*		*19 - 130*
Terphenyl-d14	*104*		*33 - 138*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene			120	123		ug/L		103	41 - 120	7	56
Acenaphthylene			120	126		ug/L		105	44 - 120	8	56
Anthracene			120	129		ug/L		107	49 - 120	2	51
Benzo[a]anthracene			120	134		ug/L		112	61 - 135	6	49
Benzo[a]pyrene			120	117		ug/L		98	52 - 120	7	50
Benzo[b]fluoranthene			120	138		ug/L		115	53 - 134	9	54
Benzo[g,h,i]perylene			120	132		ug/L		110	47 - 133	7	50
Benzo[k]fluoranthene			120	119		ug/L		99	57 - 134	4	52
Chrysene			120	115		ug/L		96	55 - 122	7	50
Dibenz(a,h)anthracene			120	148		ug/L		123	48 - 146	6	50
Fluoranthene			120	133		ug/L		111	54 - 128	5	52
Fluorene			120	127		ug/L		106	45 - 125	5	56
Indeno[1,2,3-cd]pyrene			120	134		ug/L		111	43 - 142	5	51
1-Methylnaphthalene			120	107		ug/L		89	41 - 120	7	55
2-Methylnaphthalene			120	104		ug/L		86	32 - 124	6	57
Phenanthrene			120	129		ug/L		107	48 - 120	4	56
Pyrene			120	123		ug/L		102	48 - 132	5	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*106*		*15 - 122*
Nitrobenzene-d5	*95*		*19 - 130*
Terphenyl-d14	*107*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-586135/1-A
Matrix: Water
Analysis Batch: 586163

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 586135

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/25/22 16:48	07/25/22 21:04	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		07/25/22 16:48	07/25/22 21:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*07/25/22 16:48*	*07/25/22 21:04*	*1*

Lab Sample ID: LCS 400-586135/2-A
Matrix: Water
Analysis Batch: 586163

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586135

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.148	*+	ug/L		148	60 - 140		
1,2-D bromoethane			0.101	0.118		ug/L		117	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 400-586135/3-A
Matrix: Water
Analysis Batch: 586163

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 586135

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.161	*+	ug/L		160	60 - 140	8	30
1,2-D bromoethane			0.101	0.126		ug/L		125	60 - 140	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 7/15/22
PO #	**GSAP Project ID**	PAGE: 1 of 2
60674381 – 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 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@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 :

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; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 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-071522-8260-B	7/15/2022	0000	Water	2					2	X			
	TB-ROX-071522-8011-B	7/15/2022	0000	Water	2					2		X		
	P93B-ROX-071522	7/15/2022	1000	Water	6			2		8	X	X	X	X
	P93B-ROX-071522-DUP	7/15/2022	1000	Water	6			2		8	X	X	X	X
	P93D-ROX-071522	7/15/2022	1050	Water	6			2		8	X	X	X	X

400-223083 COC

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3930 5464, 5564 3930 5475	7/15/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 1892111, 1892110, 1892112, 1892113

Version: 11July22

8/26/2022 (Rev. 1)

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: 7/15/2022
PO #	**GSAP Project ID**	PAGE: 2 of 2
60674381 – 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 Quarterly GW 60674381 – 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, Bob Billman - please see special instructions	314-802-1207; 314-802-1122	melissa.remiger@aecom.com; bob.billman@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):	SAMPLER NAME(S) (Print):	LAB USE ONLY
Melissa Remiger, Mary Massa, Brett Howell	J. Mayer, J. Nichols	

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; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 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-071522-8260-A	7/15/2022	0000	Water	2					2	X			
	TB-ROX-071522-8011-A	7/15/2022	0000	Water	2					2		X		
	P93A-ROX-071522	7/15/2022	0950	Water	6			2		8	X	X	X	X
	P57-ROX-071522	7/15/2022	1045	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-071522	7/15/2022	1240	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-071522-DUP	7/15/2022	1240	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Joe Mayer	FEDEX: see page 1	7/15/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: see page 1

Version: 11July22

8/26/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-223083-1

Login Number: 223083
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0, 0.0°C IR9
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: 400-223083-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 3rd Quarter 2022 Data Review

Laboratory SDG: 400-223118-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Andrei Niculau

Date Reviewed: 9/13/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-071822-8260	TB-ROX-071822-8011
MW4-ROX-071822-EB	MW4-ROX-071822
MW25-ROX-071822	MW8-ROX-071822
MW8-ROX-071822-DUP	MW7-ROX-071822

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes, however the laboratory had transcription errors on sample IDs MW4-ROX-071822-EB, MW4-ROX-071822, MW8-ROX-071822, MW8-ROX-071822-DUP, and MW7-ROX-071822. Sample IDs were correctly recorded on the COC and were used to report analytical data; 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, although not indicated in the laboratory case narrative, several PAHs were detected in equipment blank MW4-ROX-071822-EB. SVOC and VOC by 8011 LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. The SVOC 2-fluorophenol surrogate recovery was outside criteria in several quality control samples. VOCs in sample MW7-ROX-071822 were diluted to bring target analytes into calibration range of the instrument. The continuing calibration verification (CCV) for 1,4-dioxane and pyridine, and the relative response factor (RRF) for acenaphthene in the initial calibration verification (ICV), were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MW4-ROX-071822-EB	PAHs	Benzo[a]anthracene	0.072 µg/L
MW4-ROX-071822-EB	PAHs	Benzo[b]fluoranthene	0.048 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW4-ROX-071822	PAHs	Benzo[a]anthracene	-	**U**
MW4-ROX-071822	PAHs	Benzo[b]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 400-585779/4-A/5-A	SVOCs	Benzenethiol	**4/2**	**47**	10-120/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	Aniline	87/**2**	**189**	21-120/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	Benzoic acid	18/68	**118**	10-144/30
LCS/LCSD 400-585779/2-A/3-A	SVOCs	bis(2-Chloroethyl)ether	88/**160**	**58**	44-120/30
LCS/LCSD 586287/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**173/183**	5	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-071822	SVOCs	Aniline	**UJ**
MW4-ROX-071822	SVOCs	Benzenethiol	**UJ**
MW25-ROX-071822	SVOCs	Aniline	**UJ**
MW25-ROX-071822	SVOCs	Benzenethiol	**UJ**
MW8-ROX-071822	SVOCs	Aniline	**UJ**
MW8-ROX-071822	SVOCs	Benzenethiol	**UJ**
MW8-ROX-071822-DUP	SVOCs	Aniline	**UJ**
MW8-ROX-071822-DUP	SVOCs	Benzenethiol	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW7-ROX-071822	SVOCs	Aniline	**UJ**
MW7-ROX-071822	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW4-ROX-071822-EB	SVOCs	2-Fluorophenol	**4**	13-113
MB 400-585779/1-A	SVOCs	2-Fluorophenol	**3**	13-113

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
MW8-ROX-071822	MW8-ROX-071822-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 with the exception of non-detect VOCs in sample MW7-ROX-071822 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 verification (CCV) for 1,4-dioxane and pyridine, and the relative response factor (RRF) for acenaphthene in the initial calibration verification (ICV), were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-071822	SVOCs	1-4-Dioxane	**UJ**
MW4-ROX-071822	SVOCs	Pyridine	**UJ**
MW25-ROX-071822	SVOCs	1-4-Dioxane	**UJ**
MW25-ROX-071822	SVOCs	Pyridine	**UJ**
MW8-ROX-071822	SVOCs	1-4-Dioxane	**UJ**
MW8-ROX-071822	SVOCs	Pyridine	**UJ**
MW8-ROX-071822-DUP	SVOCs	1-4-Dioxane	**UJ**
MW8-ROX-071822-DUP	SVOCs	Pyridine	**UJ**
MW4-ROX-071822	PAHs	Acenaphthene	**UJ**
MW25-ROX-071822	PAHs	Acenaphthene	**UJ**
MW8-ROX-071822	PAHs	Acenaphthene	**J**
MW8-ROX-071822-DUP	PAHs	Acenaphthene	**J**
MW7-ROX-071822	PAHs	Acenaphthene	**J**

Additionally, VOCs in sample MW7-ROX-071822 were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
MW7-ROX-071822	VOCs	All non-detects	**UJ**

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-223118-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
7/28/2022 6:07:10 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

LINKS

Review your project results through my EOL

Have a Question? Ask The Expert

Visit us at:
www.eurofinsus.com/Env

Table of Contents

Cover Page 1
Table of Contents 2
Case Narrative 3
Sample Summary 5
Detection Summary 6
Client Sample Results 8
Definitions 35
Surrogate Summary 36
Method Summary 38
Chronicle 39
QC Association 43
QC Sample Results 45
Chain of Custody 56
Receipt Checklists 57
Certification Summary 58

Job ID: 400-223118-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-223118-1

Comments
No additional comments.

Receipt
The samples were received on 7/19/2022 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 1.0º C.

GC/MS VOA
Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW8-ROX071822 (400-223118-6), MW8-ROX071822-DUP (400-223118-7) and MW7-ROX--071822 (400-223118-8). Elevated reporting limits (RLs) are provided.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-071822-8260 (400-223118-1), MW4-ROX07-071822-EB (400-223118-3), MW4-ROX07-071822 (400-223118-4), MW25-ROX-071822 (400-223118-5), MW8-ROX071822 (400-223118-6), MW8-ROX071822-DUP (400-223118-7) and MW7-ROX--071822 (400-223118-8). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and acrylonitrile, 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 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Benzoic acid, Aniline and Bis(2-chloroethyl)ether.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Bis(2-chloroethyl)ether. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-585779/1-A). These results have been reported and qualified.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-585779 and analytical batch 400-586042 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-585779 and analytical batch 400-586042: Aniline. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-586255 recovered above the upper control limit for 2,4,5-Trichlorophenol, 2,4,6-Trichlorophenol, Bis(2-ethylhexyl) phthalate, Di-n-butyl phthalate, Butyl benzyl phthalate, 4-Chlorophenyl phenyl ether, Hexachlorobenzene, 2,4-Dichlorophenol, 2,4-Dinitrotoluene, Dibenzofuran 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 8270D: The continuing calibration verification (CCV) associated with batch 400-586255 recovered outside acceptance criteria, low biased, for 1,4-Dioxane and Pyridine. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the

Job ID: 400-223118-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW4-ROX07-071822-EB (400-223118-3). These results have been reported and qualified.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-586295 recovered above the upper control limit for Benzo[b]fluoranthene. The samples associated with this CCV were not-detected above the reporting limit 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 laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-586287 and analytical batch 400-586328 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-586330 recovered above the upper control limit for Ethylene Dibromide and 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-223118-1	TB-ROX-071822-8260	Water	07/18/22 12:00	07/19/22 09:20
400-223118-2	TB-ROX-071822-8011	Water	07/18/22 12:00	07/19/22 09:20
400-223118-3	MW4-ROX07-071822-EB	Water	07/18/22 08:25	07/19/22 09:20
400-223118-4	MW4-ROX07-071822	Water	07/18/22 09:40	07/19/22 09:20
400-223118-5	MW25-ROX-071822	Water	07/18/22 10:30	07/19/22 09:20
400-223118-6	MW8-ROX071822	Water	07/18/22 11:45	07/19/22 09:20
400-223118-7	MW8-ROX071822-DUP	Water	07/18/22 11:45	07/19/22 09:20
400-223118-8	MW7-ROX--071822	Water	07/18/22 12:40	07/19/22 09:20

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: TB-ROX-071822-8260 — Lab Sample ID: 400-223118-1

No Detections.

Client Sample ID: TB-ROX-071822-8011 — Lab Sample ID: 400-223118-2

No Detections.

Client Sample ID: MW4-ROX07-071822-EB — Lab Sample ID: 400-223118-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.072	J	0.21	0.049	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.048	J	0.21	0.036	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW4-ROX07-071822 — Lab Sample ID: 400-223118-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.44	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.081	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.18	J U	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.11	J U	0.19	0.033	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.11	J	0.19	0.048	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.071	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Pyrene	0.043	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW25-ROX-071822 — Lab Sample ID: 400-223118-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	14		1.0	0.13	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.055	J	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzoic acid	8.4	J *1	28	6.9	ug/L	1		8270D	Total/NA

Client Sample ID: MW8-ROX071822 — Lab Sample ID: 400-223118-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	13000		50	6.5	ug/L	50		8260B	Total/NA
Methyl tert-butyl ether	61		50	11	ug/L	50		8260B	Total/NA
Acenaphthene	0.31	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.070	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Fluorene	0.32		0.19	0.10	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	6.5		0.19	0.070	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.46		0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.058	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Phenol	120		9.5	2.5	ug/L	1		8270D	Total/NA

Client Sample ID: MW8-ROX071822-DUP — Lab Sample ID: 400-223118-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	13000		50	6.5	ug/L	50		8260B	Total/NA
Methyl tert-butyl ether	51		50	11	ug/L	50		8260B	Total/NA
Acenaphthene	0.35	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.15	J	0.19	0.042	ug/L	1		8270D LL	Total/NA
Anthracene	0.058	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.058	J	0.19	0.043	ug/L	1		8270D LL	Total/NA
Fluorene	0.46		0.19	0.10	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	7.0		0.19	0.070	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.41		0.19	0.056	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW8-ROX071822-DUP (Continued) — Lab Sample ID: 400-223118-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.071	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Phenol	100		9.4	2.4	ug/L	1		8270D	Total/NA

Client Sample ID: MW7-ROX--071822 — Lab Sample ID: 400-223118-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	560000		5000	650	ug/L	5000		8260B	Total/NA
Acenaphthene	0.12	J J	0.19	0.031	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.18	J	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.066	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Fluorene	0.20		0.19	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	1.9		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	3.0		0.19	0.058	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.27		0.19	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.054	J	0.19	0.038	ug/L	1		8270D LL	Total/NA
Benzoic acid	22	J *1	29	7.0	ug/L	1		8270D	Total/NA
Phenol	86		9.6	2.5	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: TB-ROX-071822-8260
Date Collected: 07/18/22 12:00
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/22/22 12:44	1
Acrolein	ND		20	3.3	ug/L			07/22/22 12:44	1
Acrylonitrile	ND		10	2.8	ug/L			07/22/22 12:44	1
Benzene	ND		1.0	0.13	ug/L			07/22/22 12:44	1
Bromobenzene	ND		1.0	0.54	ug/L			07/22/22 12:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/22/22 12:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/22/22 12:44	1
Bromoform	ND		5.0	0.25	ug/L			07/22/22 12:44	1
Bromomethane	ND		1.0	0.98	ug/L			07/22/22 12:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/22/22 12:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/22/22 12:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/22/22 12:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/22/22 12:44	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/22/22 12:44	1
Chloroethane	ND		1.0	0.76	ug/L			07/22/22 12:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/22/22 12:44	1
Chloroform	ND		1.0	1.0	ug/L			07/22/22 12:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/22/22 12:44	1
Chloromethane	ND		1.0	0.32	ug/L			07/22/22 12:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/22/22 12:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/22/22 12:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/22/22 12:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/22/22 12:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/22/22 12:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/22/22 12:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/22/22 12:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/22/22 12:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 12:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 12:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 12:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 12:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/22/22 12:44	1
Ethy benzene	ND		1.0	0.50	ug/L			07/22/22 12:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/22/22 12:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/22/22 12:44	1
2-Hexanone	ND		25	1.4	ug/L			07/22/22 12:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/22/22 12:44	1
Methylene bromide	ND		5.0	0.22	ug/L			07/22/22 12:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/22/22 12:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/22/22 12:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/22/22 12:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/22/22 12:44	1
Naphthalene	ND		5.0	3.0	ug/L			07/22/22 12:44	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/22/22 12:44	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/22/22 12:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/22/22 12:44	1
o-Xylene	ND		5.0	0.60	ug/L			07/22/22 12:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/22/22 12:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/22/22 12:44	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: TB-ROX-071822-8260
Date Collected: 07/18/22 12:00
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/22/22 12:44	1
Styrene	ND		1.0	1.0	ug/L			07/22/22 12:44	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/22/22 12:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/22/22 12:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/22/22 12:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/22/22 12:44	1
Toluene	ND		1.0	0.41	ug/L			07/22/22 12:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 12:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/22/22 12:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/22/22 12:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/22/22 12:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/22/22 12:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/22/22 12:44	1
Trichloroethene	ND		1.0	0.15	ug/L			07/22/22 12:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/22/22 12:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/22/22 12:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/22/22 12:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/22/22 12:44	1
Vinyl acetate	ND		25	0.93	ug/L			07/22/22 12:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/22/22 12:44	1
Xylenes, Total	ND		10	1.6	ug/L			07/22/22 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*72 - 119*		*07/22/22 12:44*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/22/22 12:44*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/22/22 12:44*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: TB-ROX-071822-8011
Date Collected: 07/18/22 12:00
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.033	0.018	ug/L		07/26/22 15:50	07/27/22 20:49	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		07/26/22 15:50	07/27/22 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*51 - 149*	*07/26/22 15:50*	*07/27/22 20:49*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW4-ROX07-071822-EB
Date Collected: 07/18/22 08:25
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/22/22 09:51	1
Acrolein	ND		20	3.3	ug/L			07/22/22 09:51	1
Acrylonitrile	ND		10	2.8	ug/L			07/22/22 09:51	1
Benzene	ND		1.0	0.13	ug/L			07/22/22 09:51	1
Bromobenzene	ND		1.0	0.54	ug/L			07/22/22 09:51	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/22/22 09:51	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/22/22 09:51	1
Bromoform	ND		5.0	0.25	ug/L			07/22/22 09:51	1
Bromomethane	ND		1.0	0.98	ug/L			07/22/22 09:51	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/22/22 09:51	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/22/22 09:51	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/22/22 09:51	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/22/22 09:51	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/22/22 09:51	1
Chloroethane	ND		1.0	0.76	ug/L			07/22/22 09:51	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/22/22 09:51	1
Chloroform	ND		1.0	1.0	ug/L			07/22/22 09:51	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/22/22 09:51	1
Chloromethane	ND		1.0	0.32	ug/L			07/22/22 09:51	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/22/22 09:51	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/22/22 09:51	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/22/22 09:51	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/22/22 09:51	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/22/22 09:51	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/22/22 09:51	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/22/22 09:51	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/22/22 09:51	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 09:51	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 09:51	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 09:51	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 09:51	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/22/22 09:51	1
Ethy benzene	ND		1.0	0.50	ug/L			07/22/22 09:51	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/22/22 09:51	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/22/22 09:51	1
2-Hexanone	ND		25	1.4	ug/L			07/22/22 09:51	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/22/22 09:51	1
Methylene bromide	ND		5.0	0.22	ug/L			07/22/22 09:51	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/22/22 09:51	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/22/22 09:51	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/22/22 09:51	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/22/22 09:51	1
Naphthalene	ND		5.0	3.0	ug/L			07/22/22 09:51	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/22/22 09:51	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/22/22 09:51	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/22/22 09:51	1
o-Xylene	ND		5.0	0.60	ug/L			07/22/22 09:51	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/22/22 09:51	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/22/22 09:51	1

Client Sample ID: MW4-ROX07-071822-EB

Date Collected: 07/18/22 08:25
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/22/22 09:51	1
Styrene	ND		1.0	1.0	ug/L			07/22/22 09:51	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/22/22 09:51	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/22/22 09:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/22/22 09:51	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/22/22 09:51	1
Toluene	ND		1.0	0.41	ug/L			07/22/22 09:51	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 09:51	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/22/22 09:51	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/22/22 09:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/22/22 09:51	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/22/22 09:51	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/22/22 09:51	1
Trichloroethene	ND		1.0	0.15	ug/L			07/22/22 09:51	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/22/22 09:51	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/22/22 09:51	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/22/22 09:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/22/22 09:51	1
Vinyl acetate	ND		25	0.93	ug/L			07/22/22 09:51	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/22/22 09:51	1
Xylenes, Total	ND		10	1.6	ug/L			07/22/22 09:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/22/22 09:51*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*07/22/22 09:51*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*07/22/22 09:51*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.21	0.034	ug/L		07/22/22 10:11	07/27/22 01:04	1
Acenaphthylene	ND		0.21	0.048	ug/L		07/22/22 10:11	07/27/22 01:04	1
Anthracene	ND		0.21	0.034	ug/L		07/22/22 10:11	07/27/22 01:04	1
Benzo[a]anthracene	**0.072**	**J**	0.21	0.049	ug/L		07/22/22 10:11	07/27/22 01:04	1
Benzo[a]pyrene	ND		0.21	0.045	ug/L		07/22/22 10:11	07/27/22 01:04	1
Benzo[b]fluoranthene	**0.048**	**J**	0.21	0.036	ug/L		07/22/22 10:11	07/27/22 01:04	1
Benzo[g,h,i]perylene	ND		0.21	0.14	ug/L		07/22/22 10:11	07/27/22 01:04	1
Benzo[k]fluoranthene	ND		0.21	0.11	ug/L		07/22/22 10:11	07/27/22 01:04	1
Chrysene	ND		0.21	0.079	ug/L		07/22/22 10:11	07/27/22 01:04	1
D benz(a,h)anthracene	ND		0.21	0.053	ug/L		07/22/22 10:11	07/27/22 01:04	1
Fluoranthene	ND		0.21	0.072	ug/L		07/22/22 10:11	07/27/22 01:04	1
Fluorene	ND		0.21	0.12	ug/L		07/22/22 10:11	07/27/22 01:04	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.046	ug/L		07/22/22 10:11	07/27/22 01:04	1
1-Methylnaphthalene	ND		0.21	0.079	ug/L		07/22/22 10:11	07/27/22 01:04	1
2-Methylnaphthalene	ND		0.21	0.064	ug/L		07/22/22 10:11	07/27/22 01:04	1
Phenanthrene	ND		0.21	0.038	ug/L		07/22/22 10:11	07/27/22 01:04	1
Pyrene	ND		0.21	0.042	ug/L		07/22/22 10:11	07/27/22 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*121*		*15 - 122*	*07/22/22 10:11*	*07/27/22 01:04*	*1*
Nitrobenzene-d5	*118*		*19 - 130*	*07/22/22 10:11*	*07/27/22 01:04*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW4-ROX07-071822-EB
Date Collected: 07/18/22 08:25
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*133*		*33 - 138*	*07/22/22 10:11*	*07/27/22 01:04*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1	11	4.0	ug/L		07/22/22 10:11	07/26/22 19:24	1
Benzenethiol	ND	*- *1	11	1.8	ug/L		07/22/22 10:11	07/26/22 19:24	1
Benzoic acid	ND	*1	32	7.7	ug/L		07/22/22 10:11	07/26/22 19:24	1
Benzyl alcohol	ND		11	2.1	ug/L		07/22/22 10:11	07/26/22 19:24	1
Bis(2-chloroethoxy)methane	ND		11	0.17	ug/L		07/22/22 10:11	07/26/22 19:24	1
Bis(2-chloroethyl)ether	ND	*+ *1	11	2.9	ug/L		07/22/22 10:11	07/26/22 19:24	1
bis (2-chloroisopropyl) ether	ND		11	0.17	ug/L		07/22/22 10:11	07/26/22 19:24	1
Bis(2-ethylhexyl) phthalate	ND		11	5.3	ug/L		07/22/22 10:11	07/26/22 19:24	1
4-Bromophenyl phenyl ether	ND		11	0.21	ug/L		07/22/22 10:11	07/26/22 19:24	1
Butyl benzyl phthalate	ND		11	0.20	ug/L		07/22/22 10:11	07/26/22 19:24	1
4-Chloroaniline	ND		11	3.6	ug/L		07/22/22 10:11	07/26/22 19:24	1
4-Chloro-3-methylphenol	ND		11	4.0	ug/L		07/22/22 10:11	07/26/22 19:24	1
2-Chloronaphthalene	ND		11	0.15	ug/L		07/22/22 10:11	07/26/22 19:24	1
2-Chlorophenol	ND		11	2.3	ug/L		07/22/22 10:11	07/26/22 19:24	1
4-Chlorophenyl phenyl ether	ND		11	2.1	ug/L		07/22/22 10:11	07/26/22 19:24	1
D benz[a,h]acridine	ND		11	1.1	ug/L		07/22/22 10:11	07/26/22 19:24	1
D benzofuran	ND		11	0.18	ug/L		07/22/22 10:11	07/26/22 19:24	1
3,3'-Dichlorobenzidine	ND		11	2.8	ug/L		07/22/22 10:11	07/26/22 19:24	1
2,4-Dichlorophenol	ND		11	3.2	ug/L		07/22/22 10:11	07/26/22 19:24	1
Diethyl phthalate	ND		11	0.25	ug/L		07/22/22 10:11	07/26/22 19:24	1
2,4-Dimethylphenol	ND		11	3.7	ug/L		07/22/22 10:11	07/26/22 19:24	1
Dimethyl phthalate	ND		11	0.18	ug/L		07/22/22 10:11	07/26/22 19:24	1
Di-n-butyl phthalate	ND		11	2.9	ug/L		07/22/22 10:11	07/26/22 19:24	1
4,6-Dinitro-ortho-cresol	ND		11	1.7	ug/L		07/22/22 10:11	07/26/22 19:24	1
2,4-Dinitrophenol	ND		32	3.6	ug/L		07/22/22 10:11	07/26/22 19:24	1
2,4-Dinitrotoluene	ND		11	2.0	ug/L		07/22/22 10:11	07/26/22 19:24	1
2,6-Dinitrotoluene	ND		11	2.0	ug/L		07/22/22 10:11	07/26/22 19:24	1
Di-n-octyl phthalate	ND		11	0.18	ug/L		07/22/22 10:11	07/26/22 19:24	1
1,4-Dioxane	ND		11	1.1	ug/L		07/22/22 10:11	07/26/22 19:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		11	1.1	ug/L		07/22/22 10:11	07/26/22 19:24	1
Hexachlorobenzene	ND		11	0.18	ug/L		07/22/22 10:11	07/26/22 19:24	1
Hexachlorocyclopentadiene	ND		21	2.8	ug/L		07/22/22 10:11	07/26/22 19:24	1
Hexachloroethane	ND		11	4.5	ug/L		07/22/22 10:11	07/26/22 19:24	1
Indene	ND		11	1.1	ug/L		07/22/22 10:11	07/26/22 19:24	1
Isophorone	ND		11	0.15	ug/L		07/22/22 10:11	07/26/22 19:24	1
2-Methylphenol	ND		11	1.9	ug/L		07/22/22 10:11	07/26/22 19:24	1
3 & 4 Methylphenol	ND		21	0.41	ug/L		07/22/22 10:11	07/26/22 19:24	1
2-Nitroaniline	ND		11	2.3	ug/L		07/22/22 10:11	07/26/22 19:24	1
3-Nitroaniline	ND		11	1.9	ug/L		07/22/22 10:11	07/26/22 19:24	1
4-Nitroaniline	ND		11	1.6	ug/L		07/22/22 10:11	07/26/22 19:24	1
Nitrobenzene	ND		11	0.14	ug/L		07/22/22 10:11	07/26/22 19:24	1
2-Nitrophenol	ND		11	5.5	ug/L		07/22/22 10:11	07/26/22 19:24	1
4-Nitrophenol	ND		11	2.2	ug/L		07/22/22 10:11	07/26/22 19:24	1
N-Nitrosodimethylamine	ND		11	3.7	ug/L		07/22/22 10:11	07/26/22 19:24	1

Client Sample ID: MW4-ROX07-071822-EB
Date Collected: 07/18/22 08:25
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		11	3.5	ug/L		07/22/22 10:11	07/26/22 19:24	1
N-Nitrosodiphenylamine	ND		11	0.19	ug/L		07/22/22 10:11	07/26/22 19:24	1
Pentachlorophenol	ND		21	1.5	ug/L		07/22/22 10:11	07/26/22 19:24	1
Phenol	ND		11	2.8	ug/L		07/22/22 10:11	07/26/22 19:24	1
Pyridine	ND		11	3.4	ug/L		07/22/22 10:11	07/26/22 19:24	1
Quinoline	ND		11	4.8	ug/L		07/22/22 10:11	07/26/22 19:24	1
2,4,5-Trichlorophenol	ND		11	3.9	ug/L		07/22/22 10:11	07/26/22 19:24	1
2,4,6-Trichlorophenol	ND		11	3.7	ug/L		07/22/22 10:11	07/26/22 19:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*103*		*46 - 124*	*07/22/22 10:11*	*07/26/22 19:24*	*1*
2-Fluorophenol	*4*	*S1-*	*13 - 113*	*07/22/22 10:11*	*07/26/22 19:24*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*07/22/22 10:11*	*07/26/22 19:24*	*1*
Phenol-d5	*29*		*17 - 127*	*07/22/22 10:11*	*07/26/22 19:24*	*1*
Terphenyl-d14	*120*		*44 - 149*	*07/22/22 10:11*	*07/26/22 19:24*	*1*
2,4,6-Tribromophenol	*96*		*26 - 150*	*07/22/22 10:11*	*07/26/22 19:24*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/26/22 15:50	07/27/22 21:10	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/26/22 15:50	07/27/22 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*07/26/22 15:50*	*07/27/22 21:10*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW4-ROX07-071822
Date Collected: 07/18/22 09:40
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/22/22 13:07	1
Acrolein	ND		20	3.3	ug/L			07/22/22 13:07	1
Acrylonitrile	ND		10	2.8	ug/L			07/22/22 13:07	1
Benzene	ND		1.0	0.13	ug/L			07/22/22 13:07	1
Bromobenzene	ND		1.0	0.54	ug/L			07/22/22 13:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/22/22 13:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/22/22 13:07	1
Bromoform	ND		5.0	0.25	ug/L			07/22/22 13:07	1
Bromomethane	ND		1.0	0.98	ug/L			07/22/22 13:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/22/22 13:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/22/22 13:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/22/22 13:07	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/22/22 13:07	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/22/22 13:07	1
Chloroethane	ND		1.0	0.76	ug/L			07/22/22 13:07	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/22/22 13:07	1
Chloroform	ND		1.0	1.0	ug/L			07/22/22 13:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/22/22 13:07	1
Chloromethane	ND		1.0	0.32	ug/L			07/22/22 13:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/22/22 13:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/22/22 13:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/22/22 13:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/22/22 13:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/22/22 13:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/22/22 13:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/22/22 13:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/22/22 13:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 13:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 13:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 13:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 13:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/22/22 13:07	1
Ethy benzene	ND		1.0	0.50	ug/L			07/22/22 13:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/22/22 13:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/22/22 13:07	1
2-Hexanone	ND		25	1.4	ug/L			07/22/22 13:07	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/22/22 13:07	1
Methylene bromide	ND		5.0	0.22	ug/L			07/22/22 13:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/22/22 13:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/22/22 13:07	1
Methyl tert-butyl ether	**0.44**	**J**	1.0	0.22	ug/L			07/22/22 13:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/22/22 13:07	1
Naphthalene	ND		5.0	3.0	ug/L			07/22/22 13:07	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/22/22 13:07	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/22/22 13:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/22/22 13:07	1
o-Xylene	ND		5.0	0.60	ug/L			07/22/22 13:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/22/22 13:07	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/22/22 13:07	1

Client Sample ID: MW4-ROX07-071822

Lab Sample ID: 400-223118-4

Date Collected: 07/18/22 09:40

Matrix: Water

Date Received: 07/19/22 09:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/22/22 13:07	1
Styrene	ND		1.0	1.0	ug/L			07/22/22 13:07	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/22/22 13:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/22/22 13:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/22/22 13:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/22/22 13:07	1
Toluene	ND		1.0	0.41	ug/L			07/22/22 13:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 13:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/22/22 13:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/22/22 13:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/22/22 13:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/22/22 13:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/22/22 13:07	1
Trichloroethene	ND		1.0	0.15	ug/L			07/22/22 13:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/22/22 13:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/22/22 13:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/22/22 13:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/22/22 13:07	1
Vinyl acetate	ND		25	0.93	ug/L			07/22/22 13:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/22/22 13:07	1
Xylenes, Total	ND		10	1.6	ug/L			07/22/22 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*72 - 119*		*07/22/22 13:07*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/22/22 13:07*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*07/22/22 13:07*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.19	0.031	ug/L		07/22/22 10:11	07/27/22 01:19	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/22/22 10:11	07/27/22 01:19	1
Anthracene	ND		0.19	0.031	ug/L		07/22/22 10:11	07/27/22 01:19	1
Benzo[a]anthracene	**0.081**	**J** U	0.19	0.044	ug/L		07/22/22 10:11	07/27/22 01:19	1
Benzo[a]pyrene	**0.18**	**J**	0.19	0.040	ug/L		07/22/22 10:11	07/27/22 01:19	1
Benzo[b]fluoranthene	**0.11**	**J** U	0.19	0.033	ug/L		07/22/22 10:11	07/27/22 01:19	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/27/22 01:19	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		07/22/22 10:11	07/27/22 01:19	1
Chrysene	ND		0.19	0.071	ug/L		07/22/22 10:11	07/27/22 01:19	1
Dibenz(a,h)anthracene	**0.11**	**J**	0.19	0.048	ug/L		07/22/22 10:11	07/27/22 01:19	1
Fluoranthene	ND		0.19	0.065	ug/L		07/22/22 10:11	07/27/22 01:19	1
Fluorene	ND		0.19	0.11	ug/L		07/22/22 10:11	07/27/22 01:19	1
Indeno[1,2,3-cd]pyrene	**0.071**	**J**	0.19	0.041	ug/L		07/22/22 10:11	07/27/22 01:19	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		07/22/22 10:11	07/27/22 01:19	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/22/22 10:11	07/27/22 01:19	1
Phenanthrene	ND		0.19	0.034	ug/L		07/22/22 10:11	07/27/22 01:19	1
Pyrene	**0.043**	**J**	0.19	0.038	ug/L		07/22/22 10:11	07/27/22 01:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*122*		*15 - 122*	*07/22/22 10:11*	*07/27/22 01:19*	*1*
Nitrobenzene-d5	*114*		*19 - 130*	*07/22/22 10:11*	*07/27/22 01:19*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW4-ROX07-071822
Date Collected: 07/18/22 09:40
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	99		33 - 138	07/22/22 10:11	07/27/22 01:19	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.6	3.6	ug/L		07/22/22 10:11	07/26/22 18:58	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		07/22/22 10:11	07/26/22 18:58	1
Benzoic acid	ND	*1	29	7.0	ug/L		07/22/22 10:11	07/26/22 18:58	1
Benzyl alcohol	ND		9.6	1.9	ug/L		07/22/22 10:11	07/26/22 18:58	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		07/22/22 10:11	07/26/22 18:58	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.6	2.6	ug/L		07/22/22 10:11	07/26/22 18:58	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		07/22/22 10:11	07/26/22 18:58	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		07/22/22 10:11	07/26/22 18:58	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		07/22/22 10:11	07/26/22 18:58	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		07/22/22 10:11	07/26/22 18:58	1
4-Chloroaniline	ND		9.6	3.3	ug/L		07/22/22 10:11	07/26/22 18:58	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		07/22/22 10:11	07/26/22 18:58	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		07/22/22 10:11	07/26/22 18:58	1
2-Chlorophenol	ND		9.6	2.1	ug/L		07/22/22 10:11	07/26/22 18:58	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		07/22/22 10:11	07/26/22 18:58	1
D benz[a,h]acridine	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 18:58	1
D benzofuran	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 18:58	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		07/22/22 10:11	07/26/22 18:58	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		07/22/22 10:11	07/26/22 18:58	1
Diethyl phthalate	ND		9.6	0.23	ug/L		07/22/22 10:11	07/26/22 18:58	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 18:58	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 18:58	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		07/22/22 10:11	07/26/22 18:58	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		07/22/22 10:11	07/26/22 18:58	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		07/22/22 10:11	07/26/22 18:58	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		07/22/22 10:11	07/26/22 18:58	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		07/22/22 10:11	07/26/22 18:58	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 18:58	1
1,4-Dioxane	ND	UJ	9.6	0.96	ug/L		07/22/22 10:11	07/26/22 18:58	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 18:58	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 18:58	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/22/22 10:11	07/26/22 18:58	1
Hexachloroethane	ND		9.6	4.0	ug/L		07/22/22 10:11	07/26/22 18:58	1
Indene	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 18:58	1
Isophorone	ND		9.6	0.13	ug/L		07/22/22 10:11	07/26/22 18:58	1
2-Methylphenol	ND		9.6	1.7	ug/L		07/22/22 10:11	07/26/22 18:58	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/22/22 10:11	07/26/22 18:58	1
2-Nitroaniline	ND		9.6	2.1	ug/L		07/22/22 10:11	07/26/22 18:58	1
3-Nitroaniline	ND		9.6	1.7	ug/L		07/22/22 10:11	07/26/22 18:58	1
4-Nitroaniline	ND		9.6	1.4	ug/L		07/22/22 10:11	07/26/22 18:58	1
Nitrobenzene	ND		9.6	0.12	ug/L		07/22/22 10:11	07/26/22 18:58	1
2-Nitrophenol	ND		9.6	5.0	ug/L		07/22/22 10:11	07/26/22 18:58	1
4-Nitrophenol	ND		9.6	2.0	ug/L		07/22/22 10:11	07/26/22 18:58	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 18:58	1

Client Sample ID: MW4-ROX07-071822
Date Collected: 07/18/22 09:40
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		07/22/22 10:11	07/26/22 18:58	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		07/22/22 10:11	07/26/22 18:58	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/26/22 18:58	1
Phenol	ND		9.6	2.5	ug/L		07/22/22 10:11	07/26/22 18:58	1
Pyridine	ND	UJ	9.6	3.1	ug/L		07/22/22 10:11	07/26/22 18:58	1
Quinoline	ND		9.6	4.3	ug/L		07/22/22 10:11	07/26/22 18:58	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		07/22/22 10:11	07/26/22 18:58	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*46 - 124*	*07/22/22 10:11*	*07/26/22 18:58*	*1*
2-Fluorophenol	*33*		*13 - 113*	*07/22/22 10:11*	*07/26/22 18:58*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*07/22/22 10:11*	*07/26/22 18:58*	*1*
Phenol-d5	*64*		*17 - 127*	*07/22/22 10:11*	*07/26/22 18:58*	*1*
Terphenyl-d14	*87*		*44 - 149*	*07/22/22 10:11*	*07/26/22 18:58*	*1*
2,4,6-Tribromophenol	*126*		*26 - 150*	*07/22/22 10:11*	*07/26/22 18:58*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		07/26/22 15:50	07/27/22 21:31	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		07/26/22 15:50	07/27/22 21:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*87*		*51 - 149*	*07/26/22 15:50*	*07/27/22 21:31*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW25-ROX-071822

Date Collected: 07/18/22 10:30
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			07/22/22 13:31	1
Acrolein	ND		20	3.3	ug/L			07/22/22 13:31	1
Acrylonitrile	ND		10	2.8	ug/L			07/22/22 13:31	1
Benzene	**14**		1.0	0.13	ug/L			07/22/22 13:31	1
Bromobenzene	ND		1.0	0.54	ug/L			07/22/22 13:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/22/22 13:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/22/22 13:31	1
Bromoform	ND		5.0	0.25	ug/L			07/22/22 13:31	1
Bromomethane	ND		1.0	0.98	ug/L			07/22/22 13:31	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/22/22 13:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/22/22 13:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/22/22 13:31	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/22/22 13:31	1
D bromochloromethane	ND		1.0	0.24	ug/L			07/22/22 13:31	1
Chloroethane	ND		1.0	0.76	ug/L			07/22/22 13:31	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/22/22 13:31	1
Chloroform	ND		1.0	1.0	ug/L			07/22/22 13:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/22/22 13:31	1
Chloromethane	ND		1.0	0.32	ug/L			07/22/22 13:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/22/22 13:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/22/22 13:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/22/22 13:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/22/22 13:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/22/22 13:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/22/22 13:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/22/22 13:31	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/22/22 13:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 13:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 13:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 13:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 13:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/22/22 13:31	1
Ethy benzene	ND		1.0	0.50	ug/L			07/22/22 13:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/22/22 13:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/22/22 13:31	1
2-Hexanone	ND		25	1.4	ug/L			07/22/22 13:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			07/22/22 13:31	1
Methylene bromide	ND		5.0	0.22	ug/L			07/22/22 13:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/22/22 13:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/22/22 13:31	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/22/22 13:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/22/22 13:31	1
Naphthalene	ND		5.0	3.0	ug/L			07/22/22 13:31	1
n-Buty benzene	ND		1.0	0.76	ug/L			07/22/22 13:31	1
N-Propy benzene	ND		1.0	0.69	ug/L			07/22/22 13:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/22/22 13:31	1
o-Xylene	ND		5.0	0.60	ug/L			07/22/22 13:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/22/22 13:31	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			07/22/22 13:31	1

Client Sample ID: MW25-ROX-071822
Date Collected: 07/18/22 10:30
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/22/22 13:31	1
Styrene	ND		1.0	1.0	ug/L			07/22/22 13:31	1
tert-Buty benzene	ND		1.0	0.63	ug/L			07/22/22 13:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/22/22 13:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/22/22 13:31	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/22/22 13:31	1
Toluene	ND		1.0	0.41	ug/L			07/22/22 13:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 13:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/22/22 13:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/22/22 13:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/22/22 13:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/22/22 13:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/22/22 13:31	1
Trichloroethene	ND		1.0	0.15	ug/L			07/22/22 13:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/22/22 13:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/22/22 13:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			07/22/22 13:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			07/22/22 13:31	1
Vinyl acetate	ND		25	0.93	ug/L			07/22/22 13:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/22/22 13:31	1
Xylenes, Total	ND		10	1.6	ug/L			07/22/22 13:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*72 - 119*		*07/22/22 13:31*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*07/22/22 13:31*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/22/22 13:31*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.19	0.030	ug/L		07/22/22 10:11	07/27/22 01:35	1
Acenaphthylene	ND		0.19	0.042	ug/L		07/22/22 10:11	07/27/22 01:35	1
Anthracene	ND		0.19	0.030	ug/L		07/22/22 10:11	07/27/22 01:35	1
Benzo[a]anthracene	**0.055**	**J**	0.19	0.043	ug/L		07/22/22 10:11	07/27/22 01:35	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/22/22 10:11	07/27/22 01:35	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/22/22 10:11	07/27/22 01:35	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/27/22 01:35	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/22/22 10:11	07/27/22 01:35	1
Chrysene	ND		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 01:35	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/22/22 10:11	07/27/22 01:35	1
Fluoranthene	ND		0.19	0.064	ug/L		07/22/22 10:11	07/27/22 01:35	1
Fluorene	ND		0.19	0.10	ug/L		07/22/22 10:11	07/27/22 01:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/22/22 10:11	07/27/22 01:35	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 01:35	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		07/22/22 10:11	07/27/22 01:35	1
Phenanthrene	ND		0.19	0.034	ug/L		07/22/22 10:11	07/27/22 01:35	1
Pyrene	ND		0.19	0.038	ug/L		07/22/22 10:11	07/27/22 01:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*115*		*15 - 122*	*07/22/22 10:11*	*07/27/22 01:35*	*1*
Nitrobenzene-d5	*114*		*19 - 130*	*07/22/22 10:11*	*07/27/22 01:35*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW25-ROX-071822
Date Collected: 07/18/22 10:30
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*72*		*33 - 138*	*07/22/22 10:11*	*07/27/22 01:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.4	3.6	ug/L		07/22/22 10:11	07/26/22 18:32	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/22/22 10:11	07/26/22 18:32	1
Benzoic acid	**8.4**	**J *1**	28	6.9	ug/L		07/22/22 10:11	07/26/22 18:32	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/22/22 10:11	07/26/22 18:32	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/22/22 10:11	07/26/22 18:32	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.4	2.5	ug/L		07/22/22 10:11	07/26/22 18:32	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/22/22 10:11	07/26/22 18:32	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/22/22 10:11	07/26/22 18:32	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/22/22 10:11	07/26/22 18:32	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/22/22 10:11	07/26/22 18:32	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/22/22 10:11	07/26/22 18:32	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/22/22 10:11	07/26/22 18:32	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/22/22 10:11	07/26/22 18:32	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/22/22 10:11	07/26/22 18:32	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/22/22 10:11	07/26/22 18:32	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 18:32	1
D benzofuran	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 18:32	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		07/22/22 10:11	07/26/22 18:32	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/22/22 10:11	07/26/22 18:32	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/22/22 10:11	07/26/22 18:32	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/22/22 10:11	07/26/22 18:32	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 18:32	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/22/22 10:11	07/26/22 18:32	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/22/22 10:11	07/26/22 18:32	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/22/22 10:11	07/26/22 18:32	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/22/22 10:11	07/26/22 18:32	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/22/22 10:11	07/26/22 18:32	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 18:32	1
1,4-Dioxane	ND	UJ	9.4	0.94	ug/L		07/22/22 10:11	07/26/22 18:32	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 18:32	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 18:32	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/22/22 10:11	07/26/22 18:32	1
Hexachloroethane	ND		9.4	4.0	ug/L		07/22/22 10:11	07/26/22 18:32	1
Indene	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 18:32	1
Isophorone	ND		9.4	0.13	ug/L		07/22/22 10:11	07/26/22 18:32	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/22/22 10:11	07/26/22 18:32	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/22/22 10:11	07/26/22 18:32	1
2-Nitroaniline	ND		9.4	2.1	ug/L		07/22/22 10:11	07/26/22 18:32	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/22/22 10:11	07/26/22 18:32	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/22/22 10:11	07/26/22 18:32	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/22/22 10:11	07/26/22 18:32	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/22/22 10:11	07/26/22 18:32	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/22/22 10:11	07/26/22 18:32	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/22/22 10:11	07/26/22 18:32	1

Client Sample ID: MW25-ROX-071822
Date Collected: 07/18/22 10:30
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-5
Matrix: Water

Method: 8270D - 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		07/22/22 10:11	07/26/22 18:32	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/22/22 10:11	07/26/22 18:32	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/26/22 18:32	1
Phenol	ND		9.4	2.4	ug/L		07/22/22 10:11	07/26/22 18:32	1
Pyridine	ND	UJ	9.4	3.0	ug/L		07/22/22 10:11	07/26/22 18:32	1
Quinoline	ND		9.4	4.2	ug/L		07/22/22 10:11	07/26/22 18:32	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/22/22 10:11	07/26/22 18:32	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/22/22 10:11	07/26/22 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*97*		*46 - 124*	*07/22/22 10:11*	*07/26/22 18:32*	*1*
2-Fluorophenol	*50*		*13 - 113*	*07/22/22 10:11*	*07/26/22 18:32*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*07/22/22 10:11*	*07/26/22 18:32*	*1*
Phenol-d5	*69*		*17 - 127*	*07/22/22 10:11*	*07/26/22 18:32*	*1*
Terphenyl-d14	*64*		*44 - 149*	*07/22/22 10:11*	*07/26/22 18:32*	*1*
2,4,6-Tribromophenol	*117*		*26 - 150*	*07/22/22 10:11*	*07/26/22 18:32*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.033	0.018	ug/L		07/26/22 15:50	07/27/22 21:52	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		07/26/22 15:50	07/27/22 21:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*07/26/22 15:50*	*07/27/22 21:52*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW8-ROX071822
Date Collected: 07/18/22 11:45
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		1300	500	ug/L			07/22/22 10:14	50
Acrolein	ND		1000	170	ug/L			07/22/22 10:14	50
Acrylonitrile	ND		500	140	ug/L			07/22/22 10:14	50
Benzene	**13000**		50	6.5	ug/L			07/22/22 10:14	50
Bromobenzene	ND		50	27	ug/L			07/22/22 10:14	50
Bromochloromethane	ND		50	11	ug/L			07/22/22 10:14	50
Bromodichloromethane	ND		50	25	ug/L			07/22/22 10:14	50
Bromoform	ND		250	13	ug/L			07/22/22 10:14	50
Bromomethane	ND		50	49	ug/L			07/22/22 10:14	50
2-Butanone (MEK)	ND		1300	130	ug/L			07/22/22 10:14	50
Carbon disulfide	ND		50	25	ug/L			07/22/22 10:14	50
Carbon tetrachloride	ND		50	9.5	ug/L			07/22/22 10:14	50
Chlorobenzene	ND		50	7.5	ug/L			07/22/22 10:14	50
D bromochloromethane	ND		50	12	ug/L			07/22/22 10:14	50
Chloroethane	ND		50	38	ug/L			07/22/22 10:14	50
2-Chloroethyl vinyl ether	ND		250	100	ug/L			07/22/22 10:14	50
Chloroform	ND		50	50	ug/L			07/22/22 10:14	50
1-Chlorohexane	ND		50	16	ug/L			07/22/22 10:14	50
Chloromethane	ND		50	16	ug/L			07/22/22 10:14	50
cis-1,2-Dichloroethene	ND		50	10	ug/L			07/22/22 10:14	50
cis-1,3-Dichloropropene	ND		250	25	ug/L			07/22/22 10:14	50
1,2-Dichlorobenzene	ND		50	25	ug/L			07/22/22 10:14	50
1,3-Dichlorobenzene	ND		50	27	ug/L			07/22/22 10:14	50
1,4-Dichlorobenzene	ND		50	32	ug/L			07/22/22 10:14	50
Dichlorodifluoromethane	ND		50	43	ug/L			07/22/22 10:14	50
1,1-Dichloroethane	ND		50	25	ug/L			07/22/22 10:14	50
1,2-Dichloroethane	ND		50	9.5	ug/L			07/22/22 10:14	50
1,1-Dichloroethene	ND		50	25	ug/L			07/22/22 10:14	50
1,2-Dichloropropane	ND		50	25	ug/L			07/22/22 10:14	50
1,3-Dichloropropane	ND		50	25	ug/L			07/22/22 10:14	50
2,2-Dichloropropane	ND		50	25	ug/L			07/22/22 10:14	50
1,1-Dichloropropene	ND		50	25	ug/L			07/22/22 10:14	50
Ethy benzene	ND		50	25	ug/L			07/22/22 10:14	50
Ethyl methacrylate	ND		50	30	ug/L			07/22/22 10:14	50
Hexachlorobutadiene	ND		250	45	ug/L			07/22/22 10:14	50
2-Hexanone	ND		1300	70	ug/L			07/22/22 10:14	50
Isopropylbenzene	ND		50	27	ug/L			07/22/22 10:14	50
Methylene bromide	ND		250	11	ug/L			07/22/22 10:14	50
Methylene Chloride	ND		250	150	ug/L			07/22/22 10:14	50
4-Methyl-2-pentanone (MIBK)	ND		1300	90	ug/L			07/22/22 10:14	50
Methyl tert-butyl ether	**61**		50	11	ug/L			07/22/22 10:14	50
m-Xylene & p-Xylene	ND		250	32	ug/L			07/22/22 10:14	50
Naphthalene	ND		250	150	ug/L			07/22/22 10:14	50
n-Buty benzene	ND		50	38	ug/L			07/22/22 10:14	50
N-Propy benzene	ND		50	35	ug/L			07/22/22 10:14	50
o-Chlorotoluene	ND		50	29	ug/L			07/22/22 10:14	50
o-Xylene	ND		250	30	ug/L			07/22/22 10:14	50
p-Chlorotoluene	ND		50	28	ug/L			07/22/22 10:14	50
p-Isopropyltoluene	ND		50	36	ug/L			07/22/22 10:14	50

Client Sample ID: MW8-ROX071822

Date Collected: 07/18/22 11:45
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		50	35	ug/L			07/22/22 10:14	50
Styrene	ND		50	50	ug/L			07/22/22 10:14	50
tert-Buty benzene	ND		50	32	ug/L			07/22/22 10:14	50
1,1,1,2-Tetrachloroethane	ND		50	8.0	ug/L			07/22/22 10:14	50
1,1,2,2-Tetrachloroethane	ND		50	25	ug/L			07/22/22 10:14	50
Tetrachloroethene	ND		50	45	ug/L			07/22/22 10:14	50
Toluene	ND		50	21	ug/L			07/22/22 10:14	50
trans-1,2-Dichloroethene	ND		50	25	ug/L			07/22/22 10:14	50
trans-1,3-Dichloropropene	ND		250	10	ug/L			07/22/22 10:14	50
1,2,3-Trichlorobenzene	ND		50	45	ug/L			07/22/22 10:14	50
1,2,4-Trichlorobenzene	ND		50	41	ug/L			07/22/22 10:14	50
1,1,1-Trichloroethane	ND		50	9.0	ug/L			07/22/22 10:14	50
1,1,2-Trichloroethane	ND		250	11	ug/L			07/22/22 10:14	50
Trichloroethene	ND		50	7.5	ug/L			07/22/22 10:14	50
Trichlorofluoromethane	ND		50	26	ug/L			07/22/22 10:14	50
1,2,3-Trichloropropane	ND		250	42	ug/L			07/22/22 10:14	50
1,2,4-Trimethylbenzene	ND		50	41	ug/L			07/22/22 10:14	50
1,3,5-Trimethylbenzene	ND		50	28	ug/L			07/22/22 10:14	50
Vinyl acetate	ND		1300	47	ug/L			07/22/22 10:14	50
Vinyl chloride	ND		50	25	ug/L			07/22/22 10:14	50
Xylenes, Total	ND		500	80	ug/L			07/22/22 10:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*72 - 119*		*07/22/22 10:14*	*50*
Dibromofluoromethane	*112*		*75 - 126*		*07/22/22 10:14*	*50*
Toluene-d8 (Surr)	*98*		*64 - 132*		*07/22/22 10:14*	*50*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.31**	J	0.19	0.030	ug/L		07/22/22 10:11	07/27/22 01:50	1
Acenaphthylene	ND		0.19	0.043	ug/L		07/22/22 10:11	07/27/22 01:50	1
Anthracene	ND		0.19	0.030	ug/L		07/22/22 10:11	07/27/22 01:50	1
Benzo[a]anthracene	**0.070**	J	0.19	0.044	ug/L		07/22/22 10:11	07/27/22 01:50	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/22/22 10:11	07/27/22 01:50	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/22/22 10:11	07/27/22 01:50	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/27/22 01:50	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		07/22/22 10:11	07/27/22 01:50	1
Chrysene	ND		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 01:50	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/22/22 10:11	07/27/22 01:50	1
Fluoranthene	ND		0.19	0.065	ug/L		07/22/22 10:11	07/27/22 01:50	1
Fluorene	**0.32**		0.19	0.10	ug/L		07/22/22 10:11	07/27/22 01:50	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/22/22 10:11	07/27/22 01:50	1
1-Methylnaphthalene	**6.5**		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 01:50	1
2-Methylnaphthalene	**0.46**		0.19	0.057	ug/L		07/22/22 10:11	07/27/22 01:50	1
Phenanthrene	**0.058**	J	0.19	0.034	ug/L		07/22/22 10:11	07/27/22 01:50	1
Pyrene	ND		0.19	0.038	ug/L		07/22/22 10:11	07/27/22 01:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*07/22/22 10:11*	*07/27/22 01:50*	*1*
Nitrobenzene-d5	*110*		*19 - 130*	*07/22/22 10:11*	*07/27/22 01:50*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW8-ROX071822
Date Collected: 07/18/22 11:45
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*74*		*33 - 138*	*07/22/22 10:11*	*07/27/22 01:50*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.5	3.6	ug/L		07/22/22 10:11	07/26/22 18:06	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		07/22/22 10:11	07/26/22 18:06	1
Benzoic acid	ND	*1	28	6.9	ug/L		07/22/22 10:11	07/26/22 18:06	1
Benzyl alcohol	ND		9.5	1.9	ug/L		07/22/22 10:11	07/26/22 18:06	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		07/22/22 10:11	07/26/22 18:06	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.5	2.6	ug/L		07/22/22 10:11	07/26/22 18:06	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		07/22/22 10:11	07/26/22 18:06	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		07/22/22 10:11	07/26/22 18:06	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		07/22/22 10:11	07/26/22 18:06	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		07/22/22 10:11	07/26/22 18:06	1
4-Chloroaniline	ND		9.5	3.2	ug/L		07/22/22 10:11	07/26/22 18:06	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		07/22/22 10:11	07/26/22 18:06	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		07/22/22 10:11	07/26/22 18:06	1
2-Chlorophenol	ND		9.5	2.1	ug/L		07/22/22 10:11	07/26/22 18:06	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		07/22/22 10:11	07/26/22 18:06	1
D benz[a,h]acridine	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 18:06	1
D benzofuran	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 18:06	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		07/22/22 10:11	07/26/22 18:06	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		07/22/22 10:11	07/26/22 18:06	1
Diethyl phthalate	ND		9.5	0.23	ug/L		07/22/22 10:11	07/26/22 18:06	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		07/22/22 10:11	07/26/22 18:06	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 18:06	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		07/22/22 10:11	07/26/22 18:06	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		07/22/22 10:11	07/26/22 18:06	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/22/22 10:11	07/26/22 18:06	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		07/22/22 10:11	07/26/22 18:06	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		07/22/22 10:11	07/26/22 18:06	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 18:06	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		07/22/22 10:11	07/26/22 18:06	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 18:06	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		07/22/22 10:11	07/26/22 18:06	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/22/22 10:11	07/26/22 18:06	1
Hexachloroethane	ND		9.5	4.0	ug/L		07/22/22 10:11	07/26/22 18:06	1
Indene	ND		9.5	0.95	ug/L		07/22/22 10:11	07/26/22 18:06	1
Isophorone	ND		9.5	0.13	ug/L		07/22/22 10:11	07/26/22 18:06	1
2-Methylphenol	ND		9.5	1.7	ug/L		07/22/22 10:11	07/26/22 18:06	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/22/22 10:11	07/26/22 18:06	1
2-Nitroaniline	ND		9.5	2.1	ug/L		07/22/22 10:11	07/26/22 18:06	1
3-Nitroaniline	ND		9.5	1.7	ug/L		07/22/22 10:11	07/26/22 18:06	1
4-Nitroaniline	ND		9.5	1.4	ug/L		07/22/22 10:11	07/26/22 18:06	1
Nitrobenzene	ND		9.5	0.12	ug/L		07/22/22 10:11	07/26/22 18:06	1
2-Nitrophenol	ND		9.5	4.9	ug/L		07/22/22 10:11	07/26/22 18:06	1
4-Nitrophenol	ND		9.5	2.0	ug/L		07/22/22 10:11	07/26/22 18:06	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		07/22/22 10:11	07/26/22 18:06	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW8-ROX071822
Date Collected: 07/18/22 11:45
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		07/22/22 10:11	07/26/22 18:06	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		07/22/22 10:11	07/26/22 18:06	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/26/22 18:06	1
Phenol	**120**		9.5	2.5	ug/L		07/22/22 10:11	07/26/22 18:06	1
Pyridine	ND	UJ	9.5	3.0	ug/L		07/22/22 10:11	07/26/22 18:06	1
Quinoline	ND		9.5	4.3	ug/L		07/22/22 10:11	07/26/22 18:06	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		07/22/22 10:11	07/26/22 18:06	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		07/22/22 10:11	07/26/22 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*97*		*46 - 124*	*07/22/22 10:11*	*07/26/22 18:06*	*1*
2-Fluorophenol	*19*		*13 - 113*	*07/22/22 10:11*	*07/26/22 18:06*	*1*
Nitrobenzene-d5	*69*		*36 - 126*	*07/22/22 10:11*	*07/26/22 18:06*	*1*
Phenol-d5	*52*		*17 - 127*	*07/22/22 10:11*	*07/26/22 18:06*	*1*
Terphenyl-d14	*71*		*44 - 149*	*07/22/22 10:11*	*07/26/22 18:06*	*1*
2,4,6-Tribromophenol	*111*		*26 - 150*	*07/22/22 10:11*	*07/26/22 18:06*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.035	0.020	ug/L		07/26/22 15:50	07/27/22 22:13	1
1,2-Dibromoethane	ND		0.023	0.017	ug/L		07/26/22 15:50	07/27/22 22:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*65*		*51 - 149*	*07/26/22 15:50*	*07/27/22 22:13*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW8-ROX071822-DUP

Date Collected: 07/18/22 11:45
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-7

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		1300	500	ug/L			07/22/22 10:41	50
Acrolein	ND		1000	170	ug/L			07/22/22 10:41	50
Acrylonitrile	ND		500	140	ug/L			07/22/22 10:41	50
Benzene	**13000**		50	6.5	ug/L			07/22/22 10:41	50
Bromobenzene	ND		50	27	ug/L			07/22/22 10:41	50
Bromochloromethane	ND		50	11	ug/L			07/22/22 10:41	50
Bromodichloromethane	ND		50	25	ug/L			07/22/22 10:41	50
Bromoform	ND		250	13	ug/L			07/22/22 10:41	50
Bromomethane	ND		50	49	ug/L			07/22/22 10:41	50
2-Butanone (MEK)	ND		1300	130	ug/L			07/22/22 10:41	50
Carbon disulfide	ND		50	25	ug/L			07/22/22 10:41	50
Carbon tetrachloride	ND		50	9.5	ug/L			07/22/22 10:41	50
Chlorobenzene	ND		50	7.5	ug/L			07/22/22 10:41	50
D bromochloromethane	ND		50	12	ug/L			07/22/22 10:41	50
Chloroethane	ND		50	38	ug/L			07/22/22 10:41	50
2-Chloroethyl vinyl ether	ND		250	100	ug/L			07/22/22 10:41	50
Chloroform	ND		50	50	ug/L			07/22/22 10:41	50
1-Chlorohexane	ND		50	16	ug/L			07/22/22 10:41	50
Chloromethane	ND		50	16	ug/L			07/22/22 10:41	50
cis-1,2-Dichloroethene	ND		50	10	ug/L			07/22/22 10:41	50
cis-1,3-Dichloropropene	ND		250	25	ug/L			07/22/22 10:41	50
1,2-Dichlorobenzene	ND		50	25	ug/L			07/22/22 10:41	50
1,3-Dichlorobenzene	ND		50	27	ug/L			07/22/22 10:41	50
1,4-Dichlorobenzene	ND		50	32	ug/L			07/22/22 10:41	50
Dichlorodifluoromethane	ND		50	43	ug/L			07/22/22 10:41	50
1,1-Dichloroethane	ND		50	25	ug/L			07/22/22 10:41	50
1,2-Dichloroethane	ND		50	9.5	ug/L			07/22/22 10:41	50
1,1-Dichloroethene	ND		50	25	ug/L			07/22/22 10:41	50
1,2-Dichloropropane	ND		50	25	ug/L			07/22/22 10:41	50
1,3-Dichloropropane	ND		50	25	ug/L			07/22/22 10:41	50
2,2-Dichloropropane	ND		50	25	ug/L			07/22/22 10:41	50
1,1-Dichloropropene	ND		50	25	ug/L			07/22/22 10:41	50
Ethy benzene	ND		50	25	ug/L			07/22/22 10:41	50
Ethyl methacrylate	ND		50	30	ug/L			07/22/22 10:41	50
Hexachlorobutadiene	ND		250	45	ug/L			07/22/22 10:41	50
2-Hexanone	ND		1300	70	ug/L			07/22/22 10:41	50
Isopropylbenzene	ND		50	27	ug/L			07/22/22 10:41	50
Methylene bromide	ND		250	11	ug/L			07/22/22 10:41	50
Methylene Chloride	ND		250	150	ug/L			07/22/22 10:41	50
4-Methyl-2-pentanone (MIBK)	ND		1300	90	ug/L			07/22/22 10:41	50
Methyl tert-butyl ether	**51**		50	11	ug/L			07/22/22 10:41	50
m-Xylene & p-Xylene	ND		250	32	ug/L			07/22/22 10:41	50
Naphthalene	ND		250	150	ug/L			07/22/22 10:41	50
n-Buty benzene	ND		50	38	ug/L			07/22/22 10:41	50
N-Propy benzene	ND		50	35	ug/L			07/22/22 10:41	50
o-Chlorotoluene	ND		50	29	ug/L			07/22/22 10:41	50
o-Xylene	ND		250	30	ug/L			07/22/22 10:41	50
p-Chlorotoluene	ND		50	28	ug/L			07/22/22 10:41	50
p-Isopropyltoluene	ND		50	36	ug/L			07/22/22 10:41	50

Client Sample ID: MW8-ROX071822-DUP

Date Collected: 07/18/22 11:45
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-7

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		50	35	ug/L			07/22/22 10:41	50
Styrene	ND		50	50	ug/L			07/22/22 10:41	50
tert-Buty benzene	ND		50	32	ug/L			07/22/22 10:41	50
1,1,1,2-Tetrachloroethane	ND		50	8.0	ug/L			07/22/22 10:41	50
1,1,2,2-Tetrachloroethane	ND		50	25	ug/L			07/22/22 10:41	50
Tetrachloroethene	ND		50	45	ug/L			07/22/22 10:41	50
Toluene	ND		50	21	ug/L			07/22/22 10:41	50
trans-1,2-Dichloroethene	ND		50	25	ug/L			07/22/22 10:41	50
trans-1,3-Dichloropropene	ND		250	10	ug/L			07/22/22 10:41	50
1,2,3-Trichlorobenzene	ND		50	45	ug/L			07/22/22 10:41	50
1,2,4-Trichlorobenzene	ND		50	41	ug/L			07/22/22 10:41	50
1,1,1-Trichloroethane	ND		50	9.0	ug/L			07/22/22 10:41	50
1,1,2-Trichloroethane	ND		250	11	ug/L			07/22/22 10:41	50
Trichloroethene	ND		50	7.5	ug/L			07/22/22 10:41	50
Trichlorofluoromethane	ND		50	26	ug/L			07/22/22 10:41	50
1,2,3-Trichloropropane	ND		250	42	ug/L			07/22/22 10:41	50
1,2,4-Trimethylbenzene	ND		50	41	ug/L			07/22/22 10:41	50
1,3,5-Trimethylbenzene	ND		50	28	ug/L			07/22/22 10:41	50
Vinyl acetate	ND		1300	47	ug/L			07/22/22 10:41	50
Vinyl chloride	ND		50	25	ug/L			07/22/22 10:41	50
Xylenes, Total	ND		500	80	ug/L			07/22/22 10:41	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/22/22 10:41*	*50*
Dibromofluoromethane	*112*		*75 - 126*		*07/22/22 10:41*	*50*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/22/22 10:41*	*50*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.35**	J	0.19	0.030	ug/L		07/22/22 10:11	07/27/22 02:06	1
Acenaphthylene	**0.15**	**J**	0.19	0.042	ug/L		07/22/22 10:11	07/27/22 02:06	1
Anthracene	**0.058**	**J**	0.19	0.030	ug/L		07/22/22 10:11	07/27/22 02:06	1
Benzo[a]anthracene	**0.058**	**J**	0.19	0.043	ug/L		07/22/22 10:11	07/27/22 02:06	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/22/22 10:11	07/27/22 02:06	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		07/22/22 10:11	07/27/22 02:06	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/27/22 02:06	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		07/22/22 10:11	07/27/22 02:06	1
Chrysene	ND		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 02:06	1
D benz(a,h)anthracene	ND		0.19	0.047	ug/L		07/22/22 10:11	07/27/22 02:06	1
Fluoranthene	ND		0.19	0.064	ug/L		07/22/22 10:11	07/27/22 02:06	1
Fluorene	**0.46**		0.19	0.10	ug/L		07/22/22 10:11	07/27/22 02:06	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		07/22/22 10:11	07/27/22 02:06	1
1-Methylnaphthalene	**7.0**		0.19	0.070	ug/L		07/22/22 10:11	07/27/22 02:06	1
2-Methylnaphthalene	**0.41**		0.19	0.056	ug/L		07/22/22 10:11	07/27/22 02:06	1
Phenanthrene	**0.071**	**J**	0.19	0.034	ug/L		07/22/22 10:11	07/27/22 02:06	1
Pyrene	ND		0.19	0.038	ug/L		07/22/22 10:11	07/27/22 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*07/22/22 10:11*	*07/27/22 02:06*	*1*
Nitrobenzene-d5	*114*		*19 - 130*	*07/22/22 10:11*	*07/27/22 02:06*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW8-ROX071822-DUP

Date Collected: 07/18/22 11:45
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-7

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	99		33 - 138	07/22/22 10:11	07/27/22 02:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.4	3.6	ug/L		07/22/22 10:11	07/26/22 17:41	1
Benzenethiol	ND	*- *1 UJ	9.4	1.6	ug/L		07/22/22 10:11	07/26/22 17:41	1
Benzoic acid	ND	*1	28	6.9	ug/L		07/22/22 10:11	07/26/22 17:41	1
Benzyl alcohol	ND		9.4	1.9	ug/L		07/22/22 10:11	07/26/22 17:41	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		07/22/22 10:11	07/26/22 17:41	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.4	2.5	ug/L		07/22/22 10:11	07/26/22 17:41	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		07/22/22 10:11	07/26/22 17:41	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		07/22/22 10:11	07/26/22 17:41	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		07/22/22 10:11	07/26/22 17:41	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		07/22/22 10:11	07/26/22 17:41	1
4-Chloroaniline	ND		9.4	3.2	ug/L		07/22/22 10:11	07/26/22 17:41	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		07/22/22 10:11	07/26/22 17:41	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		07/22/22 10:11	07/26/22 17:41	1
2-Chlorophenol	ND		9.4	2.1	ug/L		07/22/22 10:11	07/26/22 17:41	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		07/22/22 10:11	07/26/22 17:41	1
D benz[a,h]acridine	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 17:41	1
D benzofuran	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 17:41	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		07/22/22 10:11	07/26/22 17:41	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		07/22/22 10:11	07/26/22 17:41	1
Diethyl phthalate	ND		9.4	0.23	ug/L		07/22/22 10:11	07/26/22 17:41	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		07/22/22 10:11	07/26/22 17:41	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 17:41	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		07/22/22 10:11	07/26/22 17:41	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		07/22/22 10:11	07/26/22 17:41	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		07/22/22 10:11	07/26/22 17:41	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		07/22/22 10:11	07/26/22 17:41	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		07/22/22 10:11	07/26/22 17:41	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 17:41	1
1,4-Dioxane	ND	UJ	9.4	0.94	ug/L		07/22/22 10:11	07/26/22 17:41	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 17:41	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		07/22/22 10:11	07/26/22 17:41	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		07/22/22 10:11	07/26/22 17:41	1
Hexachloroethane	ND		9.4	4.0	ug/L		07/22/22 10:11	07/26/22 17:41	1
Indene	ND		9.4	0.94	ug/L		07/22/22 10:11	07/26/22 17:41	1
Isophorone	ND		9.4	0.13	ug/L		07/22/22 10:11	07/26/22 17:41	1
2-Methylphenol	ND		9.4	1.7	ug/L		07/22/22 10:11	07/26/22 17:41	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/22/22 10:11	07/26/22 17:41	1
2-Nitroaniline	ND		9.4	2.1	ug/L		07/22/22 10:11	07/26/22 17:41	1
3-Nitroaniline	ND		9.4	1.7	ug/L		07/22/22 10:11	07/26/22 17:41	1
4-Nitroaniline	ND		9.4	1.4	ug/L		07/22/22 10:11	07/26/22 17:41	1
Nitrobenzene	ND		9.4	0.12	ug/L		07/22/22 10:11	07/26/22 17:41	1
2-Nitrophenol	ND		9.4	4.9	ug/L		07/22/22 10:11	07/26/22 17:41	1
4-Nitrophenol	ND		9.4	2.0	ug/L		07/22/22 10:11	07/26/22 17:41	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		07/22/22 10:11	07/26/22 17:41	1

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW8-ROX071822-DUP
Date Collected: 07/18/22 11:45
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-7
Matrix: Water

Method: 8270D - 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		07/22/22 10:11	07/26/22 17:41	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		07/22/22 10:11	07/26/22 17:41	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/26/22 17:41	1
Phenol	**100**		9.4	2.4	ug/L		07/22/22 10:11	07/26/22 17:41	1
Pyridine	ND	UJ	9.4	3.0	ug/L		07/22/22 10:11	07/26/22 17:41	1
Quinoline	ND		9.4	4.2	ug/L		07/22/22 10:11	07/26/22 17:41	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		07/22/22 10:11	07/26/22 17:41	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		07/22/22 10:11	07/26/22 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*46 - 124*	*07/22/22 10:11*	*07/26/22 17:41*	*1*
2-Fluorophenol	*15*		*13 - 113*	*07/22/22 10:11*	*07/26/22 17:41*	*1*
Nitrobenzene-d5	*73*		*36 - 126*	*07/22/22 10:11*	*07/26/22 17:41*	*1*
Phenol-d5	*43*		*17 - 127*	*07/22/22 10:11*	*07/26/22 17:41*	*1*
Terphenyl-d14	*97*		*44 - 149*	*07/22/22 10:11*	*07/26/22 17:41*	*1*
2,4,6-Tribromophenol	*116*		*26 - 150*	*07/22/22 10:11*	*07/26/22 17:41*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		07/26/22 15:50	07/27/22 22:33	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/26/22 15:50	07/27/22 22:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*51 - 149*	*07/26/22 15:50*	*07/27/22 22:33*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Client Sample ID: MW7-ROX--071822
Date Collected: 07/18/22 12:40
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-8
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	UJ	25000	10000	ug/L			07/22/22 11:06	1000
Acrolein	ND		20000	3300	ug/L			07/22/22 11:06	1000
Acrylonitrile	ND		10000	2800	ug/L			07/22/22 11:06	1000
Bromobenzene	ND		1000	540	ug/L			07/22/22 11:06	1000
Bromochloromethane	ND		1000	210	ug/L			07/22/22 11:06	1000
Bromodichloromethane	ND		1000	500	ug/L			07/22/22 11:06	1000
Bromoform	ND		5000	250	ug/L			07/22/22 11:06	1000
Bromomethane	ND		1000	980	ug/L			07/22/22 11:06	1000
2-Butanone (MEK)	ND		25000	2600	ug/L			07/22/22 11:06	1000
Carbon disulfide	ND		1000	500	ug/L			07/22/22 11:06	1000
Carbon tetrachloride	ND		1000	190	ug/L			07/22/22 11:06	1000
Chlorobenzene	ND		1000	150	ug/L			07/22/22 11:06	1000
D bromochloromethane	ND		1000	240	ug/L			07/22/22 11:06	1000
Chloroethane	ND		1000	760	ug/L			07/22/22 11:06	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			07/22/22 11:06	1000
Chloroform	ND		1000	1000	ug/L			07/22/22 11:06	1000
1-Chlorohexane	ND		1000	320	ug/L			07/22/22 11:06	1000
Chloromethane	ND		1000	320	ug/L			07/22/22 11:06	1000
cis-1,2-Dichloroethene	ND		1000	200	ug/L			07/22/22 11:06	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			07/22/22 11:06	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			07/22/22 11:06	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			07/22/22 11:06	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			07/22/22 11:06	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			07/22/22 11:06	1000
1,1-Dichloroethane	ND		1000	500	ug/L			07/22/22 11:06	1000
1,2-Dichloroethane	ND		1000	190	ug/L			07/22/22 11:06	1000
1,1-Dichloroethene	ND		1000	500	ug/L			07/22/22 11:06	1000
1,2-Dichloropropane	ND		1000	500	ug/L			07/22/22 11:06	1000
1,3-Dichloropropane	ND		1000	500	ug/L			07/22/22 11:06	1000
2,2-Dichloropropane	ND		1000	500	ug/L			07/22/22 11:06	1000
1,1-Dichloropropene	ND		1000	500	ug/L			07/22/22 11:06	1000
Ethy benzene	ND		1000	500	ug/L			07/22/22 11:06	1000
Ethyl methacrylate	ND		1000	600	ug/L			07/22/22 11:06	1000
Hexachlorobutadiene	ND		5000	900	ug/L			07/22/22 11:06	1000
2-Hexanone	ND		25000	1400	ug/L			07/22/22 11:06	1000
Isopropylbenzene	ND		1000	530	ug/L			07/22/22 11:06	1000
Methylene bromide	ND		5000	220	ug/L			07/22/22 11:06	1000
Methylene Chloride	ND		5000	3000	ug/L			07/22/22 11:06	1000
4-Methyl-2-pentanone (MIBK)	ND		25000	1800	ug/L			07/22/22 11:06	1000
Methyl tert-butyl ether	ND		1000	220	ug/L			07/22/22 11:06	1000
m-Xylene & p-Xylene	ND		5000	630	ug/L			07/22/22 11:06	1000
Naphthalene	ND		5000	3000	ug/L			07/22/22 11:06	1000
n-Buty benzene	ND		1000	760	ug/L			07/22/22 11:06	1000
N-Propy benzene	ND		1000	690	ug/L			07/22/22 11:06	1000
o-Chlorotoluene	ND		1000	570	ug/L			07/22/22 11:06	1000
o-Xylene	ND		5000	600	ug/L			07/22/22 11:06	1000
p-Chlorotoluene	ND		1000	560	ug/L			07/22/22 11:06	1000
p-Isopropyltoluene	ND		1000	710	ug/L			07/22/22 11:06	1000
sec-Butylbenzene	ND		1000	700	ug/L			07/22/22 11:06	1000

Client Sample ID: MW7-ROX--071822

Date Collected: 07/18/22 12:40
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-8

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	UJ	1000	1000	ug/L			07/22/22 11:06	1000
tert-Buty benzene	ND		1000	630	ug/L			07/22/22 11:06	1000
1,1,1,2-Tetrachloroethane	ND		1000	160	ug/L			07/22/22 11:06	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			07/22/22 11:06	1000
Tetrachloroethene	ND		1000	900	ug/L			07/22/22 11:06	1000
Toluene	ND		1000	410	ug/L			07/22/22 11:06	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			07/22/22 11:06	1000
trans-1,3-Dichloropropene	ND		5000	200	ug/L			07/22/22 11:06	1000
1,2,3-Trichlorobenzene	ND		1000	900	ug/L			07/22/22 11:06	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			07/22/22 11:06	1000
1,1,1-Trichloroethane	ND		1000	180	ug/L			07/22/22 11:06	1000
1,1,2-Trichloroethane	ND		5000	210	ug/L			07/22/22 11:06	1000
Trichloroethene	ND		1000	150	ug/L			07/22/22 11:06	1000
Trichlorofluoromethane	ND		1000	520	ug/L			07/22/22 11:06	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			07/22/22 11:06	1000
1,2,4-Trimethylbenzene	ND		1000	820	ug/L			07/22/22 11:06	1000
1,3,5-Trimethylbenzene	ND		1000	560	ug/L			07/22/22 11:06	1000
Vinyl acetate	ND		25000	930	ug/L			07/22/22 11:06	1000
Vinyl chloride	ND		1000	500	ug/L			07/22/22 11:06	1000
Xylenes, Total	ND		10000	1600	ug/L			07/22/22 11:06	1000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*87*		*72 - 119*		*07/22/22 11:06*	*1000*
Dibromofluoromethane	*114*		*75 - 126*		*07/22/22 11:06*	*1000*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/22/22 11:06*	*1000*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**560000**		5000	650	ug/L			07/24/22 17:03	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*72 - 119*		*07/24/22 17:03*	*5000*
Dibromofluoromethane	*111*		*75 - 126*		*07/24/22 17:03*	*5000*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/24/22 17:03*	*5000*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.12**	**J** J	0.19	0.031	ug/L		07/22/22 10:11	07/27/22 02:21	1
Acenaphthylene	**0.18**	**J**	0.19	0.043	ug/L		07/22/22 10:11	07/27/22 02:21	1
Anthracene	ND		0.19	0.031	ug/L		07/22/22 10:11	07/27/22 02:21	1
Benzo[a]anthracene	**0.066**	**J**	0.19	0.044	ug/L		07/22/22 10:11	07/27/22 02:21	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		07/22/22 10:11	07/27/22 02:21	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		07/22/22 10:11	07/27/22 02:21	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		07/22/22 10:11	07/27/22 02:21	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		07/22/22 10:11	07/27/22 02:21	1
Chrysene	ND		0.19	0.071	ug/L		07/22/22 10:11	07/27/22 02:21	1
D benz(a,h)anthracene	ND		0.19	0.048	ug/L		07/22/22 10:11	07/27/22 02:21	1
Fluoranthene	ND		0.19	0.065	ug/L		07/22/22 10:11	07/27/22 02:21	1
Fluorene	**0.20**		0.19	0.11	ug/L		07/22/22 10:11	07/27/22 02:21	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		07/22/22 10:11	07/27/22 02:21	1

Client Sample ID: MW7-ROX--071822
Date Collected: 07/18/22 12:40
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-8
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**1.9**		0.19	0.071	ug/L		07/22/22 10:11	07/27/22 02:21	1
2-Methylnaphthalene	**3.0**		0.19	0.058	ug/L		07/22/22 10:11	07/27/22 02:21	1
Phenanthrene	**0.27**		0.19	0.035	ug/L		07/22/22 10:11	07/27/22 02:21	1
Pyrene	**0.054**	**J**	0.19	0.038	ug/L		07/22/22 10:11	07/27/22 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*120*		*15 - 122*	*07/22/22 10:11*	*07/27/22 02:21*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*07/22/22 10:11*	*07/27/22 02:21*	*1*
Terphenyl-d14	*111*		*33 - 138*	*07/22/22 10:11*	*07/27/22 02:21*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*- *1 UJ	9.6	3.7	ug/L		07/22/22 10:11	07/26/22 17:14	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		07/22/22 10:11	07/26/22 17:14	1
Benzoic acid	**22**	**J *1**	29	7.0	ug/L		07/22/22 10:11	07/26/22 17:14	1
Benzyl alcohol	ND		9.6	1.9	ug/L		07/22/22 10:11	07/26/22 17:14	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		07/22/22 10:11	07/26/22 17:14	1
Bis(2-chloroethyl)ether	ND	*+ *1	9.6	2.6	ug/L		07/22/22 10:11	07/26/22 17:14	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		07/22/22 10:11	07/26/22 17:14	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		07/22/22 10:11	07/26/22 17:14	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		07/22/22 10:11	07/26/22 17:14	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		07/22/22 10:11	07/26/22 17:14	1
4-Chloroaniline	ND		9.6	3.3	ug/L		07/22/22 10:11	07/26/22 17:14	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		07/22/22 10:11	07/26/22 17:14	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		07/22/22 10:11	07/26/22 17:14	1
2-Chlorophenol	ND		9.6	2.1	ug/L		07/22/22 10:11	07/26/22 17:14	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		07/22/22 10:11	07/26/22 17:14	1
D benz[a,h]acridine	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 17:14	1
D benzofuran	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 17:14	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		07/22/22 10:11	07/26/22 17:14	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		07/22/22 10:11	07/26/22 17:14	1
Diethyl phthalate	ND		9.6	0.23	ug/L		07/22/22 10:11	07/26/22 17:14	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 17:14	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 17:14	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		07/22/22 10:11	07/26/22 17:14	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		07/22/22 10:11	07/26/22 17:14	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		07/22/22 10:11	07/26/22 17:14	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		07/22/22 10:11	07/26/22 17:14	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		07/22/22 10:11	07/26/22 17:14	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 17:14	1
1,4-Dioxane	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 17:14	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 17:14	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		07/22/22 10:11	07/26/22 17:14	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		07/22/22 10:11	07/26/22 17:14	1
Hexachloroethane	ND		9.6	4.0	ug/L		07/22/22 10:11	07/26/22 17:14	1
Indene	ND		9.6	0.96	ug/L		07/22/22 10:11	07/26/22 17:14	1
Isophorone	ND		9.6	0.13	ug/L		07/22/22 10:11	07/26/22 17:14	1
2-Methylphenol	ND		9.6	1.7	ug/L		07/22/22 10:11	07/26/22 17:14	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		07/22/22 10:11	07/26/22 17:14	1

Client Sample ID: MW7-ROX--071822
Date Collected: 07/18/22 12:40
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-8
Matrix: Water

Method: 8270D - 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		07/22/22 10:11	07/26/22 17:14	1
3-Nitroaniline	ND		9.6	1.7	ug/L		07/22/22 10:11	07/26/22 17:14	1
4-Nitroaniline	ND		9.6	1.4	ug/L		07/22/22 10:11	07/26/22 17:14	1
Nitrobenzene	ND		9.6	0.12	ug/L		07/22/22 10:11	07/26/22 17:14	1
2-Nitrophenol	ND		9.6	5.0	ug/L		07/22/22 10:11	07/26/22 17:14	1
4-Nitrophenol	ND		9.6	2.0	ug/L		07/22/22 10:11	07/26/22 17:14	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 17:14	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		07/22/22 10:11	07/26/22 17:14	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		07/22/22 10:11	07/26/22 17:14	1
Pentachlorophenol	ND		19	1.3	ug/L		07/22/22 10:11	07/26/22 17:14	1
Phenol	**86**		9.6	2.5	ug/L		07/22/22 10:11	07/26/22 17:14	1
Pyridine	ND		9.6	3.1	ug/L		07/22/22 10:11	07/26/22 17:14	1
Quinoline	ND		9.6	4.3	ug/L		07/22/22 10:11	07/26/22 17:14	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		07/22/22 10:11	07/26/22 17:14	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		07/22/22 10:11	07/26/22 17:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*46 - 124*	*07/22/22 10:11*	*07/26/22 17:14*	*1*
2-Fluorophenol	*24*		*13 - 113*	*07/22/22 10:11*	*07/26/22 17:14*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*07/22/22 10:11*	*07/26/22 17:14*	*1*
Phenol-d5	*59*		*17 - 127*	*07/22/22 10:11*	*07/26/22 17:14*	*1*
Terphenyl-d14	*94*		*44 - 149*	*07/22/22 10:11*	*07/26/22 17:14*	*1*
2,4,6-Tribromophenol	*118*		*26 - 150*	*07/22/22 10:11*	*07/26/22 17:14*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		07/26/22 15:50	07/27/22 22:54	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		07/26/22 15:50	07/27/22 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*51 - 149*	*07/26/22 15:50*	*07/27/22 22:54*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-223118-1
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.
*+	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.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-223118-1	TB-ROX-071822-8260	86	109	98
400-223118-3	MW4-ROX07-071822-EB	84	109	96
400-223118-4	MW4-ROX07-071822	85	106	96
400-223118-5	MW25-ROX-071822	82	107	97
400-223118-6	MW8-ROX071822	84	112	98
400-223118-7	MW8-ROX071822-DUP	83	112	97
400-223118-8	MW7-ROX--071822	87	114	97
400-223118-8 - DL	MW7-ROX--071822	82	111	99
LCS 400-585740/1002	Lab Control Sample	88	99	101
LCS 400-585960/1002	Lab Control Sample	90	98	102
MB 400-585740/4	Method Blank	83	110	99
MB 400-585960/4	Method Blank	83	106	97

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-223118-3	MW4-ROX07-071822-EB	103	4 S1-	78	29	120	96
400-223118-4	MW4-ROX07-071822	98	33	76	64	87	126
400-223118-5	MW25-ROX-071822	97	50	70	69	64	117
400-223118-6	MW8-ROX071822	97	19	69	52	71	111
400-223118-7	MW8-ROX071822-DUP	102	15	73	43	97	116
400-223118-8	MW7-ROX--071822	95	24	68	59	94	118
LCS 400-585779/2-A	Lab Control Sample	99	52	79	68	109	111
LCS 400-585779/4-A	Lab Control Sample	107	43	74	69	121	97
LCSD 400-585779/3-A	Lab Control Sample Dup	104	30	75	63	115	111
LCSD 400-585779/5-A	Lab Control Sample Dup	100	48	72	68	115	87
MB 400-585779/1-A	Method Blank	93	3 S1-	68	23	107	69

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-223118-3	MW4-ROX07-071822-EB	121	118	133

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-223118-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-223118-4	MW4-ROX07-071822	122	114	99
400-223118-5	MW25-ROX-071822	115	114	72
400-223118-6	MW8-ROX071822	109	110	74
400-223118-7	MW8-ROX071822-DUP	112	114	99
400-223118-8	MW7-ROX--071822	120	96	111
LCS 400-585779/2-A	Lab Control Sample	100	68	104
LCSD 400-585779/3-A	Lab Control Sample Dup	106	95	107
MB 400-585779/1-A	Method Blank	112	109	125

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-223118-2	TB-ROX-071822-8011	84
400-223118-3	MW4-ROX07-071822-EB	98
400-223118-4	MW4-ROX07-071822	87
400-223118-5	MW25-ROX-071822	80
400-223118-6	MW8-ROX071822	65
400-223118-7	MW8-ROX071822-DUP	89
400-223118-8	MW7-ROX--071822	95
LCS 400-586287/2-A	Lab Control Sample	105
LCSD 400-586287/3-A	Lab Control Sample Dup	107
MB 400-586287/1-A	Method Blank	101

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-223118-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL 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:

TAL 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: 400-223118-1

Client Sample ID: TB-ROX-071822-8260
Date Collected: 07/18/22 12:00
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-1
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	8260B		1	5 mL	5 mL	585740	07/22/22 12:44	WPD	TAL PEN

Client Sample ID: TB-ROX-071822-8011
Date Collected: 07/18/22 12:00
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-2
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			32.2 mL	35 mL	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586330	07/27/22 20:49	DS	TAL PEN

Client Sample ID: MW4-ROX07-071822-EB
Date Collected: 07/18/22 08:25
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-3
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	8260B		1	5 mL	5 mL	585740	07/22/22 09:51	WPD	TAL PEN
Total/NA	Prep	3520C			235.6 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 19:24	S1B	TAL PEN
Total/NA	Prep	3520C			235.6 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 01:04	PP1	TAL PEN
Total/NA	Prep	8011			34.3 mL	35 mL	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586330	07/27/22 21:10	DS	TAL PEN

Client Sample ID: MW4-ROX07-071822
Date Collected: 07/18/22 09:40
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-4
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	8260B		1	5 mL	5 mL	585740	07/22/22 13:07	WPD	TAL PEN
Total/NA	Prep	3520C			261 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 18:58	S1B	TAL PEN
Total/NA	Prep	3520C			261 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 01:19	PP1	TAL PEN
Total/NA	Prep	8011			33.3 mL	35 mL	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586330	07/27/22 21:31	DS	TAL PEN

Client Sample ID: MW25-ROX-071822
Date Collected: 07/18/22 10:30
Date Received: 07/19/22 09:20

Lab Sample ID: 400-223118-5
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	8260B		1	5 mL	5 mL	585740	07/22/22 13:31	WPD	TAL PEN
Total/NA	Prep	3520C			265.4 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 18:32	S1B	TAL PEN

Client Sample ID: MW25-ROX-071822

Lab Sample ID: 400-223118-5

Date Collected: 07/18/22 10:30

Matrix: Water

Date Received: 07/19/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			265.4 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 01:35	PP1	TAL PEN
Total/NA	Prep	8011			32.3 mL	35 mL	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586330	07/27/22 21:52	DS	TAL PEN

Client Sample ID: MW8-ROX071822

Lab Sample ID: 400-223118-6

Date Collected: 07/18/22 11:45

Matrix: Water

Date Received: 07/19/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	5 mL	5 mL	585740	07/22/22 10:14	WPD	TAL PEN
Total/NA	Prep	3520C			263.4 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 18:06	S1B	TAL PEN
Total/NA	Prep	3520C			263.4 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 01:50	PP1	TAL PEN
Total/NA	Prep	8011			30.1 mL	35 mL	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586330	07/27/22 22:13	DS	TAL PEN

Client Sample ID: MW8-ROX071822-DUP

Lab Sample ID: 400-223118-7

Date Collected: 07/18/22 11:45

Matrix: Water

Date Received: 07/19/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	5 mL	5 mL	585740	07/22/22 10:41	WPD	TAL PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 17:41	S1B	TAL PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 02:06	PP1	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586330	07/27/22 22:33	DS	TAL PEN

Client Sample ID: MW7-ROX--071822

Lab Sample ID: 400-223118-8

Date Collected: 07/18/22 12:40

Matrix: Water

Date Received: 07/19/22 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1000	5 mL	5 mL	585740	07/22/22 11:06	WPD	TAL PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	585960	07/24/22 17:03	BEP	TAL PEN
Total/NA	Prep	3520C			260.2 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586255	07/26/22 17:14	S1B	TAL PEN
Total/NA	Prep	3520C			260.2 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			586295	07/27/22 02:21	PP1	TAL PEN
Total/NA	Prep	8011			34.4 mL	35 mL	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586330	07/27/22 22:54	DS	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585740/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585740	07/22/22 08:06	WPD	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585779/1-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 19:21	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			586295	07/26/22 22:29	PP1	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-585960/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585960	07/24/22 16:08	BEP	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-586287/1-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	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586328	07/27/22 11:06	DS	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585740/1002

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585740	07/22/22 07:12	WPD	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585779/2-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 20:37	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			586295	07/26/22 22:45	PP1	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Job ID: 400-223118-1
Project/Site: ROXANA QUARTERLY GW

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585779/4-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 19:47	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-585960/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	585960	07/24/22 15:06	BEP	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-586287/2-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	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586328	07/27/22 11:27	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585779/3-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	586042	07/25/22 21:03	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			586295	07/26/22 23:00	PP1	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-585779/5-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	585779	07/22/22 10:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			586042	07/25/22 20:12	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-586287/3-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	586287	07/26/22 15:50	JAW	TAL PEN
Total/NA	Analysis	8011		1			586328	07/27/22 11:48	DS	TAL PEN

Laboratory References:
TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 585740

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223118-1	TB-ROX-071822-8260	Total/NA	Water	8260B	
400-223118-3	MW4-ROX07-071822-EB	Total/NA	Water	8260B	
400-223118-4	MW4-ROX07-071822	Total/NA	Water	8260B	
400-223118-5	MW25-ROX-071822	Total/NA	Water	8260B	
400-223118-6	MW8-ROX071822	Total/NA	Water	8260B	
400-223118-7	MW8-ROX071822-DUP	Total/NA	Water	8260B	
400-223118-8	MW7-ROX--071822	Total/NA	Water	8260B	
MB 400-585740/4	Method Blank	Total/NA	Water	8260B	
LCS 400-585740/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 585960

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223118-8 - DL	MW7-ROX--071822	Total/NA	Water	8260B	
MB 400-585960/4	Method Blank	Total/NA	Water	8260B	
LCS 400-585960/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 585779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223118-3	MW4-ROX07-071822-EB	Total/NA	Water	3520C	
400-223118-4	MW4-ROX07-071822	Total/NA	Water	3520C	
400-223118-5	MW25-ROX-071822	Total/NA	Water	3520C	
400-223118-6	MW8-ROX071822	Total/NA	Water	3520C	
400-223118-7	MW8-ROX071822-DUP	Total/NA	Water	3520C	
400-223118-8	MW7-ROX--071822	Total/NA	Water	3520C	
MB 400-585779/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-585779/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-585779/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-585779/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-585779/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 586042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-585779/1-A	Method Blank	Total/NA	Water	8270D	585779
LCS 400-585779/2-A	Lab Control Sample	Total/NA	Water	8270D	585779
LCS 400-585779/4-A	Lab Control Sample	Total/NA	Water	8270D	585779
LCSD 400-585779/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	585779
LCSD 400-585779/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	585779

Analysis Batch: 586255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223118-3	MW4-ROX07-071822-EB	Total/NA	Water	8270D	585779
400-223118-4	MW4-ROX07-071822	Total/NA	Water	8270D	585779
400-223118-5	MW25-ROX-071822	Total/NA	Water	8270D	585779
400-223118-6	MW8-ROX071822	Total/NA	Water	8270D	585779
400-223118-7	MW8-ROX071822-DUP	Total/NA	Water	8270D	585779
400-223118-8	MW7-ROX--071822	Total/NA	Water	8270D	585779

GC/MS Semi VOA

Analysis Batch: 586295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223118-3	MW4-ROX07-071822-EB	Total/NA	Water	8270D LL	585779
400-223118-4	MW4-ROX07-071822	Total/NA	Water	8270D LL	585779
400-223118-5	MW25-ROX-071822	Total/NA	Water	8270D LL	585779
400-223118-6	MW8-ROX071822	Total/NA	Water	8270D LL	585779
400-223118-7	MW8-ROX071822-DUP	Total/NA	Water	8270D LL	585779
400-223118-8	MW7-ROX--071822	Total/NA	Water	8270D LL	585779
MB 400-585779/1-A	Method Blank	Total/NA	Water	8270D LL	585779
LCS 400-585779/2-A	Lab Control Sample	Total/NA	Water	8270D LL	585779
LCSD 400-585779/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	585779

GC Semi VOA

Prep Batch: 586287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223118-2	TB-ROX-071822-8011	Total/NA	Water	8011	
400-223118-3	MW4-ROX07-071822-EB	Total/NA	Water	8011	
400-223118-4	MW4-ROX07-071822	Total/NA	Water	8011	
400-223118-5	MW25-ROX-071822	Total/NA	Water	8011	
400-223118-6	MW8-ROX071822	Total/NA	Water	8011	
400-223118-7	MW8-ROX071822-DUP	Total/NA	Water	8011	
400-223118-8	MW7-ROX--071822	Total/NA	Water	8011	
MB 400-586287/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-586287/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-586287/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 586328

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-586287/1-A	Method Blank	Total/NA	Water	8011	586287
LCS 400-586287/2-A	Lab Control Sample	Total/NA	Water	8011	586287
LCSD 400-586287/3-A	Lab Control Sample Dup	Total/NA	Water	8011	586287

Analysis Batch: 586330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-223118-2	TB-ROX-071822-8011	Total/NA	Water	8011	586287
400-223118-3	MW4-ROX07-071822-EB	Total/NA	Water	8011	586287
400-223118-4	MW4-ROX07-071822	Total/NA	Water	8011	586287
400-223118-5	MW25-ROX-071822	Total/NA	Water	8011	586287
400-223118-6	MW8-ROX071822	Total/NA	Water	8011	586287
400-223118-7	MW8-ROX071822-DUP	Total/NA	Water	8011	586287
400-223118-8	MW7-ROX--071822	Total/NA	Water	8011	586287

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-585740/4
Matrix: Water
Analysis Batch: 585740

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			07/22/22 08:06	1
Acrolein	ND		20	3.3	ug/L			07/22/22 08:06	1
Acrylonitrile	ND		10	2.8	ug/L			07/22/22 08:06	1
Benzene	ND		1.0	0.13	ug/L			07/22/22 08:06	1
Bromobenzene	ND		1.0	0.54	ug/L			07/22/22 08:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			07/22/22 08:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			07/22/22 08:06	1
Bromoform	ND		5.0	0.25	ug/L			07/22/22 08:06	1
Bromomethane	ND		1.0	0.98	ug/L			07/22/22 08:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			07/22/22 08:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			07/22/22 08:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			07/22/22 08:06	1
Chlorobenzene	ND		1.0	0.15	ug/L			07/22/22 08:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			07/22/22 08:06	1
Chloroethane	ND		1.0	0.76	ug/L			07/22/22 08:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			07/22/22 08:06	1
Chloroform	ND		1.0	1.0	ug/L			07/22/22 08:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			07/22/22 08:06	1
Chloromethane	ND		1.0	0.32	ug/L			07/22/22 08:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			07/22/22 08:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			07/22/22 08:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			07/22/22 08:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			07/22/22 08:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			07/22/22 08:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			07/22/22 08:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			07/22/22 08:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			07/22/22 08:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 08:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 08:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 08:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			07/22/22 08:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			07/22/22 08:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			07/22/22 08:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			07/22/22 08:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			07/22/22 08:06	1
2-Hexanone	ND		25	1.4	ug/L			07/22/22 08:06	1
Isopropy benzene	ND		1.0	0.53	ug/L			07/22/22 08:06	1
Methylene bromide	ND		5.0	0.22	ug/L			07/22/22 08:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			07/22/22 08:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			07/22/22 08:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			07/22/22 08:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			07/22/22 08:06	1
Naphthalene	ND		5.0	3.0	ug/L			07/22/22 08:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			07/22/22 08:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			07/22/22 08:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			07/22/22 08:06	1
o-Xylene	ND		5.0	0.60	ug/L			07/22/22 08:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			07/22/22 08:06	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-585740/4
Matrix: Water
Analysis Batch: 585740

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			07/22/22 08:06	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			07/22/22 08:06	1
Styrene	ND		1.0	1.0	ug/L			07/22/22 08:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			07/22/22 08:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			07/22/22 08:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			07/22/22 08:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			07/22/22 08:06	1
Toluene	ND		1.0	0.41	ug/L			07/22/22 08:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			07/22/22 08:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			07/22/22 08:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			07/22/22 08:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			07/22/22 08:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			07/22/22 08:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			07/22/22 08:06	1
Trichloroethene	ND		1.0	0.15	ug/L			07/22/22 08:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			07/22/22 08:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			07/22/22 08:06	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			07/22/22 08:06	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			07/22/22 08:06	1
Vinyl acetate	ND		25	0.93	ug/L			07/22/22 08:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			07/22/22 08:06	1
Xylenes, Total	ND		10	1.6	ug/L			07/22/22 08:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/22/22 08:06*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*07/22/22 08:06*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*07/22/22 08:06*	*1*

Lab Sample ID: LCS 400-585740/1002
Matrix: Water
Analysis Batch: 585740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	189		ug/L		94	43 - 160
Acrolein	500	489		ug/L		98	38 - 160
Acrylonitrile	500	487		ug/L		97	64 - 142
Benzene	50.0	44.7		ug/L		89	70 - 130
Bromobenzene	50.0	49.4		ug/L		99	70 - 132
Bromochloromethane	50.0	48.4		ug/L		97	70 - 130
Bromodichloromethane	50.0	46.1		ug/L		92	67 - 133
Bromoform	50.0	55.5		ug/L		111	57 - 140
Bromomethane	50.0	49.3		ug/L		99	10 - 160
2-Butanone (MEK)	200	194		ug/L		97	61 - 145
Carbon disulfide	50.0	45.4		ug/L		91	61 - 137
Carbon tetrachloride	50.0	47.6		ug/L		95	61 - 137
Chlorobenzene	50.0	47.9		ug/L		96	70 - 130
Dibromochloromethane	50.0	52.2		ug/L		104	67 - 135
Chloroethane	50.0	47.6		ug/L		95	55 - 141

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-585740/1002
Matrix: Water
Analysis Batch: 585740

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	19.2		ug/L		38	10 - 160
Chloroform	50.0	42.0		ug/L		84	69 - 130
1-Chlorohexane	50.0	49.8		ug/L		100	69 - 130
Chloromethane	50.0	49.2		ug/L		98	58 - 137
cis-1,2-Dichloroethene	50.0	46.5		ug/L		93	68 - 130
cis-1,3-Dichloropropene	50.0	46.4		ug/L		93	69 - 132
1,2-Dichlorobenzene	50.0	48.9		ug/L		98	67 - 130
1,3-Dichlorobenzene	50.0	51.2		ug/L		102	70 - 130
1,4-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 130
Dichlorodifluoromethane	50.0	47.1		ug/L		94	41 - 146
1,1-Dichloroethane	50.0	45.8		ug/L		92	70 - 130
1,2-Dichloroethane	50.0	45.3		ug/L		91	69 - 130
1,1-Dichloroethene	50.0	47.2		ug/L		94	63 - 134
1,2-Dichloropropane	50.0	43.6		ug/L		87	70 - 130
1,3-Dichloropropane	50.0	47.6		ug/L		95	70 - 130
2,2-Dichloropropane	50.0	47.2		ug/L		94	52 - 135
1,1-Dichloropropene	50.0	48.3		ug/L		97	70 - 130
Ethylbenzene	50.0	49.0		ug/L		98	70 - 130
Ethyl methacrylate	50.0	48.5		ug/L		97	68 - 130
Hexachlorobutadiene	50.0	57.0		ug/L		114	53 - 140
2-Hexanone	200	187		ug/L		94	65 - 137
Isopropy benzene	50.0	49.1		ug/L		98	70 - 130
Methylene bromide	50.0	43.4		ug/L		87	70 - 130
Methylene Chloride	50.0	45.3		ug/L		91	66 - 135
4-Methyl-2-pentanone (MIBK)	200	193		ug/L		97	69 - 138
Methyl tert-butyl ether	50.0	48.0		ug/L		96	66 - 130
m-Xylene & p-Xylene	50.0	49.0		ug/L		98	70 - 130
Naphthalene	50.0	49.8		ug/L		100	47 - 149
n-Butylbenzene	50.0	49.5		ug/L		99	67 - 130
N-Propylbenzene	50.0	48.1		ug/L		96	70 - 130
o-Chlorotoluene	50.0	47.1		ug/L		94	70 - 130
o-Xylene	50.0	49.2		ug/L		98	70 - 130
p-Chlorotoluene	50.0	48.5		ug/L		97	70 - 130
p-Isopropyltoluene	50.0	50.1		ug/L		100	65 - 130
sec-Butylbenzene	50.0	48.3		ug/L		97	66 - 130
Styrene	50.0	47.0		ug/L		94	70 - 130
tert-Butylbenzene	50.0	47.3		ug/L		95	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.6		ug/L		103	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.9		ug/L		92	70 - 131
Tetrachloroethene	50.0	52.3		ug/L		105	65 - 130
Toluene	50.0	47.0		ug/L		94	70 - 130
trans-1,2-Dichloroethene	50.0	45.9		ug/L		92	70 - 130
trans-1,3-Dichloropropene	50.0	49.3		ug/L		99	63 - 130
1,2,3-Trichlorobenzene	50.0	52.7		ug/L		105	60 - 138
1,2,4-Trichlorobenzene	50.0	52.9		ug/L		106	60 - 140
1,1,1-Trichloroethane	50.0	47.4		ug/L		95	68 - 130
1,1,2-Trichloroethane	50.0	45.7		ug/L		91	70 - 130
Trichloroethene	50.0	49.3		ug/L		99	70 - 130
Trichlorofluoromethane	50.0	53.8		ug/L		108	65 - 138

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-585740/1002
Matrix: Water
Analysis Batch: 585740

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	47.6		ug/L		95	70 - 130
1,2,4-Trimethy benzene	50.0	49.9		ug/L		100	70 - 130
1,3,5-Trimethy benzene	50.0	47.7		ug/L		95	69 - 130
Vinyl acetate	100	106		ug/L		106	26 - 160
Vinyl chloride	50.0	49.2		ug/L		98	59 - 136
Xylenes, Total	100	98.2		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: MB 400-585960/4
Matrix: Water
Analysis Batch: 585960

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.13	ug/L			07/24/22 16:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*72 - 119*		*07/24/22 16:08*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*07/24/22 16:08*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*07/24/22 16:08*	*1*

Lab Sample ID: LCS 400-585960/1002
Matrix: Water
Analysis Batch: 585960

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	49.0		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzenethiol	ND		10	1.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzoic acid	ND		30	7.3	ug/L		07/22/22 10:11	07/25/22 19:21	1
Benzyl alcohol	ND		10	2.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		07/22/22 10:11	07/25/22 19:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		07/22/22 10:11	07/25/22 19:21	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		07/22/22 10:11	07/25/22 19:21	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chloroaniline	ND		10	3.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Chloronaphthalene	ND		10	0.14	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Chlorophenol	ND		10	2.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dibenzofuran	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Diethyl phthalate	ND		10	0.24	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
Dimethyl phthalate	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		07/22/22 10:11	07/25/22 19:21	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
1,4-Dioxane	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Hexachlorobenzene	ND		10	0.17	ug/L		07/22/22 10:11	07/25/22 19:21	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
Hexachloroethane	ND		10	4.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
Indene	ND		10	1.0	ug/L		07/22/22 10:11	07/25/22 19:21	1
Isophorone	ND		10	0.14	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Methylphenol	ND		10	1.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Nitroaniline	ND		10	2.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
3-Nitroaniline	ND		10	1.8	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Nitroaniline	ND		10	1.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
Nitrobenzene	ND		10	0.13	ug/L		07/22/22 10:11	07/25/22 19:21	1
2-Nitrophenol	ND		10	5.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
4-Nitrophenol	ND		10	2.1	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		07/22/22 10:11	07/25/22 19:21	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		07/22/22 10:11	07/25/22 19:21	1
Pentachlorophenol	ND		20	1.4	ug/L		07/22/22 10:11	07/25/22 19:21	1
Phenol	ND		10	2.6	ug/L		07/22/22 10:11	07/25/22 19:21	1
Pyridine	ND		10	3.2	ug/L		07/22/22 10:11	07/25/22 19:21	1
Quinoline	ND		10	4.5	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		07/22/22 10:11	07/25/22 19:21	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		07/22/22 10:11	07/25/22 19:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	93		46 - 124	07/22/22 10:11	07/25/22 19:21	1
2-Fluorophenol	3	S1-	13 - 113	07/22/22 10:11	07/25/22 19:21	1
Nitrobenzene-d5	68		36 - 126	07/22/22 10:11	07/25/22 19:21	1
Phenol-d5	23		17 - 127	07/22/22 10:11	07/25/22 19:21	1
Terphenyl-d14	107		44 - 149	07/22/22 10:11	07/25/22 19:21	1
2,4,6-Tribromophenol	69		26 - 150	07/22/22 10:11	07/25/22 19:21	1

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	104		ug/L		87	21 - 120
Benzoic acid	513	90.1		ug/L		18	10 - 144
Benzyl alcohol	120	72.9		ug/L		61	28 - 120
Bis(2-chloroethoxy)methane	120	87.5		ug/L		73	47 - 120
Bis(2-chloroethyl)ether	120	106		ug/L		88	44 - 120
bis (2-chloroisopropyl) ether	120	65.3		ug/L		54	33 - 121
Bis(2-ethylhexyl) phthalate	120	121		ug/L		101	52 - 147
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122
Butyl benzyl phthalate	120	122		ug/L		102	54 - 133
4-Chloroaniline	120	99.5		ug/L		83	26 - 120
4-Chloro-3-methylphenol	120	110		ug/L		91	48 - 131
2-Chloronaphthalene	120	118		ug/L		98	52 - 121
2-Chlorophenol	120	93.7		ug/L		78	40 - 120
4-Chlorophenyl phenyl ether	120	127		ug/L		105	56 - 125
Dibenz[a,h]acridine	120	118		ug/L		99	31 - 150
Dibenzofuran	120	122		ug/L		102	56 - 122
3,3'-Dichlorobenzidine	160	152		ug/L		95	36 - 132
2,4-Dichlorophenol	120	109		ug/L		91	49 - 120
Diethyl phthalate	120	129		ug/L		108	50 - 137
2,4-Dimethylphenol	120	103		ug/L		86	48 - 120
Dimethyl phthalate	120	120		ug/L		100	57 - 124
Di-n-butyl phthalate	120	124		ug/L		103	58 - 126
4,6-Dinitro-ortho-cresol	240	176		ug/L		73	23 - 148
2,4-Dinitrophenol	240	143		ug/L		60	10 - 150
2,4-Dinitrotoluene	120	129		ug/L		107	54 - 142
2,6-Dinitrotoluene	120	119		ug/L		99	55 - 130
Di-n-octyl phthalate	120	116		ug/L		97	57 - 138
1,4-Dioxane	120	59.2		ug/L		49	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	90.6		ug/L		75	45 - 124
Hexachlorobenzene	120	126		ug/L		105	52 - 129
Hexachlorocyclopentadiene	120	82.9		ug/L		69	10 - 134
Hexachloroethane	120	94.9		ug/L		79	20 - 120
Indene	120	105		ug/L		87	49 - 120
Isophorone	120	86.5		ug/L		72	48 - 120
2-Methylphenol	120	112		ug/L		94	46 - 124
3 & 4 Methylphenol	120	109		ug/L		91	45 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	120	99.8		ug/L		83	51 - 145
3-Nitroaniline	120	88.7		ug/L		74	37 - 127
4-Nitroaniline	120	112		ug/L		93	36 - 137
Nitrobenzene	120	85.3		ug/L		71	45 - 120
2-Nitrophenol	120	105		ug/L		88	40 - 124
4-Nitrophenol	240	94.4		ug/L		39	23 - 146
N-Nitrosodimethylamine	120	76.1		ug/L		63	29 - 137
N-Nitrosodi-n-propylamine	120	90.9		ug/L		76	45 - 120
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120
Pentachlorophenol	240	218		ug/L		91	31 - 130
Phenol	120	84.8		ug/L		71	11 - 120
Pyridine	240	118		ug/L		49	16 - 120
Quinoline	120	114		ug/L		95	49 - 130
2,4,5-Trichlorophenol	120	122		ug/L		102	51 - 136
2,4,6-Trichlorophenol	120	118		ug/L		98	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*99*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*111*		*26 - 150*

Lab Sample ID: LCS 400-585779/4-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

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	*107*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*121*		*44 - 149*
2,4,6-Tribromophenol	*97*		*26 - 150*

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	ND	*- *1	ug/L		2	21 - 120	189	30
Benzoic acid	513	348	*1	ug/L		68	10 - 144	118	30
Benzyl alcohol	120	86.1		ug/L		72	28 - 120	17	30
Bis(2-chloroethoxy)methane	120	93.6		ug/L		78	47 - 120	7	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-chloroethyl)ether			120	192	*+ *1	ug/L		160	44 - 120	58	30
bis (2-chloroisopropyl) ether			120	68.7		ug/L		57	33 - 121	5	30
Bis(2-ethylhexyl) phthalate			120	128		ug/L		107	52 - 147	5	30
4-Bromophenyl phenyl ether			120	126		ug/L		105	54 - 122	5	30
Butyl benzyl phthalate			120	126		ug/L		105	54 - 133	3	30
4-Chloroaniline			120	96.8		ug/L		81	26 - 120	3	30
4-Chloro-3-methylphenol			120	112		ug/L		93	48 - 131	2	30
2-Chloronaphthalene			120	125		ug/L		104	52 - 121	5	30
2-Chlorophenol			120	78.9		ug/L		66	40 - 120	17	30
4-Chlorophenyl phenyl ether			120	133		ug/L		111	56 - 125	5	30
Dibenz[a,h]acridine			120	125		ug/L		104	31 - 150	6	30
Dibenzofuran			120	130		ug/L		108	56 - 122	6	30
3,3'-Dichlorobenzidine			160	149		ug/L		93	36 - 132	2	30
2,4-Dichlorophenol			120	106		ug/L		89	49 - 120	3	30
Diethyl phthalate			120	134		ug/L		112	50 - 137	4	30
2,4-Dimethylphenol			120	110		ug/L		91	48 - 120	6	30
Dimethyl phthalate			120	127		ug/L		106	57 - 124	6	30
Di-n-butyl phthalate			120	131		ug/L		109	58 - 126	5	30
4,6-Dinitro-ortho-cresol			240	213		ug/L		89	23 - 148	19	30
2,4-Dinitrophenol			240	193		ug/L		80	10 - 150	30	30
2,4-Dinitrotoluene			120	136		ug/L		113	54 - 142	5	30
2,6-Dinitrotoluene			120	126		ug/L		105	55 - 130	6	30
Di-n-octyl phthalate			120	123		ug/L		102	57 - 138	6	30
1,4-Dioxane			120	56.5		ug/L		47	31 - 120	5	30
1,2-Diphenylhydrazine (as Azobenzene)			120	96.5		ug/L		80	45 - 124	6	30
Hexachlorobenzene			120	133		ug/L		111	52 - 129	5	30
Hexachlorocyclopentadiene			120	82.0		ug/L		68	10 - 134	1	30
Hexachloroethane			120	98.7		ug/L		82	20 - 120	4	30
Indene			120	110		ug/L		92	49 - 120	5	30
Isophorone			120	92.4		ug/L		77	48 - 120	7	30
2-Methylphenol			120	117		ug/L		97	46 - 124	4	30
3 & 4 Methylphenol			120	110		ug/L		92	45 - 120	1	30
2-Nitroaniline			120	106		ug/L		88	51 - 145	6	30
3-Nitroaniline			120	84.8		ug/L		71	37 - 127	5	30
4-Nitroaniline			120	115		ug/L		96	36 - 137	3	30
Nitrobenzene			120	91.1		ug/L		76	45 - 120	7	30
2-Nitrophenol			120	104		ug/L		87	40 - 124	1	30
4-Nitrophenol			240	92.6		ug/L		39	23 - 146	2	30
N-Nitrosodimethylamine			120	84.9		ug/L		71	29 - 137	11	30
N-Nitrosodi-n-propylamine			120	97.7		ug/L		81	45 - 120	7	30
N-Nitrosodiphenylamine			119	116		ug/L		98	54 - 120	5	30
Pentachlorophenol			240	233		ug/L		97	31 - 130	7	30
Phenol			120	78.3		ug/L		65	11 - 120	8	30
Pyridine			240	126		ug/L		52	16 - 120	7	30
Quinoline			120	119		ug/L		99	49 - 130	4	30
2,4,5-Trichlorophenol			120	125		ug/L		104	51 - 136	2	30
2,4,6-Trichlorophenol			120	122		ug/L		102	50 - 127	3	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	104		46 - 124
2-Fluorophenol	30		13 - 113
Nitrobenzene-d5	75		36 - 126
Phenol-d5	63		17 - 127
Terphenyl-d14	115		44 - 149
2,4,6-Tribromophenol	111		26 - 150

Lab Sample ID: LCSD 400-585779/5-A
Matrix: Water
Analysis Batch: 586042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	2.91	J *- *1	ug/L		2	10 - 120	47	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	100		46 - 124
2-Fluorophenol	48		13 - 113
Nitrobenzene-d5	72		36 - 126
Phenol-d5	68		17 - 127
Terphenyl-d14	115		44 - 149
2,4,6-Tribromophenol	87		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		07/22/22 10:11	07/26/22 22:29	1
Acenaphthylene	ND		0.20	0.045	ug/L		07/22/22 10:11	07/26/22 22:29	1
Anthracene	ND		0.20	0.032	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		07/22/22 10:11	07/26/22 22:29	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		07/22/22 10:11	07/26/22 22:29	1
Chrysene	ND		0.20	0.074	ug/L		07/22/22 10:11	07/26/22 22:29	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		07/22/22 10:11	07/26/22 22:29	1
Fluoranthene	ND		0.20	0.068	ug/L		07/22/22 10:11	07/26/22 22:29	1
Fluorene	ND		0.20	0.11	ug/L		07/22/22 10:11	07/26/22 22:29	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		07/22/22 10:11	07/26/22 22:29	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		07/22/22 10:11	07/26/22 22:29	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		07/22/22 10:11	07/26/22 22:29	1
Phenanthrene	ND		0.20	0.036	ug/L		07/22/22 10:11	07/26/22 22:29	1
Pyrene	ND		0.20	0.040	ug/L		07/22/22 10:11	07/26/22 22:29	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-585779/1-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585779

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	112		15 - 122	07/22/22 10:11	07/26/22 22:29	1
Nitrobenzene-d5	109		19 - 130	07/22/22 10:11	07/26/22 22:29	1
Terphenyl-d14	125		33 - 138	07/22/22 10:11	07/26/22 22:29	1

Lab Sample ID: LCS 400-585779/2-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	115		ug/L		96	41 - 120
Acenaphthylene	120	117		ug/L		98	44 - 120
Anthracene	120	126		ug/L		105	49 - 120
Benzo[a]anthracene	120	127		ug/L		106	61 - 135
Benzo[a]pyrene	120	109		ug/L		91	52 - 120
Benzo[b]fluoranthene	120	126		ug/L		105	53 - 134
Benzo[g,h,i]perylene	120	123		ug/L		103	47 - 133
Benzo[k]fluoranthene	120	114		ug/L		95	57 - 134
Chrysene	120	107		ug/L		90	55 - 122
Dibenz(a,h)anthracene	120	139		ug/L		116	48 - 146
Fluoranthene	120	127		ug/L		106	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	127		ug/L		106	43 - 142
1-Methylnaphthalene	120	99.4		ug/L		83	41 - 120
2-Methylnaphthalene	120	97.6		ug/L		81	32 - 124
Phenanthrene	120	123		ug/L		103	48 - 120
Pyrene	120	116		ug/L		97	48 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	100		15 - 122
Nitrobenzene-d5	68		19 - 130
Terphenyl-d14	104		33 - 138

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	123		ug/L		103	41 - 120	7	56
Acenaphthylene	120	126		ug/L		105	44 - 120	8	56
Anthracene	120	129		ug/L		107	49 - 120	2	51
Benzo[a]anthracene	120	134		ug/L		112	61 - 135	6	49
Benzo[a]pyrene	120	117		ug/L		98	52 - 120	7	50
Benzo[b]fluoranthene	120	138		ug/L		115	53 - 134	9	54
Benzo[g,h,i]perylene	120	132		ug/L		110	47 - 133	7	50
Benzo[k]fluoranthene	120	119		ug/L		99	57 - 134	4	52
Chrysene	120	115		ug/L		96	55 - 122	7	50
Dibenz(a,h)anthracene	120	148		ug/L		123	48 - 146	6	50
Fluoranthene	120	133		ug/L		111	54 - 128	5	52

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-585779/3-A
Matrix: Water
Analysis Batch: 586295

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585779

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene			120	127		ug/L		106	45 - 125	5	56
Indeno[1,2,3-cd]pyrene			120	134		ug/L		111	43 - 142	5	51
1-Methylnaphthalene			120	107		ug/L		89	41 - 120	7	55
2-Methylnaphthalene			120	104		ug/L		86	32 - 124	6	57
Phenanthrene			120	129		ug/L		107	48 - 120	4	56
Pyrene			120	123		ug/L		102	48 - 132	5	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*106*		*15 - 122*
Nitrobenzene-d5	*95*		*19 - 130*
Terphenyl-d14	*107*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-586287/1-A
Matrix: Water
Analysis Batch: 586328

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 586287

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-D bromo-3-Chloropropane	ND		0.030	0.017	ug/L		07/26/22 15:50	07/27/22 11:06	1
1,2-D bromoethane	ND		0.020	0.015	ug/L		07/26/22 15:50	07/27/22 11:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*07/26/22 15:50*	*07/27/22 11:06*	*1*

Lab Sample ID: LCS 400-586287/2-A
Matrix: Water
Analysis Batch: 586328

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 586287

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,2-D bromo-3-Chloropropane			0.101	0.174	*+	ug/L		173	60 - 140		
1,2-D bromoethane			0.101	0.128		ug/L		127	60 - 140		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*51 - 149*

Lab Sample ID: LCSD 400-586287/3-A
Matrix: Water
Analysis Batch: 586328

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 586287

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-D bromo-3-Chloropropane			0.101	0.184	*+	ug/L		183	60 - 140	5	30
1,2-D bromoethane			0.101	0.126		ug/L		125	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 7/18/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 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 60674381 – 3.3.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): J. Mayer, J. Nichols
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; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.3.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 1.0°C IR9

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-071822-8260	7/18/2022	0000	Water	2					2	X			
	TB-ROX-071822-8011	7/18/2022	0000	Water	2					2		X		
	MW4-ROX-071822-EB	7/18/2022	0825	Water	6			2		8	X	X	X	X
	MW4-ROX-071822	7/18/2022	0940	Water	6			2		8	X	X	X	X
	MW25-ROX-071822	7/18/2022	1030	Water	6			2		8	X	X	X	X
	MW8-ROX-071822	7/18/2022	1145	Water	6			2		8	X	X	X	X
	MW8-ROX-071822-DUP	7/18/2022	1145	Water	6			2		8	X	X	X	X
	MW7-ROX-071822	7/18/2022	1240	Water	6			2		8	X	X	X	X

400-223118 COC

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Joe Mayer	FEDEX: 5564 3930 5486	7/18/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		7/19/22	0920
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 1892108, 1892109

Version: 11July22

7/28/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-223118-1

Login Number: 223118
List Number: 1
Creator: DeKlerk, Michaela

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	1.0°C IR9
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: 400-223118-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

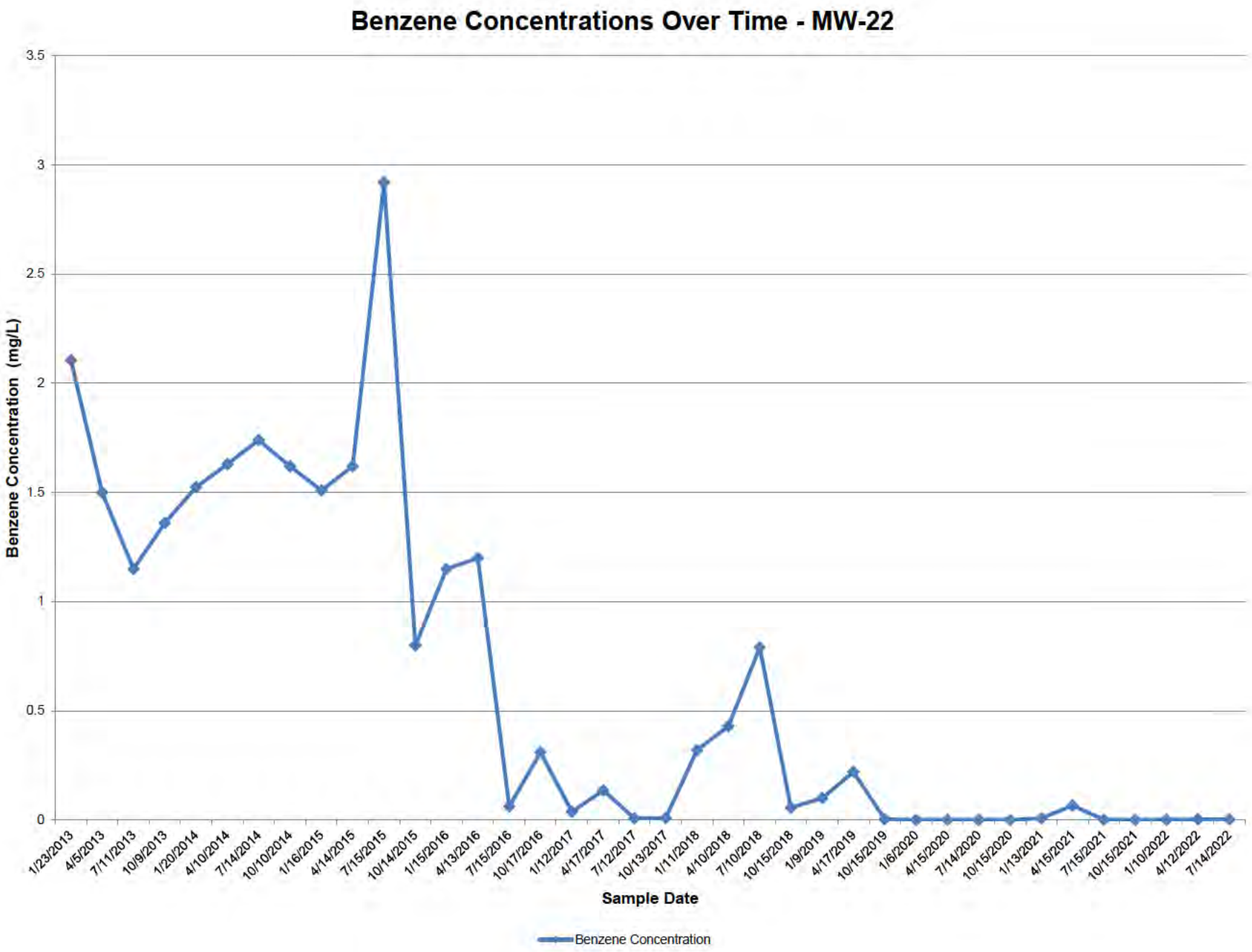
Appendix D

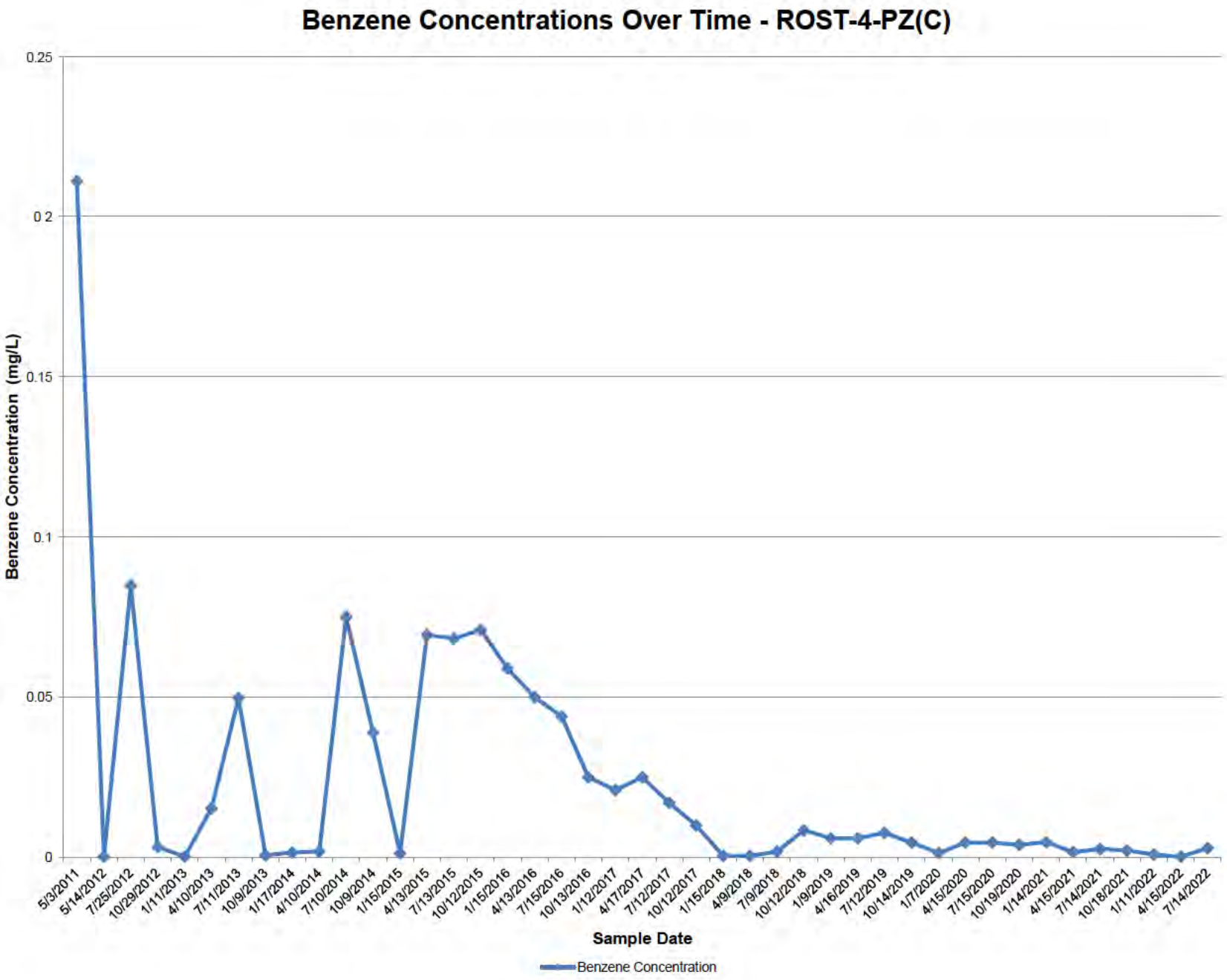
Appendix D – 1 Charts – Benzene Concentrations Over Time

Appendix D – 2 GWSDAT Charts

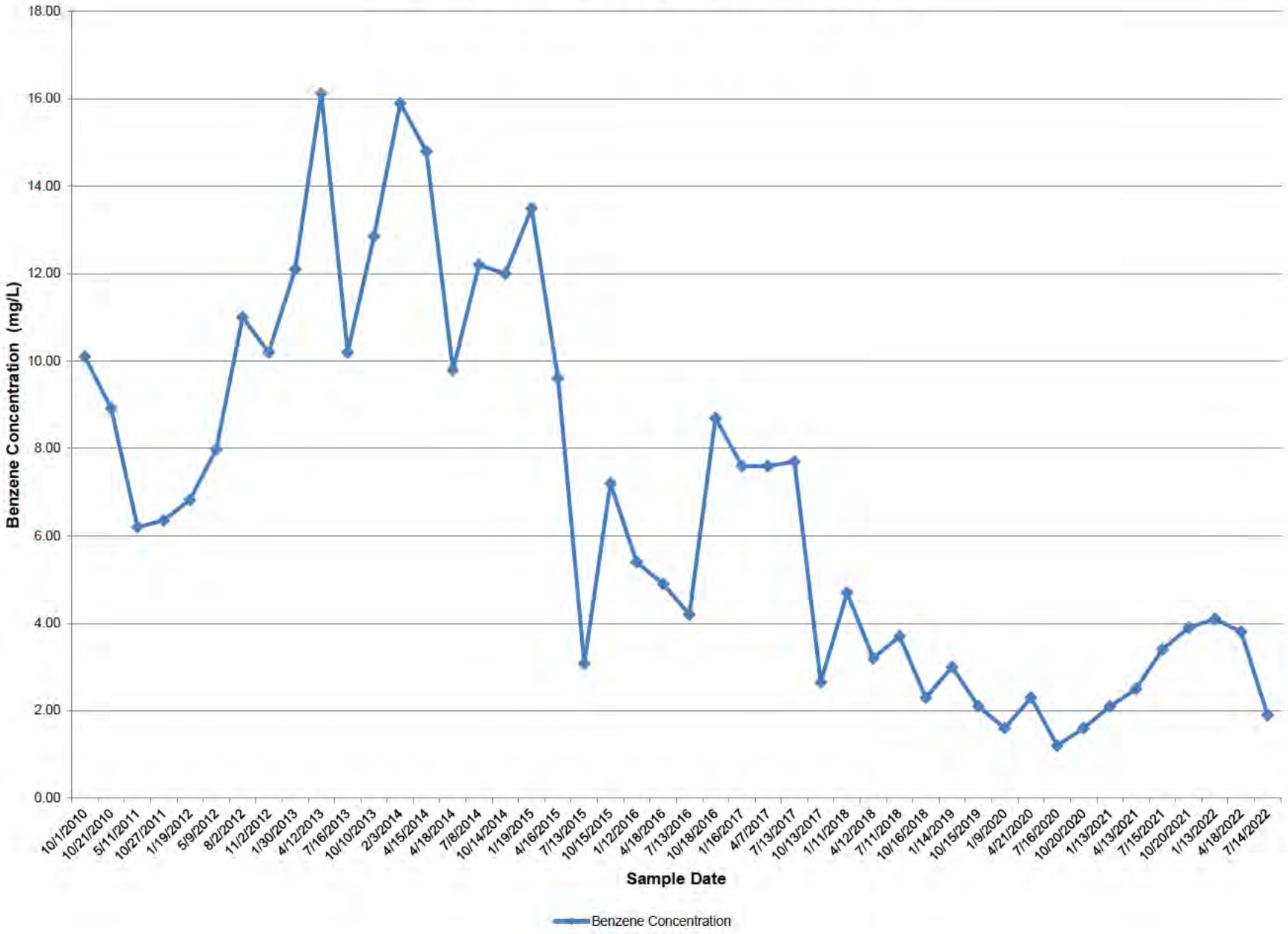
- 4th Street area – MW-22, ROST-4 PZ(C), P-59, and T-12
- Public Works Yard area – MW-7, MW-8, MW-25, and P-57

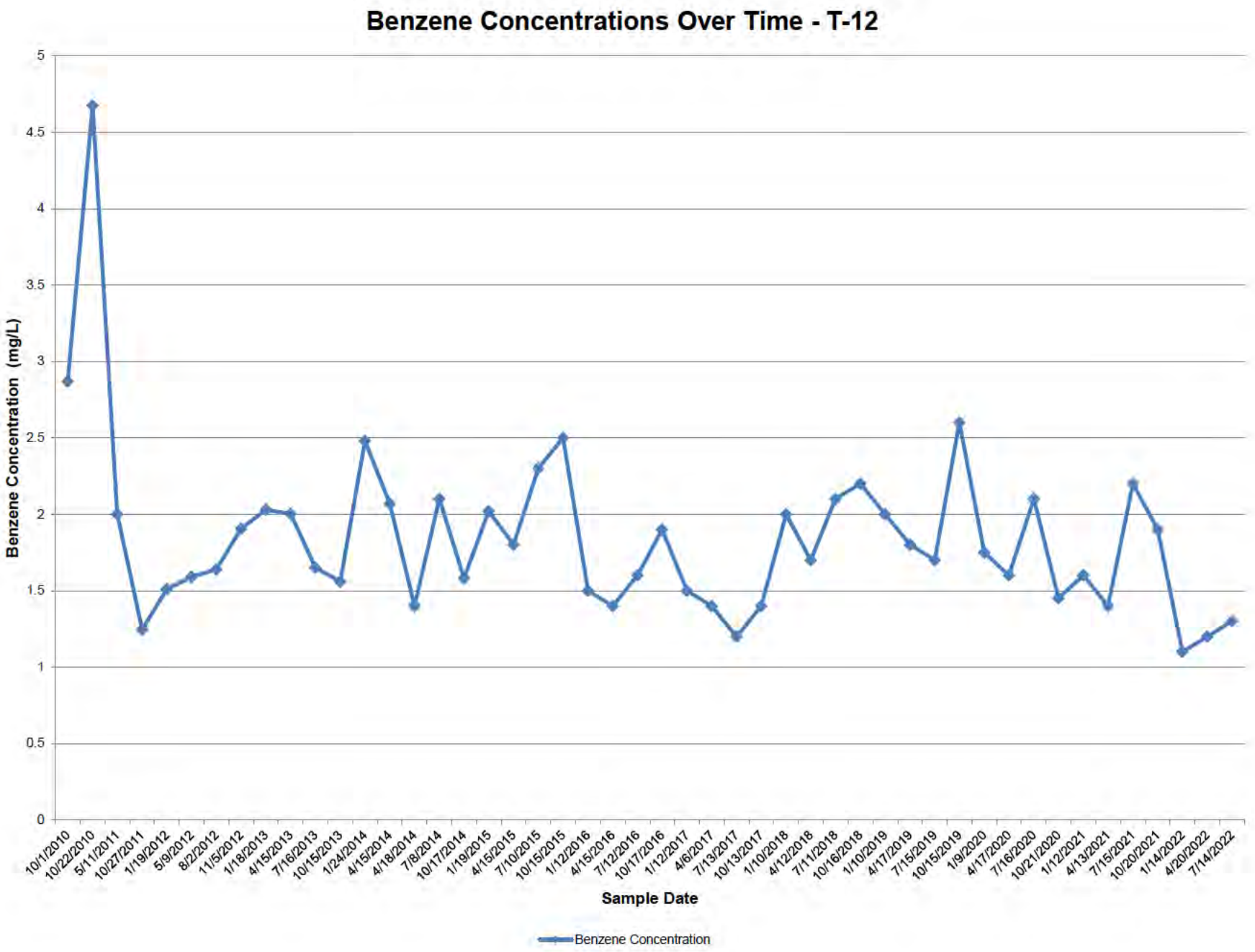
4th Street Area


Benzene Concentrations Over Time - MW-22
Benzene Concentration (mg/L)
3.5
3
2.5
2
1.5
1
0.5
0
1/23/2013
4/5/2013
7/11/2013
10/9/2013
1/20/2014
4/10/2014
7/14/2014
10/10/2014
1/16/2015
4/14/2015
7/15/2015
10/14/2015
1/15/2016
4/13/2016
7/15/2016
10/17/2016
1/12/2017
4/17/2017
7/12/2017
10/13/2017
1/11/2018
4/10/2018
7/10/2018
10/15/2018
1/9/2019
4/17/2019
10/15/2019
1/6/2020
4/15/2020
7/14/2020
10/15/2020
1/13/2021
4/15/2021
7/15/2021
10/15/2021
1/10/2022
4/12/2022
7/14/2022
Sample Date
Benzene Concentration

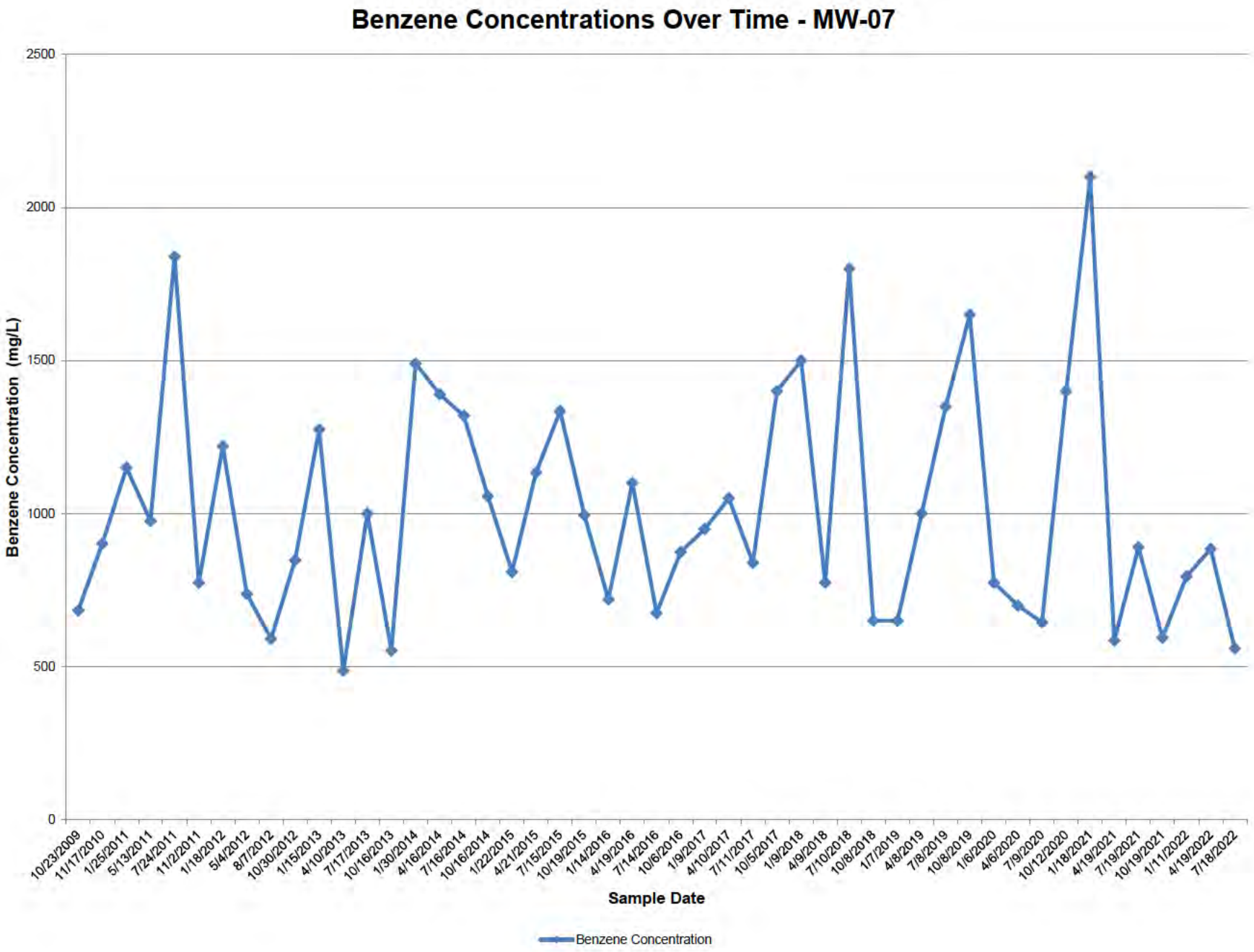

Benzene Concentrations Over Time - ROST-4-PZ(C)
Benzene Concentration (mg/L)
0.25
0.2
0.15
0.1
0.05
0
5/3/2011
5/14/2012
7/25/2012
10/29/2012
1/11/2013
4/10/2013
7/11/2013
10/9/2013
1/17/2014
4/10/2014
7/10/2014
10/9/2014
1/15/2015
4/13/2015
7/13/2015
10/12/2015
1/15/2016
4/13/2016
7/15/2016
10/13/2016
1/12/2017
4/17/2017
7/12/2017
10/12/2017
1/15/2018
4/9/2018
7/9/2018
10/12/2018
1/9/2019
4/16/2019
7/12/2019
10/14/2019
1/7/2020
4/15/2020
7/15/2020
10/19/2020
1/14/2021
4/15/2021
7/14/2021
10/18/2021
1/11/2022
4/15/2022
7/14/2022
Sample Date
Benzene Concentration

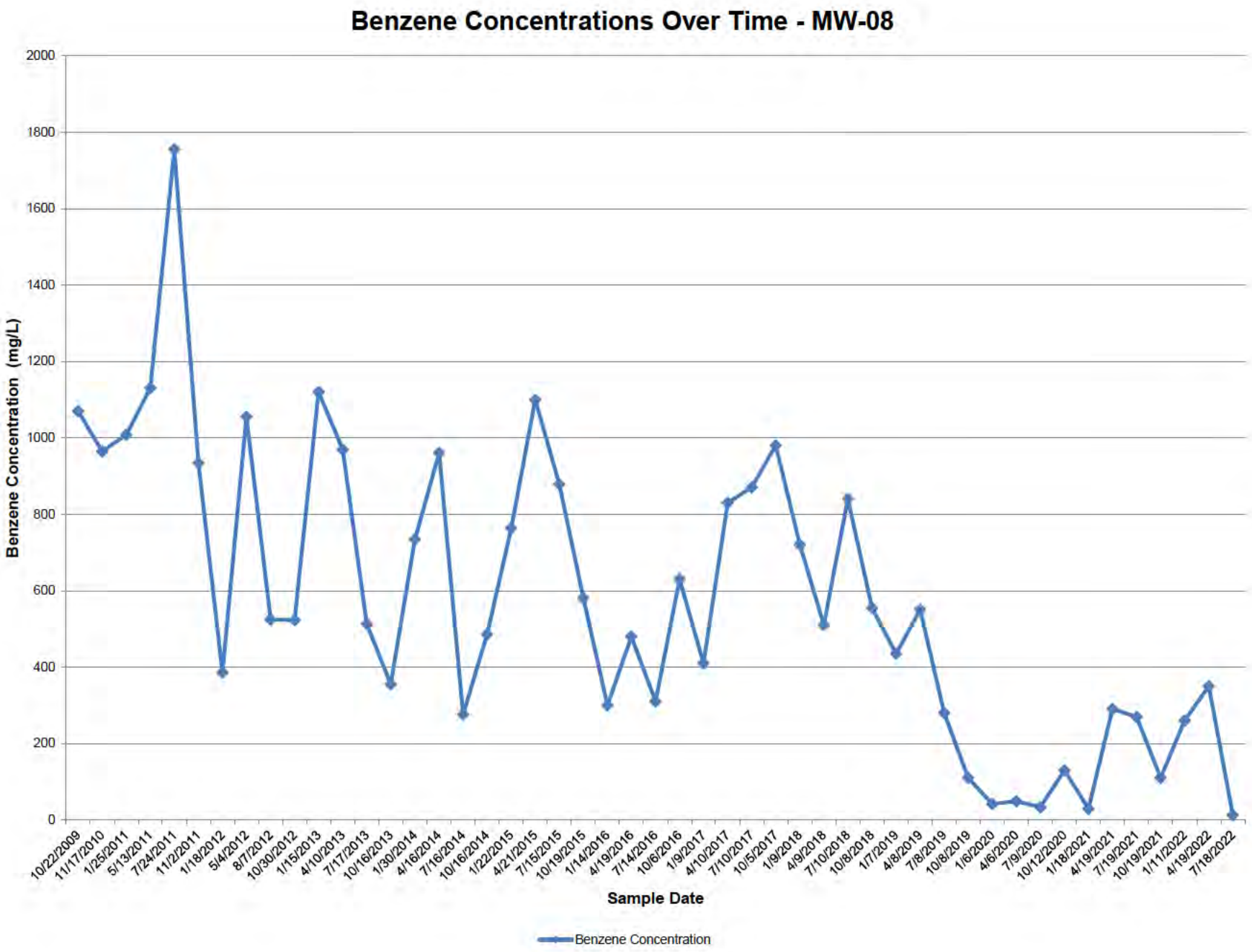
Benzene Concentrations Over Time - P-59

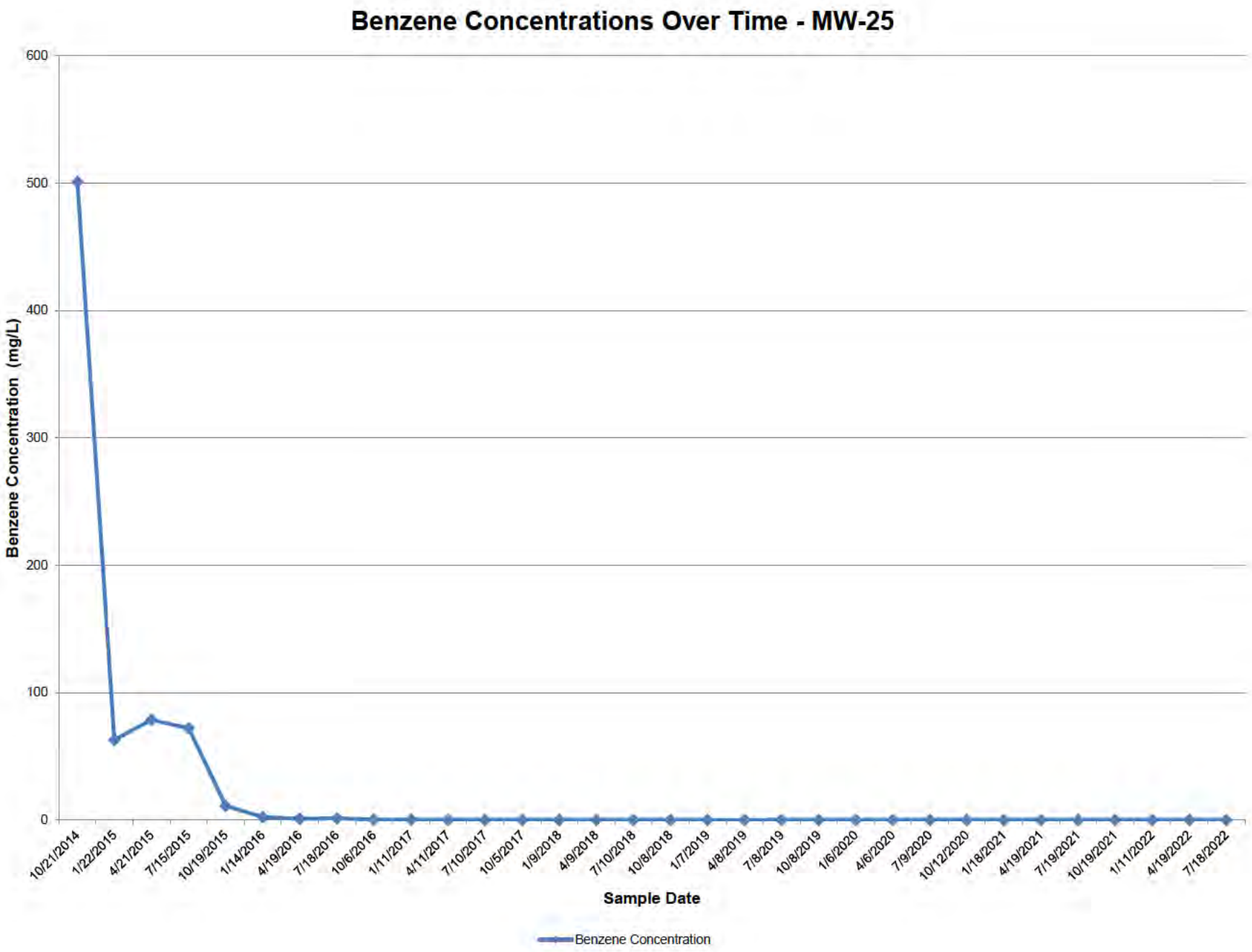


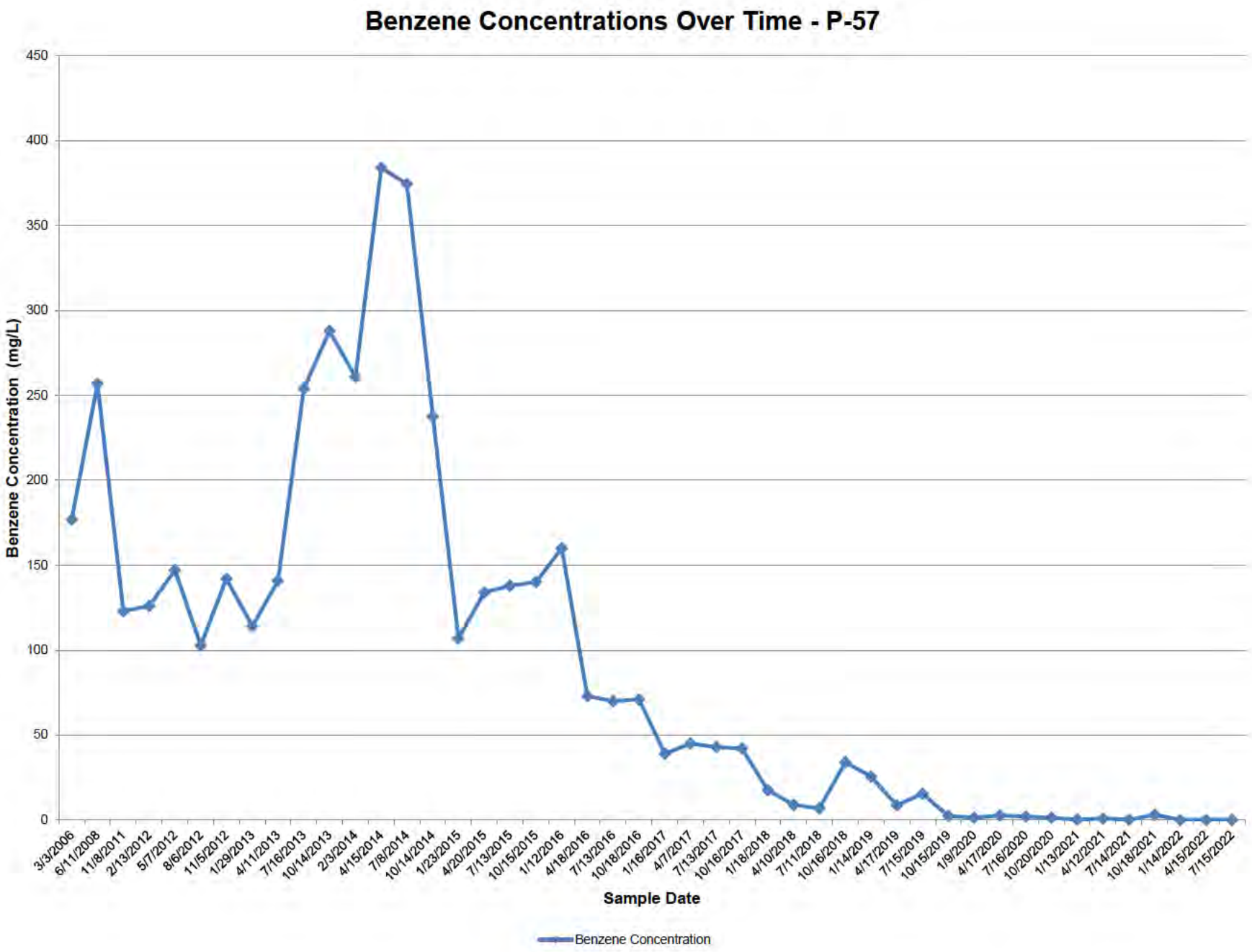

Benzene Concentrations Over Time - T-12
Benzene Concentration (mg/L)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2010
10/22/2010
5/11/2011
10/27/2011
1/19/2012
5/9/2012
8/2/2012
11/5/2012
1/18/2013
4/15/2013
7/16/2013
10/15/2013
1/24/2014
4/15/2014
4/18/2014
7/8/2014
10/17/2014
1/19/2015
4/15/2015
7/10/2015
10/15/2015
1/12/2016
4/15/2016
7/12/2016
10/17/2016
1/12/2017
4/6/2017
7/13/2017
10/13/2017
1/10/2018
4/12/2018
7/11/2018
10/16/2018
1/10/2019
4/17/2019
7/15/2019
10/15/2019
1/9/2020
4/17/2020
7/16/2020
10/21/2020
1/12/2021
4/13/2021
7/15/2021
10/20/2021
1/14/2022
4/20/2022
7/14/2022
Sample Date
Benzene Concentration

Public Works Yard Area

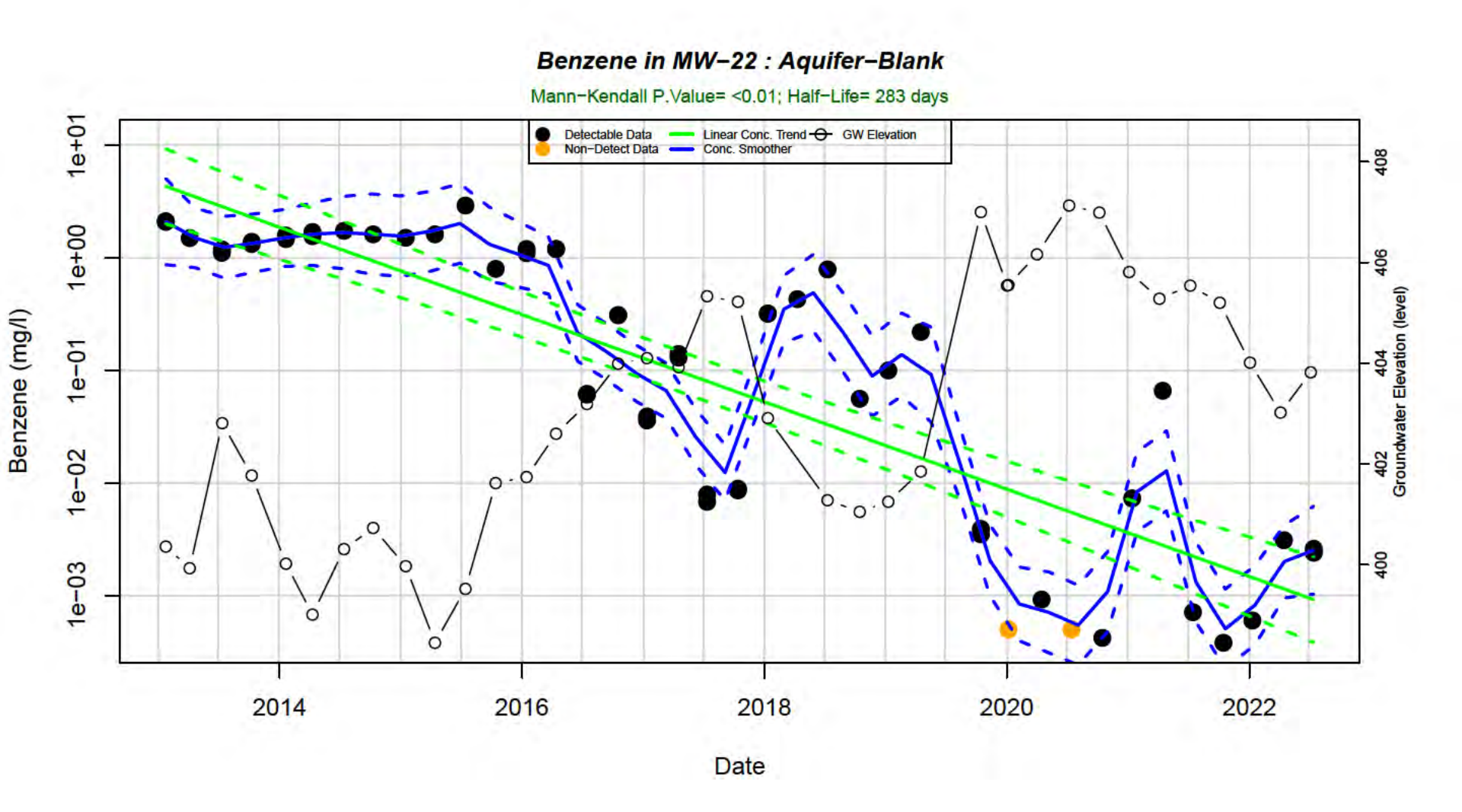

Benzene Concentrations Over Time - MW-07
Benzene Concentration (mg/L)
2500
2000
1500
1000
500
0
10/23/2009
11/17/2010
1/25/2011
5/13/2011
7/24/2011
11/2/2011
1/18/2012
5/4/2012
8/7/2012
10/30/2012
1/15/2013
4/10/2013
7/17/2013
10/16/2013
1/30/2014
4/16/2014
7/16/2014
10/16/2014
1/22/2015
4/21/2015
7/15/2015
10/19/2015
1/14/2016
4/19/2016
7/14/2016
10/6/2016
1/9/2017
4/10/2017
7/11/2017
10/5/2017
1/9/2018
4/9/2018
7/10/2018
10/8/2018
1/7/2019
4/8/2019
7/8/2019
10/8/2019
1/6/2020
4/6/2020
7/9/2020
10/12/2020
1/18/2021
4/19/2021
7/19/2021
10/19/2021
1/11/2022
4/19/2022
7/18/2022
Sample Date
Benzene Concentration

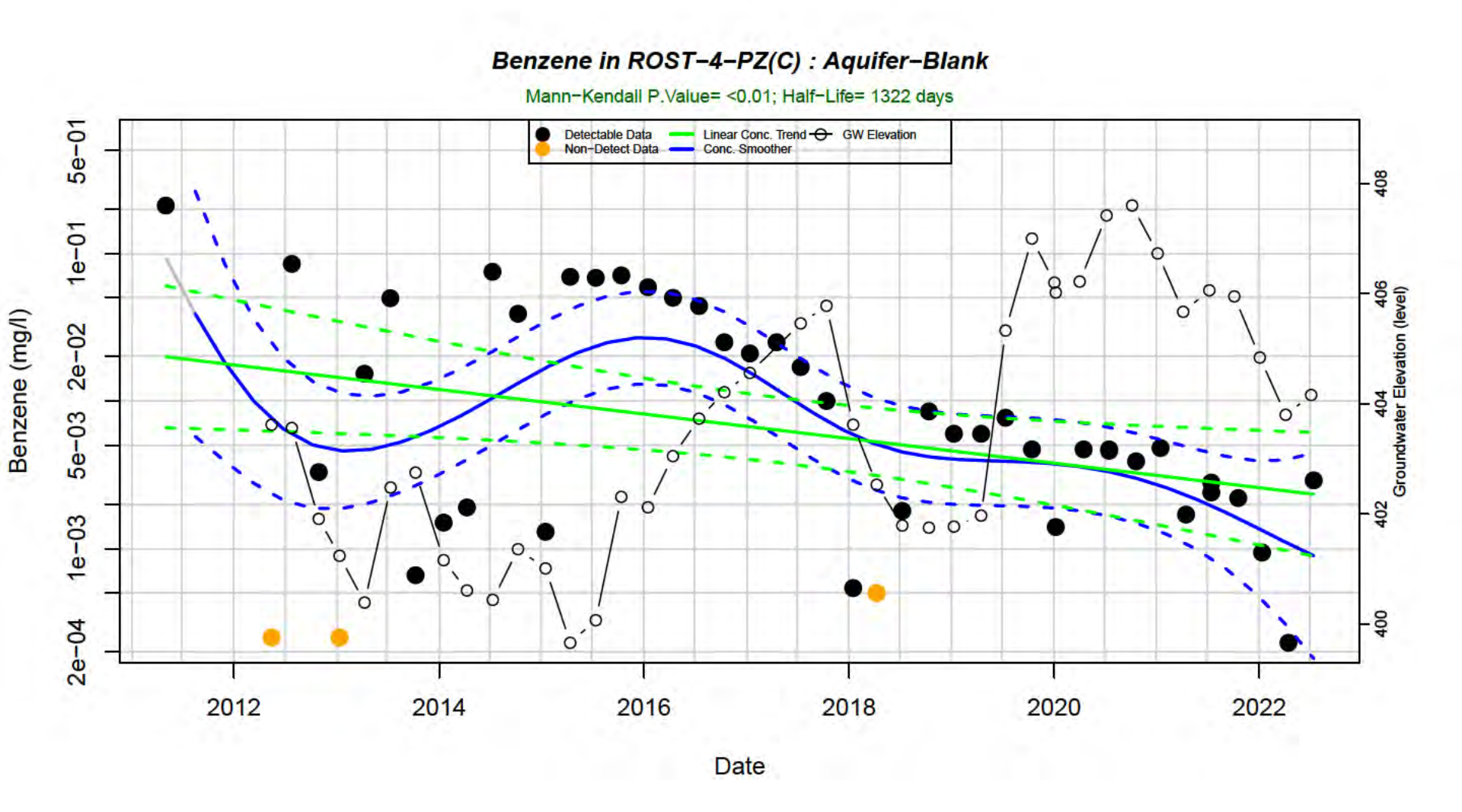

Benzene Concentrations Over Time - MW-08
Benzene Concentration (mg/L)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
10/22/2009
11/17/2010
1/25/2011
5/13/2011
7/24/2011
11/2/2011
1/18/2012
5/4/2012
8/7/2012
10/30/2012
1/15/2013
4/10/2013
7/17/2013
10/16/2013
1/30/2014
4/16/2014
7/16/2014
10/16/2014
1/22/2015
4/21/2015
7/15/2015
10/19/2015
1/14/2016
4/19/2016
7/14/2016
10/6/2016
1/9/2017
4/10/2017
7/10/2017
10/5/2017
1/9/2018
4/9/2018
7/10/2018
10/8/2018
1/7/2019
4/8/2019
7/8/2019
10/8/2019
1/6/2020
4/6/2020
7/9/2020
10/12/2020
1/18/2021
4/19/2021
7/19/2021
10/19/2021
1/11/2022
4/19/2022
7/18/2022
Sample Date
Benzene Concentration

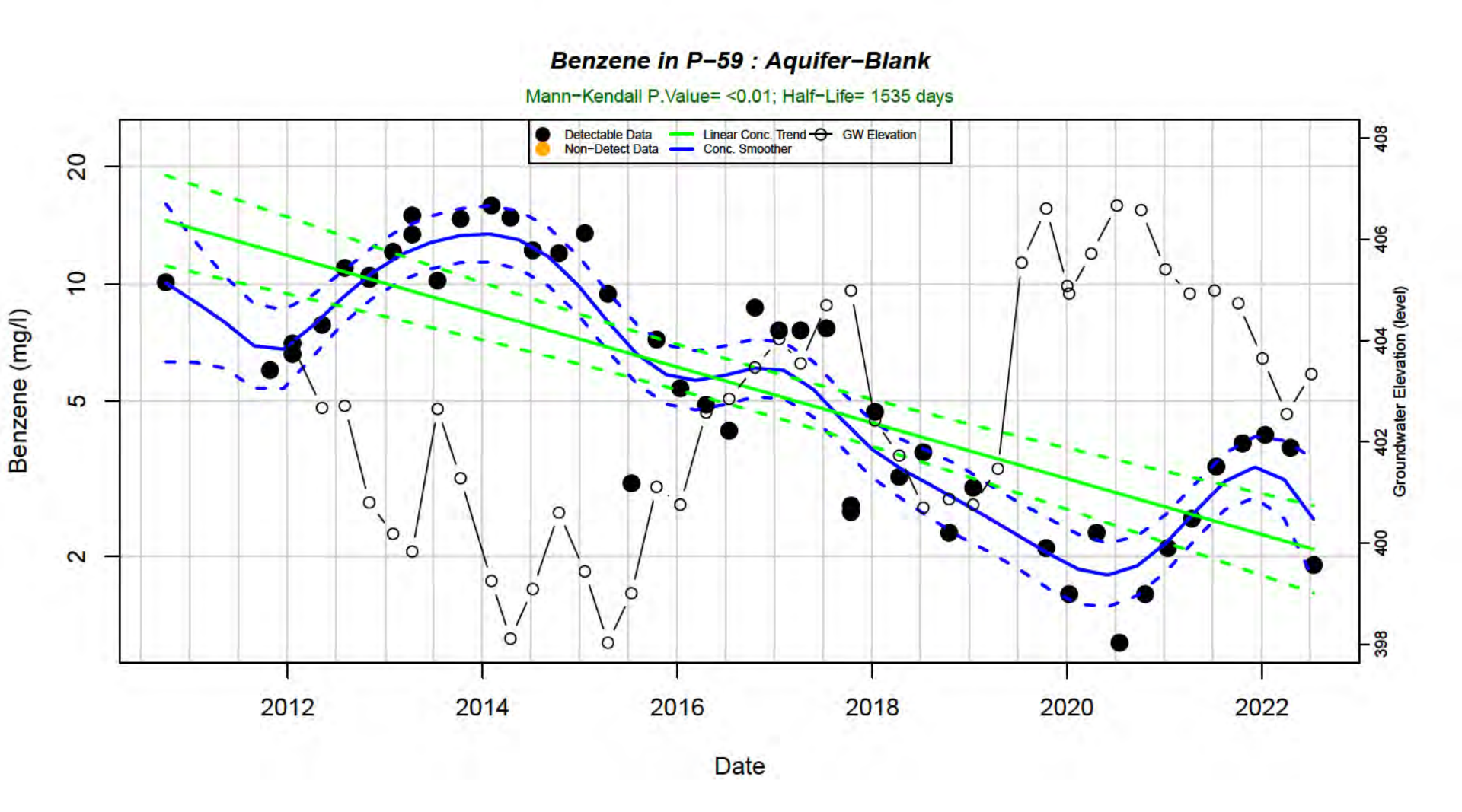

Benzene Concentrations Over Time - MW-25
Benzene Concentration (mg/L)
600
500
400
300
200
100
0
10/21/2014
1/22/2015
4/21/2015
7/15/2015
10/19/2015
1/14/2016
4/19/2016
7/18/2016
10/6/2016
1/11/2017
4/11/2017
7/10/2017
10/5/2017
1/9/2018
4/9/2018
7/10/2018
10/8/2018
1/7/2019
4/8/2019
7/8/2019
10/8/2019
1/6/2020
4/6/2020
7/9/2020
10/12/2020
1/18/2021
4/19/2021
7/19/2021
10/19/2021
1/11/2022
4/19/2022
7/18/2022
Sample Date
Benzene Concentration

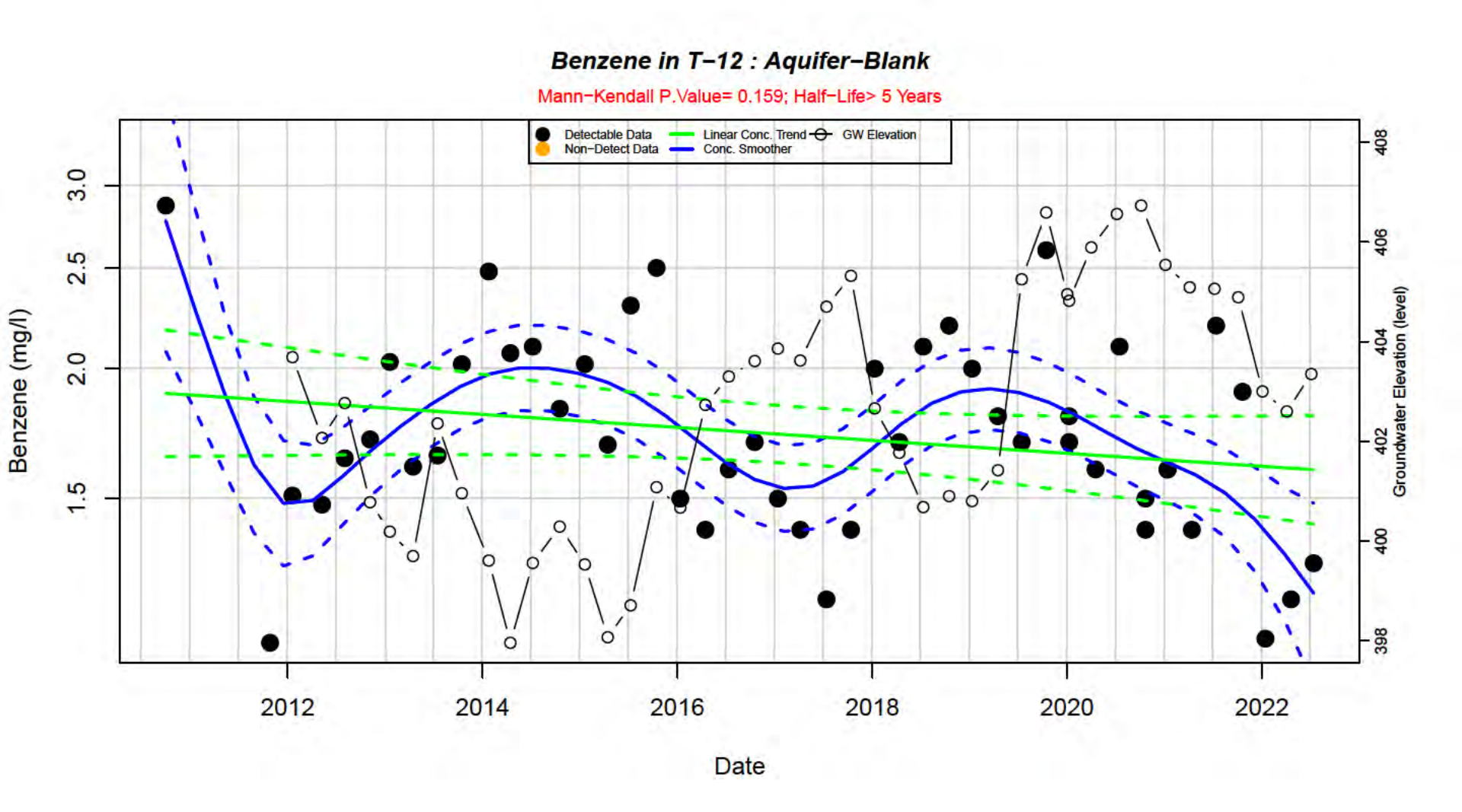

Benzene Concentrations Over Time - P-57
Benzene Concentration (mg/L)
450
400
350
300
250
200
150
100
50
0
3/3/2006
6/11/2008
11/8/2011
2/13/2012
5/7/2012
8/6/2012
11/5/2012
1/29/2013
4/11/2013
7/16/2013
10/14/2013
2/3/2014
4/15/2014
7/8/2014
10/14/2014
1/23/2015
4/20/2015
7/13/2015
10/15/2015
1/12/2016
4/18/2016
7/13/2016
10/18/2016
1/16/2017
4/7/2017
7/13/2017
10/16/2017
1/18/2018
4/10/2018
7/11/2018
10/16/2018
1/14/2019
4/17/2019
7/15/2019
10/15/2019
1/9/2020
4/17/2020
7/16/2020
10/20/2020
1/13/2021
4/12/2021
7/14/2021
10/18/2021
1/14/2022
4/15/2022
7/15/2022
Sample Date
Benzene Concentration

4th Street Area

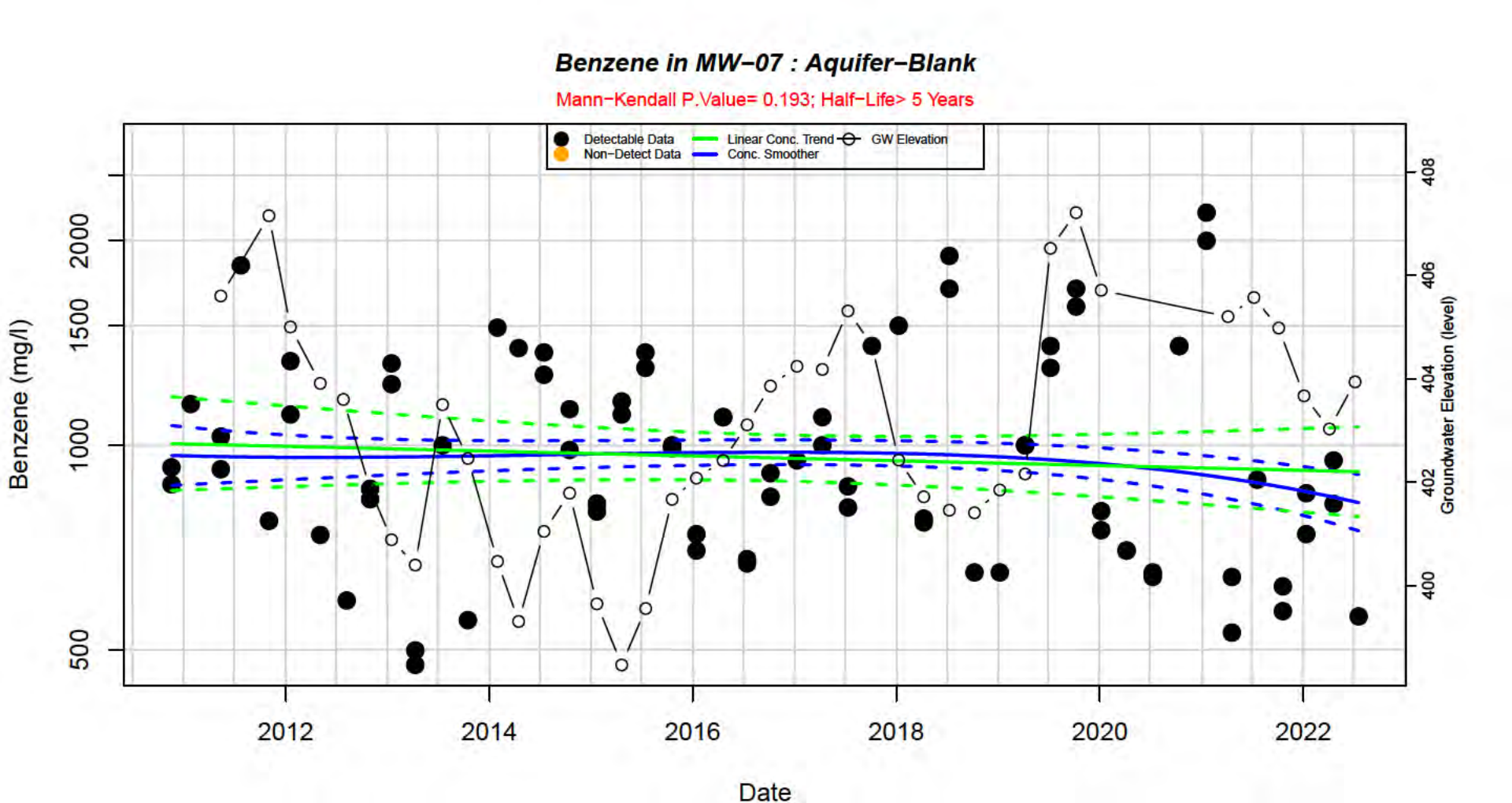

Benzene in MW−22 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 283 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
1e+01
1e+00
1e−01
1e−02
1e−03
Groundwater Elevation (level)
408
406
404
402
400
2014
2016
2018
2020
2022
Date

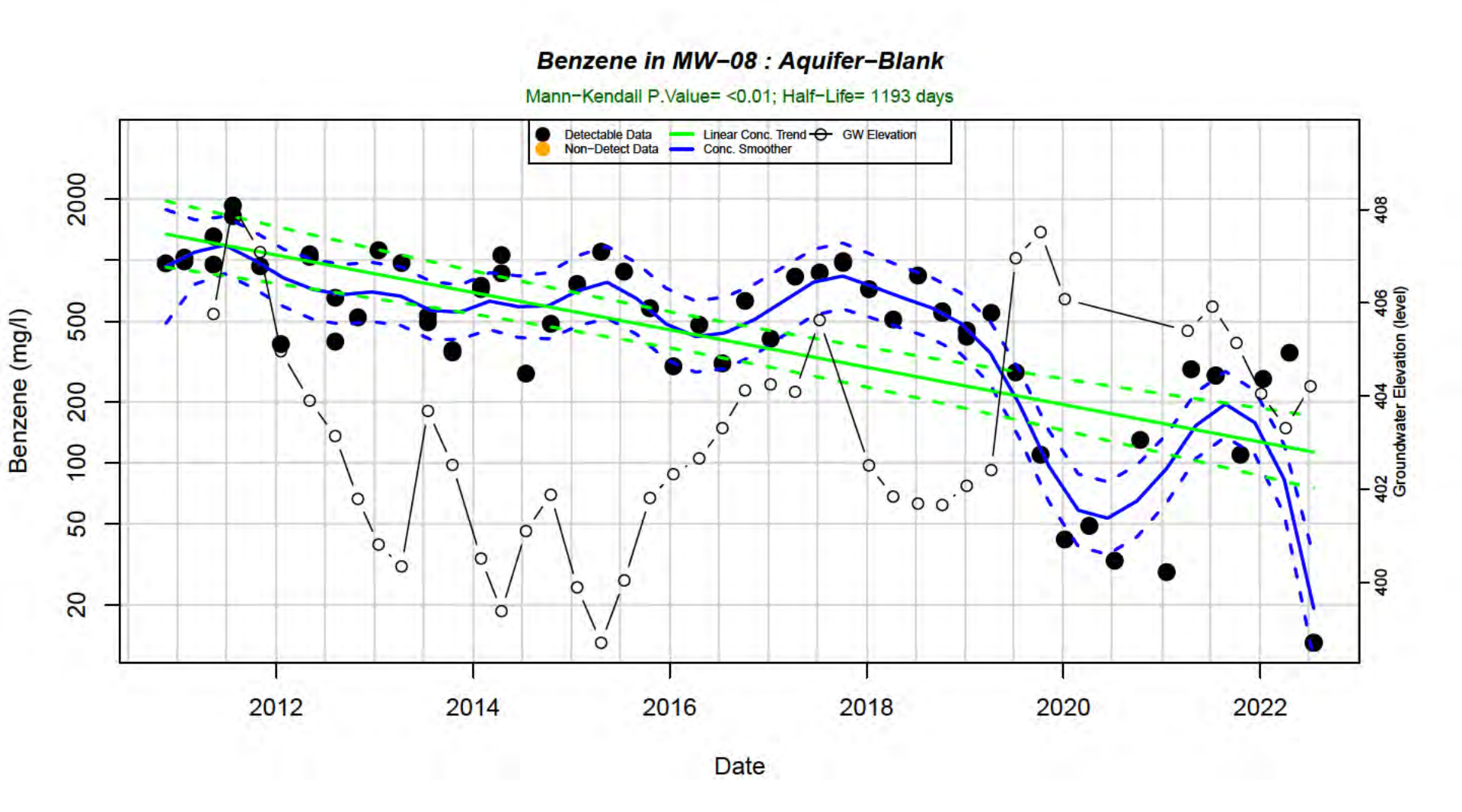

Benzene in ROST−4−PZ(C) : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1322 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
5e−01
1e−01
2e−02
5e−03
1e−03
2e−04
Groundwater Elevation (level)
408
406
404
402
400
2012
2014
2016
2018
2020
2022
Date

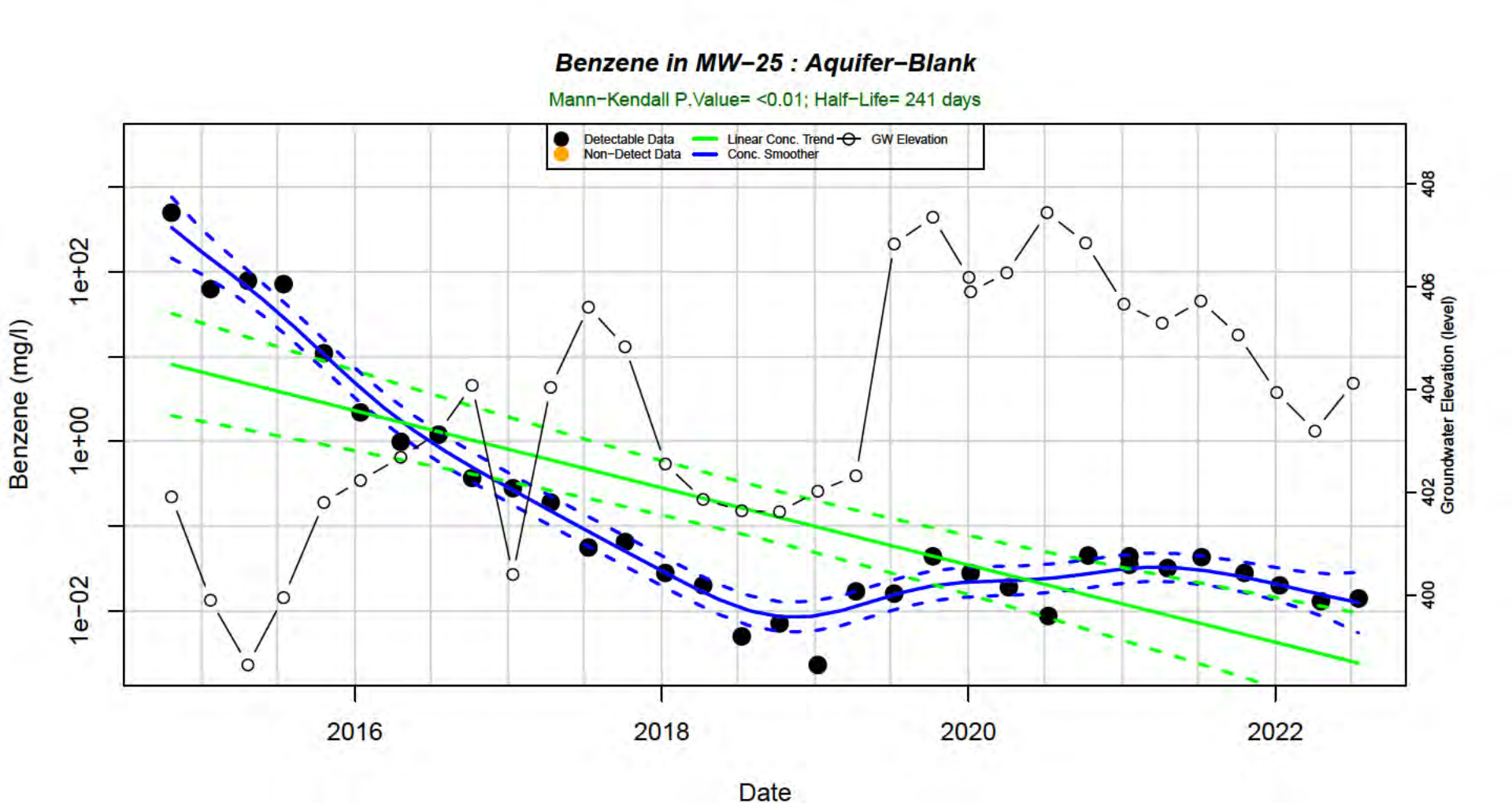

Benzene in P−59 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1535 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
Groundwater Elevation (level)
Date
2012
2014
2016
2018
2020
2022
2
5
10
20
398
400
402
404
406
408

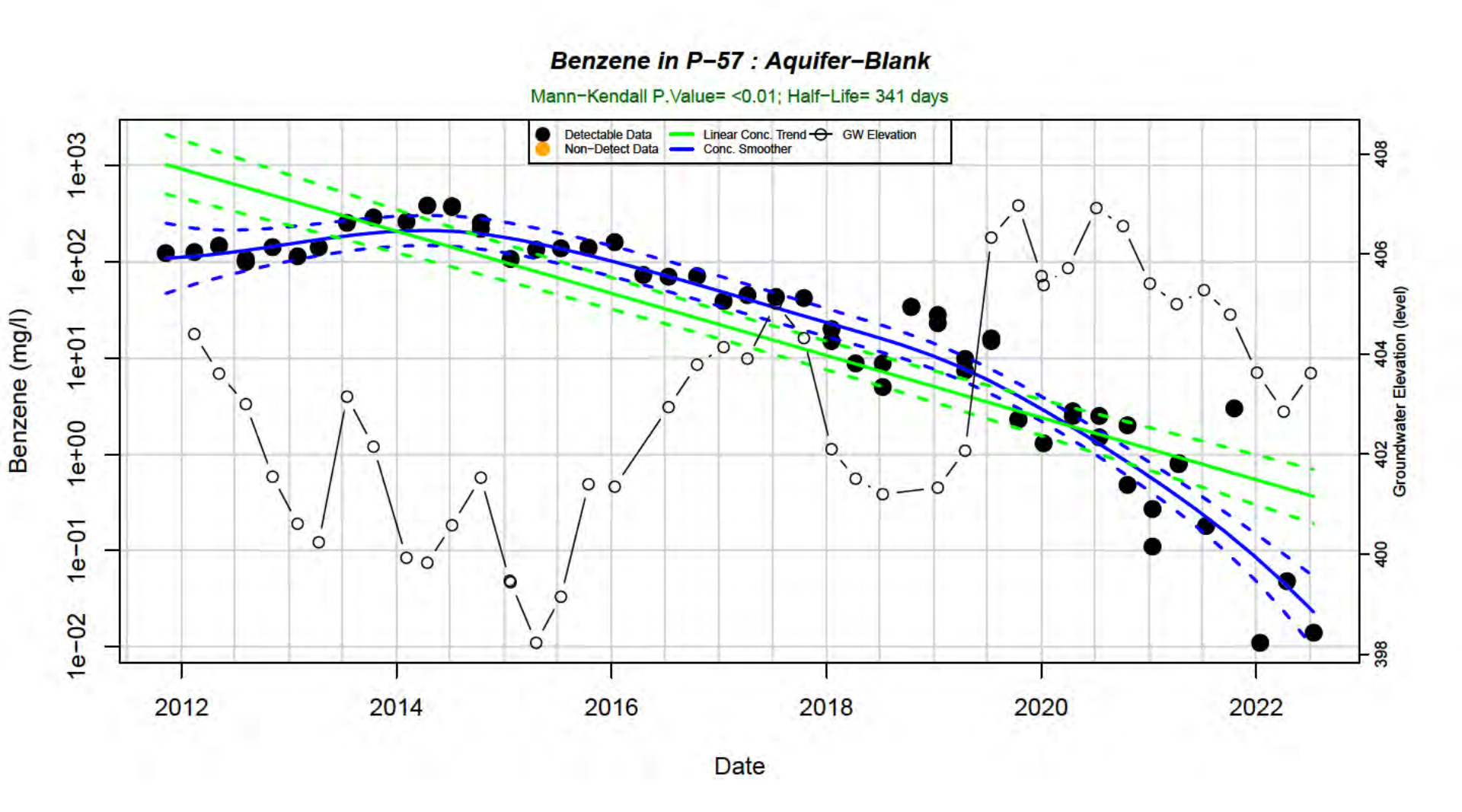

Benzene in T−12 : Aquifer−Blank
Mann−Kendall P.Value= 0.159; Half−Life> 5 Years
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
Groundwater Elevation (level)
Date
1.5
2.0
2.5
3.0
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022

Public Works Yard Area


Benzene in MW−07 : Aquifer−Blank
Mann−Kendall P.Value= 0.193; Half−Life> 5 Years
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
500
1000
1500
2000
2012
2014
2016
2018
2020
2022
Date
400
402
404
406
408
Groundwater Elevation (level)


Benzene in MW−08 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1193 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
20
50
100
200
500
2000
Groundwater Elevation (level)
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date


Benzene in MW−25 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 241 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
1e−02
1e+00
1e+02
Groundwater Elevation (level)
400
402
404
406
408
2016
2018
2020
2022
Date


Benzene in P−57 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 341 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
1e−02
1e−01
1e+00
1e+01
1e+02
1e+03
Groundwater Elevation (level)
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date

Melissa Remiger
Environmental Scientist
M: 314/449-2913
E: melissa.remiger@aecom.com

AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
aecom.com