Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. C915200

Site Name Former NL Industries Foundry

Site Address: 3241 Walden Avenue Zip Code: 14043
City/Town: Cheektowaga
County: Erie
Site Acreage: 7.500

Reporting Period: August 31, 2021 to August 31, 2022

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☐	☒
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	☒	☐
7. Are all ICs in place and functioning as designed?	☒	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

Box 2A

	YES	NO
8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?	☐	☒

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid? (The Qualitative Exposure Assessment must be certified every five years)	☒	☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C915200 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
104.09-5-1	Cascades Containerboard Packaging	Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan

[For details- see Section 5 in the Site Management Plan, dated October 16, 2009]
Environmental Easement is included in the FER in Appendix E. The Easement was recorded with the Erie County Clerk on 12/1/2009.

(i) Prohibition of groundwater use.
(ii) Restrictions on property use.
(iii) Maintenance of cover on the containment cell.
(iv) Maintenance of asphalt cover over trucking yard, eastern parking lot, and rail siding areas.
(v) Maintenance of concrete cover in the building and apron areas.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
104.09-5-1	Cover System Fencing/Access Control

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
☒	☐

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
☒	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. C915200

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Richard J. Snyder, P.E. (print name) at GHD Consulting Services, Inc. 2055 Niagara Falls Blvd, Niagara Falls, NY 14304 (print business address);

am certifying as Owner's Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

September 30, 2022
Date

EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Richard J. Snyder, P.E. at GHD Consulting Services, Inc. 2055 Niagara Falls Blvd., Niagara Falls, NY 14304,
print name — print business address

am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)

STATE OF NEW YORK
RICHARD J. SNYDER
LICENSED PROFESSIONAL ENGINEER
No. 066242

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification — Stamp Required for PE — Date: September 30, 2022

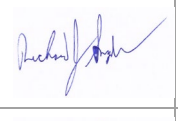
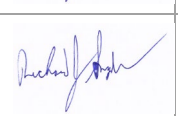
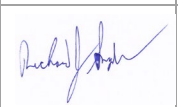
2022 Periodic Review Report

Former NL Industries Foundry, NYSDEC Site No. C915200

Cascades Holding US Inc.

15 December 2022

→ The Power of Commitment

Project name		Cascades 2022 PRR					
Document title		2022 Periodic Review Report | Former NL Industries Foundry, NYSDEC Site No. C915200					
Project number		12590773					
File name		2022 Periodic Review Report.docx					
Status Code [Status code]	**Revision**	**Author**	**Reviewer**		**Approved for issue**		
			Name	**Signature**	**Name**	**Signature**	**Date**
S2	0	K. Galanti	R. Snyder		R. Snyder		9/30/22
S4	1	K. Galanti	R. Snyder		R. Snyder		12/15/22

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1. Introduction

The former NL Industries Foundry (Site) is located at 3241 Walden Avenue in Depew, New York (Figure 1.1). The property and facility are currently owned and operated by Cascades Recovery Plus, a Division of Cascades Holding US Inc. (Cascades). Remediation of the Site was completed in 2008, under the oversight of the New York State Department of Environmental Conservation (NYSDEC), in accordance with Brownfield Cleanup Agreement (BCA) Index #B9-0554-98-12, Site #C915200.

The final remedial alternative for the Site, as described in the SMP dated October 2009, included the following components:

1. Excavation of impacted soils from the western section of the Site and consolidation within a containment cell constructed within the central portion of the Site.
2. Capping of the containment cell with imported clean fill, geo-synthetic clay liner (GCL), and soil/vegetative or asphalt cover.
3. Construction of a GCL and soil cover system on all non-paved areas of the containment cell (i.e., side slopes).
4. Construction of a GCL and asphalt cover system on all paved areas of the containment cell.
5. Execution and recording of an Environmental Easement to restrict land use and prevent future exposure to remaining impacted materials for the central and eastern portions of the Site.
6. Development and implementation of a Site Management Plan (SMP) for long-term management of the engineering controls (ECs) and institutional controls (ICs) in place at the Site.

The SMP, designed to serve as a work plan for Site monitoring and maintenance, was developed upon completion of the remedial construction and approved by the NYSDEC in October 2009. The SMP was updated in 2021 to document new Site ownership and contact information.

1.1 Purpose of this report

This Periodic Review Report (PRR) is being prepared to certify that Site management activities are being conducted in accordance with the SMP.

This report presents the results of the groundwater monitoring event conducted in August 2022, the Site inspection conducted in September 2022, and recordkeeping conducted through August 2022. The report is organized as follows:

– Section 1 – Introduction: The background and brief remedial history of the Site.
– Section 2 – Engineering and Institutional Controls: The ECs/ICs for this Site are described.
– Section 3 – Inspections and Maintenance Activities: Activities performed during the current reporting period and their results.
– Section 4 – Groundwater Monitoring: Discussion of groundwater monitoring data and analytical results generated from the current monitoring period.
– Section 5 – Conclusions and Recommendations: Conclusions and recommendations based upon the data and results of the current monitoring period.

1.2 Scope and limitations

This report: has been prepared by GHD for Cascades Holding US Inc. and may only be used and relied on by Cascades Holding US Inc. for the purpose agreed between GHD and Cascades Holding US Inc. as set out in Section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Cascades Holding US Inc. arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section(s) 5 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

2. Engineering and Institutional Controls

Engineering controls are required to protect human health and the environment because impacted fill is still present below various structures at the Site. Figure 2.1 shows the Site layout, and Figure 2.2 shows the various EC systems in place at the Site.

2.1 Engineering Controls (ECs)

The purpose of the EC systems is to eliminate the potential for human contact with fill material, prevent percolation of precipitation through the impacted fill and eliminate the potential for contaminated runoff from the Site. The EC systems in place at the Site consist of the following:

- **Asphalt Only:** The trucking yard within the east-central section of the Site was paved in 2004 and is covered by 4.5 inches of sub-base material and 6 inches of asphalt (4.5 inches binder coat and 1.5 inches topcoat). The eastern parking lot was historically paved with asphalt for employee parking and was repaved in August 2011. In addition, the area identified as the “rail siding area” was paved with 6 inches of asphalt (4 inches binder coat and 2 inches topcoat) in August 2008.
- **Building and Apron Concrete:** The concrete floor of the existing building and exterior concrete pads/aprons are believed to be a minimum of 6 inches in thickness.
- **GCL and Soil:** All non-paved areas (side slopes) of the containment cell are covered by approximately 12 inches of clean soil underlain by a GCL covering with a 6-inch sand layer between the GCL and impacted fill. All exposed environmentally clean soil/fill has been planted with grass as an erosion control methodology.
- **GCL and Asphalt:** All paved areas of the central section containment cell are covered by 6 inches of asphalt (4 inches binder coat and 2 inches topcoat) underlain by 12 inches of clean fill, followed by a GCL covering with a 6-inch sand layer between the GCL and the impacted fill.

2.2 Institutional Controls (ICs)

The purpose of the ICs is to:

- Implement, maintain, and monitor the ECs.
- Prevent future exposure to remaining on-Site contamination by controlling disturbance of the subsurface contamination.
- Limit the use and development of portions of the Site to industrial uses only.

The ICs that have been established for the Site must be:

- In compliance with the Environmental Easement and the SMP by the Grantor (currently Cascades Recovery Plus, a Division of Cascades Holding US Inc.) and the Grantor’s successors and assigns.
- Operated and maintained, as specified in the SMP.
- Inspected at a frequency and in a manner defined in the SMP.

Data and information pertinent to management of the Site must be reported at the frequency and in a manner defined in the SMP.

Adherence to the ICs is required by the Environmental Easement. The ICs may not be discontinued without an amendment to or extinguishment of the Environmental Easement. In addition, the Site has a series of ICs in the form of site restrictions, as required by the Environmental Easement. Restrictions that apply to the Site are:

– The central and eastern portions of the property may only be used for commercial/industrial purposes provided that the long-term ECs/ICs included in the SMP are employed.
– The central and eastern portions of the property may not be used for a higher level of use, such as unrestricted or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC.
– All future activities on the property that will disturb remaining impacted material must be conducted in accordance with the SMP.
– The Site owner or remedial party will submit to the NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Site are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP.
– The groundwater beneath the central and eastern sections of the property may not be used for potable or non-potable purposes.

3. Inspections and Maintenance Activities

A comprehensive Site-wide inspection is required to be conducted annually, as specified in the SMP. The intent of the annual inspection is to determine whether:

– The ECs continue to perform as designed.
– The ECs continue to be protective of human health and the environment.
– The Site is operated and maintained in compliance with the SMP and Environmental Easement.
– The remedial performance criteria have been achieved.
– Sampling and analysis of appropriate media were conducted.
– Site records are complete and current.
– Changes to the remedial systems or monitoring are needed.

The annual comprehensive Site inspection was conducted by GHD personnel in accordance with the requirements of the SMP on September 15, 2022. Megan Kuczka of NYSDEC Region 9 was present for the Site inspection. The following sections discuss the findings of the 2022 inspection. The completed Site Inspection Form is provided as Appendix A.

3.1 Asphalt-Only Cover System

The three areas of asphalt-only cover consist of the Trucking Yard (west of the main building), Parking Lot (east of the main building), and Former Rail Siding (south of the main building), as shown on Figure 2.2. The areas of asphalt-only cover were visually inspected for cracks, deterioration, and protruding vegetation.

3.1.1 Trucking Yard

The asphalt surface in the trucking yard is exhibiting clusters of cracking. No asphalt is currently missing nor is vegetation protruding: however, the severity of cracking warrants more significant action than crack sealing.

Maintenance or repair of the asphalt surface (i.e., resurfacing) is needed to prevent further deterioration. Photos of the trucking yard are provided in Appendix B.

Resurfacing of the trucking yard is recommended before the next reporting period.

3.1.2 Parking Lot

The Parking Lot was repaved in 2011 and is generally free of cracks and deterioration with no protruding vegetation. Photos of the pavement are provided in Appendix B.

No corrective action is necessary for the parking lot at this time.

3.1.3 Former Rail Siding

The asphalt cover on the Former Rail Siding was generally free of cracks and deterioration and appeared in good condition with no protruding vegetation. Photos of the pavement are provided in Appendix B.

No corrective action is necessary for the former rail siding at this time.

3.2 Building and Apron Cover System

The building foundation and apron concrete were visually inspected for cracks and deterioration. The building foundation is in good condition. Significant cracks and areas of missing concrete were observed on the concrete apron system. The tipping floor dock (center dock/apron area) and back dock (south dock/apron area) concrete aprons require significant repairs or replacement to prevent potential exposure to underlying contaminated soil. Photos of the concrete aprons and areas of damage/deterioration that require repair are provided in Appendix B.

Repair of the concrete aprons is required before the next reporting period.

3.3 GCL and Asphalt Cover System

The GCL and asphalt cover system was visually inspected as part of the annual comprehensive Site inspection. No areas of subsidence or exposed GCL were observed. Minor surface indentations caused by tractor-trailer supports were noted in the asphalt, consistent with past years. The indentations were approximately 0.25 to 0.5 inch in depth, but do not affect the integrity of the cap. Photos of the GCL and asphalt cover are provided in Appendix B.

No corrective action is necessary for the GCL and asphalt cover system at this time.

3.4 GCL and Soil Cover System

The GCL and soil cover system was visually inspected as part of the annual comprehensive Site inspection. No areas of subsidence, erosion, or exposed GCL were observed. At the time of the inspection, the grass was approximately to 2 inches in length and was regularly maintained throughout the year. Bare spots along the western slope identified during the 2021 inspection have been re-established. A small area of gouged grass/soil was observed on the south slope where boulders that line the perimeter of the GCL and Asphalt Cover area were bumped by truck traffic and rolled down the slope. Photos of the GCL and soil cover are provided in Appendix B.

The gouged area was rolled in early December to level the area. Vegetation will re-establish in the spring during the growing season. The boulders will be relocated back to the top of the slope at the edge of the GCL and Asphalt Cover area in 2023 when the soil is dry.

3.5 Retention Pond

The retention pond was inspected semiannually by Cascades staff and as part of the annual comprehensive Site inspection by GHD. Approximately 6 inches of standing water was present in the pond. Significant plant growth is

present within the pond, primarily invasive phragmites. Some individual and small clusters of phragmites were observed growing outside the stone perimeter of the pond. No other debris was observed, and the outlet pipes were open. No evidence of erosion was observed along the banks of the pond. The outlet pipes from the pond were clear of obstructions. Photos of the retention pond are provided in Appendix B.

No corrective action is necessary for the retention pond at this time.

3.6 Fencing

The fencing was inspected semiannually by Cascades staff and as part of the annual comprehensive Site inspection by GHD. The fencing appeared in good condition with no woody shrubs or vines intertwined within the fencing, with the exception of the south fenceline bordering the railroad right of way. This area is covered with dense vegetation from the neighboring railroad property. The fence north of the Site along Walden Avenue was constructed with braided wire rather than a top support pole. At the time of the inspection, the wire provided sufficient support for the fence. Photos of the fencing are provided in Appendix B.

No corrective action is necessary with regard to Site fencing at this time.

3.7 Vegetative Cover

The vegetative cover was inspected semiannually by Cascades staff and as part of the annual comprehensive Site inspection by GHD. No areas of distressed vegetation, invasive species, or woody growth were observed. Bare spots along the western slope identified during the 2021 inspection have been re-established. A small area of gouged grass/soil was observed on the south slope where boulders which line the perimeter of the GCL and Asphalt Cover area were bumped by truck traffic and rolled down the slope. Photos of the vegetative cover are provided in Appendix B.

Vegetation must be re-established over the gouged areas by placing topsoil and grass seed followed by care and maintenance.

3.8 General Site Appearance

The ECs were generally in good condition with the exceptions noted above; however, overall Site housekeeping should be improved. At the time of the Site inspection, equipment installation was underway within the building, so much material normally stored indoors was staged outdoors around the trucking yard. A good amount of scrap paper, plastic, and carboard debris was accumulated around the perimeter of the Site along the fencelines, in the rail siding, and around vehicles and dumpster/rolloff boxes. The site should be better maintained to avoid nuisance complaints from area neighbors.

4. Groundwater Monitoring

The 2016 PRR included a recommendation to reduce the frequency of groundwater monitoring from annual to triennial. The NYSDEC agreed with the recommendation in a letter to Cascades, Inc., dated October 18, 2016. Groundwater monitoring was completed as part of the 2022 event and is discussed in the following sections. The next groundwater sampling event will be in 2025.

4.1 Monitoring Well Inspection

In accordance with the SMP, monitoring well inspections were conducted in conjunction with the groundwater monitoring event in August 2022. The locations of the groundwater monitoring wells are shown on Figure 4.1. The inspections of the monitoring wells included the condition of well caps, J plugs, seals, protective pads, and visible portions of the well casings. Monitoring well conditions are noted on the Site Inspection Form presented in Appendix A.

In addition, prior to purging the well for sampling, the open depth of each monitoring well was measured (sounded). The sounded depths and installed screened intervals of each well are presented in Table 4.1. Comparison of these details shows that the screened intervals of all wells are open and do not require redevelopment (i.e., greater than 50% of all well screens are exposed). The recharge during purging for sampling demonstrates that the presence of small amounts of observed sediment does not interfere with the flow of groundwater through the wells or sand packs.

All wells were noted to be in good condition at the time of sampling.

4.2 Groundwater Elevation

As part of the monitoring activities described in the SMP, each monitoring well was gauged before sampling using an electronic water level meter. The depth to the groundwater surface was measured prior to beginning the purging of monitoring wells for sampling. Water level measurements are included in the Groundwater Monitoring Field Forms presented in Appendix C and water level elevations are summarized in Table 4.2. A groundwater contour map is provided as Figure 4.2.

4.3 Groundwater Sampling

Groundwater samples were collected using low flow techniques in accordance with the SMP. A sample collection and analysis summary is presented in Table 4.3. The field parameters are provided on the Groundwater Monitoring Field Forms presented in Appendix C.

4.4 Groundwater Data Evaluation

The groundwater analytical data generated during this reporting period are summarized in Table 4.4. The analytical data report is provided as Appendix D. A quality assurance/quality control (QA/QC) review of the analytical data has been conducted. The Data Usability Summary Report (DUSR) is presented in Appendix E.

Analytical results for volatile organic compounds (VOCs) and semivolatile organic compounds (SVOCs) were all non-detect at all well locations.

Iron was detected in monitoring wells MW-102, MW-103, and MW-105 at concentrations ranging from 470 µg/L to 480 µg/L, above the New York State water quality criteria of 300 µg/L for iron. In addition, magnesium and sodium were detected in all monitoring wells at concentrations above the New York State water quality criteria of 35,000 µg/L for magnesium (guidance value) and 20,000 µg/L for sodium (standard) in potable groundwater. Detections ranged from 70,000 µg/L to 100,000 µg/L for magnesium; and from 61,000 µg/L to 140,000 µg/L for sodium. The observations of these metals are consistent with those from previous monitoring years. Iron, magnesium, and sodium are common elements contained in soils and are also typically present in groundwater. Although low-level exceedances of lead were historically detected at the Site, lead was not detected above the New York State water quality criteria for potable groundwater of 25 µg/L in any of the 2022 groundwater samples.

5. Conclusions and Recommendations

The annual inspection and monitoring activities performed during this reporting period found that:

– The asphalt only cover system is generally in good condition but needs routine maintenance (resurfacing).
– Areas of the concrete apron cover system where significant wear, holes, and cracking were observed must be repaired or replaced as part of routine maintenance during the 2022/2023 reporting period.
– The GCL and soil and GCL and asphalt cover systems are generally in good condition with no deficiencies noted.
– Boulders should be relocated to the top of the containment cell and vegetation will be re-established over the releveled area on the south slope of the containment cell in Spring 2023 followed by care and maintenance.
– Perimeter fencing is in good condition.
– Complete general housekeeping to remove paper and plastic debris from around the perimeter of the property.

Although significant concrete repair/replacement is necessary to maintain the integrity of the concrete aprons, the aprons are currently preventing human exposure to any underlying contaminated soil. Based on these observations, it is concluded that the remedial action continues to be effective.

A review of the groundwater data from the beginning of the monitoring program in 2010 through the current 2022 event was completed. A complete comprehensive summary of historical groundwater data is provided as Table 5.1. The presence of iron, magnesium, and sodium continues relatively unchanged each year, and since lead is the primary Site contaminant of concern, it is recommended that metals continue to be monitored on a triennial basis.

VOCs and SVOCs have been detected historically as follows:

Monitoring Well	Contaminant	Concentration (µg/L)	Year Detected
MW-101	Butyl benzyl phthalate	1.6 J	2010
MW-102	Carbon Disulfide	0.24 J / 0.20 J (dupe)	2012
MW-104	2,4-Dichlorophenol	0.42 J	2013
MW-105	Toluene	0.21 J	2010
MW-106F	2,4-Dichlorophenol	0.93 J	2010
	Caprolactam	7.2 J	2010
	2,4-Dichlorophenol	0.29 J	2013
	Fluoranthene	0.16 J	2013
	Pyrene	0.14 J	2013
	Methylene chloride	0.37 J	2014
	Trichloroethene	2.2	2014

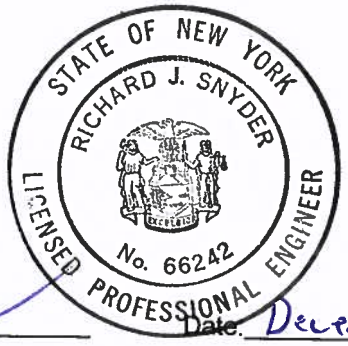
No detections of VOCs or SVOCs have been observed in any wells since 2014. Prior to that, the vast majority of detections were sporadic low level, estimated concentrations that showed no pattern or trend. Based on this history, GHD recommends that VOCs and SVOCs be eliminated from the monitoring program beginning with the 2025 event.

6. Certification

For each institutional or engineering control identified for the site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction.
- Except as indicated in this report, the institutional controls and/or engineering controls employed at this Site are unchanged from the date the control was put in place or last approved by the Department.
- Nothing has occurred that would impair the ability of the control to protect the public health and environment.
- Nothing has occurred that would constitute a violation or failure to comply with the SMP for this control.
- Access to the Site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control.
- Use of the Site is compliant with the environmental easement.
- The engineering control systems are performing as designed and are effective.
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program.
- The information presented in this report is accurate and complete.

Richard J. Snyder, P.E.
GHD Consulting Services, Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, New York 14304



Signature: _____ Date: December 2, 2022

Tables

Table 4.1

Monitoring Well Measurement Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Well	*Sounded Depth (ft. BTOC)*	*Screened Interval (ft. BTOC)*	*Percent Screened Interval Open*
MW-101	26.92	17.0 to 27.0	99
MW-102	24.57	15.1 to 25.1	94
MW-103	26.64	17.0 to 27.0	96
MW-104	26.44	17.0 to 27.0	94
MW-105	24.03	16.1 to 26.1	79
MW-106F	10.29	6.05 to 11.05	85

Notes:
BTOC Below Top of Casing.
Measurements were taken in August 2022.

Table 4.2

Summary of Groundwater Level Measurements
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

			Water Level Elevations								
Well	***Ground Elevation***	***Top of Casing Elevation***	***4/2009***	***6/2010***	***8/2012***	***8/2013***	***9/2014***	***9/2015***	***8/2016***	***7/2019***	***8/2022***
MW-101	678.03	678.03	675.12	676.28	674.71	675.93	676.83	670.73	674.84	675.78	675.79
MW-102	675.56	676.67	672.21	673.66	672.56	673.76	674.20	673.79	673.48	673.99	674.06
MW-103	677.57	677.56	672.68	672.81	671.56	672.56	672.44	672.34	671.33	671.75	672.15
MW-104	677.06	677.06	671.44	671.78	670.88	671.24	671.37	671.45	671.02	671.31	671.83
MW-105	675.41	675.48	668.87	668.34	663.92	667.38	667.16	667.04	664.88	667.93	666.83
MW-106F	677.38	677.43	668.9	674.10	672.05	674.93	672.61	672.41	671.86	672.77	673.74

Notes:

Elevations are referenced to the NVGD datum.
NVGD National Vertical Geodetic Datum.

Table 4.3

Sample Collection and Analysis Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

				Parameter			
Sample ID	***Location I.D.***	***Collection Date***	***Collection Time***	***TCL VOCs***	***TAL Metals***	***TCL SVOCs***	***Comment***
WG-12590773-081722-KM-001	MW-104	8/17/2022	10:00	X	X	X	
WG-12590773-081722-KM-002	MW-106F	8/17/2022	9:55	X	X	X	
WG-12590773-081722-KM-003	MW-101	8/17/2022	11:40	X	X	X	
WG-12590773-081722-KM-004	MW-101	8/17/2022	11:40	X	X	X	*Duplicate of WG-12590773-081722-KM-003*
WG-12590773-081722-KM-005	MW-103	8/17/2022	11:35	X	X	X	
WG-12590773-081722-KM-006	MW-102	8/17/2022	12:30	X	X	X	
WG-12590773-081722-KM-007	MW-105	8/17/2022	14:50	X	X	X	
EB-12590773-081722-KM-008	-	8/17/2022	14:30	X	X	X	Equipment Blank
TB-12590773-081722-KM	-	8/17/2022	9:50	X			Trip Blank

Notes:

-	Not applicable
TCL	Target Compound List
TAL	Target Analyte List
SVOCs	Semi-Volatile Organic Compounds
VOCs	Volatile Organic Compounds

Table 4.4

Analytical Results Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:			MW-101	MW-101	MW-102
Sample Name:			WG-12590773-081722-KM-003	WG-12590773-081722-KM-004	WG-12590773-081722-KM-006
Sample Date:			8/17/2022	8/17/2022 Duplicate	8/17/2022
Parameters	***New York State Water Quality Standards a***	***New York State Water Quality Guidance Values b***	**Unit**		
Volatile Organic Compounds					
1,1,1-Trichloroethane	5	NC	µg/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	NC	µg/L	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	NC	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	NC	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.04	NC	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	0.0006	NC	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	NC	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	NC	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	NC	µg/L	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	NC	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	NC	µg/L	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	NC	50	µg/L	10 U	10 U	10 U
2-Hexanone	NC	50	µg/L	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
Acetone	NC	50	µg/L	10 U	10 U	10 U
Benzene	1	NC	µg/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	NC	50	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	NC	50	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	60	60	µg/L	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	7	NC	µg/L	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	5	NC	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	NC	NC	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	NC	NC	µg/L	1.0 U	1.0 U	1.0 U
Dibromochloromethane	NC	50	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Methyl acetate	NC	NC	µg/L	2.5 U	2.5 U	2.5 U
Methyl cyclohexane	NC	NC	µg/L	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	NC	10	µg/L	1.0 U	1.0 U	1.0 U
Methylene chloride	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Styrene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U

Table 4.4

Analytical Results Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:			MW-101	MW-101	MW-102
Sample Name:			WG-12590773-081722-KM-003	WG-12590773-081722-KM-004	WG-12590773-081722-KM-006
Sample Date:			8/17/2022	8/17/2022 Duplicate	8/17/2022
Parameters	***New York State Water Quality Standards a***	***New York State Water Quality Guidance Values b***	**Unit**		
Volatile Organic Compounds (continued)					
Toluene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	NC	NC	µg/L	1.0 U	1.0 U	1.0 U
Trichloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	5	NC	µg/L	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	NC	µg/L	1.0 U	1.0 U	1.0 U
Xylenes (total)	NC	NC	µg/L	2.0 U	2.0 U	2.0 U
Semi-volatile Organic Compounds						
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	5	NC	µg/L	5.0 U	5.0 U	5.0 U
2,4,5-Trichlorophenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	5	NC	µg/L	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	NC	50	µg/L	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	NC	10	µg/L	10 U	10 U	10 U
2,4-Dinitrotoluene	5	NC	µg/L	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	5	NC	µg/L	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	NC	10	µg/L	5.0 U	5.0 U	5.0 U
2-Chlorophenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	NC	NC	µg/L	R	R	R
2-Methylphenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
2-Nitroaniline	5	NC	µg/L	10 U	10 U	10 U
2-Nitrophenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	5	NC	µg/L	5.0 U	5.0 U	5.0 U
3-Nitroaniline	NC	NC	µg/L	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	NC	NC	µg/L	10 U	10 U	10 U
4-Bromophenyl phenyl ether	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	5	NC	µg/L	5.0 U	5.0 U	5.0 U
4-Chloroaniline	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
4-Chlorophenyl phenyl ether	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
4-Methylphenol	5	NC	µg/L	10 U	10 U	10 U
4-Nitroaniline	5	NC	µg/L	10 U	10 U	10 U
4-Nitrophenol	NC	NC	µg/L	10 U	10 U	10 U
Acenaphthene	NC	20	µg/L	5.0 U	5.0 U	5.0 U
Acenaphthylene	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
Acetophenone	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
Anthracene	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Atrazine	7.5	NC	µg/L	5.0 U	5.0 U	5.0 U
Benzaldehyde	NC	NC	µg/L	5.0 U	5.0 U	5.0 U

Table 4.4

Analytical Results Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:			MW-101	MW-101	MW-102
Sample Name:			WG-12590773-081722-KM-003	WG-12590773-081722-KM-004	WG-12590773-081722-KM-006
Sample Date:			8/17/2022	8/17/2022	8/17/2022
				Duplicate	
	New York State Water Quality				
Parameters	***Standards a***	***Guidance Values b***	**Unit**		
Semi-volatile Organic Compounds (continued)					
Benzo(a)anthracene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U
Biphenyl (1,1-Biphenyl)	5	NC	µg/L	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	5	NC	µg/L	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	1	NC	µg/L	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate (DEHP)	5	NC	µg/L	5.0 U	5.0 U	5.0 U
Butyl benzylphthalate (BBP)	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Caprolactam	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
Carbazole	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
Chrysene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
Dibenzofuran	NC	NC	µg/L	10 U	10 U	10 U
Diethyl phthalate	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Di-n-butylphthalate (DBP)	50	NC	µg/L	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate (DnOP)	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Fluoranthene	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Fluorene	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	0.04	NC	µg/L	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	0.5	NC	µg/L	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	5	NC	µg/L	5.0 U	5.0 U	5.0 U
Hexachloroethane	5	NC	µg/L	R	R	R
Indeno(1,2,3-cd)pyrene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U
Isophorone	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Naphthalene	NC	10	µg/L	R	R	R
Nitrobenzene	0.4	NC	µg/L	5.0 U	5.0 U	5.0 U
N-Nitrosodi-n-propylamine	NC	NC	µg/L	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Pentachlorophenol	1	NC	µg/L	10 U	10 U	10 U
Phenanthrene	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Phenol	1	NC	µg/L	5.0 U	5.0 U	5.0 U
Pyrene	NC	50	µg/L	5.0 U	5.0 U	5.0 U
Metals						
Aluminum	NC	NC	µg/L	200 U	200 U	77 J
Antimony	3	NC	µg/L	1.0 U	1.0 U	1.0 U
Arsenic	25	NC	µg/L	7.7	7.8	1.0

Table 4.4

Analytical Results Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:				**MW-101**	**MW-101**	**MW-102**
Sample Name:				**WG-12590773-081722-KM-003**	**WG-12590773-081722-KM-004**	**WG-12590773-081722-KM-006**
Sample Date:				**8/17/2022**	**8/17/2022**	**8/17/2022**
					Duplicate	
	New York State Water Quality					
Parameters	***Standards a***	***Guidance Values b***	**Unit**			
Metals (continued)						
Barium	1000	NC	µg/L	120	120	99
Beryllium	NC	3	µg/L	0.70 U	0.70 U	0.70 U
Cadmium	5	NC	µg/L	0.50 U	0.50 U	0.50 U
Calcium	NC	NC	µg/L	46000	44000	80000
Chromium	50	NC	µg/L	1.5 U	1.5 U	1.5 U
Cobalt	NC	NC	µg/L	0.46	0.47	2.8
Copper	200	NC	µg/L	7.0	7.3	1.0 U
Iron	300	NC	µg/L	240	210	**470**
Lead	25	NC	µg/L	1.7	1.6	0.86 J
Magnesium	NC	35000	µg/L	**78000**	**75000**	**100000**
Manganese	300	NC	µg/L	73	77	270
Mercury	0.7	NC	µg/L	0.20 U	0.20 U	0.20 U
Nickel	100	NC	µg/L	1.0 U	1.0 U	1.0 U
Potassium	NC	NC	µg/L	2400	2300	2300
Selenium	10	NC	µg/L	1.0 U	1.0 U	1.0 U
Silver	50	NC	µg/L	0.10 J	0.10 J	0.063 J
Sodium	20000	NC	µg/L	**72000**	**69000**	**62000**
Thallium	NC	0.5	µg/L	0.20 U	0.20 U	0.20 U
Vanadium	NC	NC	µg/L	4.0 U	4.0 U	4.0 U
Zinc	NC	2000	µg/L	35 J	34 J	14

Notes:

All concentrations are expressed in units of micrograms per liter (µg/L), unless otherwise noted.

470 - Concentration was greater than applicable criteria.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

NC - No criteria.

a - New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 703.5 New York State Water Quality Standards.

b - NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998).

Table 4.4

Analytical Results Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:				**MW-103**	**MW-104**	**MW-105**	**MW-106F**
Sample Name:				**WG-12590773-081722-KM-005**	**WG-12590773-081722-KM-001**	**WG-12590773-081722-KM-007**	**WG-12590773-081722-KM-002**
Sample Date:				**8/17/2022**	**8/17/2022**	**8/17/2022**	**8/17/2022**
	New York State Water Quality						
Parameters	***Standards a***	***Guidance Values b***	**Unit**				
Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	1	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	0.04	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	0.0006	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	3	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	0.6	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	1	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	3	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	3	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	NC	50	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	NC	50	µg/L	10 U	10 U	10 U	10 U
Benzene	1	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	NC	50	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	NC	50	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	60	60	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	7	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	NC	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	NC	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	NC	50	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	NC	NC	µg/L	2.5 U	2.5 U	2.5 U	2.5 U
Methyl cyclohexane	NC	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	NC	10	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 4.4

Analytical Results Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:				**MW-103**	**MW-104**	**MW-105**	**MW-106F**
Sample Name:				**WG-12590773-081722-KM-005**	**WG-12590773-081722-KM-001**	**WG-12590773-081722-KM-007**	**WG-12590773-081722-KM-002**
Sample Date:				**8/17/2022**	**8/17/2022**	**8/17/2022**	**8/17/2022**
	New York State Water Quality						
Parameters	***Standards a***	***Guidance Values b***	**Unit**				
Volatile Organic Compounds (continued)							
Toluene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	NC	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	5	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	2	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	NC	NC	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Semi-volatile Organic Compounds							
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,5-Trichlorophenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	NC	10	µg/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	NC	10	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	NC	NC	µg/L	R	R	R	R
2-Methylphenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	5	NC	µg/L	10 U	10 U	10 U	10 U
2-Nitrophenol	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	NC	NC	µg/L	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	NC	NC	µg/L	10 U	10 U	10 U	10 U
4-Bromophenyl phenyl ether	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorophenyl phenyl ether	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	5	NC	µg/L	10 U	10 U	10 U	10 U
4-Nitroaniline	5	NC	µg/L	10 U	10 U	10 U	10 U
4-Nitrophenol	NC	NC	µg/L	10 U	10 U	10 U	10 U
Acenaphthene	NC	20	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetophenone	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Anthracene	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	7.5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzaldehyde	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U

Table 4.4

Analytical Results Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:			**MW-103**	**MW-104**	**MW-105**	**MW-106F**
Sample Name:			**WG-12590773-081722-KM-005**	**WG-12590773-081722-KM-001**	**WG-12590773-081722-KM-007**	**WG-12590773-081722-KM-002**
Sample Date:			**8/17/2022**	**8/17/2022**	**8/17/2022**	**8/17/2022**
Parameters	***New York State Water Quality Standards a***	***New York State Water Quality Guidance Values b***	**Unit**			
Semi-volatile Organic Compounds (continued)						
Benzo(a)anthracene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Biphenyl (1,1-Biphenyl)	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	1	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate (DEHP)	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Butyl benzylphthalate (BBP)	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbazole	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	NC	NC	µg/L	10 U	10 U	10 U	10 U
Diethyl phthalate	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butylphthalate (DBP)	50	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate (DnOP)	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	0.04	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	0.5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	5	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	5	NC	µg/L	R	R	R	R
Indeno(1,2,3-cd)pyrene	NC	0.002	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Isophorone	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	NC	10	µg/L	R	R	R	R
Nitrobenzene	0.4	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodi-n-propylamine	NC	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	1	NC	µg/L	10 U	10 U	10 U	10 U
Phenanthrene	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	1	NC	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	NC	50	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Metals							
Aluminum	NC	NC	µg/L	200 U	200 U	80 J	200 U
Antimony	3	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Arsenic	25	NC	µg/L	2.3	8.3	0.46 J	1.0 U

Table 4.4

Analytical Results Summary
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:				**MW-103**	**MW-104**	**MW-105**	**MW-106F**
Sample Name:				**WG-12590773-081722-KM-005**	**WG-12590773-081722-KM-001**	**WG-12590773-081722-KM-007**	**WG-12590773-081722-KM-002**
Sample Date:				**8/17/2022**	**8/17/2022**	**8/17/2022**	**8/17/2022**
	New York State Water Quality						
Parameters	***Standards a***	***Guidance Values b***	**Unit**				
Metals (continued)							
Barium	1000	NC	µg/L	96	40	200	160
Beryllium	NC	3	µg/L	0.70 U	0.70 U	0.70 U	0.70 U
Cadmium	5	NC	µg/L	0.50 U	0.25 J	0.50 U	0.50 U
Calcium	NC	NC	µg/L	93000	50000	40000	66000
Chromium	50	NC	µg/L	1.5 U	1.5 U	1.5 U	1.5 U
Cobalt	NC	NC	µg/L	0.46	0.26 J	0.30	0.42
Copper	200	NC	µg/L	1.0 U	1.0 U	1.0 U	5.0
Iron	300	NC	µg/L	**480**	240	**480**	67
Lead	25	NC	µg/L	0.67 J	0.19 J	1.0 U	5.1
Magnesium	NC	35000	µg/L	**73000**	**90000**	**70000**	**75000**
Manganese	300	NC	µg/L	46	32	20	48
Mercury	0.7	NC	µg/L	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	100	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Potassium	NC	NC	µg/L	3400	2200	3000	730
Selenium	10	NC	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Silver	50	NC	µg/L	0.054 J	0.14 J	0.066 J	0.50 U
Sodium	20000	NC	µg/L	**140000**	**61000**	**63000**	**64000**
Thallium	NC	0.5	µg/L	0.20 U	0.20 U	0.20 U	0.20 U
Vanadium	NC	NC	µg/L	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	NC	2000	µg/L	10 U	3.5 J	7.7 J	16 J

:

All concentrations are expressed in units of micrograms per liter (µg/L), unless otherwise noted.

- Concentration was greater than applicable criteria.
- The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- The analyte was positively identified; the associated numerical value is the approximate concentration of the a
- No criteria.
- New York State Department of Environmental Conservation (NYSDEC) 6 NYCRR Part 703.5 New York State
- NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality and Groundwater Effluent Limitations (June 1998).

Table 5.1

Comprehensive Analytical Results Summary (2010 - 2022)
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
Sample Name:	WG-630775-061110-001	WG-630970-083012-002	WG-631028-080813-001	WG-631110-090914-SG-001	WG-11103430-091415-SG-004	WG-11124679-081716-SG-002	WG-11199639-071819-SG-002	WG-12590773-081722-KM-003	WG-12590773-081722-KM-004	WG-630775-061110-007	WG-630970-083012-003	WG-630970-083012-004	WG-631028-080813-002	WG-631028-080813-003	WG-631110-090914-SG-003	WG-631110-090914-SG-005
Sample Date:	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019	08/17/2022	08/17/2022	06/11/2010	08/30/2012	08/30/2012	08/08/2013	08/08/2013	09/09/2014	09/09/2014
Depth:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
									Duplicate			Duplicate		Duplicate		Duplicate
Parameter	***Unit***															
Volatile Organic Compounds																
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.24 J	0.20 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.5 U	2.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds																	
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
2,4,5-Trichlorophenol	ug/L	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 UJ
2,4,6-Trichlorophenol	ug/L	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 UJ
2,4-Dichlorophenol	ug/L	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 UJ	1.9 UJ
2,4-Dimethylphenol	ug/L	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2,4-Dinitrophenol	ug/L	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	9.5 U	10 U	10 U	50 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 UJ
2,4-Dinitrotoluene	ug/L	10 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2,6-Dinitrotoluene	ug/L	10 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2-Chloronaphthalene	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
2-Chlorophenol	ug/L	10 U	0.95 U	0.95 U	0.95 UJ	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 UJ	0.95 UJ
2-Methylnaphthalene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	R	R	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
2-Methylphenol	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
2-Nitroaniline	ug/L	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	10 U	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2-Nitrophenol	ug/L	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 UJ	1.9 UJ
3&4-Methylphenol	ug/L	--	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U	--	--	--	1.9 U	1.9 U	1.9 U	1.9 U	1.9 UJ	1.9 UJ
3,3'-Dichlorobenzidine	ug/L	50 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	50 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
3-Nitroaniline	ug/L	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	10 U	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
4,6-Dinitro-2-methylphenol	ug/L	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	4.8 U	10 U	10 U	50 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 UJ
4-Bromophenyl phenyl ether	ug/L	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
4-Chloro-3-methylphenol	ug/L	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 UJ	1.9 UJ
4-Chloroaniline	ug/L	10 U	1.9 UJ	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	1.9 UJ	1.9 UJ	1.9 U	1.9 U	1.9 U	1.9 U
4-Chlorophenyl phenyl ether	ug/L	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
4-Methylphenol	ug/L	10 U	--	--	--	--	--	--	10 U	10 U	10 U	--	--	--	--	--	--
4-Nitroaniline	ug/L	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	10 U	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
4-Nitrophenol	ug/L	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	9.5 U	10 U	10 U	50 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 UJ
Acenaphthene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Acenaphthylene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Acetophenone	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Anthracene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Atrazine	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	1.9 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Benzaldehyde	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	1.9 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Benzo(a)anthracene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Benzo(a)pyrene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Benzo(b)fluoranthene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Benzo(g,h,i)perylene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Benzo(k)fluoranthene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Biphenyl (1,1-Biphenyl)	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
bis(2-Chloroethoxy)methane	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U

Table 5.1

Comprehensive Analytical Results Summary (2010 - 2022)
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-101	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102
Sample Name:	WG-630775-061110-001	WG-630970-083012-002	WG-631028-080813-001	WG-631110-090914-SG-001	WG-11103430-091415-SG-004	WG-11124679-081716-SG-002	WG-11199639-071819-SG-002	WG-12590773-081722-KM-003	WG-12590773-081722-KM-004	WG-630775-061110-007	WG-630970-083012-003	WG-630970-083012-004	WG-631028-080813-002	WG-631028-080813-003	WG-631110-090914-SG-003	WG-631110-090914-SG-005
Sample Date:	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019	08/17/2022	08/17/2022	06/11/2010	08/30/2012	08/30/2012	08/08/2013	08/08/2013	09/09/2014	09/09/2014
Depth:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
									Duplicate			Duplicate		Duplicate		Duplicate
Parameter	***Unit***															
bis(2-Chloroethyl)ether	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	10 U	1.9 U	1.9 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	4.8 U	4.8 U
Butyl benzylphthalate (BBP)	ug/L	1.6 J	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U
Caprolactam	ug/L	10 U	4.8 UJ	4.8 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	10 U	4.8 UJ	4.8 UJ	4.8 U	4.8 U	4.8 U	4.8 U
Carbazole	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Chrysene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Dibenz(a,h)anthracene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Dibenzofuran	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	10 U	10 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Diethyl phthalate	ug/L	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	4.8 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U
Dimethyl phthalate	ug/L	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U
Di-n-butylphthalate (DBP)	ug/L	10 U	0.95 U	1.9 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	1.9 U	1.9 U	4.8 U	4.8 U
Di-n-octyl phthalate (DnOP)	ug/L	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U
Fluoranthene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Fluorene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Hexachlorobenzene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Hexachlorobutadiene	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Hexachlorocyclopentadiene	ug/L	10 U	9.5 U	9.5 U	9.5 U	9.6 U	10 U	9.5 U	5.0 U	5.0 U	10 U	9.5 U	9.5 U	9.5 U	9.5 U	9.6 U	9.6 U
Hexachloroethane	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	R	R	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Isophorone	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Naphthalene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	R	R	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Nitrobenzene	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
N-Nitrosodi-n-propylamine	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
N-Nitrosodiphenylamine	ug/L	10 U	0.95 U	0.95 U	0.95 U	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.96 U	0.96 U
Pentachlorophenol	ug/L	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	9.5 U	10 U	10 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 UJ	4.8 UJ
Phenanthrene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Phenol	ug/L	10 U	0.95 U	0.95 U	0.95 UJ	0.96 U	1.0 U	0.95 U	5.0 U	5.0 U	10 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 UJ	0.95 UJ
Pyrene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Metals																	
Aluminum	ug/L	121 J	120	98 B	81	230	50 U	50 U	200 U	200 U	200 U	52	45 J	260 B	330 B	620	550
Antimony	ug/L	1.7 J	5.3	9.9	2.0 U	2.0 U	0.52 J	2.0 U	1.0 U	1.0 U	2.0 U	0.21 J	2.0 U	0.72 J	0.70 J	2.0 U	2.0 U
Arsenic	ug/L	1.6 J	1.4 J	1.5 J	2.0 J	3.1 J	4.2 J	6.8	7.7	7.8	1.1 J	2.1 J	1.7 J	2.2 J	2.3 J	2.3 J	1.8 J
Barium	ug/L	253	100 B	78 B	200	170	160	140	120	120	64.0 J	70 B	69 B	83 B	82 B	86	77
Beryllium	ug/L	5.0 U	1.0 U	0.20 J	1.0 U	1.0 U	1.0 U	1.0 U	0.70 U	0.70 U	5.0 U	0.27 J	1.0 U	0.082 J	0.068 J	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	0.50 U	1.0 U	1.0 U	1.0 U	0.029 J	0.030 J	1.0 U	1.0 U
Calcium	ug/L	43200 J	30000 B	40000 B	51000	66000	55000	68000	46000	44000	78900 J	76000 B	76000 B	92000 B	90000 B	65000	59000
Chromium	ug/L	10.0 U	1.6 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.5 U	1.5 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	0.14 J	0.19 J	1.0 U	0.95 J	1.0 U	0.43 J	0.38 J	0.46	0.47	0.72 J	1.3	1.2	1.0 U	1.0 U	0.88 J	0.70 J
Copper	ug/L	30.3	30 B	42 B	38	62	25	12	7.0	7.3	25.0 U	2.0 U	2.0 U	7.6 U	8.0 B	4.1 U	3.7 U
Iron	ug/L	126	110	170 U	160	230	100 U	97 J	240	210	81.5 J	400	380	1200 B	1300 B	2600	2200
Lead	ug/L	21.2	21	26 B	27	17	6.9	3.1	1.7	1.6	1.0 U	0.87 J	0.74 J	3.3 B	3.5 B	2.6	2.2
Magnesium	ug/L	51100 J	26000 B	17000 B	76000	83000	81000	86000	78000	75000	104000 J	100000 B	100000 B	61000 B	58000 B	62000	57000
Manganese	ug/L	35.2	44	46 B	220	99	120	98	73	77	126	150	150	81 B	78 B	130	120
Mercury	ug/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	ug/L	0.57 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	0.53 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Potassium	ug/L	3420 J	1700 B	1600 B	2400	2500	2300	2500	2400	2300	2150 J	2400 B	2400 B	2600 B	2700 B	2900	2600
Selenium	ug/L	5.0 U	5.0 U	0.71 J	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	5.0 U	0.59 J	5.0 U	0.45 J	0.56 J	0.40 J	5.0 U
Silver	ug/L	1.0 U	1.0 U	0.070 J	0.041 J	0.068 J	1.0 U	1.0 U	0.10 J	0.10 J	1.0 U	1.0 U	1.0 U	0.020 J	1.0 U	0.015 J	0.019 J
Sodium	ug/L	39600	26000 B	20000 B	83000	78000	77000	74000	72000	69000	57600	62000 B	62000 B	55000 B	54000 B	55000	49000
Thallium	ug/L	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	0.20 U	0.20 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vanadium	ug/L	50.0 U	1.4 J	5.0 U	0.89 J	0.85 J	5.0 U	5.0 U	4.0 U	4.0 U	50.0 U	20 U	20 U	5.0 U	5.0 U	2.3 J	1.9 J
Zinc	ug/L	20.0 U	23 B	24 U	48 U	62	49	34	35 J	34 J	20.0 U	20 U	20 U	20 U	23 U	20 U	20 U

Notes:
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
R - Result rejected upon validation.

Table 5.1

Comprehensive Analytical Results Summary (2010 - 2022)
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

	Location ID:	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103
	Sample Name:	WG-11103430-091415-SG-006	WG-11103430-091415-SG-008	WG-11124679-081716-SG-004	WG-11124679-081716-SG-006	WG-11199639-071819-SG-004	WG-12590773-081722-KM-006	WG-630775-061110-005	WG-630775-061110-006	WG-630970-083012-001	WG-631028-080813-007	WG-631110-090914-DJT-008	WG-11103430-091415-DT-005	WG-11124679-081716-SG-007	WG-11199639-071819-DT-007	WG-12590773-081722-KM-005
	Sample Date:	09/14/2015	09/14/2015	08/17/2016	08/17/2016	07/18/2019	08/17/2022	06/11/2010	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019	08/17/2022
	Depth:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			Duplicate		Duplicate				Duplicate							
Parameter	**Unit**															
Volatile Organic Compounds																
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	2.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.5 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
2,4,5-Trichlorophenol	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 U	5.0 U
2,4,6-Trichlorophenol	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 U	5.0 U
2,4-Dichlorophenol	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	1.9 U	1.9 U	5.0 U
2,4-Dimethylphenol	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U
2,4-Dinitrophenol	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	9.5 U	10 U	50 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	9.5 U	10 U
2,4-Dinitrotoluene	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U
2,6-Dinitrotoluene	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U
2-Chloronaphthalene	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
2-Chlorophenol	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 UJ	0.95 U	0.95 U	0.95 U	5.0 U
2-Methylnaphthalene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	R	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	R
2-Methylphenol	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
2-Nitroaniline	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U	50 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U
2-Nitrophenol	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	1.9 U	1.9 U	5.0 U
3&4-Methylphenol	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	--	--	--	1.9 U	1.9 U	1.9 UJ	1.9 U	1.9 U	1.9 U	--
3,3'-Dichlorobenzidine	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	50 U	50 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U
3-Nitroaniline	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U	50 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U
4,6-Dinitro-2-methylphenol	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	10 U	50 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 U	10 U
4-Bromophenyl phenyl ether	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U
4-Chloro-3-methylphenol	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	1.9 U	1.9 U	5.0 U
4-Chloroaniline	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	1.9 UJ	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U
4-Chlorophenyl phenyl ether	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U
4-Methylphenol	ug/L	--	--	--	--	--	10 U	10 U	10 U	--	--	--	--	--	--	10 U
4-Nitroaniline	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U	50 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U
4-Nitrophenol	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	9.5 U	10 U	50 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	9.5 U	10 U
Acenaphthene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Acenaphthylene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Acetophenone	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
Anthracene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Atrazine	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	1.9 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	1.9 U	5.0 U
Benzaldehyde	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	1.9 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	1.9 U	5.0 U
Benzo(a)anthracene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Benzo(a)pyrene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Benzo(b)fluoranthene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Benzo(g,h,i)perylene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Benzo(k)fluoranthene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Biphenyl (1,1-Biphenyl)	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U

Table 5.1

Comprehensive Analytical Results Summary (2010 - 2022)
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

	Location ID:	MW-102	MW-102	MW-102	MW-102	MW-102	MW-102	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103	MW-103
	Sample Name:	WG-11103430-091415-SG-006	WG-11103430-091415-SG-008	WG-11124679-081716-SG-004	WG-11124679-081716-SG-006	WG-11199639-071819-SG-004	WG-12590773-081722-KM-006	WG-630775-061110-005	WG-630775-061110-006	WG-630970-083012-001	WG-631028-080813-007	WG-631110-090914-DJT-008	WG-11103430-091415-DT-005	WG-11124679-081716-SG-007	WG-11199639-071819-DT-007	WG-12590773-081722-KM-005
	Sample Date:	09/14/2015	09/14/2015	08/17/2016	08/17/2016	07/18/2019	08/17/2022	06/11/2010	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019	08/17/2022
	Depth:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			Duplicate		Duplicate				Duplicate							
Parameter	***Unit***															
bis(2-Chloroethyl)ether	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	10 U	1.9 U	1.9 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U
Butyl benzylphthalate (BBP)	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U
Caprolactam	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	10 U	4.8 UJ	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U
Carbazole	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
Chrysene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Dibenz(a,h)anthracene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Dibenzofuran	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	10 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	10 U
Diethyl phthalate	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	4.8 U	5.0 U	10 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U	4.8 U	5.0 U
Dimethyl phthalate	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U
Di-n-butylphthalate (DBP)	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	10 U	0.95 U	1.9 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U
Di-n-octyl phthalate (DnOP)	ug/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U
Fluoranthene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Fluorene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Hexachlorobenzene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Hexachlorobutadiene	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
Hexachlorocyclopentadiene	ug/L	9.5 U	9.5 U	9.5 U	9.5 U	9.5 U	5.0 U	10 U	10 U	9.5 U	9.5 U	9.6 U	9.5 U	9.5 U	9.5 U	5.0 U
Hexachloroethane	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	R	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	R
Indeno(1,2,3-cd)pyrene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Isophorone	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
Naphthalene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	R	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	R
Nitrobenzene	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
N-Nitrosodi-n-propylamine	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
N-Nitrosodiphenylamine	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U
Pentachlorophenol	ug/L	4.8 U	4.8 U	4.8 U	4.8 U	9.5 U	10 U	10 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	9.5 U	10 U
Phenanthrene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Phenol	ug/L	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	10 U	0.95 U	0.95 U	0.96 UJ	0.95 U	0.95 U	0.95 U	5.0 U
Pyrene	ug/L	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U
Metals																
Aluminum	ug/L	110	120	150	200	110	77 J	76.0 J	59.8 J	31 J	50 U	23 J	13 J	50 U	50 U	200 U
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	4.8	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U
Arsenic	ug/L	2.3 J	2.3 J	1.3 J	1.3 J	1.2 J	1.0	2.7 J	2.9 J	1.3 J	1.6 J	2.2 J	2.1 J	1.8 J	3.2 J	2.3
Barium	ug/L	88	86	81	81	98	99	84.1 J	86.6 J	140 B	130 B	120	110	100	96	96
Beryllium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.70 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.70 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U	1.0 U	1.0 U	1.0 U	0.026 J	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U
Calcium	ug/L	90000	86000	59000	58000	87000	80000	117000 J	119000 J	89000 B	150000 B	130000	110000	110000	110000	93000
Chromium	ug/L	2.0 U	2.0 U	0.81 J	0.51 J	1.5 J	1.5 U	10.0 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.5 U
Cobalt	ug/L	1.0	1.0	0.71 J	0.74 J	2.4	2.8	0.37 J	0.40 J	0.59 J	1.0 U	0.53 J	1.0 U	0.34 J	0.44 J	0.46
Copper	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	11	1.0 U	25.0 U	0.29 J	18 B	6.3 U	6.0	0.94 J	2.0 U	2.0 U	1.0 U
Iron	ug/L	1100	1100	1100	1200	680	470	877	884	120	390 B	690	650	460	930	480
Lead	ug/L	1.0 U	1.0 U	1.0	1.1	5.2	0.86 J	1.0 U	1.0 U	7.8	2.3 B	3.6	1.1 U	0.42 J	1.0 U	0.67 J
Magnesium	ug/L	110000	100000	66000	64000	100000	100000	106000 J	109000 J	66000 B	97000 B	97000	89000	91000	85000	73000
Manganese	ug/L	150	140	150	150	250	270	53.7	55.2	49	55 B	50	48	44	47	46
Mercury	ug/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	0.70 J	0.79 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U
Potassium	ug/L	2200	2200	2000	2100	2200	2300	3380 J	3460 J	3400 B	3400 B	3600	3300	3200	3300	3400
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U
Silver	ug/L	0.032 J	0.030 J	1.0 U	1.0 U	1.0 U	0.063 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.035 J	1.0 U	1.0 U	0.054 J
Sodium	ug/L	62000	60000	53000	53000	62000	62000	125000	126000	99000 B	140000 B	150000	140000	150000	140000	140000
Thallium	ug/L	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	0.20 U	1.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	0.20 U
Vanadium	ug/L	0.23 J	0.23 J	5.0 U	0.58 J	5.0 U	4.0 U	50.0 U	50.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U
Zinc	ug/L	20 U	20 U	9.3 J	9.3 J	27	14	20.0 U	20.0 U	80 B	20 U	20 U	20 U	20 U	20 U	10 U

Notes:
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
R - Result rejected upon validation.

Table 5.1

Comprehensive Analytical Results Summary (2010 - 2022)
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
Sample Name:	WG-630775-061110-003	WG-630970-083012-005	WG-631028-080813-005	WG-631110-090914-DJT-006	WG-11103430-091415-DT-003	WG-11124679-081716-SG-005	WG-11199639-071819-DT-003	WG-12590773-081722-KM-001	WG-630775-061110-008	WG-630970-083012-008	WG-631028-080813-004	WG-631110-090914-SG-007	WG-11103430-091415-SG-007	WG-11124679-081716-SG-008	WG-11199639-071819-SG-008
Sample Date:	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019	08/17/2022	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019
Depth:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Parameter	***Unit***														
Volatile Organic Compounds															
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UJ	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds																
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
2,4,5-Trichlorophenol	ug/L	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 U	5.0 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.9 U	4.8 U
2,4,6-Trichlorophenol	ug/L	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 U	5.0 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.9 U	4.8 U
2,4-Dichlorophenol	ug/L	10 U	1.9 U	0.42 J	1.9 UJ	1.9 U	1.9 U	1.9 U	5.0 U	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U
2,4-Dimethylphenol	ug/L	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
2,4-Dinitrophenol	ug/L	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	9.5 U	10 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.9 U	9.5 U
2,4-Dinitrotoluene	ug/L	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.9 U	4.8 U
2,6-Dinitrotoluene	ug/L	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	4.9 U	4.8 U
2-Chloronaphthalene	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
2-Chlorophenol	ug/L	10 U	0.95 U	0.95 U	0.96 UJ	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 UJ	0.95 U	0.98 U	0.95 U
2-Methylnaphthalene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	R	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
2-Methylphenol	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
2-Nitroaniline	ug/L	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
2-Nitrophenol	ug/L	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	1.9 U	1.9 U	5.0 U	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U
3&4-Methylphenol	ug/L	--	1.9 U	1.9 U	1.9 UJ	1.9 U	1.9 U	1.9 U	--	--	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U
3,3'-Dichlorobenzidine	ug/L	50 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	50 U	4.8 U	4.8 U	4.8 U	4.8 U	4.9 U	4.8 U
3-Nitroaniline	ug/L	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
4,6-Dinitro-2-methylphenol	ug/L	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	4.8 U	10 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.9 U	4.8 U
4-Bromophenyl phenyl ether	ug/L	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
4-Chloro-3-methylphenol	ug/L	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	1.9 U	1.9 U	5.0 U	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U
4-Chloroaniline	ug/L	10 U	1.9 UJ	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	1.9 UJ	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
4-Chlorophenyl phenyl ether	ug/L	10 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
4-Methylphenol	ug/L	10 U	--	--	--	--	--	--	10 U	10 U	--	--	--	--	--	--
4-Nitroaniline	ug/L	50 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
4-Nitrophenol	ug/L	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	9.5 U	10 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.9 U	9.5 U
Acenaphthene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Acenaphthylene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Acetophenone	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
Anthracene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Atrazine	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	1.9 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	1.9 U
Benzaldehyde	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	1.9 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	1.9 U
Benzo(a)anthracene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Benzo(a)pyrene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Benzo(b)fluoranthene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Benzo(g,h,i)perylene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Benzo(k)fluoranthene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Biphenyl (1,1-Biphenyl)	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
bis(2-Chloroethoxy)methane	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U

Table 5.1

Comprehensive Analytical Results Summary (2010 - 2022)
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

	Location ID:	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-104	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105	MW-105
	Sample Name:	WG-630775-061110-003	WG-630970-083012-005	WG-631028-080813-005	WG-631110-090914-DJT-006	WG-11103430-091415-DT-003	WG-11124679-081716-SG-005	WG-11199639-071819-DT-003	WG-12590773-081722-KM-001	WG-630775-061110-008	WG-630970-083012-008	WG-631028-080813-004	WG-631110-090914-SG-007	WG-11103430-091415-SG-007	WG-11124679-081716-SG-008	WG-11199639-071819-SG-008
	Sample Date:	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019	08/17/2022	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019
	Depth:	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Parameter	***Unit***															
bis(2-Chloroethyl)ether	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	10 U	1.9 U	1.9 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	1.9 U	1.9 U	4.8 U	4.8 U	4.9 U	4.8 U
Butyl benzylphthalate (BBP)	ug/L	10 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Caprolactam	ug/L	10 U	4.8 UJ	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	4.8 UJ	4.8 U	4.8 U	4.8 U	4.9 U	4.8 U
Carbazole	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
Chrysene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Dibenz(a,h)anthracene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Dibenzofuran	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
Diethyl phthalate	ug/L	10 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U	4.8 U	5.0 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	4.8 U
Dimethyl phthalate	ug/L	10 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Di-n-butylphthalate (DBP)	ug/L	10 U	0.95 U	1.9 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	10 U	0.95 U	1.9 U	4.8 U	4.8 U	4.9 U	4.8 U
Di-n-octyl phthalate (DnOP)	ug/L	10 U	0.95 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	5.0 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U
Fluoranthene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Fluorene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Hexachlorobenzene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Hexachlorobutadiene	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
Hexachlorocyclopentadiene	ug/L	10 U	9.5 U	9.5 U	9.6 U	9.5 U	9.5 U	9.5 U	5.0 U	10 U	9.5 U	9.5 U	9.6 U	9.5 U	9.8 U	9.5 U
Hexachloroethane	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	R	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
Indeno(1,2,3-cd)pyrene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Isophorone	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
Naphthalene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	R	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Nitrobenzene	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
N-Nitrosodi-n-propylamine	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
N-Nitrosodiphenylamine	ug/L	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	0.98 U	0.95 U
Pentachlorophenol	ug/L	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.8 U	9.5 U	10 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	4.9 U	9.5 U
Phenanthrene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Phenol	ug/L	10 U	0.95 U	0.95 U	0.96 UJ	0.95 U	0.95 U	0.95 U	5.0 U	10 U	0.95 U	0.95 U	0.96 UJ	0.95 U	0.98 U	0.95 U
Pyrene	ug/L	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U
Metals																
Aluminum	ug/L	200 U	50 U	50 U	26 J	50 U	50 U	50 U	200 U	78.6 J	50 U	50 U	40 J	49 J	69	50 U
Antimony	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Arsenic	ug/L	11.1	12	10	11	9.9	8.8	9.4	8.3	5.0 U	0.75 J	0.81 J	5.0 U	0.81 J	0.88 J	5.0 U
Barium	ug/L	37.6 J	40 B	40 B	39	39	38	39	40	139 J	180 B	190 B	160	170	180	180
Beryllium	ug/L	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.70 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cadmium	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.25 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Calcium	ug/L	65200 J	58000 B	150000 B	77000	76000	63000	79000	50000	30200 J	34000 B	77000 B	47000	44000	30000	47000
Chromium	ug/L	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.5 U	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Cobalt	ug/L	0.12 J	0.12 J	1.0 U	1.0 U	1.0 U	0.15 J	1.0 U	0.26 J	50.0 U	0.14 J	1.0 U	1.0 U	1.0 U	0.31 J	1.0 U
Copper	ug/L	25.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	25.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Iron	ug/L	385	550 ^	320 B	560	480	360	340	240	1060	920	900 B	960	640	580	350
Lead	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.19 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Magnesium	ug/L	102000 J	100000 B	100000 B	97000	95000	99000	100000	90000	71300 J	77000 B	74000 B	67000	68000	75000	71000
Manganese	ug/L	15.5	15 ^	15 B	17	14	19	11	32	16.0	18	21 B	29	22	23	13
Mercury	ug/L	0.20 U	0.14 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.12 J	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	ug/L	0.23 J	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	40.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Potassium	ug/L	1960 J	2100 B	1900 B	1900	1800	1800	1900	2200	5350	4400 B	4000 B	3700	3200	3100	3100
Selenium	ug/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.0 U	5.0 U	5.0 U	0.35 J	5.0 U	5.0 U	5.0 U	5.0 U
Silver	ug/L	1.0 U	1.0 U	0.012 J	1.0 U	0.075 J	1.0 U	1.0 U	0.14 J	1.0 U	1.0 U	1.0 U	1.0 U	0.034 J	1.0 U	1.0 U
Sodium	ug/L	59100	62000 B	65000 B	62000	60000	63000	65000	61000	46800	57000 B	59000 B	54000	55000	61000	71000
Thallium	ug/L	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	0.20 U	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U
Vanadium	ug/L	50.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4.0 U	50.0 U	20 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Zinc	ug/L	20.0 U	20 U	20 U	20 U	20 U	20 U	20 U	3.5 J	20.0 U	20 U	20 U	20 U	20 U	7.8 J	20 U

Notes:
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
R - Result rejected upon validation.

Table 5.1

Comprehensive Analytical Results Summary (2010 - 2022)
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:	MW-105	MW-106F	MW-106F	MW-106F	MW-106F	MW-106F	MW-106F	MW-106F	MW-106F
Sample Name:	WG-12590773-081722-KM-007	WG-630775-061110-002	WG-630970-083012-007	WG-631028-080813-008	WG-631110-090914-DJT-004	WG-11103430-091415-DT-001	WG-11124679-081716-SG-001	WG-11199639-071819-DT-001	WG-12590773-081722-KM-002
Sample Date:	08/17/2022	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019	08/17/2022
Depth:	--	--	--	--	--	--	--	--	--
Parameter	***Unit***								
Volatile Organic Compounds									
1,1,1-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	1.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	ug/L	5.0 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.0 U
Acetone	ug/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl acetate	ug/L	2.5 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	2.5 U
Methyl cyclohexane	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	ug/L	1.0 U	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	0.37 J	1.0 U	1.0 U	5.0 U	1.0 U
Styrene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	2.2	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	ug/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	ug/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds										
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
2,4,5-Trichlorophenol	ug/L	5.0 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	4.8 U	5.0 U
2,4,6-Trichlorophenol	ug/L	5.0 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	4.8 U	5.0 U
2,4-Dichlorophenol	ug/L	5.0 U	0.93 J	1.9 U	0.29 J	1.9 UJ	1.9 U	2.0 U	1.9 U	5.0 U
2,4-Dimethylphenol	ug/L	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U
2,4-Dinitrophenol	ug/L	10 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	9.5 U	10 U
2,4-Dinitrotoluene	ug/L	5.0 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U
2,6-Dinitrotoluene	ug/L	5.0 U	10 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U
2-Chloronaphthalene	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
2-Chlorophenol	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 UJ	0.95 U	1.0 U	0.95 U	5.0 U
2-Methylnaphthalene	ug/L	R	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	R
2-Methylphenol	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
2-Nitroaniline	ug/L	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	10 U
2-Nitrophenol	ug/L	5.0 U	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U	5.0 U
3&4-Methylphenol	ug/L	--	--	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U	--
3,3'-Dichlorobenzidine	ug/L	5.0 U	50 U	4.8 U	4.8 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U
3-Nitroaniline	ug/L	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	10 U
4,6-Dinitro-2-methylphenol	ug/L	10 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	4.8 U	10 U
4-Bromophenyl phenyl ether	ug/L	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U
4-Chloro-3-methylphenol	ug/L	5.0 U	10 U	1.9 U	1.9 U	1.9 UJ	1.9 U	2.0 U	1.9 U	5.0 U
4-Chloroaniline	ug/L	5.0 U	10 U	1.9 UJ	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U
4-Chlorophenyl phenyl ether	ug/L	5.0 U	10 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U
4-Methylphenol	ug/L	10 U	10 U	--	--	--	--	--	--	10 U
4-Nitroaniline	ug/L	10 U	50 U	1.9 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	10 U
4-Nitrophenol	ug/L	10 U	50 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	9.5 U	10 U
Acenaphthene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Acenaphthylene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Acetophenone	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
Anthracene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Atrazine	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	1.9 U	5.0 U
Benzaldehyde	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	1.9 U	5.0 U
Benzo(a)anthracene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Benzo(a)pyrene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Benzo(b)fluoranthene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Benzo(g,h,i)perylene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Benzo(k)fluoranthene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Biphenyl (1,1-Biphenyl)	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
bis(2-Chloroethoxy)methane	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U

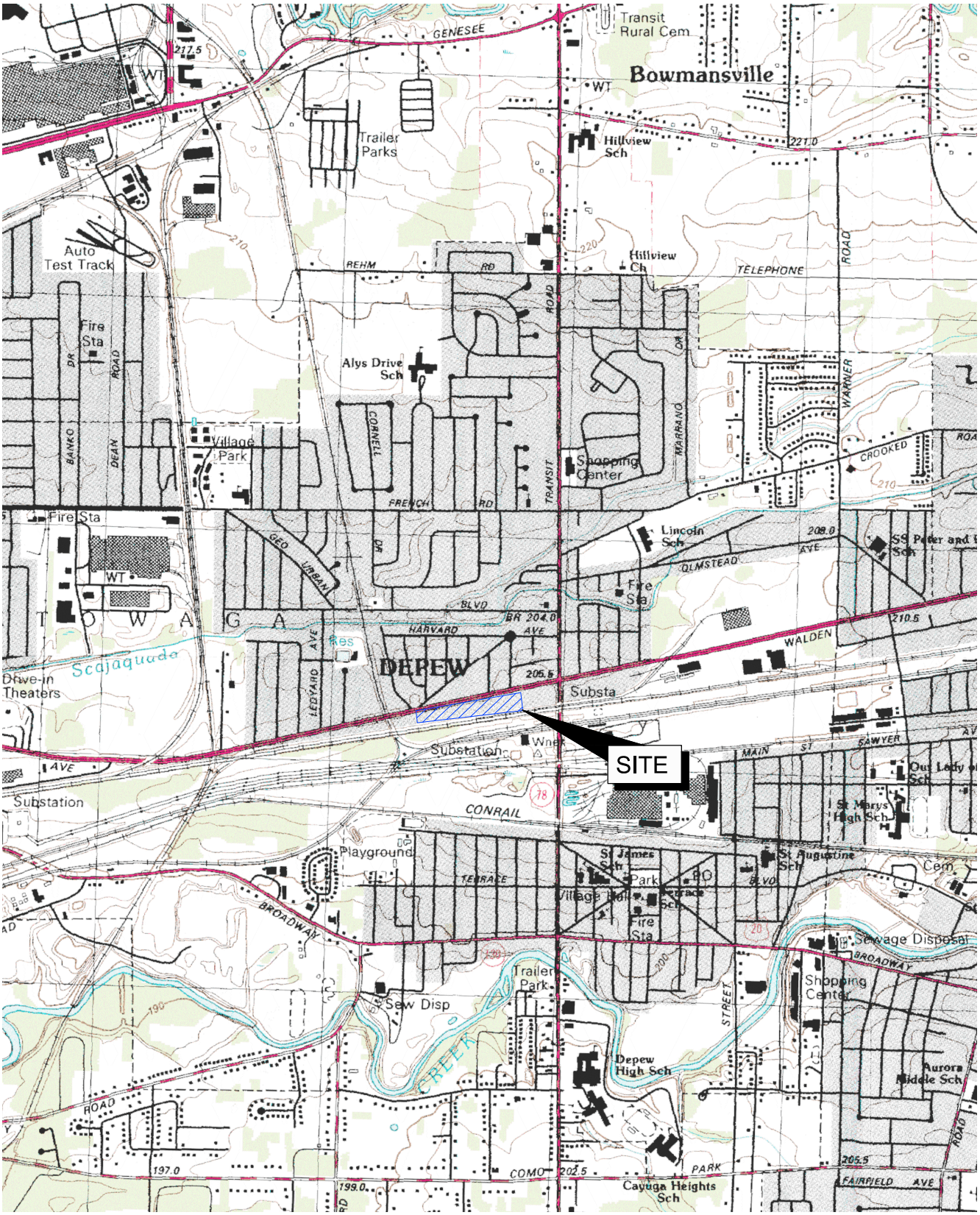
Table 5.1

Comprehensive Analytical Results Summary (2010 - 2022)
2022 Annual Periodic Review Report
Former NL Industries Foundry
NYSDEC Site No. C915200
Depew, New York

Location ID:		MW-105	MW-106F	MW-106F	MW-106F	MW-106F	MW-106F	MW-106F	MW-106F	MW-106F
Sample Name:		WG-12590773-081722-KM-007	WG-630775-061110-002	WG-630970-083012-007	WG-631028-080813-008	WG-631110-090914-DJT-004	WG-11103430-091415-DT-001	WG-11124679-081716-SG-001	WG-11199639-071819-DT-001	WG-12590773-081722-KM-002
Sample Date:		08/17/2022	06/11/2010	08/30/2012	08/08/2013	09/09/2014	09/14/2015	08/17/2016	07/18/2019	08/17/2022
Depth:		--	--	--	--	--	--	--	--	--
Parameter	***Unit***									
bis(2-Chloroethyl)ether	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
bis(2-Ethylhexyl)phthalate (DEHP)	ug/L	5.0 U	10 U	1.9 U	1.9 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U
Butyl benzylphthalate (BBP)	ug/L	5.0 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U
Caprolactam	ug/L	5.0 U	7.2 J	4.8 UJ	4.8 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U
Carbazole	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
Chrysene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Dibenz(a,h)anthracene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Dibenzofuran	ug/L	10 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	10 U
Diethyl phthalate	ug/L	5.0 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	4.8 U	5.0 U
Dimethyl phthalate	ug/L	5.0 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U
Di-n-butylphthalate (DBP)	ug/L	5.0 U	10 U	0.95 U	1.9 U	4.8 U	4.8 U	5.0 U	4.8 U	5.0 U
Di-n-octyl phthalate (DnOP)	ug/L	5.0 U	10 U	0.95 U	1.9 U	1.9 U	1.9 U	2.0 U	1.9 U	5.0 U
Fluoranthene	ug/L	5.0 U	10 U	0.19 U	0.16 J	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Fluorene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Hexachlorobenzene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Hexachlorobutadiene	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
Hexachlorocyclopentadiene	ug/L	5.0 U	10 U	9.5 U	9.5 U	9.6 U	9.5 U	10 U	9.5 U	5.0 U
Hexachloroethane	ug/L	R	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	R
Indeno(1,2,3-cd)pyrene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Isophorone	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
Naphthalene	ug/L	R	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	R
Nitrobenzene	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
N-Nitrosodi-n-propylamine	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
N-Nitrosodiphenylamine	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 U	0.95 U	1.0 U	0.95 U	5.0 U
Pentachlorophenol	ug/L	10 U	10 U	4.8 U	4.8 U	4.8 UJ	4.8 U	5.0 U	9.5 U	10 U
Phenanthrene	ug/L	5.0 U	10 U	0.19 U	0.19 U	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Phenol	ug/L	5.0 U	10 U	0.95 U	0.95 U	0.96 UJ	0.95 U	1.0 U	0.95 U	5.0 U
Pyrene	ug/L	5.0 U	10 U	0.19 U	0.14 J	0.19 U	0.19 U	0.20 U	0.19 U	5.0 U
Metals										
Aluminum	ug/L	80 J	43.5 J	43 J	2000 B	240	340	72	64	200 U
Antimony	ug/L	1.0 U	5.3	0.60 J	4.3	2.0 U	2.0 U	0.45 J	2.0 U	1.0 U
Arsenic	ug/L	0.46 J	1.3 J	1.2 J	1.3 J	5.0 U	0.88 J	0.41 J	5.0 U	1.0 U
Barium	ug/L	200	147 J	200 B	180 B	180	190	180	160	160
Beryllium	ug/L	0.70 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.70 U
Cadmium	ug/L	0.50 U	1.0 U	1.0 U	0.22 J	1.0 U	1.0 U	1.0 U	1.0 U	0.50 U
Calcium	ug/L	40000	78900 J	61000 B	75000 B	84000	89000	81000	89000	66000
Chromium	ug/L	1.5 U	10.0 U	2.0 U	3.2 U	2.0 U	2.0 U	2.0 U	2.0 U	1.5 U
Cobalt	ug/L	0.30	0.12 J	0.17 J	1.5	1.0 U	1.0 U	1.0 U	1.0 U	0.42
Copper	ug/L	1.0 U	6.5 J	2.8 U	83 B	9.2	10	3.9 U	5.5	5.0
Iron	ug/L	480	100 U	70 J	3100 B	270	290	100 U	110	67
Lead	ug/L	1.0 U	1.2	2.4	89 B	8.9	8.0	2.6	4.4	5.1
Magnesium	ug/L	70000	93600 J	71000 B	60000 B	87000	94000	97000	97000	75000
Manganese	ug/L	20	30.7	42	140 B	37	4.3 J	3.0 J	42	48
Mercury	ug/L	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Nickel	ug/L	1.0 U	0.86 J	2.0 U	4.4 U	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U
Potassium	ug/L	3000	1360 J	1300 B	1800 B	1100	1000	960 J	710 J	730
Selenium	ug/L	1.0 U	5.0 U	5.0 U	0.47 J	0.34 J	5.0 U	5.0 U	5.0 U	1.0 U
Silver	ug/L	0.066 J	1.0 U	1.0 U	0.078 J	0.016 J	0.032 J	1.0 U	1.0 U	0.50 U
Sodium	ug/L	63000	130000	100000 B	93000 B	89000	86000	80000	75000	64000
Thallium	ug/L	0.20 U	0.18 J	2.0 U	2.0 U	2.0 U	2.0 U	1.0 U	1.0 U	0.20 U
Vanadium	ug/L	4.0 U	1.3 J	0.66 J	5.1 B	1.0 J	1.3 J	0.73 J	5.0 U	4.0 U
Zinc	ug/L	7.7 J	20.0 U	20 U	150 U	20 U	17 J	8.8 J	20 U	16 J

Notes:
U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
R - Result rejected upon validation.

Figures



SOURCE : USGS QUADRANGLE MAP:
LANCASTER, NEW YORK

N

0 2000'

GHD

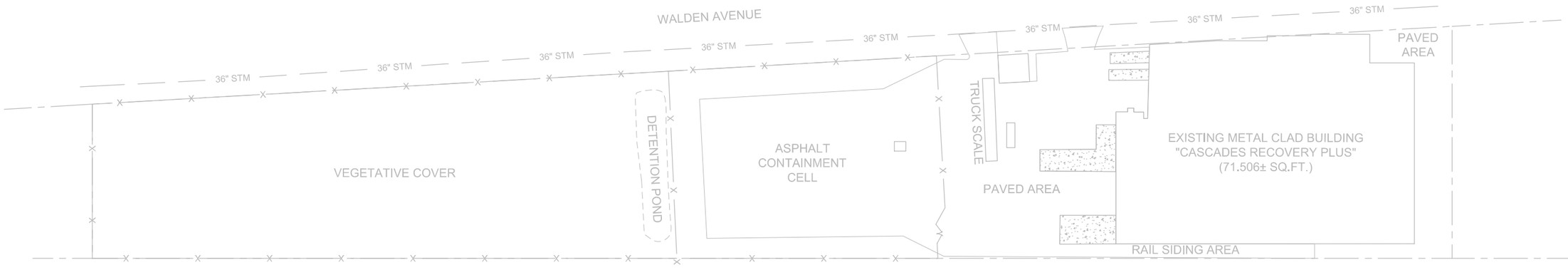
FORMER N.L. INDUSTRIES FOUNDRY, SITE No. C915200
3241 WALDEN AVENUE
DEPEW, NEW YORK

SITE LOCATION MAP

Project No. **12590773**
Report No. **2022 PRR**
Date **SEP 2022**

FIGURE 1.1

Filename: N:\US\Buffalo\Projects\564\12590773\Digital_Design\ACAD\Figures\2022 PRR\12590773-FIG001.1.dwg
Plot Date: 2 December 2022 - 3:08 PM



SOURCE: DRAWING FILE (MWL-126254-01.dwg)
FROM TIGHE & BOND
(MIDDLETOWN, CONNECTICUT)

N

0 120'

GHD

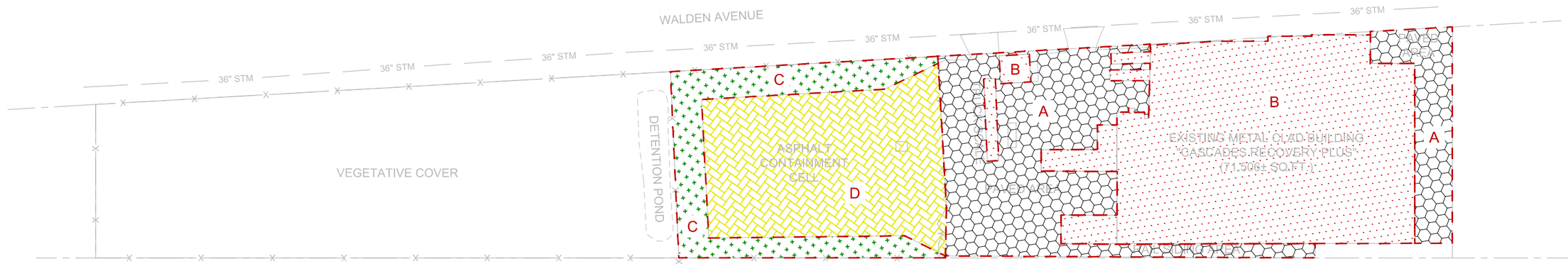
FORMER N.L. INDUSTRIES FOUNDRY No. C915200
3241 WALDEN AVENUE
DEPEW, NEW YORK

SITE LAYOUT

Project No. **12590773**
Report No. **2022 PRR**
Date **SEP 2022**

FIGURE 2.1

Filename: N:\US\Buffalo\Projects\564\12590773\Digital_Design\ACAD\Figures\2022 PRR\12590773-FIG002.1.dwg
Plot Date: 2 December 2022 - 2:44 PM



LEGEND:

- COVER SYSTEM A - ASPHALT ONLY
- COVER SYSTEM B - BUILDING & APRON CONCRETE
- COVER SYSTEM C - GEOSYNTHETIC CLAY LINER & SOIL
- COVER SYSTEM D - GEOSYNTHETIC CLAY LINER, SOIL, & ASPHALT (CONTAINMENT CELL)

SOURCE: DRAWING FILE (MWL-126254-01.dwg)
FROM TIGHE & BOND
(MIDDLETOWN, CONNECTICUT)

N

0 120'

GHD

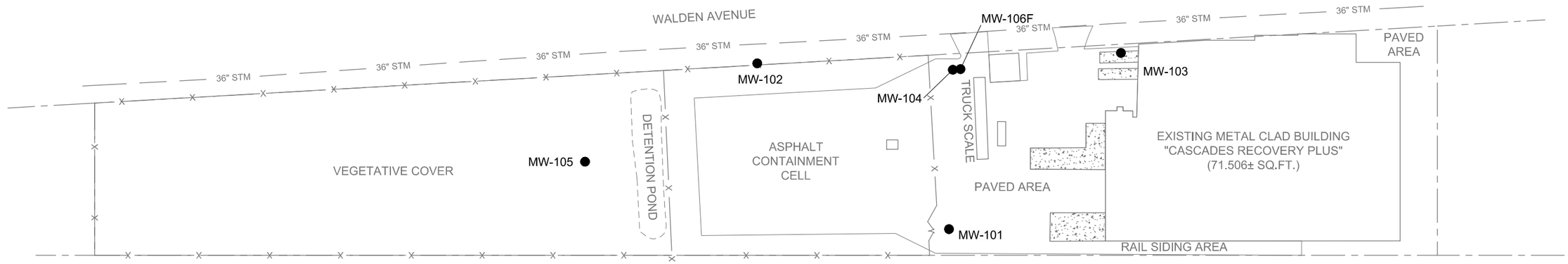
FORMER N.L. INDUSTRIES FOUNDRY No. C915200
3241 WALDEN AVENUE
DEPEW, NEW YORK

LOCATION OF ENGINEERING CONTROL SYSTEMS

Project No. **12590773**
Report No. **2022 PRR**
Date **SEP 2022**

FIGURE 2.2

Filename: N:\US\Buffalo\Projects\564\12590773\Digital_Design\ACAD\Figures\2022 PRR\12590773-FIG002.2.dwg
Plot Date: 2 December 2022 - 2:45 PM



SOURCE: DRAWING FILE (MWL-126254-01.dwg)
FROM TIGHE & BOND
(MIDDLETOWN, CONNECTICUT)

N

0 120'

GHD

FORMER N.L. INDUSTRIES FOUNDRY No. C915200
3241 WALDEN AVENUE
DEPEW, NEW YORK

MONITORING WELL LOCATIONS

Project No. **12590773**
Report No. **2022 PRR**
Date **SEP 2022**

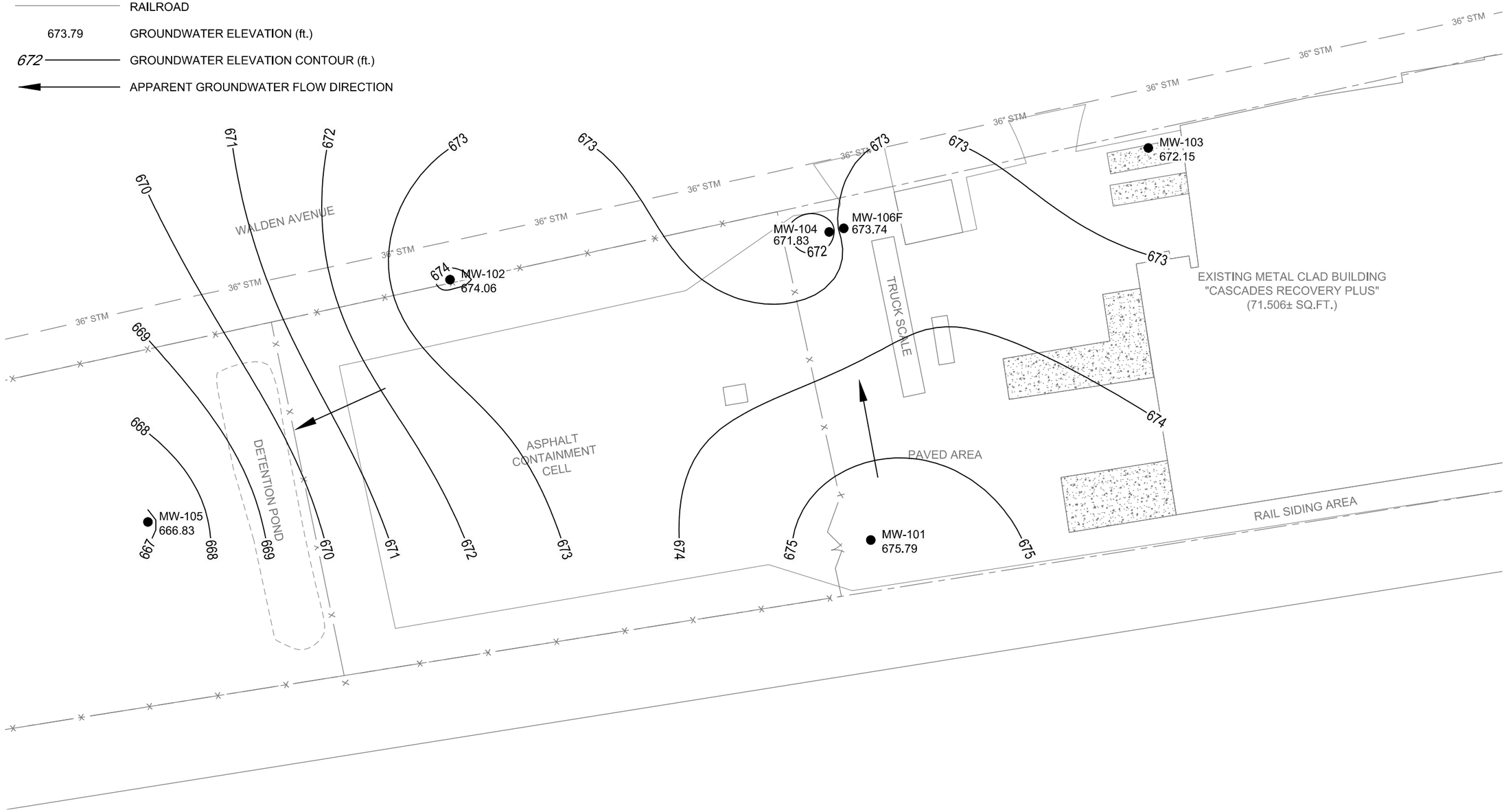
FIGURE 4.1

Filename: N:\US\Buffalo\Projects\564\12590773\Digital_Design\ACAD\Figures\2022 PRR\12590773-FIG004.1.dwg
Plot Date: 2 December 2022 - 3:07 PM

LEGEND

- MW-101 — MONITORING WELL LOCATION
- FENCELINE
- PROPERTY BOUNDARY
- RAILROAD
- 673.79 — GROUNDWATER ELEVATION (ft.)
- 672 — GROUNDWATER ELEVATION CONTOUR (ft.)
- APPARENT GROUNDWATER FLOW DIRECTION

NOTE: WATER LEVEL MEASUREMENTS COLLECTED AUGUST 17, 2022



SOURCE: DRAWING FILE (MWL-126254-01.dwg)
FROM TIGHE & BOND
(MIDDLETOWN, CONNECTICUT)

N

0 60'

GHD

FORMER N.L. INDUSTRIES FOUNDRY No. C915200
3241 WALDEN AVENUE
DEPEW, NEW YORK

GROUNDWATER CONTOUR MAP

Project No. **12590773**
Report No. **2022 PRR**
Date **SEP 2022**

FIGURE 4.2

Filename: N:\US\Buffalo\Projects\564\12590773\Digital_Design\ACAD\Figures\2022 PRR\12590773-FIG004.2.dwg
Plot Date: 2 December 2022 - 3:07 PM

Appendix A

Site Inspection Form

Site Inspection Form

Former N.L. Industries
3241 Walden Avenue
Depew, NY

Name of Inspector: K GALANTI
Date of Inspection: 9/15/2022

The purpose of this inspection is to monitor the overall integrity of the containment cell, the site wide paving and the building foundation. Please take photographs from all four sides of the containment cell cap, as well as the asphalt pavement and building foundation to document the existing conditions of the consolidated soil area, erosion control technologies in place, and the immediate surrounding area each week. Please fill out the following inspection items. If at any time impacted fill material has been exposed, please notify the Project Manager listed in the SMP immediately.

Monitoring Well Network

Condition of Monitoring Wells

	Good	Fair	Needs Repair	Details
MW-101	☑	☐	☐	
MW-102	☑	☐	☐	
MW-103	☑	☐	☐	
MW-104	☑	☐	☐	
MW-105	☑	☐	☐	
MW-106	☑	☐	☐	
~~MW-99-01~~	☐	☐	☐	N/A

Asphalt Only Cover System

Are there any obvious areas of damage to the asphalt in the trucking yard?

YES ☐ NO ☑ If yes, please describe ASPHALT HAS SURFACE CRACKS AND AREAS OF ALLIGATORING. DUE FOR RESURFACING / TOPCOAT SEALING.

Site Inspection Form

Former N.L. Industries
3241 Walden Avenue
Depew, NY

Asphalt Only Cover System

Are there any obvious areas of damage to the asphalt in the parking lot?

YES ☐ NO ☑ If yes, please describe _____

_____

_____

Are there any obvious areas of damage to the asphalt in the former rail siding area?

YES ☐ NO ☑ If yes, please describe _____

_____

_____

Building and Apron Concrete Cover System

Are there any obvious areas of damage to the building's foundations?

YES ☐ NO ☑ If yes, please describe _____

_____

_____

Are there any obvious areas of damage to any concrete pads?

YES ☑ NO ☐ If yes, please describe SEVERAL DETERIORATED AREAS. COULD BE FILLED/SEALED W/ ASPHALT ONLY RESURFACE OF TRUCK YARD.

GCL and Soil Cover System

Are there any signs of soil run-off or erosion on the sides of the containment cell?

YES ☐ NO ☑ If yes, please describe _____

_____

_____

Site Inspection Form

Former N.L. Industries
3241 Walden Avenue
Depew, NY

GCL and Soil Cover System

Are there any areas of exposed GCL?

YES ☐ NO ☑ If yes, please describe NOTE: BOULDERS ALONG PERIMETER OF GCL/ASPHALT CONTAINMENT CELL - SEVERAL HAVE ROLLED DOWN SLOPE GOUGED SOIL/GRASS. SHOULD BE FILLED/SEEDED.

Has the grass appeared to have been mowed at a regular basis during the previous growing season?

YES ☑ NO ☐ If yes, please describe _____

Are there any woody types plants growing within the this Cover System?

YES ☐ NO ☑ If yes, please describe _____

GCL and Asphalt Cover System

Are there any obvious areas of damage to the asphalt within this cover system?

YES ☐ NO ☑ If yes, please describe _____

Are there any obvious signs of cracking within this cover system?

YES ☐ NO ☑ If yes, please describe _____

Site Inspection Form

Former N.L. Industries
3241 Walden Avenue
Depew, NY

Pond

Is there standing water in the retention pond?

YES ☑ NO ☐ If yes, approximately how much? <6 INCHES

Is there any debris within the retention pond?

YES ☑ NO ☐ If yes, please describe PHRAGMITES/PLANT MATTER

Is the inlet and outlet of the retention pond free of debris?

YES ☑ NO ☐ If no, please describe

Is there any sign of erosion along the banks of the retention pond?

YES ☐ NO ☑ If yes, please describe

Vegetatives

Is there any sign of distress, disease or die off of the vegetatives associated with the cover systems?

YES ☐ NO ☑ If yes, please describe

Site Inspection Form

Former N.L. Industries
3241 Walden Avenue
Depew, NY

Fencing

Is there signs of damage to the fencing around the retention pond or within the area of the environmental easement?

YES ☐ NO ☑ If yes, describe location and extent of damage

Is there signs of frost heaving within the supports of the fencing?

YES ☐ NO ☑ If yes, please describe

Is the chain link still attached to support poles at all locations around the retention pond or within the area of the environmental easement?

YES ☑ NO ☐ If no, please describe

Is there any sign of erosion along the banks of the retention pond?

YES ☐ NO ☑ If yes, please describe

Please describe any changes to the overall area since the last inspection

HOUSEKEEPING – DUE TO INTERIOR EQUIPMENT INSTALL, MUCH OF INTERIOR STORAGE IS OUTSIDE. PERIMETER CLEANUP REQUIRED ONCE INTERIOR INSTALL COMPLETE

Appendix B

Photographs

Photo 1 – Parking lot looking west along north side of office.

Photo 2 – Parking lot looking north.

Photo 3 – Former rail siding looking east.

Photo 4 – Building Apron Concrete System (central portion) looking east. Deterioration in right forefront.

Photo 5 – Closeup of deterioration on central concrete apron.

Photo 6 – More deterioration of central concrete apron.

Photo 7 – South concrete apron looking east-northeast.

Photo 8 – Deterioration of south concrete apron below truck tires.

Photo 9 – Trucking yard looking south-southwest.

Photo 10 – Trucking yard looking north-northwest.

Photo 11 – GCL and Soil Cover System looking west along south slope.

Photo 12 – GCL and Soil Cover System – minor gouging of cover from rock fall.

Photo 13 – GCL and Soil Cover System looking north along west slope.

Photo 14 – GCL and Soil Cover System looking east along north slope.

Photo 15 – Looking northwest toward pond.

Photo 16 – Looking over outlet pipes of pond.

Photo 17 – Looking south over east slope of GCL/asphalt cover.

Photo 18– Looking east across trucking yard entrance across MW-104 (foreground) and MW-106F.

Appendix C

Groundwater Monitoring Field Forms

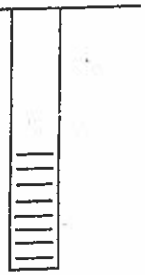
Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:
Project Name: Cascades Paper
Ref. No.: 12590773-DEL-001

Date: 8/17/2022
Personnel: Kevin Miller
David Tyson

Monitoring Well Data:
Well No.: MW-101
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 26.92
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 2.24



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
10:58	72	3.39	1.15	24.65	1.08	2.93	1.67	7.28	-56		
11:04	64	4.01	1.77	24.75	1.07	1.58	0.27	7.29	-54		
11:10	76	4.59	2.35	24.74	1.07	3.88	0.16	7.34	-58		
11:16	80	5.13	2.89	24.73	1.07	3.30	0.02	7.35	-58		
11:22	80	5.66	3.42	25.06	1.06	2.63	0.00	7.35	-58		
11:28	68	6.01	3.77	25.22	1.05	1.14	0.03	7.38	-60		

Sample ID: WG-12590773-081722-KM-003
Sample Time: 11:40

Notes: Blind Duplicate - WG-12590773-081722-KM-004

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.
(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

DUP

Start Purge 10:50

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

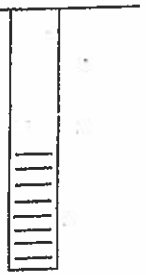
Project Name: Cascade Paper
Ref. No.: 12590773-DEL-001

Date: 8/17/22
Personnel: D. Tyren

Monitoring Well Data:

Well No.: MW-102
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 24.57
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 2.61



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1213	84	4.01	1.40	22.90	1.21	1.49	0.00	7.07	19		
1218		4.58	1.97	22.71	1.21	1.25	0.00	7.06	10		
1223				22.91	1.20	1.07	0.00	7.05	8		

Sample ID: WG-12590773-081722-KM-006

Sample Time: 1230

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

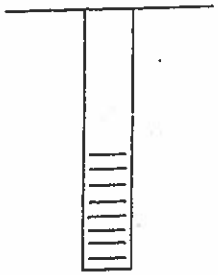
Start Purge @ 1210

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: Cascades Paper
Ref. No.: 12590773-DEL1.001

Date: 8/17/22
Personnel: D. Tyran



Monitoring Well Data:

Well No.: MW-103
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 26.64
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 5.41

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1118		7.64	2.23	22.48	1.45	3.21	0.00	7.13	25		
1123				21.77	1.47	1.88	0.00	7.13	26		
1128	72	8.17	2.76	21.54	1.48	1.15	0.00	7.13	26		

Sample ID: WG-12590773-081722-KM-005

Sample Time: 1135

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Start Purge @ 1049

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

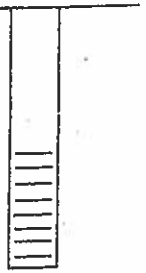
Project Name: Cascades Paper
Ref. No.: 12590773-DEL-001

Date: 8/17/2022
Personnel: K. Miller D. Tyrrell

Monitoring Well Data:

Well No.: MW104
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 21.44
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 5.23



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	3% Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
~~9:28~~	~~70~~	KM	Precision Required[5]:	±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
9:28	70	7.09	1.86	20.91	1.25	2.89	0.42	7.20	8		
9:34	66	7.44	2.21	20.95	1.24	3.30	0.18	7.24	-16		
9:40	100	8.08	2.85	20.95	1.23	2.79	6.61	7.27	-29		
9:46	70	8.48	3.25	20.70	1.23	2.89	6.00	7.32	-35		
9:51	84	8.96	3.73	20.70	1.22	2.46	6.00	7.33	-39		

Sample ID: WG-12590773-081722-KM-001
Sample Time: 1000

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.
(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Start Purge at 9:16

KM

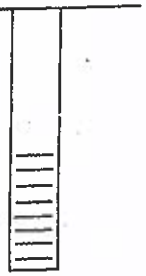
Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:
Project Name: Cascades Paper
Ref. No.: 12590773-DEL-001

Date: 8/17/2022
Personnel: Kieran Mottel
David Tyrrell

Monitoring Well Data:
Well No.: MW105
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 24.03
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 8.65



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1327	70	9.27	0.62	28.08	0.881	205	2.26	7.50	53		
	~~72~~	~~9.81~~	KM								
1423	100	9.48	0.83	20.12	0.959	33.6	0.74	7.78	-70		
1428	112	9.92	1.27	17.68	0.937	25.3	0.00	7.81	-96		
1434	112	10.13	1.48	16.07	0.934	15.6	0.00	7.81	-107		
1440	104	6.24	1.59	16.31	0.926	10.9	0.00	7.80	-119		

Sample ID: ~~WG-12590773-DEL~~ KM
WG-12590773-8122-KM-007

Sample Time: 1450

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Start Purge 1325

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

Project Name: Cascades Paper
Ref. No.: 12590773-DEL.001

Date: 8/17/22
Personnel: D. Tyran

Monitoring Well Data:

Well No.: MW-106F
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft): 10.29
Depth of Sediment (m/ft): ~~10.2~~ (001)

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 3.69

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
0932	52	4.73	1.04	24.02	1.35	3.72	0.36	6.97	149		
0937		5.16	1.47	24.46	1.34	3.89	0.08	6.98	120		
0942	64	5.53	1.89	24.80	1.33	4.22	0.00	6.99	111		
0947		5.62	1.93	25.12	1.32	4.98	0.00	6.99	107		

Sample ID: WG-12590773-081722-KM-002

Sample Time: 0955

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 500 mL/min.

(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged= Vp/Vs.

(5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Start Purge @ 0925 KM

Appendix D

Analytical Data Report

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

Laboratory Job ID: 480-200841-1
Client Project/Site: 12590773, Cascades 2022 PRR

For:
GHD Services Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, New York 14304

Attn: Kathleen Willy

Denise D Heckler

Authorized for release by:
9/1/2022 12:46:21 PM

Denise Heckler, Project Manager II
(330)966-9477
Denise.Heckler@et.eurofinsus.com

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Definitions/Glossary

Client: GHD Services Inc.
Job ID: 480-200841-1
Project/Site: 12590773, Cascades 2022 PRR

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
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
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

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

Job ID: 480-200841-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-200841-1

Comments
No additional comments.

Receipt
The samples were received on 8/18/2022 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2º C.

GC/MS VOA
Method 8260C: Due to the coelution of Ethyl Acetate with 2-Butanone in the full spike solution, the analytes exceeded control limits in the laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with batch 480-638190 . The following samples were affected : WG-12590773-081722-KM-001 (480-200841-1), WG-12590773-081722-KM-002 (480-200841-2), WG-12590773-081722-KM-003 (480-200841-3), WG-12590773-081722-KM-004 (480-200841-4), WG-12590773-081722-KM-005 (480-200841-5), WG-12590773-081722-KM-006 (480-200841-6), WG-12590773-081722-KM-007 (480-200841-7), EB-12590773-081722-KM-008 (480-200841-8) and TB-12590773-081733-KM (480-200841-9).

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 (LCS) for preparation batch 480-638601 and analytical batches 480-638817 and 480-638821 recovered outside control limits for multiple analytes. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 480-639479 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

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

Metals
Method 6010C: The recovery of post spike, (480-200841-C-7-A PDS), associated with batch 480-639407, exhibited results outside quality control limits for Total Calcium, Magnesium, and Sodium. However, the serial dilution (SD) of this sample was compliant, therefore no corrective action was necessary.

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

Organic Prep
Method 3510C: The following sample(s) was re-prepared outside of preparation holding time due to low LCS recovery. WG-12590773-081722-KM-001 (480-200841-1), WG-12590773-081722-KM-002 (480-200841-2), WG-12590773-081722-KM-003 (480-200841-3), WG-12590773-081722-KM-004 (480-200841-4), WG-12590773-081722-KM-005 (480-200841-5), WG-12590773-081722-KM-006 (480-200841-6), WG-12590773-081722-KM-007 (480-200841-7) and EB-12590773-081722-KM-008 (480-200841-8).

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

Detection Summary

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-001 — Lab Sample ID: 480-200841-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	50		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.24		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	90		0.20	0.043	mg/L	1		6010C	Total/NA
Potassium	2.2		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	61		1.0	0.32	mg/L	1		6010C	Total/NA
Arsenic	8.3	B	1.0	0.27	ug/L	1		6020A	Total/NA
Barium	40	B	1.0	0.15	ug/L	1		6020A	Total/NA
Cadmium	0.25	J	0.50	0.071	ug/L	1		6020A	Total/NA
Chromium	0.86	J	1.5	0.36	ug/L	1		6020A	Total/NA
Copper	0.36	J	1.0	0.22	ug/L	1		6020A	Total/NA
Cobalt	0.26	J	0.30	0.040	ug/L	1		6020A	Total/NA
Lead	0.19	J	1.0	0.17	ug/L	1		6020A	Total/NA
Nickel	0.82	J	1.0	0.11	ug/L	1		6020A	Total/NA
Silver	0.14	J	0.50	0.036	ug/L	1		6020A	Total/NA
Manganese	32		1.0	0.55	ug/L	1		6020A	Total/NA
Zinc	3.5	J F1 F2	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: WG-12590773-081722-KM-002 — Lab Sample ID: 480-200841-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	66		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.067		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	75		0.20	0.043	mg/L	1		6010C	Total/NA
Potassium	0.73		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	64		1.0	0.32	mg/L	1		6010C	Total/NA
Arsenic	0.30	J B	1.0	0.27	ug/L	1		6020A	Total/NA
Barium	160	B	1.0	0.15	ug/L	1		6020A	Total/NA
Copper	5.0		1.0	0.22	ug/L	1		6020A	Total/NA
Cobalt	0.42		0.30	0.040	ug/L	1		6020A	Total/NA
Lead	5.1		1.0	0.17	ug/L	1		6020A	Total/NA
Nickel	0.93	J	1.0	0.11	ug/L	1		6020A	Total/NA
Manganese	48		1.0	0.55	ug/L	1		6020A	Total/NA
Zinc	16		10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: WG-12590773-081722-KM-003 — Lab Sample ID: 480-200841-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	46		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.24		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	78		0.20	0.043	mg/L	1		6010C	Total/NA
Potassium	2.4		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	72		1.0	0.32	mg/L	1		6010C	Total/NA
Arsenic	7.7	B	1.0	0.27	ug/L	1		6020A	Total/NA
Barium	120	B	1.0	0.15	ug/L	1		6020A	Total/NA
Copper	7.0		1.0	0.22	ug/L	1		6020A	Total/NA
Cobalt	0.46		0.30	0.040	ug/L	1		6020A	Total/NA
Lead	1.7		1.0	0.17	ug/L	1		6020A	Total/NA
Nickel	0.55	J	1.0	0.11	ug/L	1		6020A	Total/NA
Silver	0.10	J	0.50	0.036	ug/L	1		6020A	Total/NA
Manganese	73		1.0	0.55	ug/L	1		6020A	Total/NA
Zinc	35		10	2.6	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Detection Summary

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-004 — Lab Sample ID: 480-200841-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	44		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.21		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	75		0.20	0.043	mg/L	1		6010C	Total/NA
Potassium	2.3		0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	69		1.0	0.32	mg/L	1		6010C	Total/NA
Arsenic	7.8	B	1.0	0.27	ug/L	1		6020A	Total/NA
Barium	120	B	1.0	0.15	ug/L	1		6020A	Total/NA
Copper	7.3		1.0	0.22	ug/L	1		6020A	Total/NA
Cobalt	0.47		0.30	0.040	ug/L	1		6020A	Total/NA
Lead	1.6		1.0	0.17	ug/L	1		6020A	Total/NA
Nickel	0.60	J	1.0	0.11	ug/L	1		6020A	Total/NA
Silver	0.10	J	0.50	0.036	ug/L	1		6020A	Total/NA
Manganese	77		1.0	0.55	ug/L	1		6020A	Total/NA
Zinc	34		10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: WG-12590773-081722-KM-005 — Lab Sample ID: 480-200841-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Calcium	93		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.48		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	73		0.20	0.043	mg/L	1		6010C	Total/NA
Potassium	3.4	B	0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	140	B	1.0	0.32	mg/L	1		6010C	Total/NA
Arsenic	2.3		1.0	0.27	ug/L	1		6020A	Total/NA
Barium	96		1.0	0.15	ug/L	1		6020A	Total/NA
Copper	0.35	J	1.0	0.22	ug/L	1		6020A	Total/NA
Cobalt	0.46		0.30	0.040	ug/L	1		6020A	Total/NA
Lead	0.67	J	1.0	0.17	ug/L	1		6020A	Total/NA
Nickel	0.81	J	1.0	0.11	ug/L	1		6020A	Total/NA
Silver	0.054	J	0.50	0.036	ug/L	1		6020A	Total/NA
Manganese	46		1.0	0.55	ug/L	1		6020A	Total/NA

Client Sample ID: WG-12590773-081722-KM-006 — Lab Sample ID: 480-200841-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.077	J	0.20	0.060	mg/L	1		6010C	Total/NA
Calcium	80		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.47		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	100		0.20	0.043	mg/L	1		6010C	Total/NA
Potassium	2.3	B	0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	62	B	1.0	0.32	mg/L	1		6010C	Total/NA
Arsenic	1.0		1.0	0.27	ug/L	1		6020A	Total/NA
Barium	99		1.0	0.15	ug/L	1		6020A	Total/NA
Copper	0.54	J	1.0	0.22	ug/L	1		6020A	Total/NA
Cobalt	2.8		0.30	0.040	ug/L	1		6020A	Total/NA
Lead	0.86	J	1.0	0.17	ug/L	1		6020A	Total/NA
Nickel	0.99	J	1.0	0.11	ug/L	1		6020A	Total/NA
Silver	0.063	J	0.50	0.036	ug/L	1		6020A	Total/NA
Manganese	270		1.0	0.55	ug/L	1		6020A	Total/NA
Zinc	14		10	2.6	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-007 — Lab Sample ID: 480-200841-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	0.080	J	0.20	0.060	mg/L	1		6010C	Total/NA
Calcium	40		0.50	0.10	mg/L	1		6010C	Total/NA
Iron	0.48		0.050	0.019	mg/L	1		6010C	Total/NA
Magnesium	70		0.20	0.043	mg/L	1		6010C	Total/NA
Potassium	3.0	B	0.50	0.10	mg/L	1		6010C	Total/NA
Sodium	63	B	1.0	0.32	mg/L	1		6010C	Total/NA
Arsenic	0.46	J	1.0	0.27	ug/L	1		6020A	Total/NA
Barium	200		1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	0.74	J	1.5	0.36	ug/L	1		6020A	Total/NA
Copper	0.52	J	1.0	0.22	ug/L	1		6020A	Total/NA
Cobalt	0.30		0.30	0.040	ug/L	1		6020A	Total/NA
Nickel	0.76	J	1.0	0.11	ug/L	1		6020A	Total/NA
Silver	0.066	J	0.50	0.036	ug/L	1		6020A	Total/NA
Manganese	20		1.0	0.55	ug/L	1		6020A	Total/NA
Zinc	7.7	J	10	2.6	ug/L	1		6020A	Total/NA

Client Sample ID: EB-12590773-081722-KM-008 — Lab Sample ID: 480-200841-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.5		1.0	0.44	ug/L	1		8260C	Total/NA
Sodium	0.34	J B	1.0	0.32	mg/L	1		6010C	Total/NA
Barium	0.42	J	1.0	0.15	ug/L	1		6020A	Total/NA
Chromium	1.6		1.5	0.36	ug/L	1		6020A	Total/NA
Copper	1.3		1.0	0.22	ug/L	1		6020A	Total/NA
Nickel	0.13	J	1.0	0.11	ug/L	1		6020A	Total/NA

Client Sample ID: TB-12590773-081733-KM — Lab Sample ID: 480-200841-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-001
Date Collected: 08/17/22 10:00
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 19:48	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 19:48	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 19:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 19:48	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 19:48	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 19:48	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 19:48	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 19:48	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 19:48	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 19:48	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 19:48	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 19:48	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 19:48	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 19:48	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 19:48	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 19:48	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 19:48	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 19:48	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 19:48	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 19:48	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 19:48	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 19:48	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 19:48	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 19:48	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 19:48	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 19:48	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 19:48	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 19:48	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 19:48	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 19:48	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 19:48	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 19:48	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 19:48	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 19:48	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 19:48	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 19:48	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 19:48	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 19:48	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 19:48	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 19:48	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 19:48	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 19:48	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 19:48	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 19:48	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 19:48	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 19:48	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 19:48	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 19:48	1

Client Sample ID: WG-12590773-081722-KM-001

Lab Sample ID: 480-200841-1

Date Collected: 08/17/22 10:00

Matrix: Water

Date Received: 08/18/22 10:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/19/22 19:48*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*77 - 120*		*08/19/22 19:48*	*1*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*08/19/22 19:48*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*08/19/22 19:48*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 10:18	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 10:18	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 10:18	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 10:18	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 10:18	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 10:18	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 10:18	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 10:18	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:18	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 10:18	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 10:18	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:18	1
2-Methylnaphthalene	0.60	U *-	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 10:18	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 10:18	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 10:18	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:18	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 10:18	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 10:18	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 10:18	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 10:18	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 10:18	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 10:18	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 10:18	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 10:18	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 10:18	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 10:18	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 10:18	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 10:18	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 10:18	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 10:18	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 10:18	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 10:18	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 10:18	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 10:18	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 10:18	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 10:18	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 10:18	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:18	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 10:18	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 10:18	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 10:18	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 10:18	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 10:18	1

Client Sample ID: WG-12590773-081722-KM-001

Lab Sample ID: 480-200841-1

Date Collected: 08/17/22 10:00

Matrix: Water

Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 10:18	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 10:18	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 10:18	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 10:18	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 10:18	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 10:18	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:18	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 10:18	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 10:18	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 10:18	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 10:18	1
Hexachloroethane	0.59	U *-	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 10:18	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 10:18	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 10:18	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 10:18	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 10:18	1
Naphthalene	0.76	U *-	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 10:18	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 10:18	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 10:18	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 10:18	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 10:18	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 10:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*80*		*46 - 120*	*08/23/22 08:19*	*08/25/22 10:18*	*1*
Phenol-d5 (Surr)	*45*		*22 - 120*	*08/23/22 08:19*	*08/25/22 10:18*	*1*
p-Terphenyl-d14 (Surr)	*81*		*60 - 148*	*08/23/22 08:19*	*08/25/22 10:18*	*1*
2,4,6-Tribromophenol (Surr)	*86*		*41 - 120*	*08/23/22 08:19*	*08/25/22 10:18*	*1*
2-Fluorobiphenyl (Surr)	*85*		*48 - 120*	*08/23/22 08:19*	*08/25/22 10:18*	*1*
2-Fluorophenol (Surr)	*60*		*35 - 120*	*08/23/22 08:19*	*08/25/22 10:18*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U H	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 20:01	1
bis (2-chloroisopropyl) ether	0.52	U H	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 20:01	1
2,4,5-Trichlorophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 20:01	1
2,4,6-Trichlorophenol	0.61	U H	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 20:01	1
2,4-Dichlorophenol	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:01	1
2,4-Dimethylphenol	0.50	U H	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 20:01	1
2,4-Dinitrophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:01	1
2,4-Dinitrotoluene	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:01	1
2,6-Dinitrotoluene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:01	1
2-Chloronaphthalene	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 20:01	1
2-Chlorophenol	0.53	U H	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 20:01	1
2-Methylphenol	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:01	1
2-Methylnaphthalene	0.60	U H	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 20:01	1
2-Nitroaniline	0.42	U H	10	0.42	ug/L		08/26/22 10:46	08/29/22 20:01	1
2-Nitrophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 20:01	1
3,3'-Dichlorobenzidine	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:01	1
3-Nitroaniline	0.48	U H	10	0.48	ug/L		08/26/22 10:46	08/29/22 20:01	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-001
Date Collected: 08/17/22 10:00
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-2-methylphenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:01	1
4-Bromophenyl phenyl ether	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:01	1
4-Chloro-3-methylphenol	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:01	1
4-Chloroaniline	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:01	1
4-Chlorophenyl phenyl ether	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:01	1
4-Methylphenol	0.36	U H	10	0.36	ug/L		08/26/22 10:46	08/29/22 20:01	1
4-Nitroaniline	0.25	U H	10	0.25	ug/L		08/26/22 10:46	08/29/22 20:01	1
4-Nitrophenol	1.5	U H	10	1.5	ug/L		08/26/22 10:46	08/29/22 20:01	1
Acenaphthene	0.41	U H	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 20:01	1
Acenaphthylene	0.38	U H	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 20:01	1
Acetophenone	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 20:01	1
Anthracene	0.28	U H	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 20:01	1
Atrazine	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 20:01	1
Benzaldehyde	0.27	U H	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 20:01	1
Benzo[a]anthracene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:01	1
Benzo[a]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:01	1
Benzo[b]fluoranthene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 20:01	1
Benzo[g,h,i]perylene	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:01	1
Benzo[k]fluoranthene	0.73	U H	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 20:01	1
Bis(2-chloroethoxy)methane	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:01	1
Bis(2-chloroethyl)ether	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:01	1
Bis(2-ethylhexyl) phthalate	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 20:01	1
Butyl benzyl phthalate	1.0	U H	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 20:01	1
Caprolactam	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 20:01	1
Carbazole	0.30	U H	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 20:01	1
Chrysene	0.33	U H	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 20:01	1
Dibenz(a,h)anthracene	0.42	U H	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 20:01	1
Di-n-butyl phthalate	0.31	U H	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 20:01	1
Di-n-octyl phthalate	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:01	1
Dibenzofuran	0.51	U H	10	0.51	ug/L		08/26/22 10:46	08/29/22 20:01	1
Diethyl phthalate	0.22	U H	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 20:01	1
Dimethyl phthalate	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:01	1
Fluoranthene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:01	1
Fluorene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:01	1
Hexachlorobenzene	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:01	1
Hexachlorobutadiene	0.68	U H	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 20:01	1
Hexachlorocyclopentadiene	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:01	1
Hexachloroethane	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:01	1
Indeno[1,2,3-cd]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:01	1
Isophorone	0.43	U H	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 20:01	1
N-Nitrosodi-n-propylamine	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 20:01	1
N-Nitrosodiphenylamine	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:01	1
Naphthalene	0.76	U H	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 20:01	1
Nitrobenzene	0.29	U H	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 20:01	1
Pentachlorophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:01	1
Phenanthrene	0.44	U H	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 20:01	1
Phenol	0.39	U H	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 20:01	1
Pyrene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 20:01	1

Client Sample ID: WG-12590773-081722-KM-001

Lab Sample ID: 480-200841-1

Date Collected: 08/17/22 10:00

Matrix: Water

Date Received: 08/18/22 10:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*65*		*46 - 120*	*08/26/22 10:46*	*08/29/22 20:01*	*1*
Phenol-d5 (Surr)	*36*		*22 - 120*	*08/26/22 10:46*	*08/29/22 20:01*	*1*
p-Terphenyl-d14 (Surr)	*71*		*60 - 148*	*08/26/22 10:46*	*08/29/22 20:01*	*1*
2,4,6-Tribromophenol (Surr)	*67*		*41 - 120*	*08/26/22 10:46*	*08/29/22 20:01*	*1*
2-Fluorobiphenyl (Surr)	*75*		*48 - 120*	*08/26/22 10:46*	*08/29/22 20:01*	*1*
2-Fluorophenol (Surr)	*51*		*35 - 120*	*08/26/22 10:46*	*08/29/22 20:01*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.060	U	0.20	0.060	mg/L		08/22/22 12:21	08/25/22 01:14	1
Calcium	**50**		0.50	0.10	mg/L		08/22/22 12:21	08/25/22 01:14	1
Iron	**0.24**		0.050	0.019	mg/L		08/22/22 12:21	08/25/22 01:14	1
Magnesium	**90**		0.20	0.043	mg/L		08/22/22 12:21	08/25/22 01:14	1
Potassium	**2.2**		0.50	0.10	mg/L		08/22/22 12:21	08/25/22 01:14	1
Sodium	**61**		1.0	0.32	mg/L		08/22/22 12:21	08/25/22 01:14	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:31	08/24/22 21:19	1
Arsenic	**8.3**	**B**	1.0	0.27	ug/L		08/23/22 09:31	08/24/22 21:19	1
Barium	**40**	**B**	1.0	0.15	ug/L		08/23/22 09:31	08/24/22 21:19	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:31	08/25/22 17:07	1
Cadmium	**0.25**	**J**	0.50	0.071	ug/L		08/23/22 09:31	08/24/22 21:19	1
Chromium	**0.86**	**J**	1.5	0.36	ug/L		08/23/22 09:31	08/24/22 21:19	1
Copper	**0.36**	**J**	1.0	0.22	ug/L		08/23/22 09:31	08/24/22 21:19	1
Cobalt	**0.26**	**J**	0.30	0.040	ug/L		08/23/22 09:31	08/24/22 21:19	1
Lead	**0.19**	**J**	1.0	0.17	ug/L		08/23/22 09:31	08/24/22 21:19	1
Nickel	**0.82**	**J**	1.0	0.11	ug/L		08/23/22 09:31	08/24/22 21:19	1
Silver	**0.14**	**J**	0.50	0.036	ug/L		08/26/22 09:05	08/26/22 18:53	1
Manganese	**32**		1.0	0.55	ug/L		08/23/22 09:31	08/24/22 21:19	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:31	08/24/22 21:19	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:31	08/24/22 21:19	1
Zinc	**3.5**	**J F1 F2**	10	2.6	ug/L		08/23/22 09:31	08/24/22 21:19	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:31	08/24/22 21:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 09:59	1

Client Sample ID: WG-12590773-081722-KM-002

Lab Sample ID: 480-200841-2

Date Collected: 08/17/22 09:55

Matrix: Water

Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 20:12	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 20:12	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 20:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 20:12	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 20:12	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 20:12	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-002
Date Collected: 08/17/22 09:55
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 20:12	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 20:12	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 20:12	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 20:12	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 20:12	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 20:12	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 20:12	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 20:12	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 20:12	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 20:12	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 20:12	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 20:12	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 20:12	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 20:12	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 20:12	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 20:12	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 20:12	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 20:12	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 20:12	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 20:12	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 20:12	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 20:12	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 20:12	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 20:12	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 20:12	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 20:12	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 20:12	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 20:12	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 20:12	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 20:12	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 20:12	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 20:12	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 20:12	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 20:12	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 20:12	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 20:12	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 20:12	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 20:12	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 20:12	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 20:12	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 20:12	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*08/19/22 20:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*08/19/22 20:12*	*1*
4-Bromofluorobenzene (Surr)	*90*		*73 - 120*		*08/19/22 20:12*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*08/19/22 20:12*	*1*

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-002
Date Collected: 08/17/22 09:55
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 10:45	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 10:45	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 10:45	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 10:45	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 10:45	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 10:45	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 10:45	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 10:45	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:45	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 10:45	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 10:45	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:45	1
2-Methylnaphthalene	0.60	U *-	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 10:45	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 10:45	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 10:45	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:45	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 10:45	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 10:45	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 10:45	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 10:45	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 10:45	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 10:45	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 10:45	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 10:45	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 10:45	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 10:45	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 10:45	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 10:45	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 10:45	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 10:45	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 10:45	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 10:45	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 10:45	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 10:45	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 10:45	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 10:45	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 10:45	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:45	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 10:45	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 10:45	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 10:45	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 10:45	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 10:45	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 10:45	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 10:45	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 10:45	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 10:45	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 10:45	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 10:45	1

Client Sample ID: WG-12590773-081722-KM-002
Date Collected: 08/17/22 09:55
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 10:45	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 10:45	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 10:45	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 10:45	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 10:45	1
Hexachloroethane	0.59	U *-	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 10:45	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 10:45	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 10:45	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 10:45	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 10:45	1
Naphthalene	0.76	U *-	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 10:45	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 10:45	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 10:45	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 10:45	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 10:45	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 10:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*70*		*46 - 120*	*08/23/22 08:19*	*08/25/22 10:45*	*1*
Phenol-d5 (Surr)	*39*		*22 - 120*	*08/23/22 08:19*	*08/25/22 10:45*	*1*
p-Terphenyl-d14 (Surr)	*77*		*60 - 148*	*08/23/22 08:19*	*08/25/22 10:45*	*1*
2,4,6-Tribromophenol (Surr)	*88*		*41 - 120*	*08/23/22 08:19*	*08/25/22 10:45*	*1*
2-Fluorobiphenyl (Surr)	*77*		*48 - 120*	*08/23/22 08:19*	*08/25/22 10:45*	*1*
2-Fluorophenol (Surr)	*52*		*35 - 120*	*08/23/22 08:19*	*08/25/22 10:45*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U H	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 20:28	1
bis (2-chloroisopropyl) ether	0.52	U H	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 20:28	1
2,4,5-Trichlorophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 20:28	1
2,4,6-Trichlorophenol	0.61	U H	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 20:28	1
2,4-Dichlorophenol	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:28	1
2,4-Dimethylphenol	0.50	U H	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 20:28	1
2,4-Dinitrophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:28	1
2,4-Dinitrotoluene	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:28	1
2,6-Dinitrotoluene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:28	1
2-Chloronaphthalene	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 20:28	1
2-Chlorophenol	0.53	U H	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 20:28	1
2-Methylphenol	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:28	1
2-Methylnaphthalene	0.60	U H	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 20:28	1
2-Nitroaniline	0.42	U H	10	0.42	ug/L		08/26/22 10:46	08/29/22 20:28	1
2-Nitrophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 20:28	1
3,3'-Dichlorobenzidine	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:28	1
3-Nitroaniline	0.48	U H	10	0.48	ug/L		08/26/22 10:46	08/29/22 20:28	1
4,6-Dinitro-2-methylphenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:28	1
4-Bromophenyl phenyl ether	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:28	1
4-Chloro-3-methylphenol	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:28	1
4-Chloroaniline	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:28	1
4-Chlorophenyl phenyl ether	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:28	1
4-Methylphenol	0.36	U H	10	0.36	ug/L		08/26/22 10:46	08/29/22 20:28	1

Client Sample ID: WG-12590773-081722-KM-002
Date Collected: 08/17/22 09:55
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-2
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	0.25	U H	10	0.25	ug/L		08/26/22 10:46	08/29/22 20:28	1
4-Nitrophenol	1.5	U H	10	1.5	ug/L		08/26/22 10:46	08/29/22 20:28	1
Acenaphthene	0.41	U H	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 20:28	1
Acenaphthylene	0.38	U H	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 20:28	1
Acetophenone	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 20:28	1
Anthracene	0.28	U H	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 20:28	1
Atrazine	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 20:28	1
Benzaldehyde	0.27	U H	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 20:28	1
Benzo[a]anthracene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:28	1
Benzo[a]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:28	1
Benzo[b]fluoranthene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 20:28	1
Benzo[g,h,i]perylene	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:28	1
Benzo[k]fluoranthene	0.73	U H	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 20:28	1
Bis(2-chloroethoxy)methane	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:28	1
Bis(2-chloroethyl)ether	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:28	1
Bis(2-ethylhexyl) phthalate	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 20:28	1
Butyl benzyl phthalate	1.0	U H	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 20:28	1
Caprolactam	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 20:28	1
Carbazole	0.30	U H	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 20:28	1
Chrysene	0.33	U H	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 20:28	1
Dibenz(a,h)anthracene	0.42	U H	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 20:28	1
Di-n-butyl phthalate	0.31	U H	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 20:28	1
Di-n-octyl phthalate	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:28	1
Dibenzofuran	0.51	U H	10	0.51	ug/L		08/26/22 10:46	08/29/22 20:28	1
Diethyl phthalate	0.22	U H	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 20:28	1
Dimethyl phthalate	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:28	1
Fluoranthene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:28	1
Fluorene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:28	1
Hexachlorobenzene	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:28	1
Hexachlorobutadiene	0.68	U H	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 20:28	1
Hexachlorocyclopentadiene	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:28	1
Hexachloroethane	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:28	1
Indeno[1,2,3-cd]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:28	1
Isophorone	0.43	U H	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 20:28	1
N-Nitrosodi-n-propylamine	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 20:28	1
N-Nitrosodiphenylamine	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:28	1
Naphthalene	0.76	U H	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 20:28	1
Nitrobenzene	0.29	U H	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 20:28	1
Pentachlorophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:28	1
Phenanthrene	0.44	U H	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 20:28	1
Phenol	0.39	U H	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 20:28	1
Pyrene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 20:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*73*		*46 - 120*	*08/26/22 10:46*	*08/29/22 20:28*	*1*
Phenol-d5 (Surr)	*40*		*22 - 120*	*08/26/22 10:46*	*08/29/22 20:28*	*1*
p-Terphenyl-d14 (Surr)	*75*		*60 - 148*	*08/26/22 10:46*	*08/29/22 20:28*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*41 - 120*	*08/26/22 10:46*	*08/29/22 20:28*	*1*
2-Fluorobiphenyl (Surr)	*83*		*48 - 120*	*08/26/22 10:46*	*08/29/22 20:28*	*1*
2-Fluorophenol (Surr)	*57*		*35 - 120*	*08/26/22 10:46*	*08/29/22 20:28*	*1*

Client Sample ID: WG-12590773-081722-KM-002

Lab Sample ID: 480-200841-2
Date Collected: 08/17/22 09:55
Matrix: Water
Date Received: 08/18/22 10:00

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.060	U	0.20	0.060	mg/L		08/22/22 12:21	08/25/22 01:18	1
Calcium	**66**		0.50	0.10	mg/L		08/22/22 12:21	08/25/22 01:18	1
Iron	**0.067**		0.050	0.019	mg/L		08/22/22 12:21	08/25/22 01:18	1
Magnesium	**75**		0.20	0.043	mg/L		08/22/22 12:21	08/25/22 01:18	1
Potassium	**0.73**		0.50	0.10	mg/L		08/22/22 12:21	08/25/22 01:18	1
Sodium	**64**		1.0	0.32	mg/L		08/22/22 12:21	08/25/22 01:18	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:31	08/24/22 21:38	1
Arsenic	**0.30**	**J B**	1.0	0.27	ug/L		08/23/22 09:31	08/24/22 21:38	1
Barium	**160**	**B**	1.0	0.15	ug/L		08/23/22 09:31	08/24/22 21:38	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:31	08/25/22 17:26	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:31	08/24/22 21:38	1
Chromium	0.36	U	1.5	0.36	ug/L		08/23/22 09:31	08/24/22 21:38	1
Copper	**5.0**		1.0	0.22	ug/L		08/23/22 09:31	08/24/22 21:38	1
Cobalt	**0.42**		0.30	0.040	ug/L		08/23/22 09:31	08/24/22 21:38	1
Lead	**5.1**		1.0	0.17	ug/L		08/23/22 09:31	08/24/22 21:38	1
Nickel	**0.93**	**J**	1.0	0.11	ug/L		08/23/22 09:31	08/24/22 21:38	1
Silver	0.036	U	0.50	0.036	ug/L		08/26/22 09:05	08/26/22 18:55	1
Manganese	**48**		1.0	0.55	ug/L		08/23/22 09:31	08/24/22 21:38	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:31	08/24/22 21:38	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:31	08/24/22 21:38	1
Zinc	**16**		10	2.6	ug/L		08/23/22 09:31	08/24/22 21:38	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:31	08/24/22 21:38	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 10:00	1

Client Sample ID: WG-12590773-081722-KM-003

Lab Sample ID: 480-200841-3
Date Collected: 08/17/22 11:40
Matrix: Water
Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 20:35	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 20:35	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 20:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 20:35	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 20:35	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 20:35	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 20:35	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 20:35	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 20:35	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 20:35	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 20:35	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 20:35	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 20:35	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 20:35	1

Client Sample ID: WG-12590773-081722-KM-003
Date Collected: 08/17/22 11:40
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 20:35	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 20:35	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 20:35	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 20:35	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 20:35	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 20:35	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 20:35	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 20:35	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 20:35	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 20:35	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 20:35	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 20:35	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 20:35	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 20:35	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 20:35	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 20:35	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 20:35	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 20:35	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 20:35	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 20:35	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 20:35	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 20:35	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 20:35	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 20:35	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 20:35	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 20:35	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 20:35	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 20:35	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 20:35	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 20:35	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 20:35	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 20:35	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 20:35	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*96*		*80 - 120*		*08/19/22 20:35*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*08/19/22 20:35*	*1*
4-Bromofluorobenzene (Surr)	*83*		*73 - 120*		*08/19/22 20:35*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*08/19/22 20:35*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 11:13	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 11:13	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 11:13	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 11:13	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 11:13	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 11:13	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 11:13	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-003
Date Collected: 08/17/22 11:40
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 11:13	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:13	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 11:13	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 11:13	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:13	1
2-Methylnaphthalene	0.60	U *-	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 11:13	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 11:13	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 11:13	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:13	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 11:13	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 11:13	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 11:13	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 11:13	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 11:13	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 11:13	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 11:13	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 11:13	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 11:13	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 11:13	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 11:13	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 11:13	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 11:13	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 11:13	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 11:13	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 11:13	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 11:13	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 11:13	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 11:13	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 11:13	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 11:13	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:13	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 11:13	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 11:13	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 11:13	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 11:13	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 11:13	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 11:13	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 11:13	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 11:13	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 11:13	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 11:13	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 11:13	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:13	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 11:13	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 11:13	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 11:13	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 11:13	1
Hexachloroethane	0.59	U *-	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 11:13	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 11:13	1

Client Sample ID: WG-12590773-081722-KM-003
Date Collected: 08/17/22 11:40
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 11:13	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 11:13	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 11:13	1
Naphthalene	0.76	U *-	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 11:13	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 11:13	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 11:13	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 11:13	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 11:13	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*46 - 120*	*08/23/22 08:19*	*08/25/22 11:13*	*1*
Phenol-d5 (Surr)	*44*		*22 - 120*	*08/23/22 08:19*	*08/25/22 11:13*	*1*
p-Terphenyl-d14 (Surr)	*82*		*60 - 148*	*08/23/22 08:19*	*08/25/22 11:13*	*1*
2,4,6-Tribromophenol (Surr)	*92*		*41 - 120*	*08/23/22 08:19*	*08/25/22 11:13*	*1*
2-Fluorobiphenyl (Surr)	*87*		*48 - 120*	*08/23/22 08:19*	*08/25/22 11:13*	*1*
2-Fluorophenol (Surr)	*60*		*35 - 120*	*08/23/22 08:19*	*08/25/22 11:13*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U H	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 20:56	1
bis (2-chloroisopropyl) ether	0.52	U H	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 20:56	1
2,4,5-Trichlorophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 20:56	1
2,4,6-Trichlorophenol	0.61	U H	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 20:56	1
2,4-Dichlorophenol	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:56	1
2,4-Dimethylphenol	0.50	U H	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 20:56	1
2,4-Dinitrophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:56	1
2,4-Dinitrotoluene	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:56	1
2,6-Dinitrotoluene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:56	1
2-Chloronaphthalene	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 20:56	1
2-Chlorophenol	0.53	U H	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 20:56	1
2-Methylphenol	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:56	1
2-Methylnaphthalene	0.60	U H	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 20:56	1
2-Nitroaniline	0.42	U H	10	0.42	ug/L		08/26/22 10:46	08/29/22 20:56	1
2-Nitrophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 20:56	1
3,3'-Dichlorobenzidine	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:56	1
3-Nitroaniline	0.48	U H	10	0.48	ug/L		08/26/22 10:46	08/29/22 20:56	1
4,6-Dinitro-2-methylphenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:56	1
4-Bromophenyl phenyl ether	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:56	1
4-Chloro-3-methylphenol	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 20:56	1
4-Chloroaniline	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:56	1
4-Chlorophenyl phenyl ether	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:56	1
4-Methylphenol	0.36	U H	10	0.36	ug/L		08/26/22 10:46	08/29/22 20:56	1
4-Nitroaniline	0.25	U H	10	0.25	ug/L		08/26/22 10:46	08/29/22 20:56	1
4-Nitrophenol	1.5	U H	10	1.5	ug/L		08/26/22 10:46	08/29/22 20:56	1
Acenaphthene	0.41	U H	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 20:56	1
Acenaphthylene	0.38	U H	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 20:56	1
Acetophenone	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 20:56	1
Anthracene	0.28	U H	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 20:56	1
Atrazine	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 20:56	1

Client Sample ID: WG-12590773-081722-KM-003
Lab Sample ID: 480-200841-3
Date Collected: 08/17/22 11:40
Matrix: Water
Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.27	U H	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 20:56	1
Benzo[a]anthracene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:56	1
Benzo[a]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:56	1
Benzo[b]fluoranthene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 20:56	1
Benzo[g,h,i]perylene	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:56	1
Benzo[k]fluoranthene	0.73	U H	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 20:56	1
Bis(2-chloroethoxy)methane	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 20:56	1
Bis(2-chloroethyl)ether	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:56	1
Bis(2-ethylhexyl) phthalate	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 20:56	1
Butyl benzyl phthalate	1.0	U H	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 20:56	1
Caprolactam	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 20:56	1
Carbazole	0.30	U H	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 20:56	1
Chrysene	0.33	U H	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 20:56	1
Dibenz(a,h)anthracene	0.42	U H	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 20:56	1
Di-n-butyl phthalate	0.31	U H	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 20:56	1
Di-n-octyl phthalate	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:56	1
Dibenzofuran	0.51	U H	10	0.51	ug/L		08/26/22 10:46	08/29/22 20:56	1
Diethyl phthalate	0.22	U H	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 20:56	1
Dimethyl phthalate	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:56	1
Fluoranthene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 20:56	1
Fluorene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 20:56	1
Hexachlorobenzene	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:56	1
Hexachlorobutadiene	0.68	U H	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 20:56	1
Hexachlorocyclopentadiene	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:56	1
Hexachloroethane	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 20:56	1
Indeno[1,2,3-cd]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 20:56	1
Isophorone	0.43	U H	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 20:56	1
N-Nitrosodi-n-propylamine	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 20:56	1
N-Nitrosodiphenylamine	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 20:56	1
Naphthalene	0.76	U H	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 20:56	1
Nitrobenzene	0.29	U H	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 20:56	1
Pentachlorophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 20:56	1
Phenanthrene	0.44	U H	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 20:56	1
Phenol	0.39	U H	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 20:56	1
Pyrene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 20:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*82*		*46 - 120*	*08/26/22 10:46*	*08/29/22 20:56*	*1*
Phenol-d5 (Surr)	*44*		*22 - 120*	*08/26/22 10:46*	*08/29/22 20:56*	*1*
p-Terphenyl-d14 (Surr)	*89*		*60 - 148*	*08/26/22 10:46*	*08/29/22 20:56*	*1*
2,4,6-Tribromophenol (Surr)	*82*		*41 - 120*	*08/26/22 10:46*	*08/29/22 20:56*	*1*
2-Fluorobiphenyl (Surr)	*93*		*48 - 120*	*08/26/22 10:46*	*08/29/22 20:56*	*1*
2-Fluorophenol (Surr)	*62*		*35 - 120*	*08/26/22 10:46*	*08/29/22 20:56*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.060	U	0.20	0.060	mg/L		08/22/22 12:21	08/25/22 01:34	1
Calcium	**46**		0.50	0.10	mg/L		08/22/22 12:21	08/25/22 01:34	1
Iron	**0.24**		0.050	0.019	mg/L		08/22/22 12:21	08/25/22 01:34	1
Magnesium	**78**		0.20	0.043	mg/L		08/22/22 12:21	08/25/22 01:34	1

Client Sample ID: WG-12590773-081722-KM-003

Lab Sample ID: 480-200841-3
Date Collected: 08/17/22 11:40
Matrix: Water
Date Received: 08/18/22 10:00

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Potassium	**2.4**		0.50	0.10	mg/L		08/22/22 12:21	08/25/22 01:34	1
Sodium	**72**		1.0	0.32	mg/L		08/22/22 12:21	08/25/22 01:34	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:31	08/24/22 21:40	1
Arsenic	**7.7**	**B**	1.0	0.27	ug/L		08/23/22 09:31	08/24/22 21:40	1
Barium	**120**	**B**	1.0	0.15	ug/L		08/23/22 09:31	08/24/22 21:40	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:31	08/25/22 17:28	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:31	08/24/22 21:40	1
Chromium	0.36	U	1.5	0.36	ug/L		08/23/22 09:31	08/24/22 21:40	1
Copper	**7.0**		1.0	0.22	ug/L		08/23/22 09:31	08/24/22 21:40	1
Cobalt	**0.46**		0.30	0.040	ug/L		08/23/22 09:31	08/24/22 21:40	1
Lead	**1.7**		1.0	0.17	ug/L		08/23/22 09:31	08/24/22 21:40	1
Nickel	**0.55**	**J**	1.0	0.11	ug/L		08/23/22 09:31	08/24/22 21:40	1
Silver	**0.10**	**J**	0.50	0.036	ug/L		08/26/22 09:05	08/26/22 18:58	1
Manganese	**73**		1.0	0.55	ug/L		08/23/22 09:31	08/24/22 21:40	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:31	08/24/22 21:40	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:31	08/24/22 21:40	1
Zinc	**35**		10	2.6	ug/L		08/23/22 09:31	08/24/22 21:40	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:31	08/24/22 21:40	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 10:04	1

Client Sample ID: WG-12590773-081722-KM-004

Lab Sample ID: 480-200841-4
Date Collected: 08/17/22 11:40
Matrix: Water
Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 20:59	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 20:59	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 20:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 20:59	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 20:59	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 20:59	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 20:59	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 20:59	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 20:59	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 20:59	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 20:59	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 20:59	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 20:59	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 20:59	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 20:59	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 20:59	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 20:59	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 20:59	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-004
Date Collected: 08/17/22 11:40
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 20:59	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 20:59	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 20:59	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 20:59	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 20:59	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 20:59	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 20:59	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 20:59	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 20:59	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 20:59	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 20:59	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 20:59	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 20:59	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 20:59	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 20:59	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 20:59	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 20:59	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 20:59	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 20:59	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 20:59	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 20:59	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 20:59	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 20:59	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 20:59	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 20:59	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 20:59	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 20:59	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 20:59	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 20:59	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*08/19/22 20:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*115*		*77 - 120*		*08/19/22 20:59*	*1*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*08/19/22 20:59*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*08/19/22 20:59*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 11:40	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 11:40	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 11:40	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 11:40	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 11:40	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 11:40	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 11:40	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 11:40	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:40	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 11:40	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 11:40	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-004
Date Collected: 08/17/22 11:40
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:40	1
2-Methylnaphthalene	0.60	U *-	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 11:40	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 11:40	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 11:40	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:40	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 11:40	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 11:40	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 11:40	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 11:40	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 11:40	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 11:40	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 11:40	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 11:40	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 11:40	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 11:40	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 11:40	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 11:40	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 11:40	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 11:40	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 11:40	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 11:40	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 11:40	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 11:40	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 11:40	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 11:40	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 11:40	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:40	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 11:40	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 11:40	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 11:40	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 11:40	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 11:40	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 11:40	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 11:40	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 11:40	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 11:40	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 11:40	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 11:40	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 11:40	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 11:40	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 11:40	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 11:40	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 11:40	1
Hexachloroethane	0.59	U *-	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 11:40	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 11:40	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 11:40	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 11:40	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 11:40	1
Naphthalene	0.76	U *-	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 11:40	1

Client Sample ID: WG-12590773-081722-KM-004

Lab Sample ID: 480-200841-4

Date Collected: 08/17/22 11:40

Matrix: Water

Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 11:40	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 11:40	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 11:40	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 11:40	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 11:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*72*		*46 - 120*	*08/23/22 08:19*	*08/25/22 11:40*	*1*
Phenol-d5 (Surr)	*40*		*22 - 120*	*08/23/22 08:19*	*08/25/22 11:40*	*1*
p-Terphenyl-d14 (Surr)	*81*		*60 - 148*	*08/23/22 08:19*	*08/25/22 11:40*	*1*
2,4,6-Tribromophenol (Surr)	*77*		*41 - 120*	*08/23/22 08:19*	*08/25/22 11:40*	*1*
2-Fluorobiphenyl (Surr)	*77*		*48 - 120*	*08/23/22 08:19*	*08/25/22 11:40*	*1*
2-Fluorophenol (Surr)	*55*		*35 - 120*	*08/23/22 08:19*	*08/25/22 11:40*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U H	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 21:23	1
bis (2-chloroisopropyl) ether	0.52	U H	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 21:23	1
2,4,5-Trichlorophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 21:23	1
2,4,6-Trichlorophenol	0.61	U H	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 21:23	1
2,4-Dichlorophenol	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 21:23	1
2,4-Dimethylphenol	0.50	U H	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 21:23	1
2,4-Dinitrophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 21:23	1
2,4-Dinitrotoluene	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 21:23	1
2,6-Dinitrotoluene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:23	1
2-Chloronaphthalene	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 21:23	1
2-Chlorophenol	0.53	U H	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 21:23	1
2-Methylphenol	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:23	1
2-Methylnaphthalene	0.60	U H	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 21:23	1
2-Nitroaniline	0.42	U H	10	0.42	ug/L		08/26/22 10:46	08/29/22 21:23	1
2-Nitrophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 21:23	1
3,3'-Dichlorobenzidine	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:23	1
3-Nitroaniline	0.48	U H	10	0.48	ug/L		08/26/22 10:46	08/29/22 21:23	1
4,6-Dinitro-2-methylphenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 21:23	1
4-Bromophenyl phenyl ether	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 21:23	1
4-Chloro-3-methylphenol	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 21:23	1
4-Chloroaniline	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 21:23	1
4-Chlorophenyl phenyl ether	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 21:23	1
4-Methylphenol	0.36	U H	10	0.36	ug/L		08/26/22 10:46	08/29/22 21:23	1
4-Nitroaniline	0.25	U H	10	0.25	ug/L		08/26/22 10:46	08/29/22 21:23	1
4-Nitrophenol	1.5	U H	10	1.5	ug/L		08/26/22 10:46	08/29/22 21:23	1
Acenaphthene	0.41	U H	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 21:23	1
Acenaphthylene	0.38	U H	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 21:23	1
Acetophenone	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 21:23	1
Anthracene	0.28	U H	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 21:23	1
Atrazine	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 21:23	1
Benzaldehyde	0.27	U H	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 21:23	1
Benzo[a]anthracene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 21:23	1
Benzo[a]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 21:23	1
Benzo[b]fluoranthene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 21:23	1

Client Sample ID: WG-12590773-081722-KM-004
Date Collected: 08/17/22 11:40
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 21:23	1
Benzo[k]fluoranthene	0.73	U H	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 21:23	1
Bis(2-chloroethoxy)methane	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 21:23	1
Bis(2-chloroethyl)ether	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:23	1
Bis(2-ethylhexyl) phthalate	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 21:23	1
Butyl benzyl phthalate	1.0	U H	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 21:23	1
Caprolactam	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 21:23	1
Carbazole	0.30	U H	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 21:23	1
Chrysene	0.33	U H	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 21:23	1
Dibenz(a,h)anthracene	0.42	U H	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 21:23	1
Di-n-butyl phthalate	0.31	U H	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 21:23	1
Di-n-octyl phthalate	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 21:23	1
Dibenzofuran	0.51	U H	10	0.51	ug/L		08/26/22 10:46	08/29/22 21:23	1
Diethyl phthalate	0.22	U H	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 21:23	1
Dimethyl phthalate	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 21:23	1
Fluoranthene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:23	1
Fluorene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 21:23	1
Hexachlorobenzene	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 21:23	1
Hexachlorobutadiene	0.68	U H	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 21:23	1
Hexachlorocyclopentadiene	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 21:23	1
Hexachloroethane	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 21:23	1
Indeno[1,2,3-cd]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 21:23	1
Isophorone	0.43	U H	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 21:23	1
N-Nitrosodi-n-propylamine	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 21:23	1
N-Nitrosodiphenylamine	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 21:23	1
Naphthalene	0.76	U H	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 21:23	1
Nitrobenzene	0.29	U H	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 21:23	1
Pentachlorophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 21:23	1
Phenanthrene	0.44	U H	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 21:23	1
Phenol	0.39	U H	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 21:23	1
Pyrene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*83*		*46 - 120*	*08/26/22 10:46*	*08/29/22 21:23*	*1*
Phenol-d5 (Surr)	*46*		*22 - 120*	*08/26/22 10:46*	*08/29/22 21:23*	*1*
p-Terphenyl-d14 (Surr)	*83*		*60 - 148*	*08/26/22 10:46*	*08/29/22 21:23*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*41 - 120*	*08/26/22 10:46*	*08/29/22 21:23*	*1*
2-Fluorobiphenyl (Surr)	*96*		*48 - 120*	*08/26/22 10:46*	*08/29/22 21:23*	*1*
2-Fluorophenol (Surr)	*65*		*35 - 120*	*08/26/22 10:46*	*08/29/22 21:23*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.060	U	0.20	0.060	mg/L		08/22/22 12:21	08/25/22 01:38	1
Calcium	**44**		0.50	0.10	mg/L		08/22/22 12:21	08/25/22 01:38	1
Iron	**0.21**		0.050	0.019	mg/L		08/22/22 12:21	08/25/22 01:38	1
Magnesium	**75**		0.20	0.043	mg/L		08/22/22 12:21	08/25/22 01:38	1
Potassium	**2.3**		0.50	0.10	mg/L		08/22/22 12:21	08/25/22 01:38	1
Sodium	**69**		1.0	0.32	mg/L		08/22/22 12:21	08/25/22 01:38	1

Client Sample ID: WG-12590773-081722-KM-004
Lab Sample ID: 480-200841-4

Date Collected: 08/17/22 11:40
Matrix: Water
Date Received: 08/18/22 10:00

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:31	08/24/22 21:42	1
Arsenic	**7.8**	**B**	1.0	0.27	ug/L		08/23/22 09:31	08/24/22 21:42	1
Barium	**120**	**B**	1.0	0.15	ug/L		08/23/22 09:31	08/24/22 21:42	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:31	08/25/22 17:31	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:31	08/24/22 21:42	1
Chromium	0.36	U	1.5	0.36	ug/L		08/23/22 09:31	08/24/22 21:42	1
Copper	**7.3**		1.0	0.22	ug/L		08/23/22 09:31	08/24/22 21:42	1
Cobalt	**0.47**		0.30	0.040	ug/L		08/23/22 09:31	08/24/22 21:42	1
Lead	**1.6**		1.0	0.17	ug/L		08/23/22 09:31	08/24/22 21:42	1
Nickel	**0.60**	**J**	1.0	0.11	ug/L		08/23/22 09:31	08/24/22 21:42	1
Silver	**0.10**	**J**	0.50	0.036	ug/L		08/26/22 09:05	08/26/22 19:00	1
Manganese	**77**		1.0	0.55	ug/L		08/23/22 09:31	08/24/22 21:42	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:31	08/24/22 21:42	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:31	08/24/22 21:42	1
Zinc	**34**		10	2.6	ug/L		08/23/22 09:31	08/24/22 21:42	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:31	08/24/22 21:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 10:06	1

Client Sample ID: WG-12590773-081722-KM-005
Lab Sample ID: 480-200841-5

Date Collected: 08/17/22 11:35
Matrix: Water
Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 21:23	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 21:23	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 21:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 21:23	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 21:23	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 21:23	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 21:23	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 21:23	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 21:23	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 21:23	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 21:23	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 21:23	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 21:23	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 21:23	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 21:23	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 21:23	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 21:23	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 21:23	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 21:23	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 21:23	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 21:23	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 21:23	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 21:23	1

Client Sample ID: WG-12590773-081722-KM-005
Date Collected: 08/17/22 11:35
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 21:23	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 21:23	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 21:23	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 21:23	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 21:23	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 21:23	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 21:23	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 21:23	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 21:23	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 21:23	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 21:23	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 21:23	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 21:23	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 21:23	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 21:23	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 21:23	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 21:23	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 21:23	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 21:23	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 21:23	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 21:23	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 21:23	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 21:23	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 21:23	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*08/19/22 21:23*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*77 - 120*		*08/19/22 21:23*	*1*
4-Bromofluorobenzene (Surr)	*88*		*73 - 120*		*08/19/22 21:23*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*08/19/22 21:23*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 12:07	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 12:07	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 12:07	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 12:07	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 12:07	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 12:07	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 12:07	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 12:07	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:07	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 12:07	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 12:07	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:07	1
2-Methylnaphthalene	0.60	U *-	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 12:07	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 12:07	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 12:07	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:07	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-005
Date Collected: 08/17/22 11:35
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 12:07	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 12:07	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 12:07	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 12:07	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 12:07	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 12:07	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 12:07	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 12:07	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 12:07	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 12:07	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 12:07	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 12:07	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 12:07	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 12:07	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 12:07	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 12:07	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 12:07	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 12:07	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 12:07	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 12:07	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 12:07	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:07	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 12:07	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 12:07	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 12:07	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 12:07	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 12:07	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 12:07	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 12:07	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 12:07	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 12:07	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 12:07	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 12:07	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:07	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 12:07	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 12:07	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 12:07	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 12:07	1
Hexachloroethane	0.59	U *-	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 12:07	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 12:07	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 12:07	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 12:07	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 12:07	1
Naphthalene	0.76	U *-	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 12:07	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 12:07	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 12:07	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 12:07	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 12:07	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 12:07	1

Client Sample ID: WG-12590773-081722-KM-005
Date Collected: 08/17/22 11:35
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-5
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*73*		*46 - 120*	*08/23/22 08:19*	*08/25/22 12:07*	*1*
Phenol-d5 (Surr)	*42*		*22 - 120*	*08/23/22 08:19*	*08/25/22 12:07*	*1*
p-Terphenyl-d14 (Surr)	*76*		*60 - 148*	*08/23/22 08:19*	*08/25/22 12:07*	*1*
2,4,6-Tribromophenol (Surr)	*84*		*41 - 120*	*08/23/22 08:19*	*08/25/22 12:07*	*1*
2-Fluorobiphenyl (Surr)	*83*		*48 - 120*	*08/23/22 08:19*	*08/25/22 12:07*	*1*
2-Fluorophenol (Surr)	*56*		*35 - 120*	*08/23/22 08:19*	*08/25/22 12:07*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U H	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 21:51	1
bis (2-chloroisopropyl) ether	0.52	U H	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 21:51	1
2,4,5-Trichlorophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 21:51	1
2,4,6-Trichlorophenol	0.61	U H	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 21:51	1
2,4-Dichlorophenol	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 21:51	1
2,4-Dimethylphenol	0.50	U H	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 21:51	1
2,4-Dinitrophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 21:51	1
2,4-Dinitrotoluene	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 21:51	1
2,6-Dinitrotoluene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:51	1
2-Chloronaphthalene	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 21:51	1
2-Chlorophenol	0.53	U H	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 21:51	1
2-Methylphenol	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:51	1
2-Methylnaphthalene	0.60	U H	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 21:51	1
2-Nitroaniline	0.42	U H	10	0.42	ug/L		08/26/22 10:46	08/29/22 21:51	1
2-Nitrophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 21:51	1
3,3'-Dichlorobenzidine	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:51	1
3-Nitroaniline	0.48	U H	10	0.48	ug/L		08/26/22 10:46	08/29/22 21:51	1
4,6-Dinitro-2-methylphenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 21:51	1
4-Bromophenyl phenyl ether	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 21:51	1
4-Chloro-3-methylphenol	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 21:51	1
4-Chloroaniline	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 21:51	1
4-Chlorophenyl phenyl ether	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 21:51	1
4-Methylphenol	0.36	U H	10	0.36	ug/L		08/26/22 10:46	08/29/22 21:51	1
4-Nitroaniline	0.25	U H	10	0.25	ug/L		08/26/22 10:46	08/29/22 21:51	1
4-Nitrophenol	1.5	U H	10	1.5	ug/L		08/26/22 10:46	08/29/22 21:51	1
Acenaphthene	0.41	U H	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 21:51	1
Acenaphthylene	0.38	U H	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 21:51	1
Acetophenone	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 21:51	1
Anthracene	0.28	U H	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 21:51	1
Atrazine	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 21:51	1
Benzaldehyde	0.27	U H	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 21:51	1
Benzo[a]anthracene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 21:51	1
Benzo[a]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 21:51	1
Benzo[b]fluoranthene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 21:51	1
Benzo[g,h,i]perylene	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 21:51	1
Benzo[k]fluoranthene	0.73	U H	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 21:51	1
Bis(2-chloroethoxy)methane	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 21:51	1
Bis(2-chloroethyl)ether	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:51	1
Bis(2-ethylhexyl) phthalate	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 21:51	1
Butyl benzyl phthalate	1.0	U H	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 21:51	1
Caprolactam	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 21:51	1

Client Sample ID: WG-12590773-081722-KM-005

Lab Sample ID: 480-200841-5

Date Collected: 08/17/22 11:35

Matrix: Water

Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbazole	0.30	U H	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 21:51	1
Chrysene	0.33	U H	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 21:51	1
Dibenz(a,h)anthracene	0.42	U H	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 21:51	1
Di-n-butyl phthalate	0.31	U H	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 21:51	1
Di-n-octyl phthalate	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 21:51	1
Dibenzofuran	0.51	U H	10	0.51	ug/L		08/26/22 10:46	08/29/22 21:51	1
Diethyl phthalate	0.22	U H	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 21:51	1
Dimethyl phthalate	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 21:51	1
Fluoranthene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 21:51	1
Fluorene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 21:51	1
Hexachlorobenzene	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 21:51	1
Hexachlorobutadiene	0.68	U H	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 21:51	1
Hexachlorocyclopentadiene	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 21:51	1
Hexachloroethane	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 21:51	1
Indeno[1,2,3-cd]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 21:51	1
Isophorone	0.43	U H	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 21:51	1
N-Nitrosodi-n-propylamine	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 21:51	1
N-Nitrosodiphenylamine	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 21:51	1
Naphthalene	0.76	U H	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 21:51	1
Nitrobenzene	0.29	U H	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 21:51	1
Pentachlorophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 21:51	1
Phenanthrene	0.44	U H	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 21:51	1
Phenol	0.39	U H	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 21:51	1
Pyrene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*75*		*46 - 120*	*08/26/22 10:46*	*08/29/22 21:51*	*1*
Phenol-d5 (Surr)	*41*		*22 - 120*	*08/26/22 10:46*	*08/29/22 21:51*	*1*
p-Terphenyl-d14 (Surr)	*80*		*60 - 148*	*08/26/22 10:46*	*08/29/22 21:51*	*1*
2,4,6-Tribromophenol (Surr)	*83*		*41 - 120*	*08/26/22 10:46*	*08/29/22 21:51*	*1*
2-Fluorobiphenyl (Surr)	*89*		*48 - 120*	*08/26/22 10:46*	*08/29/22 21:51*	*1*
2-Fluorophenol (Surr)	*58*		*35 - 120*	*08/26/22 10:46*	*08/29/22 21:51*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.060	U	0.20	0.060	mg/L		08/22/22 09:57	08/26/22 12:53	1
Calcium	**93**		0.50	0.10	mg/L		08/22/22 09:57	08/26/22 12:53	1
Iron	**0.48**		0.050	0.019	mg/L		08/22/22 09:57	08/26/22 12:53	1
Magnesium	**73**		0.20	0.043	mg/L		08/22/22 09:57	08/26/22 12:53	1
Potassium	**3.4**	**B**	0.50	0.10	mg/L		08/22/22 09:57	08/26/22 12:53	1
Sodium	**140**	**B**	1.0	0.32	mg/L		08/22/22 09:57	08/26/22 12:53	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:24	08/25/22 21:05	1
Arsenic	**2.3**		1.0	0.27	ug/L		08/23/22 09:24	08/25/22 21:05	1
Barium	**96**		1.0	0.15	ug/L		08/23/22 09:24	08/25/22 21:05	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:24	08/26/22 15:47	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:24	08/25/22 21:05	1
Chromium	0.36	U	1.5	0.36	ug/L		08/23/22 09:24	08/25/22 21:05	1

Client Sample ID: WG-12590773-081722-KM-005

Lab Sample ID: 480-200841-5

Date Collected: 08/17/22 11:35

Matrix: Water

Date Received: 08/18/22 10:00

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	**0.35**	**J**	1.0	0.22	ug/L		08/23/22 09:24	08/25/22 21:05	1
Cobalt	**0.46**		0.30	0.040	ug/L		08/23/22 09:24	08/25/22 21:05	1
Lead	**0.67**	**J**	1.0	0.17	ug/L		08/23/22 09:24	08/25/22 21:05	1
Nickel	**0.81**	**J**	1.0	0.11	ug/L		08/23/22 09:24	08/25/22 21:05	1
Silver	**0.054**	**J**	0.50	0.036	ug/L		08/29/22 09:08	08/29/22 15:46	1
Manganese	**46**		1.0	0.55	ug/L		08/23/22 09:24	08/25/22 21:05	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:24	08/25/22 21:05	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:24	08/25/22 21:05	1
Zinc	2.6	U	10	2.6	ug/L		08/23/22 09:24	08/25/22 21:05	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:24	08/25/22 21:05	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 10:07	1

Client Sample ID: WG-12590773-081722-KM-006

Lab Sample ID: 480-200841-6

Date Collected: 08/17/22 12:30

Matrix: Water

Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 21:47	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 21:47	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 21:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 21:47	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 21:47	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 21:47	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 21:47	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 21:47	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 21:47	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 21:47	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 21:47	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 21:47	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 21:47	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 21:47	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 21:47	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 21:47	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 21:47	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 21:47	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 21:47	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 21:47	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 21:47	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 21:47	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 21:47	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 21:47	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 21:47	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 21:47	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 21:47	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 21:47	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 21:47	1

Client Sample ID: WG-12590773-081722-KM-006
Date Collected: 08/17/22 12:30
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 21:47	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 21:47	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 21:47	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 21:47	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 21:47	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 21:47	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 21:47	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 21:47	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 21:47	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 21:47	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 21:47	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 21:47	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 21:47	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 21:47	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 21:47	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 21:47	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 21:47	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 21:47	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 21:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*08/19/22 21:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*		*08/19/22 21:47*	*1*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*08/19/22 21:47*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*08/19/22 21:47*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 12:35	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 12:35	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 12:35	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 12:35	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 12:35	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 12:35	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 12:35	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 12:35	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:35	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 12:35	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 12:35	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:35	1
2-Methylnaphthalene	0.60	U *-	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 12:35	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 12:35	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 12:35	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:35	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 12:35	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 12:35	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 12:35	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 12:35	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 12:35	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 12:35	1

Client Sample ID: WG-12590773-081722-KM-006
Date Collected: 08/17/22 12:30
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 12:35	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 12:35	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 12:35	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 12:35	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 12:35	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 12:35	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 12:35	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 12:35	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 12:35	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 12:35	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 12:35	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 12:35	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 12:35	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 12:35	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 12:35	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:35	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 12:35	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 12:35	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 12:35	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 12:35	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 12:35	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 12:35	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 12:35	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 12:35	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 12:35	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 12:35	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 12:35	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 12:35	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 12:35	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 12:35	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 12:35	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 12:35	1
Hexachloroethane	0.59	U *-	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 12:35	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 12:35	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 12:35	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 12:35	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 12:35	1
Naphthalene	0.76	U *-	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 12:35	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 12:35	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 12:35	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 12:35	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 12:35	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*72*		*46 - 120*	*08/23/22 08:19*	*08/25/22 12:35*	*1*
Phenol-d5 (Surr)	*38*		*22 - 120*	*08/23/22 08:19*	*08/25/22 12:35*	*1*
p-Terphenyl-d14 (Surr)	*71*		*60 - 148*	*08/23/22 08:19*	*08/25/22 12:35*	*1*
2,4,6-Tribromophenol (Surr)	*75*		*41 - 120*	*08/23/22 08:19*	*08/25/22 12:35*	*1*
2-Fluorobiphenyl (Surr)	*77*		*48 - 120*	*08/23/22 08:19*	*08/25/22 12:35*	*1*

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: WG-12590773-081722-KM-006
Date Collected: 08/17/22 12:30
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	51		35 - 120	08/23/22 08:19	08/25/22 12:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U H	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 22:18	1
bis (2-chloroisopropyl) ether	0.52	U H	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 22:18	1
2,4,5-Trichlorophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 22:18	1
2,4,6-Trichlorophenol	0.61	U H	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 22:18	1
2,4-Dichlorophenol	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 22:18	1
2,4-Dimethylphenol	0.50	U H	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 22:18	1
2,4-Dinitrophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 22:18	1
2,4-Dinitrotoluene	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 22:18	1
2,6-Dinitrotoluene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:18	1
2-Chloronaphthalene	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 22:18	1
2-Chlorophenol	0.53	U H	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 22:18	1
2-Methylphenol	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:18	1
2-Methylnaphthalene	0.60	U H	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 22:18	1
2-Nitroaniline	0.42	U H	10	0.42	ug/L		08/26/22 10:46	08/29/22 22:18	1
2-Nitrophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 22:18	1
3,3'-Dichlorobenzidine	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:18	1
3-Nitroaniline	0.48	U H	10	0.48	ug/L		08/26/22 10:46	08/29/22 22:18	1
4,6-Dinitro-2-methylphenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 22:18	1
4-Bromophenyl phenyl ether	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 22:18	1
4-Chloro-3-methylphenol	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 22:18	1
4-Chloroaniline	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 22:18	1
4-Chlorophenyl phenyl ether	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 22:18	1
4-Methylphenol	0.36	U H	10	0.36	ug/L		08/26/22 10:46	08/29/22 22:18	1
4-Nitroaniline	0.25	U H	10	0.25	ug/L		08/26/22 10:46	08/29/22 22:18	1
4-Nitrophenol	1.5	U H	10	1.5	ug/L		08/26/22 10:46	08/29/22 22:18	1
Acenaphthene	0.41	U H	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 22:18	1
Acenaphthylene	0.38	U H	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 22:18	1
Acetophenone	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 22:18	1
Anthracene	0.28	U H	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 22:18	1
Atrazine	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 22:18	1
Benzaldehyde	0.27	U H	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 22:18	1
Benzo[a]anthracene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 22:18	1
Benzo[a]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 22:18	1
Benzo[b]fluoranthene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 22:18	1
Benzo[g,h,i]perylene	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 22:18	1
Benzo[k]fluoranthene	0.73	U H	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 22:18	1
Bis(2-chloroethoxy)methane	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 22:18	1
Bis(2-chloroethyl)ether	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:18	1
Bis(2-ethylhexyl) phthalate	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 22:18	1
Butyl benzyl phthalate	1.0	U H	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 22:18	1
Caprolactam	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 22:18	1
Carbazole	0.30	U H	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 22:18	1
Chrysene	0.33	U H	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 22:18	1
Dibenz(a,h)anthracene	0.42	U H	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 22:18	1
Di-n-butyl phthalate	0.31	U H	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 22:18	1

Client Sample ID: WG-12590773-081722-KM-006
Date Collected: 08/17/22 12:30
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 22:18	1
Dibenzofuran	0.51	U H	10	0.51	ug/L		08/26/22 10:46	08/29/22 22:18	1
Diethyl phthalate	0.22	U H	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 22:18	1
Dimethyl phthalate	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 22:18	1
Fluoranthene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:18	1
Fluorene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 22:18	1
Hexachlorobenzene	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 22:18	1
Hexachlorobutadiene	0.68	U H	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 22:18	1
Hexachlorocyclopentadiene	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 22:18	1
Hexachloroethane	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 22:18	1
Indeno[1,2,3-cd]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 22:18	1
Isophorone	0.43	U H	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 22:18	1
N-Nitrosodi-n-propylamine	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 22:18	1
N-Nitrosodiphenylamine	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 22:18	1
Naphthalene	0.76	U H	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 22:18	1
Nitrobenzene	0.29	U H	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 22:18	1
Pentachlorophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 22:18	1
Phenanthrene	0.44	U H	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 22:18	1
Phenol	0.39	U H	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 22:18	1
Pyrene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 22:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*66*		*46 - 120*	*08/26/22 10:46*	*08/29/22 22:18*	*1*
Phenol-d5 (Surr)	*36*		*22 - 120*	*08/26/22 10:46*	*08/29/22 22:18*	*1*
p-Terphenyl-d14 (Surr)	*76*		*60 - 148*	*08/26/22 10:46*	*08/29/22 22:18*	*1*
2,4,6-Tribromophenol (Surr)	*73*		*41 - 120*	*08/26/22 10:46*	*08/29/22 22:18*	*1*
2-Fluorobiphenyl (Surr)	*82*		*48 - 120*	*08/26/22 10:46*	*08/29/22 22:18*	*1*
2-Fluorophenol (Surr)	*49*		*35 - 120*	*08/26/22 10:46*	*08/29/22 22:18*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.077**	**J**	0.20	0.060	mg/L		08/22/22 09:57	08/26/22 12:57	1
Calcium	**80**		0.50	0.10	mg/L		08/22/22 09:57	08/26/22 12:57	1
Iron	**0.47**		0.050	0.019	mg/L		08/22/22 09:57	08/26/22 12:57	1
Magnesium	**100**		0.20	0.043	mg/L		08/22/22 09:57	08/26/22 12:57	1
Potassium	**2.3**	**B**	0.50	0.10	mg/L		08/22/22 09:57	08/26/22 12:57	1
Sodium	**62**	**B**	1.0	0.32	mg/L		08/22/22 09:57	08/26/22 12:57	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:24	08/25/22 21:08	1
Arsenic	**1.0**		1.0	0.27	ug/L		08/23/22 09:24	08/25/22 21:08	1
Barium	**99**		1.0	0.15	ug/L		08/23/22 09:24	08/25/22 21:08	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:24	08/26/22 15:50	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:24	08/25/22 21:08	1
Chromium	0.36	U	1.5	0.36	ug/L		08/23/22 09:24	08/25/22 21:08	1
Copper	**0.54**	**J**	1.0	0.22	ug/L		08/23/22 09:24	08/25/22 21:08	1
Cobalt	**2.8**		0.30	0.040	ug/L		08/23/22 09:24	08/25/22 21:08	1
Lead	**0.86**	**J**	1.0	0.17	ug/L		08/23/22 09:24	08/25/22 21:08	1
Nickel	**0.99**	**J**	1.0	0.11	ug/L		08/23/22 09:24	08/25/22 21:08	1

Client Sample ID: WG-12590773-081722-KM-006

Lab Sample ID: 480-200841-6

Date Collected: 08/17/22 12:30

Matrix: Water

Date Received: 08/18/22 10:00

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	**0.063**	**J**	0.50	0.036	ug/L		08/29/22 09:08	08/29/22 15:48	1
Manganese	**270**		1.0	0.55	ug/L		08/23/22 09:24	08/25/22 21:08	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:24	08/25/22 21:08	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:24	08/25/22 21:08	1
Zinc	**14**		10	2.6	ug/L		08/23/22 09:24	08/25/22 21:08	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:24	08/25/22 21:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 10:11	1

Client Sample ID: WG-12590773-081722-KM-007

Lab Sample ID: 480-200841-7

Date Collected: 08/17/22 14:50

Matrix: Water

Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 22:11	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 22:11	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 22:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 22:11	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 22:11	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 22:11	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 22:11	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 22:11	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 22:11	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 22:11	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 22:11	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 22:11	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 22:11	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 22:11	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 22:11	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 22:11	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 22:11	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 22:11	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 22:11	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 22:11	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 22:11	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 22:11	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 22:11	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 22:11	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 22:11	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 22:11	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 22:11	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 22:11	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 22:11	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 22:11	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 22:11	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 22:11	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 22:11	1

Client Sample ID: WG-12590773-081722-KM-007
Date Collected: 08/17/22 14:50
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 22:11	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 22:11	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 22:11	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 22:11	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 22:11	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 22:11	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 22:11	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 22:11	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 22:11	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 22:11	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 22:11	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 22:11	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 22:11	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 22:11	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*95*		*80 - 120*		*08/19/22 22:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*113*		*77 - 120*		*08/19/22 22:11*	*1*
4-Bromofluorobenzene (Surr)	*83*		*73 - 120*		*08/19/22 22:11*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*08/19/22 22:11*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 13:02	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 13:02	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 13:02	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 13:02	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 13:02	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 13:02	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 13:02	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 13:02	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:02	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 13:02	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 13:02	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:02	1
2-Methylnaphthalene	0.60	U *-	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 13:02	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 13:02	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 13:02	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:02	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 13:02	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 13:02	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 13:02	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 13:02	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 13:02	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 13:02	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 13:02	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 13:02	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 13:02	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 13:02	1

Client Sample ID: WG-12590773-081722-KM-007

Lab Sample ID: 480-200841-7

Date Collected: 08/17/22 14:50

Matrix: Water

Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 13:02	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 13:02	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 13:02	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 13:02	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 13:02	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 13:02	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 13:02	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 13:02	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 13:02	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 13:02	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 13:02	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:02	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 13:02	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 13:02	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 13:02	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 13:02	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 13:02	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 13:02	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 13:02	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 13:02	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 13:02	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 13:02	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 13:02	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:02	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 13:02	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 13:02	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 13:02	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 13:02	1
Hexachloroethane	0.59	U *-	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 13:02	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 13:02	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 13:02	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 13:02	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 13:02	1
Naphthalene	0.76	U *-	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 13:02	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 13:02	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 13:02	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 13:02	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 13:02	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*78*		*46 - 120*	*08/23/22 08:19*	*08/25/22 13:02*	*1*
Phenol-d5 (Surr)	*42*		*22 - 120*	*08/23/22 08:19*	*08/25/22 13:02*	*1*
p-Terphenyl-d14 (Surr)	*77*		*60 - 148*	*08/23/22 08:19*	*08/25/22 13:02*	*1*
2,4,6-Tribromophenol (Surr)	*81*		*41 - 120*	*08/23/22 08:19*	*08/25/22 13:02*	*1*
2-Fluorobiphenyl (Surr)	*86*		*48 - 120*	*08/23/22 08:19*	*08/25/22 13:02*	*1*
2-Fluorophenol (Surr)	*57*		*35 - 120*	*08/23/22 08:19*	*08/25/22 13:02*	*1*

Client: GHD Services Inc.
Job ID: 480-200841-1
Project/Site: 12590773, Cascades 2022 PRR

Client Sample ID: WG-12590773-081722-KM-007
Lab Sample ID: 480-200841-7
Date Collected: 08/17/22 14:50
Matrix: Water
Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U H	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 22:45	1
bis (2-chloroisopropyl) ether	0.52	U H	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 22:45	1
2,4,5-Trichlorophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 22:45	1
2,4,6-Trichlorophenol	0.61	U H	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 22:45	1
2,4-Dichlorophenol	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 22:45	1
2,4-Dimethylphenol	0.50	U H	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 22:45	1
2,4-Dinitrophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 22:45	1
2,4-Dinitrotoluene	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 22:45	1
2,6-Dinitrotoluene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:45	1
2-Chloronaphthalene	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 22:45	1
2-Chlorophenol	0.53	U H	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 22:45	1
2-Methylphenol	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:45	1
2-Methylnaphthalene	0.60	U H	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 22:45	1
2-Nitroaniline	0.42	U H	10	0.42	ug/L		08/26/22 10:46	08/29/22 22:45	1
2-Nitrophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 22:45	1
3,3'-Dichlorobenzidine	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:45	1
3-Nitroaniline	0.48	U H	10	0.48	ug/L		08/26/22 10:46	08/29/22 22:45	1
4,6-Dinitro-2-methylphenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 22:45	1
4-Bromophenyl phenyl ether	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 22:45	1
4-Chloro-3-methylphenol	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 22:45	1
4-Chloroaniline	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 22:45	1
4-Chlorophenyl phenyl ether	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 22:45	1
4-Methylphenol	0.36	U H	10	0.36	ug/L		08/26/22 10:46	08/29/22 22:45	1
4-Nitroaniline	0.25	U H	10	0.25	ug/L		08/26/22 10:46	08/29/22 22:45	1
4-Nitrophenol	1.5	U H	10	1.5	ug/L		08/26/22 10:46	08/29/22 22:45	1
Acenaphthene	0.41	U H	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 22:45	1
Acenaphthylene	0.38	U H	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 22:45	1
Acetophenone	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 22:45	1
Anthracene	0.28	U H	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 22:45	1
Atrazine	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 22:45	1
Benzaldehyde	0.27	U H	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 22:45	1
Benzo[a]anthracene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 22:45	1
Benzo[a]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 22:45	1
Benzo[b]fluoranthene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 22:45	1
Benzo[g,h,i]perylene	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 22:45	1
Benzo[k]fluoranthene	0.73	U H	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 22:45	1
Bis(2-chloroethoxy)methane	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 22:45	1
Bis(2-chloroethyl)ether	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:45	1
Bis(2-ethylhexyl) phthalate	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 22:45	1
Butyl benzyl phthalate	1.0	U H	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 22:45	1
Caprolactam	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 22:45	1
Carbazole	0.30	U H	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 22:45	1
Chrysene	0.33	U H	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 22:45	1
Dibenz(a,h)anthracene	0.42	U H	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 22:45	1
Di-n-butyl phthalate	0.31	U H	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 22:45	1
Di-n-octyl phthalate	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 22:45	1
Dibenzofuran	0.51	U H	10	0.51	ug/L		08/26/22 10:46	08/29/22 22:45	1
Diethyl phthalate	0.22	U H	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 22:45	1
Dimethyl phthalate	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 22:45	1

Client Sample ID: WG-12590773-081722-KM-007
Date Collected: 08/17/22 14:50
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 22:45	1
Fluorene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 22:45	1
Hexachlorobenzene	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 22:45	1
Hexachlorobutadiene	0.68	U H	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 22:45	1
Hexachlorocyclopentadiene	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 22:45	1
Hexachloroethane	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 22:45	1
Indeno[1,2,3-cd]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 22:45	1
Isophorone	0.43	U H	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 22:45	1
N-Nitrosodi-n-propylamine	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 22:45	1
N-Nitrosodiphenylamine	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 22:45	1
Naphthalene	0.76	U H	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 22:45	1
Nitrobenzene	0.29	U H	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 22:45	1
Pentachlorophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 22:45	1
Phenanthrene	0.44	U H	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 22:45	1
Phenol	0.39	U H	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 22:45	1
Pyrene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 22:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*73*		*46 - 120*	*08/26/22 10:46*	*08/29/22 22:45*	*1*
Phenol-d5 (Surr)	*40*		*22 - 120*	*08/26/22 10:46*	*08/29/22 22:45*	*1*
p-Terphenyl-d14 (Surr)	*88*		*60 - 148*	*08/26/22 10:46*	*08/29/22 22:45*	*1*
2,4,6-Tribromophenol (Surr)	*85*		*41 - 120*	*08/26/22 10:46*	*08/29/22 22:45*	*1*
2-Fluorobiphenyl (Surr)	*89*		*48 - 120*	*08/26/22 10:46*	*08/29/22 22:45*	*1*
2-Fluorophenol (Surr)	*57*		*35 - 120*	*08/26/22 10:46*	*08/29/22 22:45*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**0.080**	**J**	0.20	0.060	mg/L		08/22/22 09:57	08/26/22 13:01	1
Calcium	**40**		0.50	0.10	mg/L		08/22/22 09:57	08/26/22 13:01	1
Iron	**0.48**		0.050	0.019	mg/L		08/22/22 09:57	08/26/22 13:01	1
Magnesium	**70**		0.20	0.043	mg/L		08/22/22 09:57	08/26/22 13:01	1
Potassium	**3.0**	**B**	0.50	0.10	mg/L		08/22/22 09:57	08/26/22 13:01	1
Sodium	**63**	**B**	1.0	0.32	mg/L		08/22/22 09:57	08/26/22 13:01	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:24	08/25/22 21:10	1
Arsenic	**0.46**	**J**	1.0	0.27	ug/L		08/23/22 09:24	08/25/22 21:10	1
Barium	**200**		1.0	0.15	ug/L		08/23/22 09:24	08/25/22 21:10	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:24	08/26/22 15:52	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:24	08/25/22 21:10	1
Chromium	**0.74**	**J**	1.5	0.36	ug/L		08/23/22 09:24	08/25/22 21:10	1
Copper	**0.52**	**J**	1.0	0.22	ug/L		08/23/22 09:24	08/25/22 21:10	1
Cobalt	**0.30**		0.30	0.040	ug/L		08/23/22 09:24	08/25/22 21:10	1
Lead	0.17	U	1.0	0.17	ug/L		08/23/22 09:24	08/25/22 21:10	1
Nickel	**0.76**	**J**	1.0	0.11	ug/L		08/23/22 09:24	08/25/22 21:10	1
Silver	**0.066**	**J**	0.50	0.036	ug/L		08/29/22 09:08	08/29/22 15:57	1
Manganese	**20**		1.0	0.55	ug/L		08/23/22 09:24	08/25/22 21:10	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:24	08/25/22 21:10	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:24	08/25/22 21:10	1

Client Sample ID: WG-12590773-081722-KM-007

Lab Sample ID: 480-200841-7

Date Collected: 08/17/22 14:50

Matrix: Water

Date Received: 08/18/22 10:00

Method: 6020A - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**7.7**	**J**	10	2.6	ug/L		08/23/22 09:24	08/25/22 21:10	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:24	08/25/22 21:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 10:12	1

Client Sample ID: EB-12590773-081722-KM-008

Lab Sample ID: 480-200841-8

Date Collected: 08/17/22 14:30

Matrix: Water

Date Received: 08/18/22 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 22:34	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 22:34	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 22:34	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 22:34	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 22:34	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 22:34	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 22:34	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 22:34	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 22:34	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 22:34	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 22:34	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 22:34	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 22:34	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 22:34	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 22:34	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 22:34	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 22:34	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 22:34	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 22:34	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 22:34	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 22:34	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 22:34	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 22:34	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 22:34	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 22:34	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 22:34	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 22:34	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 22:34	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 22:34	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 22:34	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 22:34	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 22:34	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 22:34	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 22:34	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 22:34	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 22:34	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 22:34	1

Client Sample ID: EB-12590773-081722-KM-008
Date Collected: 08/17/22 14:30
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 22:34	1
Methylene Chloride	**4.5**		1.0	0.44	ug/L			08/19/22 22:34	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 22:34	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 22:34	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 22:34	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 22:34	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 22:34	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 22:34	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 22:34	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 22:34	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*99*		*80 - 120*		*08/19/22 22:34*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*77 - 120*		*08/19/22 22:34*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*08/19/22 22:34*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*08/19/22 22:34*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 13:29	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 13:29	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 13:29	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 13:29	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 13:29	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 13:29	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 13:29	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 13:29	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:29	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 13:29	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 13:29	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:29	1
2-Methylnaphthalene	0.60	U *-	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 13:29	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 13:29	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 13:29	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:29	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 13:29	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 13:29	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 13:29	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 13:29	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 13:29	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 13:29	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 13:29	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 13:29	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 13:29	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 13:29	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 13:29	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 13:29	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 13:29	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 13:29	1

Client Sample ID: EB-12590773-081722-KM-008
Date Collected: 08/17/22 14:30
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 13:29	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 13:29	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 13:29	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 13:29	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 13:29	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 13:29	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 13:29	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:29	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 13:29	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 13:29	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 13:29	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 13:29	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 13:29	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 13:29	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 13:29	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 13:29	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 13:29	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 13:29	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 13:29	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 13:29	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 13:29	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 13:29	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 13:29	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 13:29	1
Hexachloroethane	0.59	U *-	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 13:29	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 13:29	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 13:29	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 13:29	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 13:29	1
Naphthalene	0.76	U *-	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 13:29	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 13:29	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 13:29	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 13:29	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 13:29	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 13:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*77*		*46 - 120*	*08/23/22 08:19*	*08/25/22 13:29*	*1*
Phenol-d5 (Surr)	*43*		*22 - 120*	*08/23/22 08:19*	*08/25/22 13:29*	*1*
p-Terphenyl-d14 (Surr)	*98*		*60 - 148*	*08/23/22 08:19*	*08/25/22 13:29*	*1*
2,4,6-Tribromophenol (Surr)	*71*		*41 - 120*	*08/23/22 08:19*	*08/25/22 13:29*	*1*
2-Fluorobiphenyl (Surr)	*82*		*48 - 120*	*08/23/22 08:19*	*08/25/22 13:29*	*1*
2-Fluorophenol (Surr)	*56*		*35 - 120*	*08/23/22 08:19*	*08/25/22 13:29*	*1*

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U H	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 23:13	1
bis (2-chloroisopropyl) ether	0.52	U H	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 23:13	1
2,4,5-Trichlorophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 23:13	1
2,4,6-Trichlorophenol	0.61	U H	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 23:13	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: EB-12590773-081722-KM-008
Date Collected: 08/17/22 14:30
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 23:13	1
2,4-Dimethylphenol	0.50	U H	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 23:13	1
2,4-Dinitrophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 23:13	1
2,4-Dinitrotoluene	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 23:13	1
2,6-Dinitrotoluene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 23:13	1
2-Chloronaphthalene	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 23:13	1
2-Chlorophenol	0.53	U H	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 23:13	1
2-Methylphenol	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 23:13	1
2-Methylnaphthalene	0.60	U H	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 23:13	1
2-Nitroaniline	0.42	U H	10	0.42	ug/L		08/26/22 10:46	08/29/22 23:13	1
2-Nitrophenol	0.48	U H	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 23:13	1
3,3'-Dichlorobenzidine	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 23:13	1
3-Nitroaniline	0.48	U H	10	0.48	ug/L		08/26/22 10:46	08/29/22 23:13	1
4,6-Dinitro-2-methylphenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 23:13	1
4-Bromophenyl phenyl ether	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 23:13	1
4-Chloro-3-methylphenol	0.45	U H	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 23:13	1
4-Chloroaniline	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 23:13	1
4-Chlorophenyl phenyl ether	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 23:13	1
4-Methylphenol	0.36	U H	10	0.36	ug/L		08/26/22 10:46	08/29/22 23:13	1
4-Nitroaniline	0.25	U H	10	0.25	ug/L		08/26/22 10:46	08/29/22 23:13	1
4-Nitrophenol	1.5	U H	10	1.5	ug/L		08/26/22 10:46	08/29/22 23:13	1
Acenaphthene	0.41	U H	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 23:13	1
Acenaphthylene	0.38	U H	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 23:13	1
Acetophenone	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 23:13	1
Anthracene	0.28	U H	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 23:13	1
Atrazine	0.46	U H	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 23:13	1
Benzaldehyde	0.27	U H	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 23:13	1
Benzo[a]anthracene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 23:13	1
Benzo[a]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 23:13	1
Benzo[b]fluoranthene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 23:13	1
Benzo[g,h,i]perylene	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 23:13	1
Benzo[k]fluoranthene	0.73	U H	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 23:13	1
Bis(2-chloroethoxy)methane	0.35	U H	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 23:13	1
Bis(2-chloroethyl)ether	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 23:13	1
Bis(2-ethylhexyl) phthalate	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 23:13	1
Butyl benzyl phthalate	1.0	U H	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 23:13	1
Caprolactam	2.2	U H	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 23:13	1
Carbazole	0.30	U H	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 23:13	1
Chrysene	0.33	U H	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 23:13	1
Dibenz(a,h)anthracene	0.42	U H	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 23:13	1
Di-n-butyl phthalate	0.31	U H	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 23:13	1
Di-n-octyl phthalate	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 23:13	1
Dibenzofuran	0.51	U H	10	0.51	ug/L		08/26/22 10:46	08/29/22 23:13	1
Diethyl phthalate	0.22	U H	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 23:13	1
Dimethyl phthalate	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 23:13	1
Fluoranthene	0.40	U H	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 23:13	1
Fluorene	0.36	U H	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 23:13	1
Hexachlorobenzene	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 23:13	1
Hexachlorobutadiene	0.68	U H	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 23:13	1

Client Sample ID: EB-12590773-081722-KM-008
Date Collected: 08/17/22 14:30
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 23:13	1
Hexachloroethane	0.59	U H	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 23:13	1
Indeno[1,2,3-cd]pyrene	0.47	U H	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 23:13	1
Isophorone	0.43	U H	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 23:13	1
N-Nitrosodi-n-propylamine	0.54	U H	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 23:13	1
N-Nitrosodiphenylamine	0.51	U H	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 23:13	1
Naphthalene	0.76	U H	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 23:13	1
Nitrobenzene	0.29	U H	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 23:13	1
Pentachlorophenol	2.2	U H	10	2.2	ug/L		08/26/22 10:46	08/29/22 23:13	1
Phenanthrene	0.44	U H	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 23:13	1
Phenol	0.39	U H	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 23:13	1
Pyrene	0.34	U H	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 23:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*63*		*46 - 120*	*08/26/22 10:46*	*08/29/22 23:13*	*1*
Phenol-d5 (Surr)	*35*		*22 - 120*	*08/26/22 10:46*	*08/29/22 23:13*	*1*
p-Terphenyl-d14 (Surr)	*96*		*60 - 148*	*08/26/22 10:46*	*08/29/22 23:13*	*1*
2,4,6-Tribromophenol (Surr)	*70*		*41 - 120*	*08/26/22 10:46*	*08/29/22 23:13*	*1*
2-Fluorobiphenyl (Surr)	*74*		*48 - 120*	*08/26/22 10:46*	*08/29/22 23:13*	*1*
2-Fluorophenol (Surr)	*47*		*35 - 120*	*08/26/22 10:46*	*08/29/22 23:13*	*1*

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.060	U	0.20	0.060	mg/L		08/22/22 09:57	08/26/22 13:32	1
Calcium	0.10	U	0.50	0.10	mg/L		08/22/22 09:57	08/26/22 13:32	1
Iron	0.019	U	0.050	0.019	mg/L		08/22/22 09:57	08/26/22 13:32	1
Magnesium	0.043	U	0.20	0.043	mg/L		08/22/22 09:57	08/26/22 13:32	1
Potassium	0.10	U	0.50	0.10	mg/L		08/22/22 09:57	08/26/22 13:32	1
Sodium	**0.34**	**J B**	1.0	0.32	mg/L		08/22/22 09:57	08/26/22 13:32	1

Method: 6020A - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:24	08/25/22 21:12	1
Arsenic	0.27	U	1.0	0.27	ug/L		08/23/22 09:24	08/25/22 21:12	1
Barium	**0.42**	**J**	1.0	0.15	ug/L		08/23/22 09:24	08/25/22 21:12	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:24	08/26/22 15:54	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:24	08/25/22 21:12	1
Chromium	**1.6**		1.5	0.36	ug/L		08/23/22 09:24	08/25/22 21:12	1
Copper	**1.3**		1.0	0.22	ug/L		08/23/22 09:24	08/25/22 21:12	1
Cobalt	0.040	U	0.30	0.040	ug/L		08/23/22 09:24	08/25/22 21:12	1
Lead	0.17	U	1.0	0.17	ug/L		08/23/22 09:24	08/25/22 21:12	1
Nickel	**0.13**	**J**	1.0	0.11	ug/L		08/23/22 09:24	08/25/22 21:12	1
Silver	0.036	U	0.50	0.036	ug/L		08/29/22 09:08	08/29/22 16:00	1
Manganese	0.55	U	1.0	0.55	ug/L		08/23/22 09:24	08/25/22 21:12	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:24	08/25/22 21:12	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:24	08/25/22 21:12	1
Zinc	2.6	U	10	2.6	ug/L		08/23/22 09:24	08/25/22 21:12	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:24	08/25/22 21:12	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: EB-12590773-081722-KM-008

Lab Sample ID: 480-200841-8

Date Collected: 08/17/22 14:30
Date Received: 08/18/22 10:00

Matrix: Water

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 10:13	1

Client Sample ID: TB-12590773-081733-KM

Lab Sample ID: 480-200841-9

Date Collected: 08/17/22 09:50
Date Received: 08/18/22 10:00

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 22:58	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 22:58	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 22:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 22:58	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 22:58	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 22:58	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 22:58	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 22:58	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 22:58	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 22:58	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 22:58	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 22:58	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 22:58	1
2-Butanone (MEK)	1.3	U *+	10	1.3	ug/L			08/19/22 22:58	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 22:58	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 22:58	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 22:58	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 22:58	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 22:58	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 22:58	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 22:58	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 22:58	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 22:58	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 22:58	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 22:58	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 22:58	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 22:58	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 22:58	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 22:58	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 22:58	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 22:58	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 22:58	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 22:58	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 22:58	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 22:58	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 22:58	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 22:58	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 22:58	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 22:58	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 22:58	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 22:58	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 22:58	1

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Client Sample ID: TB-12590773-081733-KM
Date Collected: 08/17/22 09:50
Date Received: 08/18/22 10:00

Lab Sample ID: 480-200841-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 22:58	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 22:58	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 22:58	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 22:58	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 22:58	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 22:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*08/19/22 22:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*116*		*77 - 120*		*08/19/22 22:58*	*1*
4-Bromofluorobenzene (Surr)	*87*		*73 - 120*		*08/19/22 22:58*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*08/19/22 22:58*	*1*

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-200841-1	WG-12590773-081722-KM-001	99	116	89	107
480-200841-2	WG-12590773-081722-KM-002	102	114	90	106
480-200841-3	WG-12590773-081722-KM-003	96	112	83	104
480-200841-4	WG-12590773-081722-KM-004	98	115	92	105
480-200841-5	WG-12590773-081722-KM-005	97	116	88	107
480-200841-6	WG-12590773-081722-KM-006	98	114	89	105
480-200841-7	WG-12590773-081722-KM-007	95	113	83	105
480-200841-8	EB-12590773-081722-KM-008	99	116	93	106
480-200841-9	TB-12590773-081733-KM	97	116	87	105
LCS 480-638190/7	Lab Control Sample	98	114	95	102
LCSD 480-638190/8	Lab Control Sample Dup	100	107	95	104
MB 480-638190/10	Method Blank	97	112	92	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		NBZ	PHL	TPHd14	TBP	FBP	2FP
Lab Sample ID	Client Sample ID	(46-120)	(22-120)	(60-148)	(41-120)	(48-120)	(35-120)
480-200841-1	WG-12590773-081722-KM-001	80	45	81	86	85	60
480-200841-1 - RE	WG-12590773-081722-KM-001	65	36	71	67	75	51
480-200841-2	WG-12590773-081722-KM-002	70	39	77	88	77	52
480-200841-2 - RE	WG-12590773-081722-KM-002	73	40	75	85	83	57
480-200841-3	WG-12590773-081722-KM-003	82	44	82	92	87	60
480-200841-3 - RE	WG-12590773-081722-KM-003	82	44	89	82	93	62
480-200841-4	WG-12590773-081722-KM-004	72	40	81	77	77	55
480-200841-4 - RE	WG-12590773-081722-KM-004	83	46	83	84	96	65
480-200841-5	WG-12590773-081722-KM-005	73	42	76	84	83	56
480-200841-5 - RE	WG-12590773-081722-KM-005	75	41	80	83	89	58
480-200841-6	WG-12590773-081722-KM-006	72	38	71	75	77	51
480-200841-6 - RE	WG-12590773-081722-KM-006	66	36	76	73	82	49
480-200841-7	WG-12590773-081722-KM-007	78	42	77	81	86	57
480-200841-7 - RE	WG-12590773-081722-KM-007	73	40	88	85	89	57
480-200841-8	EB-12590773-081722-KM-008	77	43	98	71	82	56
480-200841-8 - RE	EB-12590773-081722-KM-008	63	35	96	70	74	47
LCS 480-638601/2-A	Lab Control Sample	60	39	82	78	66	47
LCS 480-639256/2-A	Lab Control Sample	84	52	96	99	94	69
MB 480-638601/1-A	Method Blank	81	48	93	67	82	64
MB 480-639256/1-A	Method Blank	76	40	91	70	87	58

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)

Surrogate Summary

Client: GHD Services Inc.
Job ID: 480-200841-1
Project/Site: 12590773, Cascades 2022 PRR

FBP = 2-Fluorobiphenyl (Surr)
2FP = 2-Fluorophenol (Surr)

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

Lab Sample ID: MB 480-638190/10
Matrix: Water
Analysis Batch: 638190

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.82	U	1.0	0.82	ug/L			08/19/22 14:12	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 14:12	1
1,1,2-Trichloroethane	0.23	U	1.0	0.23	ug/L			08/19/22 14:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.31	U	1.0	0.31	ug/L			08/19/22 14:12	1
1,1-Dichloroethane	0.38	U	1.0	0.38	ug/L			08/19/22 14:12	1
1,1-Dichloroethene	0.29	U	1.0	0.29	ug/L			08/19/22 14:12	1
1,2,4-Trichlorobenzene	0.41	U	1.0	0.41	ug/L			08/19/22 14:12	1
1,2-Dibromo-3-Chloropropane	0.39	U	1.0	0.39	ug/L			08/19/22 14:12	1
1,2-Dichlorobenzene	0.79	U	1.0	0.79	ug/L			08/19/22 14:12	1
1,2-Dichloroethane	0.21	U	1.0	0.21	ug/L			08/19/22 14:12	1
1,2-Dichloropropane	0.72	U	1.0	0.72	ug/L			08/19/22 14:12	1
1,3-Dichlorobenzene	0.78	U	1.0	0.78	ug/L			08/19/22 14:12	1
1,4-Dichlorobenzene	0.84	U	1.0	0.84	ug/L			08/19/22 14:12	1
2-Butanone (MEK)	1.3	U	10	1.3	ug/L			08/19/22 14:12	1
2-Hexanone	1.2	U	5.0	1.2	ug/L			08/19/22 14:12	1
4-Methyl-2-pentanone (MIBK)	2.1	U	5.0	2.1	ug/L			08/19/22 14:12	1
Acetone	3.0	U	10	3.0	ug/L			08/19/22 14:12	1
Benzene	0.41	U	1.0	0.41	ug/L			08/19/22 14:12	1
Bromodichloromethane	0.39	U	1.0	0.39	ug/L			08/19/22 14:12	1
Bromoform	0.26	U	1.0	0.26	ug/L			08/19/22 14:12	1
Bromomethane	0.69	U	1.0	0.69	ug/L			08/19/22 14:12	1
Carbon disulfide	0.19	U	1.0	0.19	ug/L			08/19/22 14:12	1
Carbon tetrachloride	0.27	U	1.0	0.27	ug/L			08/19/22 14:12	1
Chlorobenzene	0.75	U	1.0	0.75	ug/L			08/19/22 14:12	1
Dibromochloromethane	0.32	U	1.0	0.32	ug/L			08/19/22 14:12	1
Chloroethane	0.32	U	1.0	0.32	ug/L			08/19/22 14:12	1
Chloroform	0.34	U	1.0	0.34	ug/L			08/19/22 14:12	1
Chloromethane	0.35	U	1.0	0.35	ug/L			08/19/22 14:12	1
cis-1,2-Dichloroethene	0.81	U	1.0	0.81	ug/L			08/19/22 14:12	1
cis-1,3-Dichloropropene	0.36	U	1.0	0.36	ug/L			08/19/22 14:12	1
Cyclohexane	0.18	U	1.0	0.18	ug/L			08/19/22 14:12	1
Dichlorodifluoromethane	0.68	U	1.0	0.68	ug/L			08/19/22 14:12	1
Ethylbenzene	0.74	U	1.0	0.74	ug/L			08/19/22 14:12	1
1,2-Dibromoethane	0.73	U	1.0	0.73	ug/L			08/19/22 14:12	1
Isopropylbenzene	0.79	U	1.0	0.79	ug/L			08/19/22 14:12	1
Methyl acetate	1.3	U	2.5	1.3	ug/L			08/19/22 14:12	1
Methyl tert-butyl ether	0.16	U	1.0	0.16	ug/L			08/19/22 14:12	1
Methylcyclohexane	0.16	U	1.0	0.16	ug/L			08/19/22 14:12	1
Methylene Chloride	0.44	U	1.0	0.44	ug/L			08/19/22 14:12	1
Styrene	0.73	U	1.0	0.73	ug/L			08/19/22 14:12	1
Tetrachloroethene	0.36	U	1.0	0.36	ug/L			08/19/22 14:12	1
Toluene	0.51	U	1.0	0.51	ug/L			08/19/22 14:12	1
trans-1,2-Dichloroethene	0.90	U	1.0	0.90	ug/L			08/19/22 14:12	1
trans-1,3-Dichloropropene	0.37	U	1.0	0.37	ug/L			08/19/22 14:12	1
Trichloroethene	0.46	U	1.0	0.46	ug/L			08/19/22 14:12	1
Trichlorofluoromethane	0.88	U	1.0	0.88	ug/L			08/19/22 14:12	1
Vinyl chloride	0.90	U	1.0	0.90	ug/L			08/19/22 14:12	1
Xylenes, Total	0.66	U	2.0	0.66	ug/L			08/19/22 14:12	1

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

Lab Sample ID: MB 480-638190/10
Matrix: Water
Analysis Batch: 638190

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*97*		*80 - 120*		*08/19/22 14:12*	*1*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*08/19/22 14:12*	*1*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*08/19/22 14:12*	*1*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*08/19/22 14:12*	*1*

Lab Sample ID: LCS 480-638190/7
Matrix: Water
Analysis Batch: 638190

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	24.8		ug/L		99	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.4		ug/L		90	76 - 120
1,1,2-Trichloroethane	25.0	23.3		ug/L		93	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.9		ug/L		104	61 - 148
1,1-Dichloroethane	25.0	26.1		ug/L		104	77 - 120
1,1-Dichloroethene	25.0	25.4		ug/L		102	66 - 127
1,2,4-Trichlorobenzene	25.0	20.2		ug/L		81	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	21.2		ug/L		85	56 - 134
1,2-Dichlorobenzene	25.0	22.1		ug/L		88	80 - 124
1,2-Dichloroethane	25.0	24.3		ug/L		97	75 - 120
1,2-Dichloropropane	25.0	24.0		ug/L		96	76 - 120
1,3-Dichlorobenzene	25.0	22.8		ug/L		91	77 - 120
1,4-Dichlorobenzene	25.0	22.3		ug/L		89	80 - 120
2-Butanone (MEK)	125	208	*+	ug/L		166	57 - 140
2-Hexanone	125	119		ug/L		95	65 - 127
4-Methyl-2-pentanone (MIBK)	125	108		ug/L		86	71 - 125
Acetone	125	165		ug/L		132	56 - 142
Benzene	25.0	24.2		ug/L		97	71 - 124
Bromodichloromethane	25.0	24.3		ug/L		97	80 - 122
Bromoform	25.0	22.2		ug/L		89	61 - 132
Bromomethane	25.0	24.8		ug/L		99	55 - 144
Carbon disulfide	25.0	23.9		ug/L		96	59 - 134
Carbon tetrachloride	25.0	25.3		ug/L		101	72 - 134
Chlorobenzene	25.0	23.0		ug/L		92	80 - 120
Dibromochloromethane	25.0	23.5		ug/L		94	75 - 125
Chloroethane	25.0	25.4		ug/L		102	69 - 136
Chloroform	25.0	24.3		ug/L		97	73 - 127
Chloromethane	25.0	23.8		ug/L		95	68 - 124
cis-1,2-Dichloroethene	25.0	24.2		ug/L		97	74 - 124
cis-1,3-Dichloropropene	25.0	25.4		ug/L		102	74 - 124
Cyclohexane	25.0	23.7		ug/L		95	59 - 135
Dichlorodifluoromethane	25.0	22.8		ug/L		91	59 - 135
Ethylbenzene	25.0	23.3		ug/L		93	77 - 123
1,2-Dibromoethane	25.0	22.4		ug/L		90	77 - 120
Isopropylbenzene	25.0	22.3		ug/L		89	77 - 122
Methyl acetate	50.0	44.2		ug/L		88	74 - 133
Methyl tert-butyl ether	25.0	22.8		ug/L		91	77 - 120
Methylcyclohexane	25.0	25.6		ug/L		102	68 - 134

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

Lab Sample ID: LCS 480-638190/7
Matrix: Water
Analysis Batch: 638190

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	25.0	24.4		ug/L		97	75 - 124
Styrene	25.0	23.1		ug/L		92	80 - 120
Tetrachloroethene	25.0	23.2		ug/L		93	74 - 122
Toluene	25.0	22.8		ug/L		91	80 - 122
trans-1,2-Dichloroethene	25.0	25.0		ug/L		100	73 - 127
trans-1,3-Dichloropropene	25.0	24.5		ug/L		98	80 - 120
Trichloroethene	25.0	24.2		ug/L		97	74 - 123
Trichlorofluoromethane	25.0	28.1		ug/L		112	62 - 150
Vinyl chloride	25.0	22.3		ug/L		89	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*98*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*114*		*77 - 120*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*

Lab Sample ID: LCSD 480-638190/8
Matrix: Water
Analysis Batch: 638190

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	25.0	24.4		ug/L		98	73 - 126	2	15
1,1,2,2-Tetrachloroethane	25.0	24.5		ug/L		98	76 - 120	9	15
1,1,2-Trichloroethane	25.0	23.9		ug/L		96	76 - 122	3	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	26.5		ug/L		106	61 - 148	2	20
1,1-Dichloroethane	25.0	25.2		ug/L		101	77 - 120	4	20
1,1-Dichloroethene	25.0	24.7		ug/L		99	66 - 127	3	16
1,2,4-Trichlorobenzene	25.0	21.1		ug/L		84	79 - 122	4	20
1,2-Dibromo-3-Chloropropane	25.0	24.0		ug/L		96	56 - 134	12	15
1,2-Dichlorobenzene	25.0	23.4		ug/L		93	80 - 124	6	20
1,2-Dichloroethane	25.0	24.5		ug/L		98	75 - 120	1	20
1,2-Dichloropropane	25.0	23.9		ug/L		96	76 - 120	0	20
1,3-Dichlorobenzene	25.0	23.8		ug/L		95	77 - 120	4	20
1,4-Dichlorobenzene	25.0	23.5		ug/L		94	80 - 120	5	20
2-Butanone (MEK)	125	215	*+	ug/L		172	57 - 140	4	20
2-Hexanone	125	123		ug/L		98	65 - 127	3	15
4-Methyl-2-pentanone (MIBK)	125	113		ug/L		90	71 - 125	4	35
Acetone	125	143		ug/L		115	56 - 142	14	15
Benzene	25.0	23.3		ug/L		93	71 - 124	3	13
Bromodichloromethane	25.0	24.7		ug/L		99	80 - 122	2	15
Bromoform	25.0	23.3		ug/L		93	61 - 132	5	15
Bromomethane	25.0	25.2		ug/L		101	55 - 144	2	15
Carbon disulfide	25.0	24.3		ug/L		97	59 - 134	1	15
Carbon tetrachloride	25.0	24.8		ug/L		99	72 - 134	2	15
Chlorobenzene	25.0	23.0		ug/L		92	80 - 120	0	25
Dibromochloromethane	25.0	24.4		ug/L		98	75 - 125	4	15
Chloroethane	25.0	25.7		ug/L		103	69 - 136	1	15
Chloroform	25.0	23.8		ug/L		95	73 - 127	2	20

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

Lab Sample ID: LCSD 480-638190/8
Matrix: Water
Analysis Batch: 638190

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane	25.0	22.9		ug/L		92	68 - 124	4	15
cis-1,2-Dichloroethene	25.0	23.5		ug/L		94	74 - 124	3	15
cis-1,3-Dichloropropene	25.0	26.0		ug/L		104	74 - 124	2	15
Cyclohexane	25.0	23.3		ug/L		93	59 - 135	2	20
Dichlorodifluoromethane	25.0	22.9		ug/L		91	59 - 135	0	20
Ethylbenzene	25.0	23.2		ug/L		93	77 - 123	0	15
1,2-Dibromoethane	25.0	23.5		ug/L		94	77 - 120	5	15
Isopropylbenzene	25.0	23.6		ug/L		94	77 - 122	6	20
Methyl acetate	50.0	43.7		ug/L		87	74 - 133	1	20
Methyl tert-butyl ether	25.0	22.9		ug/L		91	77 - 120	0	37
Methylcyclohexane	25.0	24.7		ug/L		99	68 - 134	3	20
Methylene Chloride	25.0	23.8		ug/L		95	75 - 124	2	15
Styrene	25.0	23.1		ug/L		92	80 - 120	0	20
Tetrachloroethene	25.0	23.1		ug/L		93	74 - 122	0	20
Toluene	25.0	22.6		ug/L		90	80 - 122	1	15
trans-1,2-Dichloroethene	25.0	23.6		ug/L		95	73 - 127	5	20
trans-1,3-Dichloropropene	25.0	25.4		ug/L		101	80 - 120	3	15
Trichloroethene	25.0	23.9		ug/L		96	74 - 123	1	16
Trichlorofluoromethane	25.0	27.5		ug/L		110	62 - 150	2	20
Vinyl chloride	25.0	22.3		ug/L		89	65 - 133	0	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*
Dibromofluoromethane (Surr)	*104*		*75 - 123*

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

Lab Sample ID: MB 480-638601/1-A
Matrix: Water
Analysis Batch: 638817

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638601

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/23/22 08:19	08/25/22 01:11	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/23/22 08:19	08/25/22 01:11	1
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 01:11	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/23/22 08:19	08/25/22 01:11	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 01:11	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/23/22 08:19	08/25/22 01:11	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 01:11	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 01:11	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 01:11	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 01:11	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/23/22 08:19	08/25/22 01:11	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 01:11	1
2-Methylnaphthalene	0.60	U	5.0	0.60	ug/L		08/23/22 08:19	08/25/22 01:11	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/23/22 08:19	08/25/22 01:11	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/23/22 08:19	08/25/22 01:11	1

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

Lab Sample ID: MB 480-638601/1-A
Matrix: Water
Analysis Batch: 638817

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638601

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 01:11	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/23/22 08:19	08/25/22 01:11	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 01:11	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 01:11	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/23/22 08:19	08/25/22 01:11	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 01:11	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 01:11	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/23/22 08:19	08/25/22 01:11	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/23/22 08:19	08/25/22 01:11	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/23/22 08:19	08/25/22 01:11	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/23/22 08:19	08/25/22 01:11	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/23/22 08:19	08/25/22 01:11	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 01:11	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/23/22 08:19	08/25/22 01:11	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/23/22 08:19	08/25/22 01:11	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/23/22 08:19	08/25/22 01:11	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 01:11	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 01:11	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 01:11	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 01:11	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/23/22 08:19	08/25/22 01:11	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/23/22 08:19	08/25/22 01:11	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 01:11	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 01:11	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/23/22 08:19	08/25/22 01:11	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/23/22 08:19	08/25/22 01:11	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/23/22 08:19	08/25/22 01:11	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/23/22 08:19	08/25/22 01:11	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/23/22 08:19	08/25/22 01:11	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/23/22 08:19	08/25/22 01:11	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 01:11	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/23/22 08:19	08/25/22 01:11	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/23/22 08:19	08/25/22 01:11	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 01:11	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/23/22 08:19	08/25/22 01:11	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/23/22 08:19	08/25/22 01:11	1
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 01:11	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/23/22 08:19	08/25/22 01:11	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 01:11	1
Hexachloroethane	0.59	U	5.0	0.59	ug/L		08/23/22 08:19	08/25/22 01:11	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/23/22 08:19	08/25/22 01:11	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/23/22 08:19	08/25/22 01:11	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/23/22 08:19	08/25/22 01:11	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/23/22 08:19	08/25/22 01:11	1
Naphthalene	0.76	U	5.0	0.76	ug/L		08/23/22 08:19	08/25/22 01:11	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/23/22 08:19	08/25/22 01:11	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/23/22 08:19	08/25/22 01:11	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/23/22 08:19	08/25/22 01:11	1
Phenol	0.39	U	5.0	0.39	ug/L		08/23/22 08:19	08/25/22 01:11	1

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

Lab Sample ID: MB 480-638601/1-A
Matrix: Water
Analysis Batch: 638817

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638601

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	0.34	U	5.0	0.34	ug/L		08/23/22 08:19	08/25/22 01:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*81*		*46 - 120*	*08/23/22 08:19*	*08/25/22 01:11*	*1*
Phenol-d5 (Surr)	*48*		*22 - 120*	*08/23/22 08:19*	*08/25/22 01:11*	*1*
p-Terphenyl-d14 (Surr)	*93*		*60 - 148*	*08/23/22 08:19*	*08/25/22 01:11*	*1*
2,4,6-Tribromophenol (Surr)	*67*		*41 - 120*	*08/23/22 08:19*	*08/25/22 01:11*	*1*
2-Fluorobiphenyl (Surr)	*82*		*48 - 120*	*08/23/22 08:19*	*08/25/22 01:11*	*1*
2-Fluorophenol (Surr)	*64*		*35 - 120*	*08/23/22 08:19*	*08/25/22 01:11*	*1*

Lab Sample ID: LCS 480-638601/2-A
Matrix: Water
Analysis Batch: 638817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biphenyl	32.0	20.2		ug/L		63	59 - 120
bis (2-chloroisopropyl) ether	32.0	18.5		ug/L		58	21 - 136
2,4,5-Trichlorophenol	32.0	23.3		ug/L		73	65 - 126
2,4,6-Trichlorophenol	32.0	23.1		ug/L		72	64 - 120
2,4-Dichlorophenol	32.0	21.8		ug/L		68	63 - 120
2,4-Dimethylphenol	32.0	20.9		ug/L		65	47 - 120
2,4-Dinitrophenol	64.0	47.9		ug/L		75	31 - 137
2,4-Dinitrotoluene	32.0	25.5		ug/L		80	69 - 120
2,6-Dinitrotoluene	32.0	24.9		ug/L		78	68 - 120
2-Chloronaphthalene	32.0	19.5		ug/L		61	58 - 120
2-Chlorophenol	32.0	18.8		ug/L		59	48 - 120
2-Methylphenol	32.0	19.3		ug/L		60	39 - 120
2-Methylnaphthalene	32.0	17.3	*-	ug/L		54	59 - 120
2-Nitroaniline	32.0	24.0		ug/L		75	54 - 127
2-Nitrophenol	32.0	20.3		ug/L		64	52 - 125
3,3'-Dichlorobenzidine	64.0	50.3		ug/L		79	49 - 135
3-Nitroaniline	32.0	23.6		ug/L		74	51 - 120
4,6-Dinitro-2-methylphenol	64.0	53.1		ug/L		83	46 - 136
4-Bromophenyl phenyl ether	32.0	24.5		ug/L		77	65 - 120
4-Chloro-3-methylphenol	32.0	23.3		ug/L		73	61 - 123
4-Chloroaniline	32.0	20.6		ug/L		64	30 - 120
4-Chlorophenyl phenyl ether	32.0	21.8		ug/L		68	62 - 120
4-Methylphenol	32.0	19.6		ug/L		61	29 - 131
4-Nitroaniline	32.0	25.7		ug/L		80	65 - 120
4-Nitrophenol	64.0	41.5		ug/L		65	45 - 120
Acenaphthene	32.0	21.4		ug/L		67	60 - 120
Acenaphthylene	32.0	22.0		ug/L		69	63 - 120
Acetophenone	32.0	19.8		ug/L		62	45 - 120
Anthracene	32.0	26.0		ug/L		81	67 - 120
Atrazine	64.0	53.8		ug/L		84	71 - 130
Benzaldehyde	64.0	37.6		ug/L		59	10 - 140
Benzo[a]anthracene	32.0	25.1		ug/L		78	70 - 121
Benzo[a]pyrene	32.0	26.7		ug/L		83	60 - 123

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

Lab Sample ID: LCS 480-638601/2-A
Matrix: Water
Analysis Batch: 638817

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638601

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[b]fluoranthene	32.0	26.7		ug/L		83	66 - 126
Benzo[g,h,i]perylene	32.0	26.5		ug/L		83	66 - 150
Benzo[k]fluoranthene	32.0	27.0		ug/L		84	65 - 124
Bis(2-chloroethoxy)methane	32.0	20.2		ug/L		63	50 - 128
Bis(2-chloroethyl)ether	32.0	18.3		ug/L		57	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	26.2		ug/L		82	63 - 139
Butyl benzyl phthalate	32.0	26.2		ug/L		82	70 - 129
Caprolactam	64.0	18.6		ug/L		29	22 - 120
Carbazole	32.0	28.7		ug/L		90	66 - 123
Chrysene	32.0	25.3		ug/L		79	69 - 120
Dibenz(a,h)anthracene	32.0	26.9		ug/L		84	65 - 135
Di-n-butyl phthalate	32.0	27.9		ug/L		87	69 - 131
Di-n-octyl phthalate	32.0	26.3		ug/L		82	63 - 140
Dibenzofuran	32.0	22.3		ug/L		70	66 - 120
Diethyl phthalate	32.0	25.5		ug/L		80	59 - 127
Dimethyl phthalate	32.0	24.9		ug/L		78	68 - 120
Fluoranthene	32.0	27.0		ug/L		84	69 - 126
Fluorene	32.0	23.5		ug/L		73	66 - 120
Hexachlorobenzene	32.0	24.1		ug/L		75	61 - 120
Hexachlorobutadiene	32.0	12.2		ug/L		38	35 - 120
Hexachlorocyclopentadiene	32.0	10.0		ug/L		31	31 - 120
Hexachloroethane	32.0	11.5	*-	ug/L		36	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	26.7		ug/L		83	69 - 146
Isophorone	32.0	21.3		ug/L		67	55 - 120
N-Nitrosodi-n-propylamine	32.0	20.9		ug/L		65	32 - 140
N-Nitrosodiphenylamine	32.0	25.2		ug/L		79	61 - 120
Naphthalene	32.0	17.9	*-	ug/L		56	57 - 120
Nitrobenzene	32.0	19.0		ug/L		59	53 - 123
Pentachlorophenol	64.0	45.7		ug/L		71	29 - 136
Phenanthrene	32.0	25.3		ug/L		79	68 - 120
Phenol	32.0	12.9		ug/L		40	17 - 120
Pyrene	32.0	26.7		ug/L		83	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*60*		*46 - 120*
Phenol-d5 (Surr)	*39*		*22 - 120*
p-Terphenyl-d14 (Surr)	*82*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*78*		*41 - 120*
2-Fluorobiphenyl (Surr)	*66*		*48 - 120*
2-Fluorophenol (Surr)	*47*		*35 - 120*

Lab Sample ID: MB 480-639256/1-A
Matrix: Water
Analysis Batch: 639479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639256

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	0.65	U	5.0	0.65	ug/L		08/26/22 10:46	08/29/22 16:22	1
bis (2-chloroisopropyl) ether	0.52	U	5.0	0.52	ug/L		08/26/22 10:46	08/29/22 16:22	1

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

Lab Sample ID: MB 480-639256/1-A
Matrix: Water
Analysis Batch: 639479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639256

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	0.48	U	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 16:22	1
2,4,6-Trichlorophenol	0.61	U	5.0	0.61	ug/L		08/26/22 10:46	08/29/22 16:22	1
2,4-Dichlorophenol	0.51	U	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 16:22	1
2,4-Dimethylphenol	0.50	U	5.0	0.50	ug/L		08/26/22 10:46	08/29/22 16:22	1
2,4-Dinitrophenol	2.2	U	10	2.2	ug/L		08/26/22 10:46	08/29/22 16:22	1
2,4-Dinitrotoluene	0.45	U	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 16:22	1
2,6-Dinitrotoluene	0.40	U	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 16:22	1
2-Chloronaphthalene	0.46	U	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 16:22	1
2-Chlorophenol	0.53	U	5.0	0.53	ug/L		08/26/22 10:46	08/29/22 16:22	1
2-Methylphenol	0.40	U	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 16:22	1
2-Methylnaphthalene	0.60	U	5.0	0.60	ug/L		08/26/22 10:46	08/29/22 16:22	1
2-Nitroaniline	0.42	U	10	0.42	ug/L		08/26/22 10:46	08/29/22 16:22	1
2-Nitrophenol	0.48	U	5.0	0.48	ug/L		08/26/22 10:46	08/29/22 16:22	1
3,3'-Dichlorobenzidine	0.40	U	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 16:22	1
3-Nitroaniline	0.48	U	10	0.48	ug/L		08/26/22 10:46	08/29/22 16:22	1
4,6-Dinitro-2-methylphenol	2.2	U	10	2.2	ug/L		08/26/22 10:46	08/29/22 16:22	1
4-Bromophenyl phenyl ether	0.45	U	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 16:22	1
4-Chloro-3-methylphenol	0.45	U	5.0	0.45	ug/L		08/26/22 10:46	08/29/22 16:22	1
4-Chloroaniline	0.59	U	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 16:22	1
4-Chlorophenyl phenyl ether	0.35	U	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 16:22	1
4-Methylphenol	0.36	U	10	0.36	ug/L		08/26/22 10:46	08/29/22 16:22	1
4-Nitroaniline	0.25	U	10	0.25	ug/L		08/26/22 10:46	08/29/22 16:22	1
4-Nitrophenol	1.5	U	10	1.5	ug/L		08/26/22 10:46	08/29/22 16:22	1
Acenaphthene	0.41	U	5.0	0.41	ug/L		08/26/22 10:46	08/29/22 16:22	1
Acenaphthylene	0.38	U	5.0	0.38	ug/L		08/26/22 10:46	08/29/22 16:22	1
Acetophenone	0.54	U	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 16:22	1
Anthracene	0.28	U	5.0	0.28	ug/L		08/26/22 10:46	08/29/22 16:22	1
Atrazine	0.46	U	5.0	0.46	ug/L		08/26/22 10:46	08/29/22 16:22	1
Benzaldehyde	0.27	U	5.0	0.27	ug/L		08/26/22 10:46	08/29/22 16:22	1
Benzo[a]anthracene	0.36	U	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 16:22	1
Benzo[a]pyrene	0.47	U	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 16:22	1
Benzo[b]fluoranthene	0.34	U	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 16:22	1
Benzo[g,h,i]perylene	0.35	U	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 16:22	1
Benzo[k]fluoranthene	0.73	U	5.0	0.73	ug/L		08/26/22 10:46	08/29/22 16:22	1
Bis(2-chloroethoxy)methane	0.35	U	5.0	0.35	ug/L		08/26/22 10:46	08/29/22 16:22	1
Bis(2-chloroethyl)ether	0.40	U	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 16:22	1
Bis(2-ethylhexyl) phthalate	2.2	U	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 16:22	1
Butyl benzyl phthalate	1.0	U	5.0	1.0	ug/L		08/26/22 10:46	08/29/22 16:22	1
Caprolactam	2.2	U	5.0	2.2	ug/L		08/26/22 10:46	08/29/22 16:22	1
Carbazole	0.30	U	5.0	0.30	ug/L		08/26/22 10:46	08/29/22 16:22	1
Chrysene	0.33	U	5.0	0.33	ug/L		08/26/22 10:46	08/29/22 16:22	1
Dibenz(a,h)anthracene	0.42	U	5.0	0.42	ug/L		08/26/22 10:46	08/29/22 16:22	1
Di-n-butyl phthalate	0.31	U	5.0	0.31	ug/L		08/26/22 10:46	08/29/22 16:22	1
Di-n-octyl phthalate	0.47	U	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 16:22	1
Dibenzofuran	0.51	U	10	0.51	ug/L		08/26/22 10:46	08/29/22 16:22	1
Diethyl phthalate	0.22	U	5.0	0.22	ug/L		08/26/22 10:46	08/29/22 16:22	1
Dimethyl phthalate	0.36	U	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 16:22	1
Fluoranthene	0.40	U	5.0	0.40	ug/L		08/26/22 10:46	08/29/22 16:22	1
Fluorene	0.36	U	5.0	0.36	ug/L		08/26/22 10:46	08/29/22 16:22	1

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

Lab Sample ID: MB 480-639256/1-A
Matrix: Water
Analysis Batch: 639479

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639256

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	0.51	U	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 16:22	1
Hexachlorobutadiene	0.68	U	5.0	0.68	ug/L		08/26/22 10:46	08/29/22 16:22	1
Hexachlorocyclopentadiene	0.59	U	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 16:22	1
Hexachloroethane	0.59	U	5.0	0.59	ug/L		08/26/22 10:46	08/29/22 16:22	1
Indeno[1,2,3-cd]pyrene	0.47	U	5.0	0.47	ug/L		08/26/22 10:46	08/29/22 16:22	1
Isophorone	0.43	U	5.0	0.43	ug/L		08/26/22 10:46	08/29/22 16:22	1
N-Nitrosodi-n-propylamine	0.54	U	5.0	0.54	ug/L		08/26/22 10:46	08/29/22 16:22	1
N-Nitrosodiphenylamine	0.51	U	5.0	0.51	ug/L		08/26/22 10:46	08/29/22 16:22	1
Naphthalene	0.76	U	5.0	0.76	ug/L		08/26/22 10:46	08/29/22 16:22	1
Nitrobenzene	0.29	U	5.0	0.29	ug/L		08/26/22 10:46	08/29/22 16:22	1
Pentachlorophenol	2.2	U	10	2.2	ug/L		08/26/22 10:46	08/29/22 16:22	1
Phenanthrene	0.44	U	5.0	0.44	ug/L		08/26/22 10:46	08/29/22 16:22	1
Phenol	0.39	U	5.0	0.39	ug/L		08/26/22 10:46	08/29/22 16:22	1
Pyrene	0.34	U	5.0	0.34	ug/L		08/26/22 10:46	08/29/22 16:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5 (Surr)	*76*		*46 - 120*	*08/26/22 10:46*	*08/29/22 16:22*	*1*
Phenol-d5 (Surr)	*40*		*22 - 120*	*08/26/22 10:46*	*08/29/22 16:22*	*1*
p-Terphenyl-d14 (Surr)	*91*		*60 - 148*	*08/26/22 10:46*	*08/29/22 16:22*	*1*
2,4,6-Tribromophenol (Surr)	*70*		*41 - 120*	*08/26/22 10:46*	*08/29/22 16:22*	*1*
2-Fluorobiphenyl (Surr)	*87*		*48 - 120*	*08/26/22 10:46*	*08/29/22 16:22*	*1*
2-Fluorophenol (Surr)	*58*		*35 - 120*	*08/26/22 10:46*	*08/29/22 16:22*	*1*

Lab Sample ID: LCS 480-639256/2-A
Matrix: Water
Analysis Batch: 639479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639256

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Biphenyl	32.0	29.1		ug/L		91	59 - 120
bis (2-chloroisopropyl) ether	32.0	25.8		ug/L		80	21 - 136
2,4,5-Trichlorophenol	32.0	31.7		ug/L		99	65 - 126
2,4,6-Trichlorophenol	32.0	31.5		ug/L		98	64 - 120
2,4-Dichlorophenol	32.0	31.3		ug/L		98	63 - 120
2,4-Dimethylphenol	32.0	29.4		ug/L		92	47 - 120
2,4-Dinitrophenol	64.0	56.7		ug/L		89	31 - 137
2,4-Dinitrotoluene	32.0	31.1		ug/L		97	69 - 120
2,6-Dinitrotoluene	32.0	31.3		ug/L		98	68 - 120
2-Chloronaphthalene	32.0	28.2		ug/L		88	58 - 120
2-Chlorophenol	32.0	27.6		ug/L		86	48 - 120
2-Methylphenol	32.0	26.5		ug/L		83	39 - 120
2-Methylnaphthalene	32.0	26.5		ug/L		83	59 - 120
2-Nitroaniline	32.0	28.0		ug/L		87	54 - 127
2-Nitrophenol	32.0	30.1		ug/L		94	52 - 125
3,3'-Dichlorobenzidine	64.0	59.9		ug/L		94	49 - 135
3-Nitroaniline	32.0	27.8		ug/L		87	51 - 120
4,6-Dinitro-2-methylphenol	64.0	66.4		ug/L		104	46 - 136
4-Bromophenyl phenyl ether	32.0	31.7		ug/L		99	65 - 120
4-Chloro-3-methylphenol	32.0	29.6		ug/L		93	61 - 123

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

Lab Sample ID: LCS 480-639256/2-A
Matrix: Water
Analysis Batch: 639479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639256

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Chloroaniline	32.0	25.8		ug/L		81	30 - 120
4-Chlorophenyl phenyl ether	32.0	30.2		ug/L		94	62 - 120
4-Methylphenol	32.0	27.1		ug/L		85	29 - 131
4-Nitroaniline	32.0	30.5		ug/L		95	65 - 120
4-Nitrophenol	64.0	48.6		ug/L		76	45 - 120
Acenaphthene	32.0	30.0		ug/L		94	60 - 120
Acenaphthylene	32.0	29.4		ug/L		92	63 - 120
Acetophenone	32.0	28.8		ug/L		90	45 - 120
Anthracene	32.0	31.4		ug/L		98	67 - 120
Atrazine	64.0	68.1		ug/L		106	71 - 130
Benzaldehyde	64.0	57.2		ug/L		89	10 - 140
Benzo[a]anthracene	32.0	30.4		ug/L		95	70 - 121
Benzo[a]pyrene	32.0	32.2		ug/L		101	60 - 123
Benzo[b]fluoranthene	32.0	33.3		ug/L		104	66 - 126
Benzo[g,h,i]perylene	32.0	31.4		ug/L		98	66 - 150
Benzo[k]fluoranthene	32.0	32.7		ug/L		102	65 - 124
Bis(2-chloroethoxy)methane	32.0	28.3		ug/L		88	50 - 128
Bis(2-chloroethyl)ether	32.0	26.8		ug/L		84	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	30.7		ug/L		96	63 - 139
Butyl benzyl phthalate	32.0	31.1		ug/L		97	70 - 129
Caprolactam	64.0	22.2		ug/L		35	22 - 120
Carbazole	32.0	33.6		ug/L		105	66 - 123
Chrysene	32.0	30.6		ug/L		96	69 - 120
Dibenz(a,h)anthracene	32.0	32.9		ug/L		103	65 - 135
Di-n-butyl phthalate	32.0	32.8		ug/L		103	69 - 131
Di-n-octyl phthalate	32.0	30.3		ug/L		95	63 - 140
Dibenzofuran	32.0	30.3		ug/L		95	66 - 120
Diethyl phthalate	32.0	32.0		ug/L		100	59 - 127
Dimethyl phthalate	32.0	31.5		ug/L		98	68 - 120
Fluoranthene	32.0	31.9		ug/L		100	69 - 126
Fluorene	32.0	31.2		ug/L		98	66 - 120
Hexachlorobenzene	32.0	32.2		ug/L		101	61 - 120
Hexachlorobutadiene	32.0	21.7		ug/L		68	35 - 120
Hexachlorocyclopentadiene	32.0	18.9		ug/L		59	31 - 120
Hexachloroethane	32.0	20.0		ug/L		63	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	32.6		ug/L		102	69 - 146
Isophorone	32.0	28.9		ug/L		90	55 - 120
N-Nitrosodi-n-propylamine	32.0	29.1		ug/L		91	32 - 140
N-Nitrosodiphenylamine	32.0	30.9		ug/L		97	61 - 120
Naphthalene	32.0	27.4		ug/L		86	57 - 120
Nitrobenzene	32.0	27.4		ug/L		86	53 - 123
Pentachlorophenol	64.0	59.5		ug/L		93	29 - 136
Phenanthrene	32.0	31.5		ug/L		98	68 - 120
Phenol	32.0	17.6		ug/L		55	17 - 120
Pyrene	32.0	31.6		ug/L		99	70 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5 (Surr)	*84*		*46 - 120*

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

Lab Sample ID: LCS 480-639256/2-A
Matrix: Water
Analysis Batch: 639479

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639256

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Phenol-d5 (Surr)	*52*		*22 - 120*
p-Terphenyl-d14 (Surr)	*96*		*60 - 148*
2,4,6-Tribromophenol (Surr)	*99*		*41 - 120*
2-Fluorobiphenyl (Surr)	*94*		*48 - 120*
2-Fluorophenol (Surr)	*69*		*35 - 120*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-638323/1-A
Matrix: Water
Analysis Batch: 639407

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638323

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.060	U	0.20	0.060	mg/L		08/22/22 09:57	08/26/22 12:45	1
Calcium	0.10	U	0.50	0.10	mg/L		08/22/22 09:57	08/26/22 12:45	1
Iron	0.019	U	0.050	0.019	mg/L		08/22/22 09:57	08/26/22 12:45	1
Magnesium	0.043	U	0.20	0.043	mg/L		08/22/22 09:57	08/26/22 12:45	1
Potassium	0.412	J	0.50	0.10	mg/L		08/22/22 09:57	08/26/22 12:45	1
Sodium	0.405	J	1.0	0.32	mg/L		08/22/22 09:57	08/26/22 12:45	1

Lab Sample ID: LCS 480-638323/2-A
Matrix: Water
Analysis Batch: 639407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638323

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10.0	10.1		mg/L		101	80 - 120
Calcium	10.0	10.0		mg/L		100	80 - 120
Iron	10.0	10.1		mg/L		101	80 - 120
Magnesium	10.0	10.0		mg/L		100	80 - 120
Potassium	10.0	10.4		mg/L		104	80 - 120
Sodium	10.0	10.1		mg/L		100	80 - 120

Lab Sample ID: 480-200841-7 MS
Matrix: Water
Analysis Batch: 639407

Client Sample ID: WG-12590773-081722-KM-007
Prep Type: Total/NA
Prep Batch: 638323

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	0.080	J	10.0	10.2		mg/L		102	75 - 125
Calcium	40		10.0	48.3		mg/L		85	75 - 125
Iron	0.48		10.0	10.5		mg/L		100	75 - 125
Magnesium	70		10.0	78.7	4	mg/L		90	75 - 125
Potassium	3.0	B	10.0	13.4		mg/L		104	75 - 125
Sodium	63	B	10.0	71.5	4	mg/L		85	75 - 125

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-200841-7 MSD — **Client Sample ID: WG-12590773-081722-KM-007**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 639407 — **Prep Batch: 638323**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	0.080	J	10.0	10.3		mg/L		102	75 - 125	0	20
Calcium	40		10.0	49.9		mg/L		101	75 - 125	3	20
Iron	0.48		10.0	10.7		mg/L		102	75 - 125	2	20
Magnesium	70		10.0	82.2	4	mg/L		125	75 - 125	4	20
Potassium	3.0	B	10.0	13.6		mg/L		106	75 - 125	1	20
Sodium	63	B	10.0	74.9	4	mg/L		120	75 - 125	5	20

Lab Sample ID: MB 480-638498/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 639056 — **Prep Batch: 638498**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.060	U	0.20	0.060	mg/L		08/22/22 12:21	08/25/22 00:17	1
Calcium	0.10	U	0.50	0.10	mg/L		08/22/22 12:21	08/25/22 00:17	1
Iron	0.019	U	0.050	0.019	mg/L		08/22/22 12:21	08/25/22 00:17	1
Magnesium	0.043	U	0.20	0.043	mg/L		08/22/22 12:21	08/25/22 00:17	1
Potassium	0.10	U	0.50	0.10	mg/L		08/22/22 12:21	08/25/22 00:17	1
Sodium	0.32	U	1.0	0.32	mg/L		08/22/22 12:21	08/25/22 00:17	1

Lab Sample ID: LCS 480-638498/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 639056 — **Prep Batch: 638498**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10.0	9.52		mg/L		95	80 - 120
Calcium	10.0	9.70		mg/L		97	80 - 120
Iron	10.0	9.38		mg/L		94	80 - 120
Magnesium	10.0	10.2		mg/L		102	80 - 120
Potassium	10.0	10.5		mg/L		105	80 - 120
Sodium	10.0	10.1		mg/L		101	80 - 120

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 480-638324/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 639245 — **Prep Batch: 638324**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:24	08/25/22 21:01	1
Arsenic	0.27	U	1.0	0.27	ug/L		08/23/22 09:24	08/25/22 21:01	1
Barium	0.15	U	1.0	0.15	ug/L		08/23/22 09:24	08/25/22 21:01	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:24	08/25/22 21:01	1
Chromium	0.36	U	1.5	0.36	ug/L		08/23/22 09:24	08/25/22 21:01	1
Copper	0.22	U	1.0	0.22	ug/L		08/23/22 09:24	08/25/22 21:01	1
Cobalt	0.040	U	0.30	0.040	ug/L		08/23/22 09:24	08/25/22 21:01	1
Lead	0.17	U	1.0	0.17	ug/L		08/23/22 09:24	08/25/22 21:01	1
Nickel	0.11	U	1.0	0.11	ug/L		08/23/22 09:24	08/25/22 21:01	1
Manganese	0.55	U	1.0	0.55	ug/L		08/23/22 09:24	08/25/22 21:01	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:24	08/25/22 21:01	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 480-638324/1-A
Matrix: Water
Analysis Batch: 639245

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638324

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:24	08/25/22 21:01	1
Zinc	2.6	U	10	2.6	ug/L		08/23/22 09:24	08/25/22 21:01	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:24	08/25/22 21:01	1

Lab Sample ID: MB 480-638324/1-A
Matrix: Water
Analysis Batch: 639346

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638324

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:24	08/26/22 15:43	1

Lab Sample ID: LCS 480-638324/2-A
Matrix: Water
Analysis Batch: 639245

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638324

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	20.0	19.7		ug/L		98	80 - 120
Arsenic	20.0	18.9		ug/L		95	80 - 120
Barium	20.0	20.7		ug/L		104	80 - 120
Cadmium	20.0	18.7		ug/L		94	80 - 120
Chromium	20.0	19.8		ug/L		99	80 - 120
Copper	20.0	20.1		ug/L		101	80 - 120
Cobalt	20.0	19.9		ug/L		100	80 - 120
Lead	20.0	19.6		ug/L		98	80 - 120
Nickel	20.0	19.4		ug/L		97	80 - 120
Manganese	20.0	19.5		ug/L		98	80 - 120
Selenium	20.0	19.3		ug/L		97	80 - 120
Thallium	20.0	19.6		ug/L		98	80 - 120
Zinc	50.0	46.6		ug/L		93	80 - 120
Vanadium	20.0	19.9		ug/L		99	80 - 120

Lab Sample ID: LCS 480-638324/2-A
Matrix: Water
Analysis Batch: 639346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638324

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	20.0	19.4		ug/L		97	80 - 120

Lab Sample ID: MB 480-638494/1-A
Matrix: Water
Analysis Batch: 639074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.35	U	1.0	0.35	ug/L		08/23/22 09:31	08/24/22 20:51	1
Arsenic	0.450	J	1.0	0.27	ug/L		08/23/22 09:31	08/24/22 20:51	1
Barium	0.234	J	1.0	0.15	ug/L		08/23/22 09:31	08/24/22 20:51	1
Beryllium	0.030	U	0.70	0.030	ug/L		08/23/22 09:31	08/24/22 20:51	1
Cadmium	0.071	U	0.50	0.071	ug/L		08/23/22 09:31	08/24/22 20:51	1
Chromium	0.36	U	1.5	0.36	ug/L		08/23/22 09:31	08/24/22 20:51	1
Copper	0.22	U	1.0	0.22	ug/L		08/23/22 09:31	08/24/22 20:51	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 480-638494/1-A
Matrix: Water
Analysis Batch: 639074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.040	U	0.30	0.040	ug/L		08/23/22 09:31	08/24/22 20:51	1
Lead	0.17	U	1.0	0.17	ug/L		08/23/22 09:31	08/24/22 20:51	1
Nickel	0.11	U	1.0	0.11	ug/L		08/23/22 09:31	08/24/22 20:51	1
Silver	0.036	U	0.50	0.036	ug/L		08/23/22 09:31	08/24/22 20:51	1
Manganese	0.55	U	1.0	0.55	ug/L		08/23/22 09:31	08/24/22 20:51	1
Selenium	0.44	U	1.0	0.44	ug/L		08/23/22 09:31	08/24/22 20:51	1
Thallium	0.019	U	0.20	0.019	ug/L		08/23/22 09:31	08/24/22 20:51	1
Zinc	2.6	U	10	2.6	ug/L		08/23/22 09:31	08/24/22 20:51	1
Vanadium	1.2	U	4.0	1.2	ug/L		08/23/22 09:31	08/24/22 20:51	1

Lab Sample ID: LCS 480-638494/2-A
Matrix: Water
Analysis Batch: 639074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	20.0	18.6		ug/L		93	80 - 120
Arsenic	20.0	17.8		ug/L		89	80 - 120
Barium	20.0	18.5		ug/L		93	80 - 120
Beryllium	20.0	16.9		ug/L		84	80 - 120
Cadmium	20.0	17.7		ug/L		88	80 - 120
Chromium	20.0	18.2		ug/L		91	80 - 120
Copper	20.0	18.8		ug/L		94	80 - 120
Cobalt	20.0	18.7		ug/L		93	80 - 120
Lead	20.0	18.1		ug/L		90	80 - 120
Nickel	20.0	18.1		ug/L		91	80 - 120
Manganese	20.0	18.0		ug/L		90	80 - 120
Selenium	20.0	18.6		ug/L		93	80 - 120
Thallium	20.0	18.0		ug/L		90	80 - 120
Zinc	50.0	46.2		ug/L		92	80 - 120
Vanadium	20.0	18.1		ug/L		90	80 - 120

Lab Sample ID: 480-200841-1 MS
Matrix: Water
Analysis Batch: 639074

Client Sample ID: WG-12590773-081722-KM-001
Prep Type: Total/NA
Prep Batch: 638494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.35	U	20.0	23.0		ug/L		115	75 - 125
Arsenic	8.3	B	20.0	31.9		ug/L		118	75 - 125
Barium	40	B	20.0	62.1		ug/L		109	75 - 125
Cadmium	0.25	J	20.0	21.2		ug/L		105	75 - 125
Chromium	0.86	J	20.0	22.8		ug/L		110	75 - 125
Copper	0.36	J	20.0	21.7		ug/L		107	75 - 125
Cobalt	0.26	J	20.0	22.0		ug/L		109	75 - 125
Lead	0.19	J	20.0	21.5		ug/L		107	75 - 125
Nickel	0.82	J	20.0	21.6		ug/L		104	75 - 125
Silver	0.18	J *- F1	20.0	12.9	F1	ug/L		63	75 - 125
Manganese	32		20.0	53.2		ug/L		106	75 - 125
Selenium	0.44	U	20.0	23.5		ug/L		117	75 - 125
Thallium	0.019	U	20.0	21.4		ug/L		107	75 - 125

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 480-200841-1 MS
Matrix: Water
Analysis Batch: 639074

Client Sample ID: WG-12590773-081722-KM-001
Prep Type: Total/NA
Prep Batch: 638494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	3.5	J F1 F2	50.0	66.2	F1	ug/L		126	75 - 125
Vanadium	1.2	U	20.0	22.5		ug/L		112	75 - 125

Lab Sample ID: 480-200841-1 MS
Matrix: Water
Analysis Batch: 639238

Client Sample ID: WG-12590773-081722-KM-001
Prep Type: Total/NA
Prep Batch: 638494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	0.030	U	20.0	23.5		ug/L		118	75 - 125

Lab Sample ID: 480-200841-1 MSD
Matrix: Water
Analysis Batch: 639074

Client Sample ID: WG-12590773-081722-KM-001
Prep Type: Total/NA
Prep Batch: 638494

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	0.35	U	20.0	20.7		ug/L		104	75 - 125	11	20
Arsenic	8.3	B	20.0	28.7		ug/L		102	75 - 125	11	20
Barium	40	B	20.0	57.4		ug/L		86	75 - 125	8	20
Cadmium	0.25	J	20.0	19.0		ug/L		94	75 - 125	11	20
Chromium	0.86	J	20.0	21.8		ug/L		105	75 - 125	4	20
Copper	0.36	J	20.0	19.1		ug/L		94	75 - 125	13	20
Cobalt	0.26	J	20.0	19.5		ug/L		96	75 - 125	12	20
Lead	0.19	J	20.0	18.9		ug/L		94	75 - 125	13	20
Nickel	0.82	J	20.0	19.0		ug/L		91	75 - 125	13	20
Silver	0.18	J *- F1	20.0	11.3	F1	ug/L		56	75 - 125	13	20
Manganese	32		20.0	49.0		ug/L		85	75 - 125	8	20
Selenium	0.44	U	20.0	20.5		ug/L		102	75 - 125	14	20
Thallium	0.019	U	20.0	18.9		ug/L		95	75 - 125	12	20
Zinc	3.5	J F1 F2	50.0	50.5	F2	ug/L		94	75 - 125	27	20
Vanadium	1.2	U	20.0	19.7		ug/L		99	75 - 125	13	20

Lab Sample ID: 480-200841-1 MSD
Matrix: Water
Analysis Batch: 639238

Client Sample ID: WG-12590773-081722-KM-001
Prep Type: Total/NA
Prep Batch: 638494

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	0.030	U	20.0	20.4		ug/L		102	75 - 125	14	20

Lab Sample ID: MB 480-639149/1-A
Matrix: Water
Analysis Batch: 639400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639149

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.036	U	0.50	0.036	ug/L		08/26/22 09:05	08/26/22 18:23	1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 480-639149/2-A
Matrix: Water
Analysis Batch: 639400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639149

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	20.0	20.0		ug/L		100	80 - 120

Lab Sample ID: MB 480-639323/1-A
Matrix: Water
Analysis Batch: 639573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 639323

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	0.036	U	0.50	0.036	ug/L		08/29/22 09:08	08/29/22 15:27	1

Lab Sample ID: LCS 480-639323/2-A
Matrix: Water
Analysis Batch: 639573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 639323

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Silver	20.0	21.7		ug/L		108	80 - 120

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-638388/1-A
Matrix: Water
Analysis Batch: 638504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638388

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 09:24	1

Lab Sample ID: LCS 480-638388/2-A
Matrix: Water
Analysis Batch: 638504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638388

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00667	0.00648		mg/L		97	80 - 120

Lab Sample ID: MB 480-638389/1-A
Matrix: Water
Analysis Batch: 638504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 638389

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000043	U	0.00020	0.000043	mg/L		08/21/22 15:40	08/22/22 10:02	1

Lab Sample ID: LCS 480-638389/2-A
Matrix: Water
Analysis Batch: 638504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 638389

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00667	0.00662		mg/L		99	80 - 120

GC/MS VOA

Analysis Batch: 638190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	8260C	
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	8260C	
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	8260C	
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	8260C	
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	8260C	
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	8260C	
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	8260C	
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	8260C	
480-200841-9	TB-12590773-081733-KM	Total/NA	Water	8260C	
MB 480-638190/10	Method Blank	Total/NA	Water	8260C	
LCS 480-638190/7	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-638190/8	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 638601

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	3510C	
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	3510C	
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	3510C	
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	3510C	
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	3510C	
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	3510C	
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	3510C	
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	3510C	
MB 480-638601/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-638601/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 638817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-638601/1-A	Method Blank	Total/NA	Water	8270D	638601
LCS 480-638601/2-A	Lab Control Sample	Total/NA	Water	8270D	638601

Analysis Batch: 638821

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	8270D	638601
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	8270D	638601
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	8270D	638601
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	8270D	638601
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	8270D	638601
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	8270D	638601
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	8270D	638601
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	8270D	638601

Prep Batch: 639256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1 - RE	WG-12590773-081722-KM-001	Total/NA	Water	3510C	
480-200841-2 - RE	WG-12590773-081722-KM-002	Total/NA	Water	3510C	
480-200841-3 - RE	WG-12590773-081722-KM-003	Total/NA	Water	3510C	
480-200841-4 - RE	WG-12590773-081722-KM-004	Total/NA	Water	3510C	
480-200841-5 - RE	WG-12590773-081722-KM-005	Total/NA	Water	3510C	

GC/MS Semi VOA (Continued)

Prep Batch: 639256 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-6 - RE	WG-12590773-081722-KM-006	Total/NA	Water	3510C	
480-200841-7 - RE	WG-12590773-081722-KM-007	Total/NA	Water	3510C	
480-200841-8 - RE	EB-12590773-081722-KM-008	Total/NA	Water	3510C	
MB 480-639256/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-639256/2-A	Lab Control Sample	Total/NA	Water	3510C	

Analysis Batch: 639479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1 - RE	WG-12590773-081722-KM-001	Total/NA	Water	8270D	639256
480-200841-2 - RE	WG-12590773-081722-KM-002	Total/NA	Water	8270D	639256
480-200841-3 - RE	WG-12590773-081722-KM-003	Total/NA	Water	8270D	639256
480-200841-4 - RE	WG-12590773-081722-KM-004	Total/NA	Water	8270D	639256
480-200841-5 - RE	WG-12590773-081722-KM-005	Total/NA	Water	8270D	639256
480-200841-6 - RE	WG-12590773-081722-KM-006	Total/NA	Water	8270D	639256
480-200841-7 - RE	WG-12590773-081722-KM-007	Total/NA	Water	8270D	639256
480-200841-8 - RE	EB-12590773-081722-KM-008	Total/NA	Water	8270D	639256
MB 480-639256/1-A	Method Blank	Total/NA	Water	8270D	639256
LCS 480-639256/2-A	Lab Control Sample	Total/NA	Water	8270D	639256

Metals

Prep Batch: 638323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	3005A	
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	3005A	
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	3005A	
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	3005A	
MB 480-638323/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-638323/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-200841-7 MS	WG-12590773-081722-KM-007	Total/NA	Water	3005A	
480-200841-7 MSD	WG-12590773-081722-KM-007	Total/NA	Water	3005A	

Prep Batch: 638324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	3020A	
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	3020A	
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	3020A	
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	3020A	
MB 480-638324/1-A	Method Blank	Total/NA	Water	3020A	
LCS 480-638324/2-A	Lab Control Sample	Total/NA	Water	3020A	

Prep Batch: 638388

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	7470A	
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	7470A	
MB 480-638388/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-638388/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 638389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 638389 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	7470A	
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	7470A	
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	7470A	
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	7470A	
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	7470A	
MB 480-638389/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-638389/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 638494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	3020A	
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	3020A	
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	3020A	
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	3020A	
MB 480-638494/1-A	Method Blank	Total/NA	Water	3020A	
LCS 480-638494/2-A	Lab Control Sample	Total/NA	Water	3020A	
480-200841-1 MS	WG-12590773-081722-KM-001	Total/NA	Water	3020A	
480-200841-1 MSD	WG-12590773-081722-KM-001	Total/NA	Water	3020A	

Prep Batch: 638498

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	3005A	
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	3005A	
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	3005A	
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	3005A	
MB 480-638498/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-638498/2-A	Lab Control Sample	Total/NA	Water	3005A	

Analysis Batch: 638504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	7470A	638388
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	7470A	638388
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	7470A	638389
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	7470A	638389
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	7470A	638389
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	7470A	638389
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	7470A	638389
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	7470A	638389
MB 480-638388/1-A	Method Blank	Total/NA	Water	7470A	638388
MB 480-638389/1-A	Method Blank	Total/NA	Water	7470A	638389
LCS 480-638388/2-A	Lab Control Sample	Total/NA	Water	7470A	638388
LCS 480-638389/2-A	Lab Control Sample	Total/NA	Water	7470A	638389

Analysis Batch: 639056

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	6010C	638498
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	6010C	638498
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	6010C	638498
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	6010C	638498
MB 480-638498/1-A	Method Blank	Total/NA	Water	6010C	638498
LCS 480-638498/2-A	Lab Control Sample	Total/NA	Water	6010C	638498

Metals

Analysis Batch: 639074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	6020A	638494
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	6020A	638494
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	6020A	638494
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	6020A	638494
MB 480-638494/1-A	Method Blank	Total/NA	Water	6020A	638494
LCS 480-638494/2-A	Lab Control Sample	Total/NA	Water	6020A	638494
480-200841-1 MS	WG-12590773-081722-KM-001	Total/NA	Water	6020A	638494
480-200841-1 MSD	WG-12590773-081722-KM-001	Total/NA	Water	6020A	638494

Prep Batch: 639149

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	3020A	
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	3020A	
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	3020A	
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	3020A	
MB 480-639149/1-A	Method Blank	Total/NA	Water	3020A	
LCS 480-639149/2-A	Lab Control Sample	Total/NA	Water	3020A	

Analysis Batch: 639238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	6020A	638494
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	6020A	638494
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	6020A	638494
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	6020A	638494
480-200841-1 MS	WG-12590773-081722-KM-001	Total/NA	Water	6020A	638494
480-200841-1 MSD	WG-12590773-081722-KM-001	Total/NA	Water	6020A	638494

Analysis Batch: 639245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	6020A	638324
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	6020A	638324
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	6020A	638324
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	6020A	638324
MB 480-638324/1-A	Method Blank	Total/NA	Water	6020A	638324
LCS 480-638324/2-A	Lab Control Sample	Total/NA	Water	6020A	638324

Prep Batch: 639323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	3020A	
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	3020A	
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	3020A	
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	3020A	
MB 480-639323/1-A	Method Blank	Total/NA	Water	3020A	
LCS 480-639323/2-A	Lab Control Sample	Total/NA	Water	3020A	

Analysis Batch: 639346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	6020A	638324
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	6020A	638324
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	6020A	638324
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	6020A	638324

Metals (Continued)

Analysis Batch: 639346 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-638324/1-A	Method Blank	Total/NA	Water	6020A	638324
LCS 480-638324/2-A	Lab Control Sample	Total/NA	Water	6020A	638324

Analysis Batch: 639400

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-1	WG-12590773-081722-KM-001	Total/NA	Water	6020A	639149
480-200841-2	WG-12590773-081722-KM-002	Total/NA	Water	6020A	639149
480-200841-3	WG-12590773-081722-KM-003	Total/NA	Water	6020A	639149
480-200841-4	WG-12590773-081722-KM-004	Total/NA	Water	6020A	639149
MB 480-639149/1-A	Method Blank	Total/NA	Water	6020A	639149
LCS 480-639149/2-A	Lab Control Sample	Total/NA	Water	6020A	639149

Analysis Batch: 639407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	6010C	638323
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	6010C	638323
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	6010C	638323
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	6010C	638323
MB 480-638323/1-A	Method Blank	Total/NA	Water	6010C	638323
LCS 480-638323/2-A	Lab Control Sample	Total/NA	Water	6010C	638323
480-200841-7 MS	WG-12590773-081722-KM-007	Total/NA	Water	6010C	638323
480-200841-7 MSD	WG-12590773-081722-KM-007	Total/NA	Water	6010C	638323

Analysis Batch: 639573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-200841-5	WG-12590773-081722-KM-005	Total/NA	Water	6020A	639323
480-200841-6	WG-12590773-081722-KM-006	Total/NA	Water	6020A	639323
480-200841-7	WG-12590773-081722-KM-007	Total/NA	Water	6020A	639323
480-200841-8	EB-12590773-081722-KM-008	Total/NA	Water	6020A	639323
MB 480-639323/1-A	Method Blank	Total/NA	Water	6020A	639323
LCS 480-639323/2-A	Lab Control Sample	Total/NA	Water	6020A	639323

Lab Chronicle

Client: GHD Services Inc.
Job ID: 480-200841-1
Project/Site: 12590773, Cascades 2022 PRR

Client Sample ID: WG-12590773-081722-KM-001
Lab Sample ID: 480-200841-1
Date Collected: 08/17/22 10:00
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 19:48
Total/NA	Prep	3510C			638601	MS	EET BUF	08/23/22 08:19
Total/NA	Analysis	8270D		1	638821	JMM	EET BUF	08/25/22 10:18
Total/NA	Prep	3510C	RE		639256	MS	EET BUF	08/26/22 10:46
Total/NA	Analysis	8270D	RE	1	639479	JMM	EET BUF	08/29/22 20:01
Total/NA	Prep	3005A			638498	NZG	EET BUF	08/22/22 12:21
Total/NA	Analysis	6010C		1	639056	LMH	EET BUF	08/25/22 01:14
Total/NA	Prep	3020A			638494	NZG	EET BUF	08/23/22 09:31
Total/NA	Analysis	6020A		1	639074	BMB	EET BUF	08/24/22 21:19
Total/NA	Prep	3020A			638494	NZG	EET BUF	08/23/22 09:31
Total/NA	Analysis	6020A		1	639238	BMB	EET BUF	08/25/22 17:07
Total/NA	Prep	3020A			639149	NVK	EET BUF	08/26/22 09:05
Total/NA	Analysis	6020A		1	639400	BMB	EET BUF	08/26/22 18:53
Total/NA	Prep	7470A			638388	NVK	EET BUF	08/21/22 15:40
Total/NA	Analysis	7470A		1	638504	NVK	EET BUF	08/22/22 09:59

Client Sample ID: WG-12590773-081722-KM-002
Lab Sample ID: 480-200841-2
Date Collected: 08/17/22 09:55
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 20:12
Total/NA	Prep	3510C			638601	MS	EET BUF	08/23/22 08:19
Total/NA	Analysis	8270D		1	638821	JMM	EET BUF	08/25/22 10:45
Total/NA	Prep	3510C	RE		639256	MS	EET BUF	08/26/22 10:46
Total/NA	Analysis	8270D	RE	1	639479	JMM	EET BUF	08/29/22 20:28
Total/NA	Prep	3005A			638498	NZG	EET BUF	08/22/22 12:21
Total/NA	Analysis	6010C		1	639056	LMH	EET BUF	08/25/22 01:18
Total/NA	Prep	3020A			638494	NZG	EET BUF	08/23/22 09:31
Total/NA	Analysis	6020A		1	639074	BMB	EET BUF	08/24/22 21:38
Total/NA	Prep	3020A			638494	NZG	EET BUF	08/23/22 09:31
Total/NA	Analysis	6020A		1	639238	BMB	EET BUF	08/25/22 17:26
Total/NA	Prep	3020A			639149	NVK	EET BUF	08/26/22 09:05
Total/NA	Analysis	6020A		1	639400	BMB	EET BUF	08/26/22 18:55
Total/NA	Prep	7470A			638388	NVK	EET BUF	08/21/22 15:40
Total/NA	Analysis	7470A		1	638504	NVK	EET BUF	08/22/22 10:00

Client Sample ID: WG-12590773-081722-KM-003
Lab Sample ID: 480-200841-3
Date Collected: 08/17/22 11:40
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 20:35
Total/NA	Prep	3510C			638601	MS	EET BUF	08/23/22 08:19
Total/NA	Analysis	8270D		1	638821	JMM	EET BUF	08/25/22 11:13

Client Sample ID: WG-12590773-081722-KM-003
Lab Sample ID: 480-200841-3

Date Collected: 08/17/22 11:40
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C	RE		639256	MS	EET BUF	08/26/22 10:46
Total/NA	Analysis	8270D	RE	1	639479	JMM	EET BUF	08/29/22 20:56
Total/NA	Prep	3005A			638498	NZG	EET BUF	08/22/22 12:21
Total/NA	Analysis	6010C		1	639056	LMH	EET BUF	08/25/22 01:34
Total/NA	Prep	3020A			638494	NZG	EET BUF	08/23/22 09:31
Total/NA	Analysis	6020A		1	639074	BMB	EET BUF	08/24/22 21:40
Total/NA	Prep	3020A			638494	NZG	EET BUF	08/23/22 09:31
Total/NA	Analysis	6020A		1	639238	BMB	EET BUF	08/25/22 17:28
Total/NA	Prep	3020A			639149	NVK	EET BUF	08/26/22 09:05
Total/NA	Analysis	6020A		1	639400	BMB	EET BUF	08/26/22 18:58
Total/NA	Prep	7470A			638389	NVK	EET BUF	08/21/22 15:40
Total/NA	Analysis	7470A		1	638504	NVK	EET BUF	08/22/22 10:04

Client Sample ID: WG-12590773-081722-KM-004
Lab Sample ID: 480-200841-4

Date Collected: 08/17/22 11:40
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 20:59
Total/NA	Prep	3510C			638601	MS	EET BUF	08/23/22 08:19
Total/NA	Analysis	8270D		1	638821	JMM	EET BUF	08/25/22 11:40
Total/NA	Prep	3510C	RE		639256	MS	EET BUF	08/26/22 10:46
Total/NA	Analysis	8270D	RE	1	639479	JMM	EET BUF	08/29/22 21:23
Total/NA	Prep	3005A			638498	NZG	EET BUF	08/22/22 12:21
Total/NA	Analysis	6010C		1	639056	LMH	EET BUF	08/25/22 01:38
Total/NA	Prep	3020A			638494	NZG	EET BUF	08/23/22 09:31
Total/NA	Analysis	6020A		1	639074	BMB	EET BUF	08/24/22 21:42
Total/NA	Prep	3020A			638494	NZG	EET BUF	08/23/22 09:31
Total/NA	Analysis	6020A		1	639238	BMB	EET BUF	08/25/22 17:31
Total/NA	Prep	3020A			639149	NVK	EET BUF	08/26/22 09:05
Total/NA	Analysis	6020A		1	639400	BMB	EET BUF	08/26/22 19:00
Total/NA	Prep	7470A			638389	NVK	EET BUF	08/21/22 15:40
Total/NA	Analysis	7470A		1	638504	NVK	EET BUF	08/22/22 10:06

Client Sample ID: WG-12590773-081722-KM-005
Lab Sample ID: 480-200841-5

Date Collected: 08/17/22 11:35
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 21:23
Total/NA	Prep	3510C			638601	MS	EET BUF	08/23/22 08:19
Total/NA	Analysis	8270D		1	638821	JMM	EET BUF	08/25/22 12:07
Total/NA	Prep	3510C	RE		639256	MS	EET BUF	08/26/22 10:46
Total/NA	Analysis	8270D	RE	1	639479	JMM	EET BUF	08/29/22 21:51

Lab Chronicle

Client: GHD Services Inc.
Job ID: 480-200841-1
Project/Site: 12590773, Cascades 2022 PRR

Client Sample ID: WG-12590773-081722-KM-005
Lab Sample ID: 480-200841-5
Date Collected: 08/17/22 11:35
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3005A			638323	NVK	EET BUF	08/22/22 09:57
Total/NA	Analysis	6010C		1	639407	LMH	EET BUF	08/26/22 12:53
Total/NA	Prep	3020A			638324	NVK	EET BUF	08/23/22 09:24
Total/NA	Analysis	6020A		1	639245	BMB	EET BUF	08/25/22 21:05
Total/NA	Prep	3020A			638324	NVK	EET BUF	08/23/22 09:24
Total/NA	Analysis	6020A		1	639346	BMB	EET BUF	08/26/22 15:47
Total/NA	Prep	3020A			639323	VAK	EET BUF	08/29/22 09:08
Total/NA	Analysis	6020A		1	639573	BMB	EET BUF	08/29/22 15:46
Total/NA	Prep	7470A			638389	NVK	EET BUF	08/21/22 15:40
Total/NA	Analysis	7470A		1	638504	NVK	EET BUF	08/22/22 10:07

Client Sample ID: WG-12590773-081722-KM-006
Lab Sample ID: 480-200841-6
Date Collected: 08/17/22 12:30
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 21:47
Total/NA	Prep	3510C			638601	MS	EET BUF	08/23/22 08:19
Total/NA	Analysis	8270D		1	638821	JMM	EET BUF	08/25/22 12:35
Total/NA	Prep	3510C	RE		639256	MS	EET BUF	08/26/22 10:46
Total/NA	Analysis	8270D	RE	1	639479	JMM	EET BUF	08/29/22 22:18
Total/NA	Prep	3005A			638323	NVK	EET BUF	08/22/22 09:57
Total/NA	Analysis	6010C		1	639407	LMH	EET BUF	08/26/22 12:57
Total/NA	Prep	3020A			638324	NVK	EET BUF	08/23/22 09:24
Total/NA	Analysis	6020A		1	639245	BMB	EET BUF	08/25/22 21:08
Total/NA	Prep	3020A			638324	NVK	EET BUF	08/23/22 09:24
Total/NA	Analysis	6020A		1	639346	BMB	EET BUF	08/26/22 15:50
Total/NA	Prep	3020A			639323	VAK	EET BUF	08/29/22 09:08
Total/NA	Analysis	6020A		1	639573	BMB	EET BUF	08/29/22 15:48
Total/NA	Prep	7470A			638389	NVK	EET BUF	08/21/22 15:40
Total/NA	Analysis	7470A		1	638504	NVK	EET BUF	08/22/22 10:11

Client Sample ID: WG-12590773-081722-KM-007
Lab Sample ID: 480-200841-7
Date Collected: 08/17/22 14:50
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 22:11
Total/NA	Prep	3510C			638601	MS	EET BUF	08/23/22 08:19
Total/NA	Analysis	8270D		1	638821	JMM	EET BUF	08/25/22 13:02
Total/NA	Prep	3510C	RE		639256	MS	EET BUF	08/26/22 10:46
Total/NA	Analysis	8270D	RE	1	639479	JMM	EET BUF	08/29/22 22:45
Total/NA	Prep	3005A			638323	NVK	EET BUF	08/22/22 09:57
Total/NA	Analysis	6010C		1	639407	LMH	EET BUF	08/26/22 13:01

Lab Chronicle

Client: GHD Services Inc.
Job ID: 480-200841-1
Project/Site: 12590773, Cascades 2022 PRR

Client Sample ID: WG-12590773-081722-KM-007
Lab Sample ID: 480-200841-7
Date Collected: 08/17/22 14:50
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3020A			638324	NVK	EET BUF	08/23/22 09:24
Total/NA	Analysis	6020A		1	639245	BMB	EET BUF	08/25/22 21:10
Total/NA	Prep	3020A			638324	NVK	EET BUF	08/23/22 09:24
Total/NA	Analysis	6020A		1	639346	BMB	EET BUF	08/26/22 15:52
Total/NA	Prep	3020A			639323	VAK	EET BUF	08/29/22 09:08
Total/NA	Analysis	6020A		1	639573	BMB	EET BUF	08/29/22 15:57
Total/NA	Prep	7470A			638389	NVK	EET BUF	08/21/22 15:40
Total/NA	Analysis	7470A		1	638504	NVK	EET BUF	08/22/22 10:12

Client Sample ID: EB-12590773-081722-KM-008
Lab Sample ID: 480-200841-8
Date Collected: 08/17/22 14:30
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 22:34
Total/NA	Prep	3510C			638601	MS	EET BUF	08/23/22 08:19
Total/NA	Analysis	8270D		1	638821	JMM	EET BUF	08/25/22 13:29
Total/NA	Prep	3510C	RE		639256	MS	EET BUF	08/26/22 10:46
Total/NA	Analysis	8270D	RE	1	639479	JMM	EET BUF	08/29/22 23:13
Total/NA	Prep	3005A			638323	NVK	EET BUF	08/22/22 09:57
Total/NA	Analysis	6010C		1	639407	LMH	EET BUF	08/26/22 13:32
Total/NA	Prep	3020A			638324	NVK	EET BUF	08/23/22 09:24
Total/NA	Analysis	6020A		1	639245	BMB	EET BUF	08/25/22 21:12
Total/NA	Prep	3020A			638324	NVK	EET BUF	08/23/22 09:24
Total/NA	Analysis	6020A		1	639346	BMB	EET BUF	08/26/22 15:54
Total/NA	Prep	3020A			639323	VAK	EET BUF	08/29/22 09:08
Total/NA	Analysis	6020A		1	639573	BMB	EET BUF	08/29/22 16:00
Total/NA	Prep	7470A			638389	NVK	EET BUF	08/21/22 15:40
Total/NA	Analysis	7470A		1	638504	NVK	EET BUF	08/22/22 10:13

Client Sample ID: TB-12590773-081733-KM
Lab Sample ID: 480-200841-9
Date Collected: 08/17/22 09:50
Matrix: Water
Date Received: 08/18/22 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	638190	CB	EET BUF	08/19/22 22:58

Laboratory References:
EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: GHD Services Inc.
Job ID: 480-200841-1
Project/Site: 12590773, Cascades 2022 PRR

Laboratory: Eurofins Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-23

Method Summary

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
6020A	Metals (ICP/MS)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF
3020A	Preparation, Total Metals	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: GHD Services Inc.
Project/Site: 12590773, Cascades 2022 PRR

Job ID: 480-200841-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-200841-1	WG-12590773-081722-KM-001	Water	08/17/22 10:00	08/18/22 10:00
480-200841-2	WG-12590773-081722-KM-002	Water	08/17/22 09:55	08/18/22 10:00
480-200841-3	WG-12590773-081722-KM-003	Water	08/17/22 11:40	08/18/22 10:00
480-200841-4	WG-12590773-081722-KM-004	Water	08/17/22 11:40	08/18/22 10:00
480-200841-5	WG-12590773-081722-KM-005	Water	08/17/22 11:35	08/18/22 10:00
480-200841-6	WG-12590773-081722-KM-006	Water	08/17/22 12:30	08/18/22 10:00
480-200841-7	WG-12590773-081722-KM-007	Water	08/17/22 14:50	08/18/22 10:00
480-200841-8	EB-12590773-081722-KM-008	Water	08/17/22 14:30	08/18/22 10:00
480-200841-9	TB-12590773-081733-KM	Water	08/17/22 09:50	08/18/22 10:00

CHAIN OF CUSTODY RECORD

COC NO.: 60058

PAGE 1 OF 1

Address: 2055 Niagara Falls Blvd Niagara Falls NY

Phone: 716 297-6150 **Fax:**

Project No/ Phase/Task Code: 12590773-DEL-001	**Laboratory Name:** Eurofins Buffalo	**Lab Location:** Amherst NY	**SSOW ID:**
Project Name: Cascades Paper	**Lab Contact:** Denise Heckler		**Cooler No:**
Project Location: Walden Ave			**Carrier:** Hand Delivered
GHD Chemistry Contact: Kathy Willy			**Airbill No:**
Sampler(s): K. Miller D. Tyran			**Total # of Containers:** 50

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Sample Type: Matrix Code (see back of COC)	Grab (G) or Comp (C)	Filtered (Y/N)	Analysis Requested: VOCs	SVOCs	Metals											ars/sample	uest	Comments/ Instructions
	PRESERVATION - (SEE BACK OF COC FOR ABBREVIATIONS)						HCl		HN													
1	WG-12590773-081722-KM-001	8/17/22	10:00	WG	G	N	X	X	X													
2	WG-12590773-081722-KM-002	8/17/22	09:55	WG	G	N	X	X	X													
3	WG-12590773-081722-KM-003	8/17/22	11:40	WG	G	N	X	X	X													
4	WG-12590773-081722-KM-004	8/17/22	11:40	WG	G	N	X	X	X													
5	WG-12590773-081722-KM-005	8/17/22	11:35	WG	G	N	X	X	X													
6	WG-12590773-081722-KM-006	8/17/22	1230	WG	G	N	X	X	X													
7	WG-12590773-081722-KM-007	8/17/22	14:50	WG	G	N	X	X	X													
8	EB-12590773-081722-KM-008	8/17/22	1430	EB	G	N	X	X	X													
9	TB-12590773-081722-KM	8/17/22	9:50	TB	G	N	X															
10																						
11																						
12																						KM

480-200841 Chain of Custody

TAT Required in business days (use separate COCs for different TATs):

☐ ☐1 Day ☐2 Days ☐3 Days ☐1 Week ☐2 Week

Notes/ Special Requirements: 4.2 #1 1UE

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
1.	GHD	8/18/22	7:45	1.			
2.				2.			
				3.	TAT	8/18/22	1000

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)

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9/1/2022

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 480-200841-1

Login Number: 200841
List Number: 1
Creator: Stopa, Erik S

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
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	
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 sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GHD
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Appendix E

Data Usability Summary Report

Technical Memorandum

26 September 2022

To	Kathy Galanti	**Tel**	716-205-1942
From	Kathy Willy/cs/1	**Email**	Kathleen.Willy@ghd.com
Subject	Data Usability Summary Report (DUSR) Cascades 2022 PRR Cascades Depew, New York August 2022	**Ref. No.**	12590773

1. Introduction

This document details a reduced validation of analytical results for groundwater samples collected in support of the Cascades 2022 PRR Sampling at the Cascades site during August 2022. Samples were submitted to Eurofins Buffalo Laboratory located in Amherst, New York. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

This DUSR has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation "DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B-Guidance for Data Deliverables and the Development of Data Usability Summary Reports," (DER-10) May 2010.

Standard Level 2 report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spikes (MS) and field quality assurance/quality control (QA/QC) samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

1) "National Functional Guidelines for Inorganic Superfund Methods Data Review", USEPA 542-R-20-006, November 2020.
2) "National Functional Guidelines for Organic Superfund Methods Data Review", USEPA 540-R-20-005, November 2020.

These items will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Most method blank results were non-detect indicating that laboratory contamination was not a factor for this investigation. Low concentrations of several metals were reported in the blanks. Associated sample results with concentrations similar to that found in the blanks were qualified as non-detect to reflect the potential laboratory contamination (see Table 4). Associated sample results that were either non-detect or significantly greater in concentration than the blanks would not have been impacted by the potential contamination and no qualification of the data was required.

4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) and semi-volatile organic compound (SVOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the “Guidelines” for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the laboratory criteria.

5. Laboratory Control Sample Analyses

LCS and/or LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS and LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Organic Analyses

The LCS/LCSD contained all compounds of interest. Most LCS recoveries and RPDs (where applicable) were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision. Samples associated with LCS outliers were qualified as follows:

I) All sample results associated with high VOC LCS recoveries were non-detect and no qualification of the data was required.

II) Non-detect sample results associated with low SVOC recoveries were rejected due to the demonstrated poor analytical performance (see Table 5).

Inorganic Analyses

The LCS contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries were within the control limits, demonstrating acceptable analytical accuracy.

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

If the original sample concentration is significantly greater than the spike concentration (>four times), the recovery is not assessed.

MS/MSD analyses were performed internally by the lab for metals only.

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision with the exception of a slightly high recovery and RPD for zinc. Associated positive sample results have been qualified as estimated due to the indicated variability (see Table 6).

7. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample, one equipment blank sample, and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank was submitted to the laboratory for volatile organic compound (VOC) analysis. All results were non-detect for the compounds of interest.

Equipment Blank Sample Analysis

To assess field decontamination procedures and cleanliness of sample containers, an equipment blank was submitted for analysis, as identified in Table 1. All results were non-detect for the analytes of interest with the exception of some low concentrations of several metals. Associated sample results with concentrations similar to that found in the blank were qualified as non-detect to reflect the potential field contamination (see Table 7). Associated sample results that were either non-detect or significantly greater in concentration than the blank would not have been impacted by the potential contamination and no qualification of the data was required.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, one field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value.

All field duplicate results met the above criteria, demonstrating acceptable sampling and analytical precision.

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the MDL were reported as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

9. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific exceptions and qualifications noted herein.

Regards,

Kathy Willy

Kathy Willy
Data Intelligence-Data Management-Chemist

Table 1

Sample Collection and Analysis Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

					Analysis/Parameters				
Sample Identification	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**TCL VOC**	**TCL SVOC**	**TAL Metals**	**Mercury**	**Comments**
WG-12590773-081722-KM-003	MW-101	Water	08/17/2022	11:40	X	X	X	X	
WG-12590773-081722-KM-004	MW-101	Water	08/17/2022	11:40	X	X	X	X	Field duplicate of sample WG-12590773-081722-KM-003
WG-12590773-081722-KM-006	MW-102	Water	08/17/2022	12:30	X	X	X	X	
WG-12590773-081722-KM-005	MW-103	Water	08/17/2022	11:35	X	X	X	X	
WG-12590773-081722-KM-001	MW-104	Water	08/17/2022	10:00	X	X	X	X	
WG-12590773-081722-KM-007	MW-105	Water	08/17/2022	14:50	X	X	X	X	
WG-12590773-081722-KM-002	MW-106F	Water	08/17/2022	09:55	X	X	X	X	
EB-12590773-081722-KM-008	-	Water	08/17/2022	14:30	X	X	X	X	Equipment Blank
TB-12590773-081733-KM	-	Water	08/17/2022	-	X				Trip Blank

Notes:

TCL - Target Compound List
TAL - Target Analyte List
VOC - Volatile Organic Compounds
SVOC - Semi-volatile Organic Compounds

Table 2

Analytical Results Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

	Location ID:	MW-101	MW-101	MW-102	MW-103
	Sample Name:	WG-12590773-081722-KM-003	WG-12590773-081722-KM-004	WG-12590773-081722-KM-006	WG-12590773-081722-KM-005
	Sample Date:	08/17/2022	08/17/2022	08/17/2022	08/17/2022
			Duplicate		
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	10 U	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

	Location ID:	MW-101	MW-101	MW-102	MW-103
	Sample Name:	WG-12590773-081722-KM-003	WG-12590773-081722-KM-004	WG-12590773-081722-KM-006	WG-12590773-081722-KM-005
	Sample Date:	08/17/2022	08/17/2022	08/17/2022	08/17/2022
			Duplicate		
Parameters	**Unit**				
Volatile Organic Compounds					
Methyl acetate	µg/L	2.5 U	2.5 U	2.5 U	2.5 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds					
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,5-Trichlorophenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	µg/L	10 U	10 U	10 U	10 U
2,4-Dinitrotoluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Chlorophenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	µg/L	R	R	R	R
2-Methylphenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Nitroaniline	µg/L	10 U	10 U	10 U	10 U
2-Nitrophenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	10 U	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	µg/L	10 U	10 U	10 U	10 U
4-Bromophenyl phenyl ether	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chloroaniline	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Chlorophenyl phenyl ether	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
4-Methylphenol	µg/L	10 U	10 U	10 U	10 U
4-Nitroaniline	µg/L	10 U	10 U	10 U	10 U
4-Nitrophenol	µg/L	10 U	10 U	10 U	10 U
Acenaphthene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Acenaphthylene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Location ID:		**MW-101**	**MW-101**	**MW-102**	**MW-103**
Sample Name:		**WG-12590773-081722-KM-003**	**WG-12590773-081722-KM-004**	**WG-12590773-081722-KM-006**	**WG-12590773-081722-KM-005**
Sample Date:		**08/17/2022**	**08/17/2022**	**08/17/2022**	**08/17/2022**
			Duplicate		
Parameters	**Unit**				
Semivolatile Organic Compounds					
Acetophenone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Anthracene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Atrazine	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzaldehyde	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Biphenyl (1,1-Biphenyl)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Butyl benzylphthalate (BBP)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Caprolactam	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbazole	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chrysene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-butylphthalate (DBP)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate (DnOP)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibenzofuran	µg/L	10 U	10 U	10 U	10 U
Diethyl phthalate	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluoranthene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Fluorene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Hexachloroethane	µg/L	R	R	R	R
Indeno(1,2,3-cd)pyrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Isophorone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodi-n-propylamine	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Naphthalene	µg/L	R	R	R	R
Nitrobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Pentachlorophenol	µg/L	10 U	10 U	10 U	10 U
Phenanthrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Phenol	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Pyrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Location ID:		**MW-101**	**MW-101**	**MW-102**	**MW-103**
Sample Name:		**WG-12590773-081722-KM-003**	**WG-12590773-081722-KM-004**	**WG-12590773-081722-KM-006**	**WG-12590773-081722-KM-005**
Sample Date:		**08/17/2022**	**08/17/2022**	**08/17/2022**	**08/17/2022**
			Duplicate		
Parameters	**Unit**				
Metals					
Aluminum	mg/L	0.20 U	0.20 U	0.077 J	0.20 U
Calcium	mg/L	46	44	80	93
Iron	mg/L	0.24	0.21	0.47	0.48
Magnesium	mg/L	78	75	100	73
Mercury	mg/L	0.00020 U	0.00020 U	0.00020 U	0.00020 U
Potassium	mg/L	2.4	2.3	2.3	3.4
Sodium	mg/L	72	69	62	140
Antimony	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Arsenic	µg/L	7.7	7.8	1.0	2.3
Barium	µg/L	120	120	99	96
Beryllium	µg/L	0.70 U	0.70 U	0.70 U	0.70 U
Cadmium	µg/L	0.50 U	0.50 U	0.50 U	0.50 U
Chromium	µg/L	1.5 U	1.5 U	1.5 U	1.5 U
Cobalt	µg/L	0.46	0.47	2.8	0.46
Copper	µg/L	7.0	7.3	1.0 U	1.0 U
Lead	µg/L	1.7	1.6	0.86 J	0.67 J
Manganese	µg/L	73	77	270	46
Nickel	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Selenium	µg/L	1.0 U	1.0 U	1.0 U	1.0 U
Silver	µg/L	0.10 J	0.10 J	0.063 J	0.054 J
Thallium	µg/L	0.20 U	0.20 U	0.20 U	0.20 U
Vanadium	µg/L	4.0 U	4.0 U	4.0 U	4.0 U
Zinc	µg/L	35 J	34 J	14	10 U

Table 2

Analytical Results Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Location ID:		**MW-104**	**MW-105**	**MW-106F**
Sample Name:		**WG-12590773-081722-KM-001**	**WG-12590773-081722-KM-007**	**WG-12590773-081722-KM-002**
Sample Date:		**08/17/2022**	**08/17/2022**	**08/17/2022**
Parameters	**Unit**			
Volatile Organic Compounds				
1,1,1-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene dibromide)	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	1.0 U	1.0 U
1,2-Dichloropropane	µg/L	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U
Acetone	µg/L	10 U	10 U	10 U
Benzene	µg/L	1.0 U	1.0 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.0 U	1.0 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	1.0 U	1.0 U	1.0 U
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	1.0 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Cyclohexane	µg/L	1.0 U	1.0 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	1.0 U	1.0 U	1.0 U
Isopropyl benzene	µg/L	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Location ID:		**MW-104**	**MW-105**	**MW-106F**
Sample Name:		**WG-12590773-081722-KM-001**	**WG-12590773-081722-KM-007**	**WG-12590773-081722-KM-002**
Sample Date:		**08/17/2022**	**08/17/2022**	**08/17/2022**
Parameters	**Unit**			
Volatile Organic Compounds				
Methyl acetate	µg/L	2.5 U	2.5 U	2.5 U
Methyl cyclohexane	µg/L	1.0 U	1.0 U	1.0 U
Methyl tert butyl ether (MTBE)	µg/L	1.0 U	1.0 U	1.0 U
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U
Styrene	µg/L	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	1.0 U	1.0 U
Toluene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	1.0 U	1.0 U	1.0 U
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U
Trifluorotrichloroethane (CFC-113)	µg/L	1.0 U	1.0 U	1.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	1.0 U
Xylenes (total)	µg/L	2.0 U	2.0 U	2.0 U
Semivolatile Organic Compounds				
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	5.0 U	5.0 U	5.0 U
2,4,5-Trichlorophenol	µg/L	5.0 U	5.0 U	5.0 U
2,4,6-Trichlorophenol	µg/L	5.0 U	5.0 U	5.0 U
2,4-Dichlorophenol	µg/L	5.0 U	5.0 U	5.0 U
2,4-Dimethylphenol	µg/L	5.0 U	5.0 U	5.0 U
2,4-Dinitrophenol	µg/L	10 U	10 U	10 U
2,4-Dinitrotoluene	µg/L	5.0 U	5.0 U	5.0 U
2,6-Dinitrotoluene	µg/L	5.0 U	5.0 U	5.0 U
2-Chloronaphthalene	µg/L	5.0 U	5.0 U	5.0 U
2-Chlorophenol	µg/L	5.0 U	5.0 U	5.0 U
2-Methylnaphthalene	µg/L	R	R	R
2-Methylphenol	µg/L	5.0 U	5.0 U	5.0 U
2-Nitroaniline	µg/L	10 U	10 U	10 U
2-Nitrophenol	µg/L	5.0 U	5.0 U	5.0 U
3,3'-Dichlorobenzidine	µg/L	5.0 U	5.0 U	5.0 U
3-Nitroaniline	µg/L	10 U	10 U	10 U
4,6-Dinitro-2-methylphenol	µg/L	10 U	10 U	10 U
4-Bromophenyl phenyl ether	µg/L	5.0 U	5.0 U	5.0 U
4-Chloro-3-methylphenol	µg/L	5.0 U	5.0 U	5.0 U
4-Chloroaniline	µg/L	5.0 U	5.0 U	5.0 U
4-Chlorophenyl phenyl ether	µg/L	5.0 U	5.0 U	5.0 U
4-Methylphenol	µg/L	10 U	10 U	10 U
4-Nitroaniline	µg/L	10 U	10 U	10 U
4-Nitrophenol	µg/L	10 U	10 U	10 U
Acenaphthene	µg/L	5.0 U	5.0 U	5.0 U
Acenaphthylene	µg/L	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Location ID:		**MW-104**	**MW-105**	**MW-106F**
Sample Name:		**WG-12590773-081722-KM-001**	**WG-12590773-081722-KM-007**	**WG-12590773-081722-KM-002**
Sample Date:		**08/17/2022**	**08/17/2022**	**08/17/2022**
Parameters	**Unit**			
Semivolatile Organic Compounds				
Acetophenone	µg/L	5.0 U	5.0 U	5.0 U
Anthracene	µg/L	5.0 U	5.0 U	5.0 U
Atrazine	µg/L	5.0 U	5.0 U	5.0 U
Benzaldehyde	µg/L	5.0 U	5.0 U	5.0 U
Benzo(a)anthracene	µg/L	5.0 U	5.0 U	5.0 U
Benzo(a)pyrene	µg/L	5.0 U	5.0 U	5.0 U
Benzo(b)fluoranthene	µg/L	5.0 U	5.0 U	5.0 U
Benzo(g,h,i)perylene	µg/L	5.0 U	5.0 U	5.0 U
Benzo(k)fluoranthene	µg/L	5.0 U	5.0 U	5.0 U
Biphenyl (1,1-Biphenyl)	µg/L	5.0 U	5.0 U	5.0 U
bis(2-Chloroethoxy)methane	µg/L	5.0 U	5.0 U	5.0 U
bis(2-Chloroethyl)ether	µg/L	5.0 U	5.0 U	5.0 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	5.0 U	5.0 U	5.0 U
Butyl benzylphthalate (BBP)	µg/L	5.0 U	5.0 U	5.0 U
Caprolactam	µg/L	5.0 U	5.0 U	5.0 U
Carbazole	µg/L	5.0 U	5.0 U	5.0 U
Chrysene	µg/L	5.0 U	5.0 U	5.0 U
Di-n-butylphthalate (DBP)	µg/L	5.0 U	5.0 U	5.0 U
Di-n-octyl phthalate (DnOP)	µg/L	5.0 U	5.0 U	5.0 U
Dibenz(a,h)anthracene	µg/L	5.0 U	5.0 U	5.0 U
Dibenzofuran	µg/L	10 U	10 U	10 U
Diethyl phthalate	µg/L	5.0 U	5.0 U	5.0 U
Dimethyl phthalate	µg/L	5.0 U	5.0 U	5.0 U
Fluoranthene	µg/L	5.0 U	5.0 U	5.0 U
Fluorene	µg/L	5.0 U	5.0 U	5.0 U
Hexachlorobenzene	µg/L	5.0 U	5.0 U	5.0 U
Hexachlorobutadiene	µg/L	5.0 U	5.0 U	5.0 U
Hexachlorocyclopentadiene	µg/L	5.0 U	5.0 U	5.0 U
Hexachloroethane	µg/L	R	R	R
Indeno(1,2,3-cd)pyrene	µg/L	5.0 U	5.0 U	5.0 U
Isophorone	µg/L	5.0 U	5.0 U	5.0 U
N-Nitrosodi-n-propylamine	µg/L	5.0 U	5.0 U	5.0 U
N-Nitrosodiphenylamine	µg/L	5.0 U	5.0 U	5.0 U
Naphthalene	µg/L	R	R	R
Nitrobenzene	µg/L	5.0 U	5.0 U	5.0 U
Pentachlorophenol	µg/L	10 U	10 U	10 U
Phenanthrene	µg/L	5.0 U	5.0 U	5.0 U
Phenol	µg/L	5.0 U	5.0 U	5.0 U
Pyrene	µg/L	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Location ID:		**MW-104**	**MW-105**	**MW-106F**
Sample Name:		**WG-12590773-081722-KM-001**	**WG-12590773-081722-KM-007**	**WG-12590773-081722-KM-002**
Sample Date:		**08/17/2022**	**08/17/2022**	**08/17/2022**
Parameters	**Unit**			
Metals				
Aluminum	mg/L	0.20 U	0.080 J	0.20 U
Calcium	mg/L	50	40	66
Iron	mg/L	0.24	0.48	0.067
Magnesium	mg/L	90	70	75
Mercury	mg/L	0.00020 U	0.00020 U	0.00020 U
Potassium	mg/L	2.2	3.0	0.73
Sodium	mg/L	61	63	64
Antimony	µg/L	1.0 U	1.0 U	1.0 U
Arsenic	µg/L	8.3	0.46 J	1.0 U
Barium	µg/L	40	200	160
Beryllium	µg/L	0.70 U	0.70 U	0.70 U
Cadmium	µg/L	0.25 J	0.50 U	0.50 U
Chromium	µg/L	1.5 U	1.5 U	1.5 U
Cobalt	µg/L	0.26 J	0.30	0.42
Copper	µg/L	1.0 U	1.0 U	5.0
Lead	µg/L	0.19 J	1.0 U	5.1
Manganese	µg/L	32	20	48
Nickel	µg/L	1.0 U	1.0 U	1.0 U
Selenium	µg/L	1.0 U	1.0 U	1.0 U
Silver	µg/L	0.14 J	0.066 J	0.50 U
Thallium	µg/L	0.20 U	0.20 U	0.20 U
Vanadium	µg/L	4.0 U	4.0 U	4.0 U
Zinc	µg/L	3.5 J	7.7 J	16 J

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit
R - Rejected

Table 3

Analytical Methods
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Parameter	Method	Matrix	Holding Time	
			Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260	Water	-	14
Semi-Volatile Organic Compounds (SVOCs)	SW-846 8270	Water	7	40
Metals	SW-846 6010/6020	Water	-	180
Mercury	SW-846 7470	Water	-	28

Notes:

Method References:
SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

Table 4

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result *	Sample ID	Original Result	Qualified Result	Units
Metals	Arsenic	08/23/2022	0.450 J	WG-12590773-081722-KM-002	0.30 J	1.0 U	µg/L

Notes:

* - Blank result adjusted for sample factors where applicable
U - Not detected at the associated reporting limit
J - Estimated concentration

Table 5

Qualified Sample Results Due to Outlying Laboratory Control Sample Results
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Parameter	Analyte	LCS Date (mm/dd/yyyy)	LCS % Recovery	Control Limits % Recovery	Associated Sample ID	Qualified Results	Units
SVOCs	2-Methylnaphthalene	08/23/2022	54	59 - 120	WG-12590773-081722-KM-001	R	µg/L
					WG-12590773-081722-KM-002	R	µg/L
					WG-12590773-081722-KM-003	R	µg/L
					WG-12590773-081722-KM-004	R	µg/L
					WG-12590773-081722-KM-005	R	µg/L
					WG-12590773-081722-KM-006	R	µg/L
					WG-12590773-081722-KM-007	R	µg/L
SVOCs	Hexachloroethane	08/23/2022	36	43 - 120	WG-12590773-081722-KM-001	R	µg/L
					WG-12590773-081722-KM-002	R	µg/L
					WG-12590773-081722-KM-003	R	µg/L
					WG-12590773-081722-KM-004	R	µg/L
					WG-12590773-081722-KM-005	R	µg/L
					WG-12590773-081722-KM-006	R	µg/L
					WG-12590773-081722-KM-007	R	µg/L
SVOCs	Naphthalene	08/23/2022	56	57 - 120	WG-12590773-081722-KM-001	R	µg/L
					WG-12590773-081722-KM-002	R	µg/L
					WG-12590773-081722-KM-003	R	µg/L
					WG-12590773-081722-KM-004	R	µg/L
					WG-12590773-081722-KM-005	R	µg/L
					WG-12590773-081722-KM-006	R	µg/L
					WG-12590773-081722-KM-007	R	µg/L

Notes:

LCS - Laboratory Control Sample
R - Rejected
SVOCs - Semi-volatile Organic Compounds

Table 6

Qualified Sample Results Due to Outlying MS/MSD Results
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Qualified Result	Units
Metals	WG-12590773-081722-KM-001	Zinc	126	94	27	75 - 125	20	3.5 J	µg/L
	WG-12590773-081722-KM-002							16 J	µg/L
	WG-12590773-081722-KM-003							35 J	µg/L
	WG-12590773-081722-KM-004							34 J	µg/L

Notes:

MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference
J - Estimated concentration

Table 7

Qualified Sample Data Due to Analyte Concentrations in the Equipment Blanks
Cascades 2022 PRR
Cascades
Depew, New York
August 2022

Parameter	Equipment Blank ID	Blank Date (mm/dd/yyyy)	Analyte	Blank Result	Associated Sample ID	Original Result	Qualified Result	Units
Metals	EB-12590773-081722-KM-008	08/17/2022	Chromium	1.6	WG-12590773-081722-KM-001	0.86 J	1.5 U	µg/L
					WG-12590773-081722-KM-007	0.74 J	1.5 U	µg/L
Metals	EB-12590773-081722-KM-008	08/17/2022	Copper	1.3	WG-12590773-081722-KM-001	0.36 J	1.0 U	µg/L
					WG-12590773-081722-KM-005	0.35 J	1.0 U	µg/L
					WG-12590773-081722-KM-006	0.54 J	1.0 U	µg/L
					WG-12590773-081722-KM-007	0.52 J	1.0 U	µg/L
Metals	EB-12590773-081722-KM-008	08/17/2022	Nickel	0.13 J	WG-12590773-081722-KM-001	0.82 J	1.0 U	µg/L
					WG-12590773-081722-KM-002	0.93 J	1.0 U	µg/L
					WG-12590773-081722-KM-003	0.55 J	1.0 U	µg/L
					WG-12590773-081722-KM-004	0.60 J	1.0 U	µg/L
					WG-12590773-081722-KM-005	0.81 J	1.0 U	µg/L
					WG-12590773-081722-KM-006	0.99 J	1.0 U	µg/L
					WG-12590773-081722-KM-007	0.76 J	1.0 U	µg/L

Notes:

U - Not detected at the associated reporting limit
J - Estimated concentration


GHD


GHD