Interim Periodic Review Report

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart Street and 40 Bradley Street
City of Buffalo, Erie County, New York
NYSDEC Site No. 915141A

May 2021

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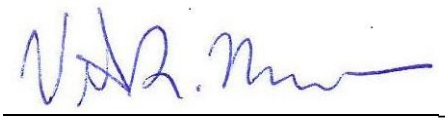

Vincent Maresco
Principal Geologist

Raymond Wagner
Project Manager

Andrew Zoanetti
Mechanical Engineer

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Acronyms and Abbreviations

Arcadis	Arcadis of New York, Inc.
BSA	Buffalo Sewer Authority
BPDES	Buffalo Pollutant Discharge Elimination System
BTEX	benzene, toluene, ethylbenzene, and xylene
NAPL	non-aqueous phase liquid
NYSDEC	New York State Department of Environmental Conservation
OMM	operations, maintenance, and monitoring
OWS	oil-water separator
USEPA	United States Environmental Protection Agency

Executive Summary

Table ES-1 summarizes the engineering controls implemented for the Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site, designated as Site No. 915141A by the New York State Department of Environmental Conservation (NYSDEC) pursuant to the New York State Inactive Hazardous Waste Registry Program, and located at 120 Dart Street and 40 Bradley Street in the City of Buffalo, Erie County, New York, as well as the monitoring, inspection, maintenance, and reporting requirements currently conducted for this Site.

Table ES-1. Period Review Report Summary

Element	Requirement
Engineering Controls	1. Soil cover system, including a combination of one foot topsoil cover and impermeable surfaces. 2. Groundwater and non-aqueous phase liquid collection and treatment system.
Monitoring	1. Groundwater Monitoring: a. Quarterly fluid level measurements – monitoring wells B19, B3, B6R, B7R, B8R, MWF1 through MWF5, MWS2, and MWS4 and piezometers P1, P2, P6R through P8R, PF3, PF4, PF6, PS1, TP1, and TP2. b. Semi-annual groundwater sampling – monitoring wells B3, B6R, B7R, B8R, MWF2, MWF3, and MWF4 and piezometer P8R. 2. Seep Monitoring: Monthly seep monitoring – seep numbers 13, 14, 16, 30, and 32.
Inspections	Site-wide inspections will be performed on an annual basis, or within 5 days after an emergency, such as a natural disaster (e.g., flood, tornado, etc.) or an unforeseen failure of an engineering control, to verify the continued effectiveness of the institutional and engineering controls on the Site properties.
Maintenance	1. Transfer pumps: quarterly (alternate pumps) and as needed (clean). 2. Flow meter: quarterly (calibrate) and annually (replace). 3. Control panels: as needed. 4. Level floats: as needed. 5. Piping, hoses, fittings, and unions: As needed. 6. Air compressor: weekly (drain condensate), monthly (activate relief valve), and annually (change out oil and lubricate motor bearings). 7. Air dryer: annually (clean). 8. Thermostats: as needed. 9. Skymetry alarm: as needed. 10. Oil-water separator: weekly (drain non-aqueous phase liquid) and annually (clean). 11. Equalization tank: annually (clean). 12. Carbon adsorbers: as needed. 13. Cartridge filter: as needed.
Reporting	A periodic review report will be submitted to the NYSDEC on an annual basis beginning 16 months after the Certificate of Completion is issued.

1 Introduction

1.1 General

This Interim Periodic Review Report has been prepared by Arcadis of New York, Inc. (Arcadis), on behalf of Bristol-Myers Squibb Company as a successor-in-interest to Westwood-Squibb Pharmaceuticals Company, Inc. (Westwood Pharmaceuticals), to present the post-remediation monitoring, inspection, operation and maintenance, and reporting of the past 18 months for the Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site (the Site) located at 120 Dart Street and 40 Bradley Street in the City of Buffalo, Erie County, New York (**Figure 1)**. The Site is currently listed under the New York State Inactive Hazardous Waste Registry Program (Site Number 915141A), which is administered by the New York State Department of Environmental Conservation (NYSDEC).

The Site was remediated by Westwood Pharmaceuticals between 1996 and 1997. Remediation activities included installation of a groundwater pump and treat system with extraction wells and low permeability soil cover. The existing groundwater interceptor trench was installed in 2017 to enhance the groundwater and non-aqueous phase liquid (NAPL) recovery at the Site. This interceptor trench replaced the previously installed extraction wells. Institutional and engineering controls have been incorporated into the Site remedy to control exposure to the remaining soil and groundwater impacts and protect public health and the environment. All work was completed consistent with the NYSDEC's selected remedy, as identified in the *Record of Decision* (ROD; NYSDEC 1994) and amended by the subsequently issued *Explanation of Significant Difference* (ESD; NYSDEC 2014).

1.2 Site Background

The Site is comprised of two main properties, which are identified as Block 1, Lot 5.1 and Block 1, Lot 5.2 on Section 88.50 of the City of Buffalo Tax Map. A small half-moon shaped parcel is included within the definition of the Site, which comprises a small area not currently listed under an SBL through Erie County, and is adjacent to the Scajaquada Creek; this area is assumed to have been formed by accretion. The Site properties encompass approximately 9.25 acres and are generally bounded by a City of Buffalo impound lot to the north; Bradley Street and a mix of vacant industrial and residential properties to the south; Dart Street and a mix of industrial and residential properties to the east; and vacant land, Scajaquada Creek, and industrial properties to the west. The Site is zoned for industrial use and contains two 100,000-square-foot warehouses ("Building 6" and "Building 9") and a groundwater treatment building ("Building 6A"). Building 6 and Building 9 are currently leased to a trucking firm for warehousing operations. The remainder of the Site is covered with a mixture of grass, asphalt pavement, and gravel/crushed stone. The Site is enclosed by fencing and is generally secure from public access.

Surface topography at the Site is relatively flat but slopes steeply toward Scajaquada Creek along the western boundary of the Site. Most surface water run-off is directed toward on-site drainage ditches and storm sewers, although some surface water flows directly to Scajaquada Creek during precipitation events. Scajaquada Creek discharges into Black Rock Canal and eventually into the Niagara River.

2 Operations, Maintenance, and Monitoring

2.1 System Description

The extraction system recovers impacted groundwater and non-aqueous phase liquid (NAPL) from a 310-foot-long interceptor trench located in the northwest area of the Site, proximal to the Scajaquada Creek (**Figure 1**). The interceptor trench was installed in 2017 to replace a series of groundwater extraction wells. A 4-inch-diameter, 265-foot-long, slotted pipe was installed at the base of the interceptor trench and terminates at a recovery sump. A pneumatic pump extracts groundwater and NAPL from the recovery sump and transfers it through a 2-inch liquid conveyance pipe to the groundwater treatment plant (Building 6A). Compressed air is supplied to the pump via a 1-inch pipe. A second, standby pneumatic pump was installed in the sump. A Construction Completion Report for the groundwater interceptor trench was submitted to the NYSDEC in December 2017 and approved by the NYSDEC on September 30, 2019.

Inside the groundwater treatment plant, the total fluids recovered from the interceptor trench sump flow through an oil-water separator (OWS) capable of separating both light NAPL and dense NAPL from the total fluid stream. The outflow of water is then pumped through an equalization tank, through a particle filtration system, and then through a granular activated carbon treatment. The treated water is discharged to the Buffalo Sewer Authority (BSA) under Buffalo Pollutant Discharge Elimination System (BPDES) discharge permit number 18-07-BU174. A process flow diagram is included as **Figure 2**.

2.2 System Operation and Facility Maintenance

Operations, maintenance, and monitoring (OMM) activities are performed by the operator and documented on the operator log sheets. Weekly visual inspections of the treatment building and equipment, the cartridge filter, the air dryer, and the equalization tank level switches are conducted. Management of inventory supplies and spare parts is also completed on a weekly basis. Other OMM items to note are:

- The cartridge filter is checked and changed out as needed.
- The compressor water is removed as needed.
- NAPL from the OWS is drained and put in a drum on a weekly basis.

The cap area and the area adjacent to the creek are mowed, as needed, during the growing season. Snow removal is completed to access the treatment building. The flow meter is replaced on an annual basis to keep it properly calibrated. On a quarterly basis, the transfer pump is switched over to the other transfer pump that was not used for the previous quarter. Weed maintenance along the road and fence is completed in the spring and fall.

The system had been in operation since 1997 in its original configuration, and was restarted in June 2017 after the completion of the groundwater interceptor trench, with limited downtime for maintenance since that time. In late November and early December 2019, the total fluids recovery pump became clogged with viscous NAPL, and NAPL recovery was temporarily reduced while the pump was pulled and replaced. The total fluids recovery pump was re-inserted in mid-March 2020 and lowered incrementally into the NAPL to ease clogging and resume product recovery. Given the nature of the complete remedy, this limited decrease in efficiency did not have any impact on compliance.

3 Discharge Monitoring and Permit Compliance

To comply with the BSA BPDES Permit, Arcadis submits quarterly Discharge Monitoring Reports to the BSA. Monthly discharge grab samples are collected and analyzed for pH, total mercury, total zinc, total cyanide, volatile organic compounds, and semi-volatile organic compounds via standard United States Environmental Protection Agency (USEPA) methods. In the past 18 months, approximately 1,170,000 gallons of groundwater have been treated and discharged, and analytical results have indicated the treatment system operates within the permit requirements and within regulatory compliance. The Discharge Monitoring Reports are included in **Appendix A**.

4 Non-Aqueous Phase Liquid Recovery

NAPL recovered from the OWS is temporarily stored on site in 55-gallon drums. In the 6 months prior to completion of the groundwater interceptor trench, a total of 2-5/8 gallons of NAPL were recovered, with most weekly recoveries being 1/8 of a gallon or less. Within the past 18 months, approximately 17 gallons of NAPL have been recovered from the interceptor trench, with weekly recoveries ranging from 1/8 to 2-1/2 gallons. An additional 55 gallons of NAPL have been recovered from the interceptor trench sump through air lift procedures. A memo detailing the air lift procedures is included as **Attachment 1**. A graph of NAPL recovery within the past 18 months is included in **Appendix B**. From late November 2019 to early March 2020, NAPL recovery was reduced due to the pump clogging issue mentioned above. Three drums were removed from the Site for disposal in December 2019 (see Section 7).

5 Annual Groundwater Monitoring and Reporting

Groundwater monitoring, consisting of fluid level measurements (gauging) and groundwater sampling, is conducted to:

- Confirm groundwater elevation and flow direction, to confirm the effectiveness of the groundwater/NAPL collection system.
- Assess seasonal changes in groundwater elevation.
- Monitor for the presence of NAPL.
- Evaluate dissolved-phase concentration trends, to assess dissolved-phase stability.

5.1 Groundwater Elevation Measurements

Fluid level measurements (gauging) are collected on a semi-annual basis at: (1) monitoring wells B3, B6R, B7R, B8R, B19, MWF1 through MWF5, MWS2, and MWS4; (2) piezometers P1, P2, P6R through P8R, PF3, PF4, PF6, PS1, TP1, and TP2; and (3) the trench pumping sump. The well locations are shown on **Figure 1**. Each gauging event includes the following:

- An integrity assessment of each well or piezometer
- Measurement of the groundwater/surface water level and, where present, NAPL thickness at each well or piezometer
- Manual removal, to the extent practicable, of NAPL accumulations greater than 0.1 foot in thickness.

At each well/piezometer, an oil-water interface probe is used to determine the presence or absence of NAPL and measure the depth to groundwater, depth to NAPL (where present), and total depth of the well/piezometer. Depths are measured to the nearest 0.01 foot from the reference point at the top of the inner casing. To the extent practicable, groundwater levels are measured within a single workday to minimize potential relative changes in measurements due to seasonal conditions or precipitation events.

Groundwater elevations within the past 18 months consistently show a general westward flow towards the Scajaquada Creek and gradients toward the interceptor trench and recovery sump. Groundwater gauging data and contour maps are included in **Appendix C**.

5.2 Groundwater Sampling

Groundwater sampling is conducted on a semi-annual basis at monitoring wells B3, B6R, B7R, B8R, MWF2, MWF3, and MWF4 and at piezometer P8R. The well locations are shown on **Figure 1**. Each sampling event includes the following:

- Measurement of the groundwater level and, where present, NAPL thickness at each well or piezometer (as discussed in Section 5.1)
- Collection and analysis of groundwater samples from those wells/piezometers where NAPL is not observed
- Manual removal, to the extent practicable, of NAPL accumulations greater than 0.1 foot in thickness.

Following fluid level measurements, groundwater samples are collected via low-flow sampling methods and then packaged on ice and shipped to Eurofins Test America Laboratory for the analysis of benzene, toluene, ethylbenzene, and xylene (BTEX) via USEPA Method 8260C.

During the November 2019, September 2020, and December 2020 sampling events, total BTEX concentrations ranged from below laboratory method detection limits to above the NYSDEC ambient water quality standards and guidance values presented in Technical and Operation Guidance Series 1.1.1, which is consistent with historical results.

Tabulated groundwater analytical data and groundwater concentration figures for the associated period are included in **Appendix C**. More details regarding the sampling events can be found in the 2019 and 2020 Annual Reports.

6 Cap, Creek, and Sheet Pile Wall Inspections

The Site cap, consisting of previously existing Site development and an engineered soil cover system, is inspected weekly for any breaches, penetrations, or other disturbances.

Monitoring of the sheet pile wall and Scajaquada Creek are conducted monthly to verify that the groundwater/NAPL collection system is providing sufficient hydraulic containment to prevent the off-site migration of groundwater and NAPL. Each monitoring event includes a visual assessment and photo-documentation of the exposed portion of the sheet pile wall.

No seepage through the wall or sheen on the surface water has been observed within the past 18 months. The monthly inspection reports are included in **Appendix D**.

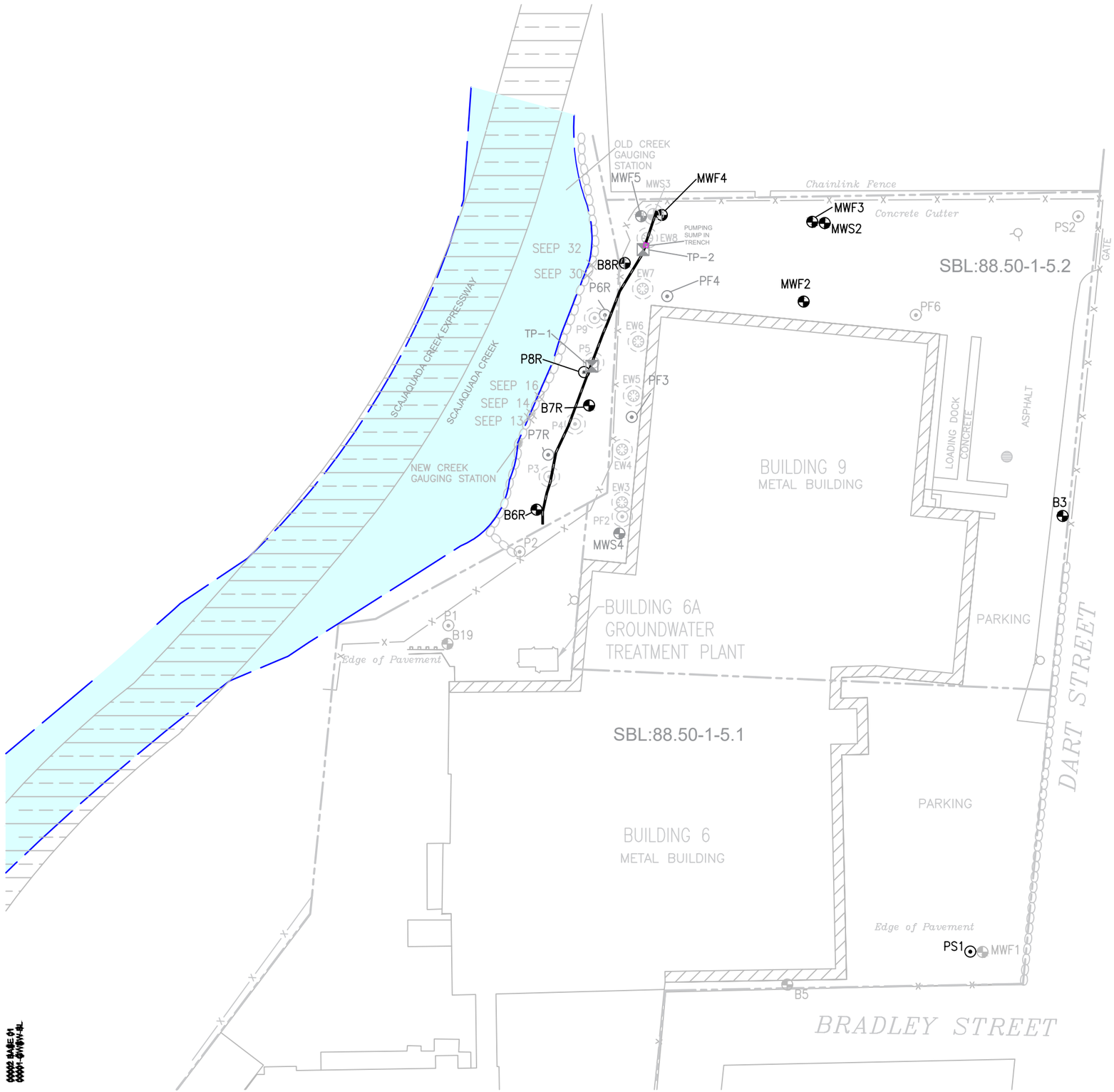
7 Waste Handling and Disposal

In December 2019, waste was transported by Abscope Environmental to the Covanta Environmental Solutions facility in Myerstown, Pennsylvania, for disposal as non-hazardous waste. The materials sent for disposal included three drums of recovered NAPL, as well as personal protective equipment, filters, and granular carbon, all impacted with NAPL. The waste manifest is included in **Appendix E**.

8 Conclusion

The current remedy and institutional controls have been effective for the past 18 months, and are being implemented consistent with the requirements of the ROD and ESD. The groundwater recovery trench has been effectively controlling dissolved constituents and NAPL. The groundwater treatment system has operated within permit requirements with no exceedances over the past 18 months. Work continues with the property owner to effectuate the filing of an environmental easement on the real property to finalize implementation of the remedy. A final SMP, to be approved by the NYSDEC, will be incorporated by reference into the environmental easement to assure continuation of the institutional and engineering controls, as well as the associated OMM activities described herein.

Figures



LEGEND :

- INTERCEPTOR TRENCH
- PROPERTY BOUNDARY
- FENCE
- SHEET PILE RETAINING WALL
- MONITORING WELL
- ABANDONED MONITORING WELL
- STREAM GAUGE
- SEEP LOCATION
- PIEZOMETER
- ABANDONED PIEZOMETER
- GROUNDWATER EXTRACTION WELL
- ABANDONED GROUNDWATER EXTRACTION WELL
- TRENCH PIEZOMETER
- RECOVERY SUMP
- NS — NOT SAMPLED
- ND — NOT DETECTED
- J — ESTIMATED CONCENTRATION

NOTE:

1. BASE MAP FROM A GROUNDWATER & ENVIRONMENTAL SERVICES, INC. FIGURE TITLED "PROPOSED GROUNDWATER COLLECTION TRENCH LOCATION MAP" DATED 4/13/2013.

0 100 200

GRAPHIC SCALE

IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE
120 DART ST. AND 40 BRADLEY ST.
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
NYSDEC SITE NO. 915141A

SITE MAP

ARCADIS

FIGURE 1

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PMTM: M.BENOIT LYR:(Opt)ON=*;OFF=*REF*
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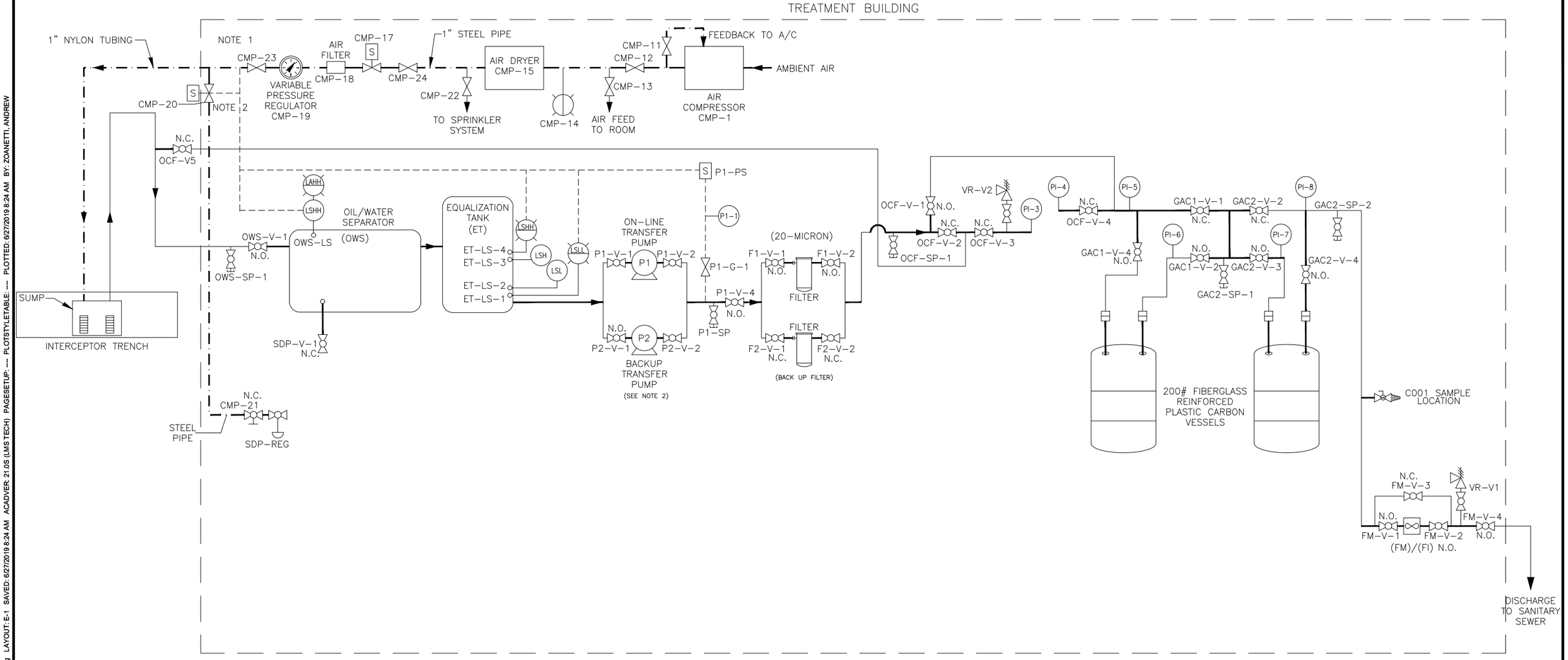

NOTES:

1. SOLENOID VALVE IS ACTIVATED TO THE OFF-POSITION UNDER ANY OF THE FOLLOWING CONDITIONS:
   a) LSHH AT THE OIL-WATER SEPARATOR;
   b) LSHH AT THE EQUILIZATION TANK IS ACTIVATED;
   c) P1-PS HIGH PUMP DISCHARGE PRESSURE SWISWITCH IS ACTIVATED.

2. USE OF TRANSFER PUMPS IS ALTERED ON A QUARTERLY BASIS.

CITY: SYRACUSE, NY DIV/GROUP: DB: PM: TM: LYR:ON=*;OFF=*REF*
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XREFS:
TITLE

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Professional Engineer's Name

Professional Engineer's No.

State	Date Signed	Project Mgr.
Designed by	Drawn by	Checked by

ARCADIS

ARCADIS OF NEW YORK, INC.

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IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE
120 DART ST. AND 40 BRADLEY ST.
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
NYSDEC SITE NO. 915141A

PROCESS FLOW DIAGRAM

ARCADIS Project No.
B0087370.0000.00001

Date
SEPTEMBER 2017

ARCADIS
ARCADIS OF NEW YORK, INC.
110 W. FAYETTE ST., STE 300
SYRACUSE, NY 13202
TEL. 315.446.9120

FIGURE 2

Appendix A

Discharge Monitoring Reports

Ms. Leslie Sedita
Industrial Waste Section
Buffalo Sewer Authority Treatment Plant
90 West Ferry Street
Buffalo, NY 14213-1799

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017
www.arcadis.com

Subject:
Discharge Monitoring Report – Fourth Quarter 2019
Bristol-Myers Squibb Company, Inc.
Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
100 Forest Avenue, Buffalo, NY 14213
BSA Discharge Permit # 18-07-BU174

ENVIRONMENT

Date:
December 31, 2019

Contact:
Vincent S. Maresco

Phone:
315 671 9256

Email:
Vin.Maresco@arcadis.com

Our ref:
B0087370.0004.00002

Dear Ms. Sedita:

On behalf of Bristol-Myers Squibb Company, Arcadis of New York, Inc. (Arcadis) is pleased to submit this fourth quarter 2019 Discharge Monitoring Report (DMR) for the above-referenced site which covers the period October 1 through December 31, 2019. The monthly discharge sampling and DMR preparation were completed in accordance with the Buffalo Sewer Authority (BSA) Sampling Measurement and Analytical Guidelines Sheet. A total of 194,257 gallons of water were discharged during the reporting period (i.e., flow meter totalizer readings from 9/24/2019 to 12/30/2019). Laboratory analytical results indicate that the remedial system operated within BSA permit requirements during the fourth quarter 2019.

The sampling protocol and calculated discharges are based on the following: (1) Total flows are a daily average taken over approximately seven days; and (2) Monthly composite samples are collected over an eight-hour period where grab samples are collected every two hours. A total of four grab samples are collected throughout the eight-hour period. The discharge sample point location, following carbon treatment, is labeled as “001 Sample Location” on the Process Flow Diagram (**Attachment A**). The Sample Collection and Log Sheets for the October, November, and December 2019 monthly sampling events are provided in **Attachment B**.

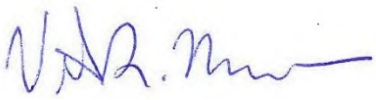
The monthly grab samples were submitted to Eurofins TestAmerica in Amherst, New York, where samples are composited and analyzed for pH via Method 4500 H+B, Total Mercury via EPA Method 245.1, Total Zinc via EPA Method 200.7, Total Cyanide via EPA Method 335.4, Volatile Organic Compounds via EPA Method 624.1, and Semi-Volatile Organic Compounds via EPA Method 625.1.

Laboratory analytical results and average daily flows are provided in the Quarterly Analytical Data Table (**Attachment C**). No exceedances of Daily Maximum or Maximum Allowable Instantaneous Discharge Limitations were observed during the reporting period. BSA Permit Specific Conditions require reporting of any compounds analyzed by EPA Methods 624 and 625 that are detected at a concentration above a threshold of 0.01 milligrams per liter (mg/L). In October, November, and December 2019, there were no detections. The laboratory analytical data packages are provided in **Attachment D**.

If you have any questions or would like to discuss further, please feel free to contact the undersigned.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation.

Signed on behalf of Bristol-Myers Squibb Company and submitted by:



Vincent S. Maresco
Arcadis of New York, Inc.
Project Manager

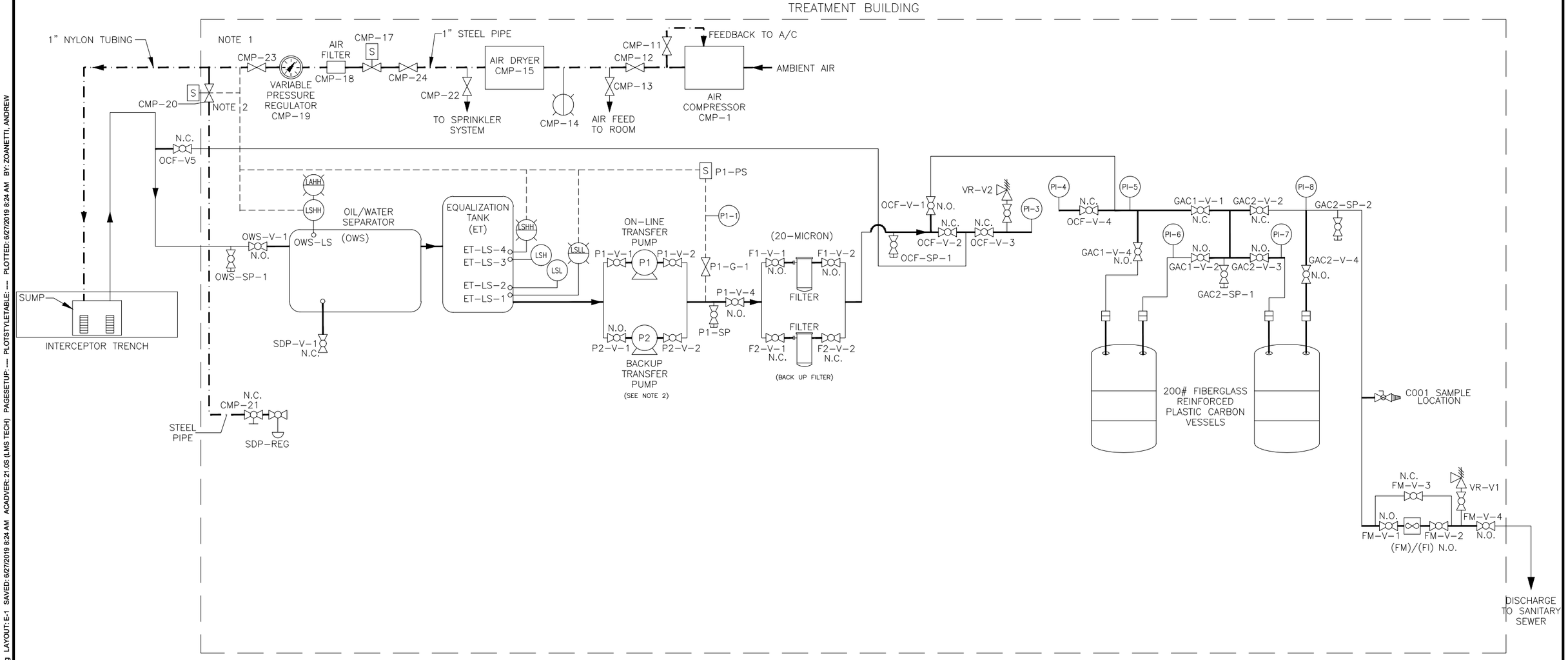
Copies:
Traserra Adams, BSA
Richard Mator, BMS
John Alonzo, de maximis, inc.
Dan Darragh, Cohen & Grigsby, PC
Katie Hoelscher, NFG

Attachments:

- A Process Flow Diagram
- B Sample Collection and Log Sheets for Monthly Sampling Events
- C Quarterly Analytical Data Table
- D Laboratory Analytical Data Package

ATTACHMENT A

Process Flow Diagram



NOTES:

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Professional Engineer's Name

Professional Engineer's No.

State	Date Signed	Project Mgr.
Designed by	Drawn by	Checked by

ARCADIS Design & Consultancy for natural and built assets
ARCADIS OF NEW YORK, INC.

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BRISTOL-MYERS SQUIBB • 100 FOREST AVE., BUFFALO, NY

PROCESS FLOW DIAGRAM

ARCADIS Project No.
B0087370.0000.00001

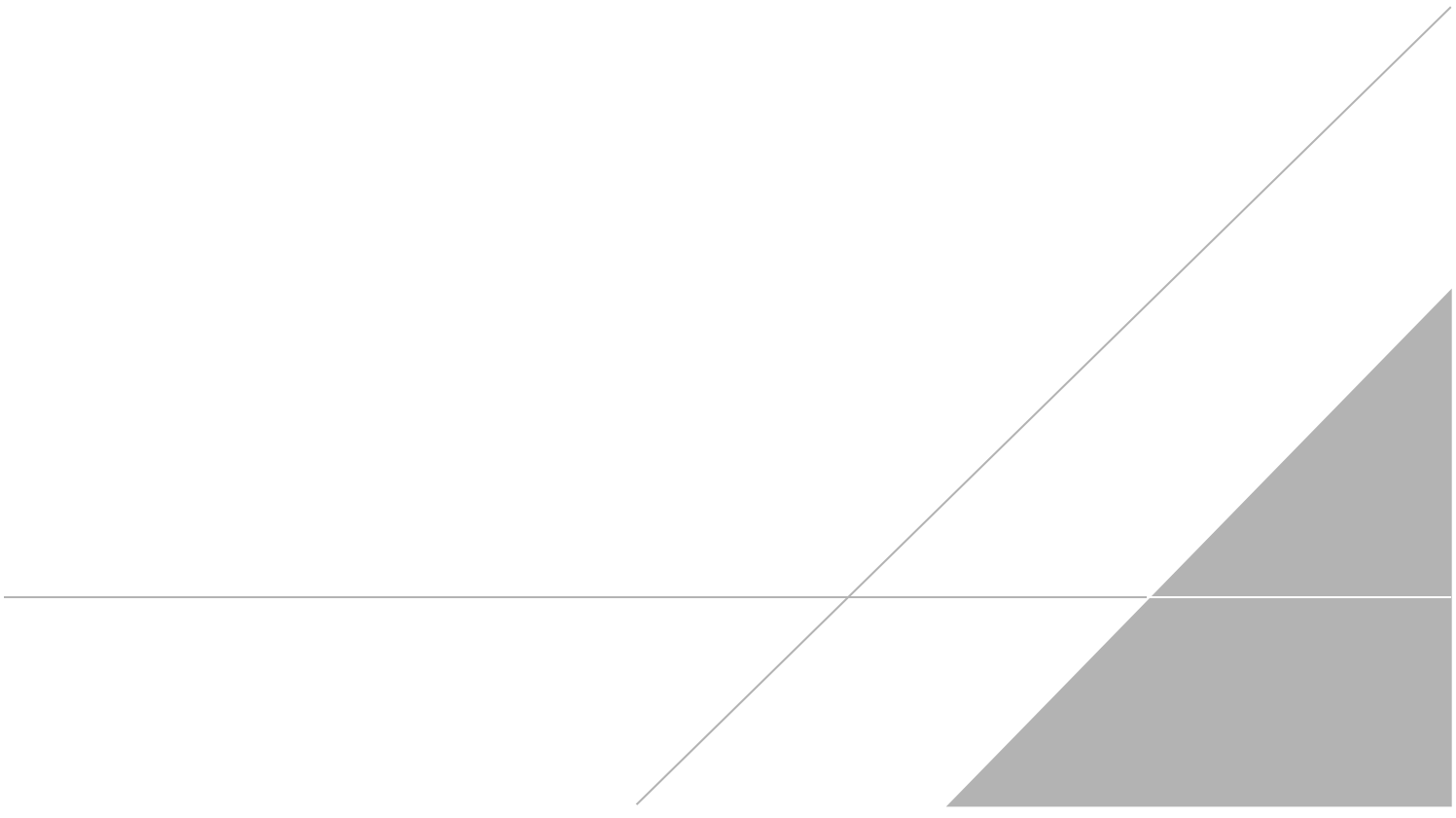
Date
SEPTEMBER 2017

ARCADIS
ARCADIS OF NEW YORK, INC.
110 W. FAYETTE ST., STE 300
SYRACUSE, NY 13202
TEL. 315.446.9120

PFD

ATTACHMENT B

Sample Collection and Log Sheets for Monthly Sampling Events



SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm Permit #: 12-05-BU174

Sample Location: 001 Sample Type: Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Preservative: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	10/1/19	→	→	→	JTG
Sample Time	0710	0910	1110	1310	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	72°F Clear	75°F Sunny	77°F Sunny	81°F Sunny	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as recommended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski 10/1/19

Sample Technician Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroquois Gas/Westwood Pharm Permit #: 12-05-BU174

Sample Location: 001 Sample Type: Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	11/7/19	→	→	→	JTO
Sample Time	0700	0900	1100	1300	JTO
Sample Observations	clear	→	→	→	JTO
pH Measurement	N/A	→	→	→	JTO
Weather	30°F Light Rain	33°F Light Snow	33°F Light Snow	32°F Light Snow	JTO
Comments	None	→	→	→	JTO

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski 11/7/19

Sample Technician Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm Permit #: 12-05-BU174

Sample Location: 001 Sample Type: Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	12/12/19	→	→	→	JTG
Sample Time	0700	0900	1100	1300	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	18°F Clear	19°F Sun	23°F overcast	30°F overcast	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as amended.

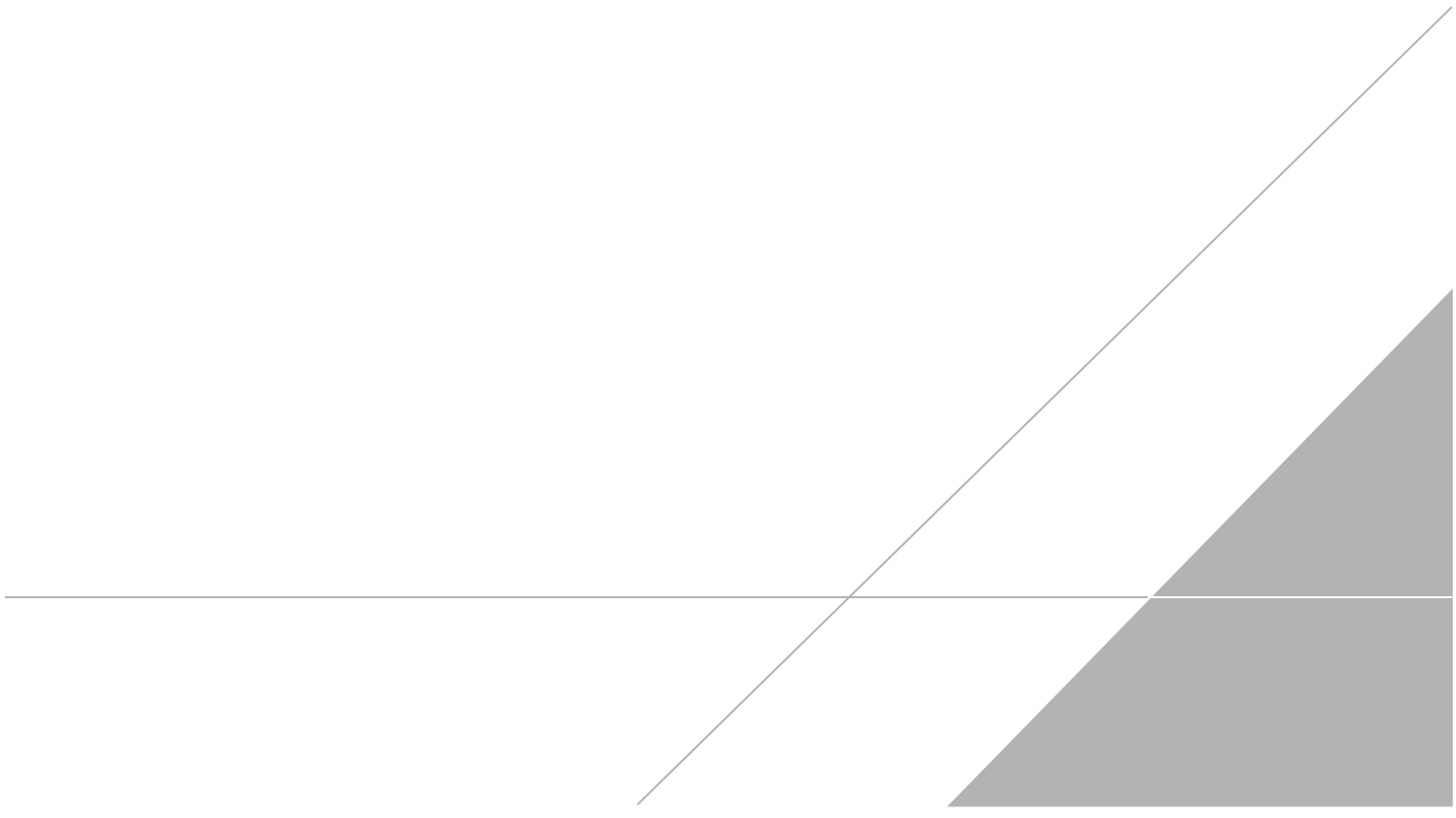
**pH will be analyzed at the lab once grab samples are composited.

Jason Gallagher 12/12/19

Sample Technician Date

ATTACHMENT C

Quarterly Analytical Data Table



Quarterly Analytical Data Table
Iroquois Gas / Westwood Pharmaceuticals Terrestrial Site
BSA Discharge Permit No. 18-07-BU174
Buffalo, NY

ARCADIS Design & Consultancy for natural and built assets

Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	9/24/2019	10/1/2019	10/8/2019	10/15/2019	10/24/2019	10/29/2019	11/7/2019	11/14/2019
Totalizer	gal	NA	3,238,637	3,266,254	3,294,056	3,322,297	3,354,915	3,365,210	3,374,181	3,390,809
Total Mercury	lbs	0.00001**	NA	ND	NS	NS	NS	NS	ND	NS
Total Zinc	lbs	3.0**	NA	9.86E-05	NS	NS	NS	NS	ND	NS
Total Cyanide	lbs	7.93**	NA	2.99E-03	NS	NS	NS	NS	1.49E-03	NS
Total VOCs	mg/L	NA	NA	0.0013	NS	NS	NS	NS	0.0014	NS
Total SVOCs	mg/L	NA	NA	ND	NS	NS	NS	NS	ND	NS
pH	SU	5.0-12.0	NA	7.2	NS	NS	NS	NS	7.9	NS
Total Daily Flow	gal	14,400	-	3,945	3,972	3,138	6,524	1,144	1,282	2,771

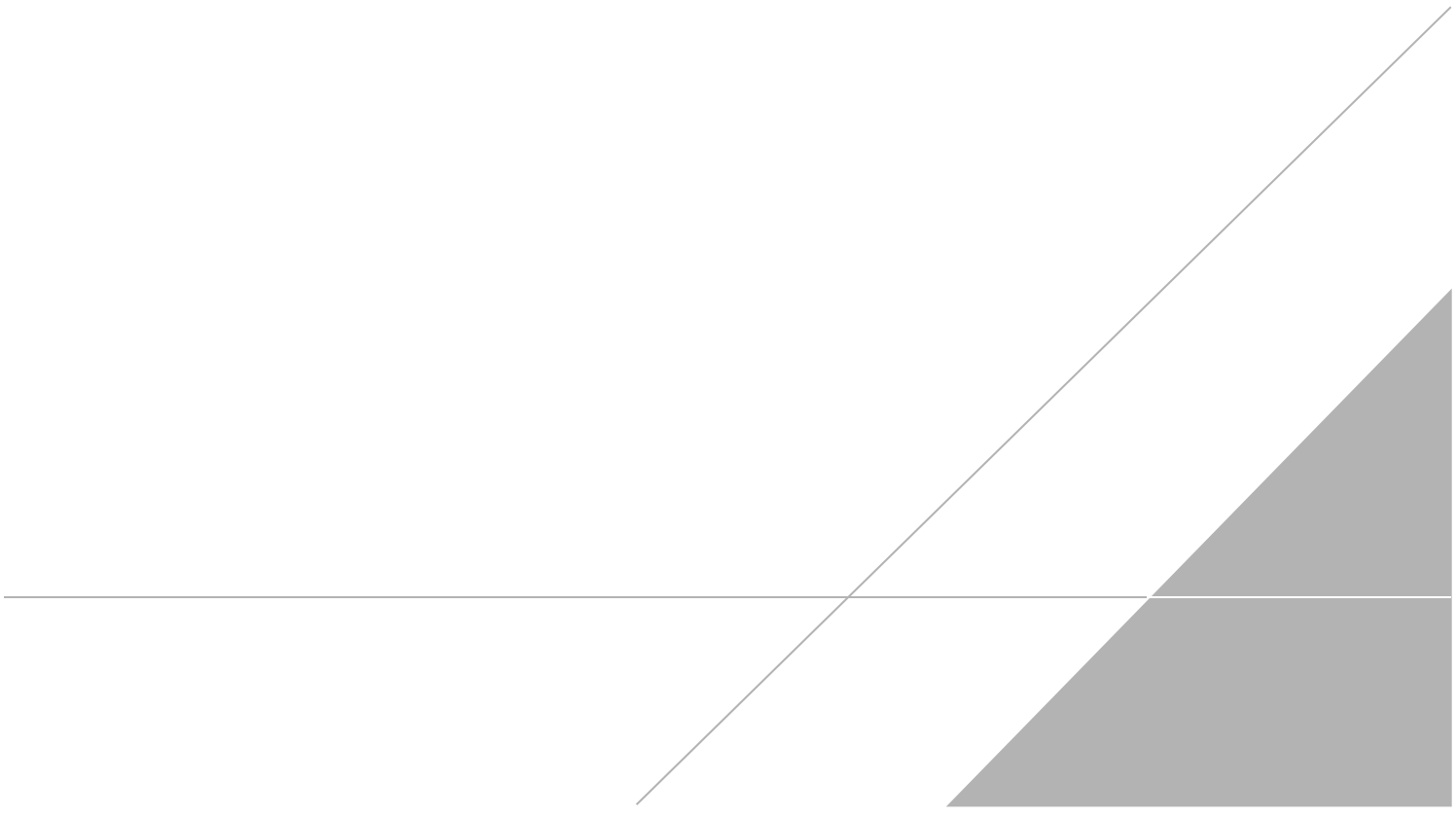
Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	11/20/2019	11/27/2019	12/6/2019	12/12/2019	12/16/2019	12/23/2019	12/30/2019
Totalizer	gal	NA	3,394,483	3,394,912	3,398,028	3,408,205	3,415,023	3,425,378	3,432,894
Total Mercury	lbs	0.00001**	NS	NS	NS	ND	NS	NS	NS
Total Zinc	lbs	3.0**	NS	NS	NS	2.82E-04	NS	NS	NS
Total Cyanide	lbs	7.93**	NS	NS	NS	ND	NS	NS	NS
Total VOCs	mg/L	NA	NS	NS	NS	0.00059	NS	NS	NS
Total SVOCs	mg/L	NA	NS	NS	NS	ND	NS	NS	NS
pH	SU	5.0-12.0	NS	NS	NS	7.6	NS	NS	NS
Total Daily Flow	gal	14,400	525	48	519	2,544	974	1,479	1,074

Notes:

B - Compound was found in the blank and the sample.
F1 - MS and/or MSD Recovery is outside acceptance limits.
^ - Instrument related QC is outside acceptable limits.
HF - Field parameter with a holding time of 15 minutes. Test performed by laboratory at clients request. Analytical performed as required and in compliance by BSA permit.
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
* - Relative percent difference of the LCS and LCSD exceeds the control limits.
NS - Not Sampled
ND - Not Detected at the reporting limit
gal - Gallons
NA - Not Applicable
lbs - Pounds
mg/L - Milligrams per liter
SU - Standard Units
** - Maximum Allowable Instantaneous Discharge limits are also included in the permit. All analytical data for this quarter in in compliance with the Maximum Allowable Instantaneous Discharge limits. Analytical results are not presented in this table, they can be found in the attached analytical reports.
*** - The permittee must report any compound whose concentration is greater than 0.01 mg/L. The permittee is not authorized to discharge any of the parameters evaluated by this test procedure, which may cause or contribute to a violation of water quality incorporated into the permit.
Start of third-quarter values

ATTACHMENT D

Laboratory Analytical Data Package



eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-160094-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Judy Stone

Authorized for release by:
10/11/2019 3:12:44 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

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Have a Question? Ask The Expert

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-160094-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-160094-1

Receipt
The samples were received on 10/1/2019 1:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9º C.

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

GC/MS Semi VOA
Method(s) 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 480-495898 and analytical batch 480-496311 recovered outside control limits for the following analyte: Benzidine.

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

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

General Chemistry
Method(s) 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: 001-1-4 LAB COMPOSITE (480-160094-6).

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

Organic Prep
Method(s) 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-495898.

Method(s) 625: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation: 001-1-4 LAB COMPOSITE (480-160094-6).

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-160094-5

No Detections.

Client Sample ID: 001-1-4 LAB COMPOSITE
Lab Sample ID: 480-160094-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.3	J	5.0	0.81	ug/L	1		624.1	Total/NA
Zinc	0.0030	J B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.091		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.8	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-160094-5

Date Collected: 10/01/19 00:00

Matrix: Water

Date Received: 10/01/19 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/03/19 16:24	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/03/19 16:24	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/03/19 16:24	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/03/19 16:24	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/03/19 16:24	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/03/19 16:24	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/03/19 16:24	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/03/19 16:24	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/03/19 16:24	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/03/19 16:24	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/03/19 16:24	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/03/19 16:24	1
Acrolein	ND		100	17	ug/L			10/03/19 16:24	1
Acrylonitrile	ND		50	1.9	ug/L			10/03/19 16:24	1
Benzene	ND		5.0	0.60	ug/L			10/03/19 16:24	1
Bromoform	ND		5.0	0.47	ug/L			10/03/19 16:24	1
Bromomethane	ND		5.0	1.2	ug/L			10/03/19 16:24	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/03/19 16:24	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/03/19 16:24	1
Dibromochloromethane	ND		5.0	0.41	ug/L			10/03/19 16:24	1
Chloroethane	ND		5.0	0.87	ug/L			10/03/19 16:24	1
Chloroform	ND		5.0	0.54	ug/L			10/03/19 16:24	1
Chloromethane	ND		5.0	0.64	ug/L			10/03/19 16:24	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/03/19 16:24	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/03/19 16:24	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/03/19 16:24	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/03/19 16:24	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/03/19 16:24	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/03/19 16:24	1
Toluene	ND		5.0	0.45	ug/L			10/03/19 16:24	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/03/19 16:24	1
Trichloroethene	ND		5.0	0.60	ug/L			10/03/19 16:24	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/03/19 16:24	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/03/19 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*80*		*68 - 130*		*10/03/19 16:24*	*1*
4-Bromofluorobenzene (Surr)	*95*		*76 - 123*		*10/03/19 16:24*	*1*
Toluene-d8 (Surr)	*89*		*77 - 120*		*10/03/19 16:24*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 123*		*10/03/19 16:24*	*1*

Client Sample ID: 001-1-4 LAB COMPOSITE

Lab Sample ID: 480-160094-6

Date Collected: 10/01/19 13:10

Matrix: Water

Date Received: 10/01/19 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/03/19 16:47	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/03/19 16:47	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/03/19 16:47	1

Client Sample ID: 001-1-4 LAB COMPOSITE
Lab Sample ID: 480-160094-6
Date Collected: 10/01/19 13:10
Matrix: Water
Date Received: 10/01/19 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/03/19 16:47	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/03/19 16:47	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/03/19 16:47	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/03/19 16:47	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/03/19 16:47	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/03/19 16:47	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/03/19 16:47	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/03/19 16:47	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/03/19 16:47	1
Acrolein	ND		100	17	ug/L			10/03/19 16:47	1
Acrylonitrile	ND		50	1.9	ug/L			10/03/19 16:47	1
Benzene	ND		5.0	0.60	ug/L			10/03/19 16:47	1
Bromoform	ND		5.0	0.47	ug/L			10/03/19 16:47	1
Bromomethane	ND		5.0	1.2	ug/L			10/03/19 16:47	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/03/19 16:47	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/03/19 16:47	1
Dibromochloromethane	ND		5.0	0.41	ug/L			10/03/19 16:47	1
Chloroethane	ND		5.0	0.87	ug/L			10/03/19 16:47	1
Chloroform	ND		5.0	0.54	ug/L			10/03/19 16:47	1
Chloromethane	ND		5.0	0.64	ug/L			10/03/19 16:47	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/03/19 16:47	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/03/19 16:47	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/03/19 16:47	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/03/19 16:47	1
Methylene Chloride	**1.3**	**J**	5.0	0.81	ug/L			10/03/19 16:47	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/03/19 16:47	1
Toluene	ND		5.0	0.45	ug/L			10/03/19 16:47	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/03/19 16:47	1
Trichloroethene	ND		5.0	0.60	ug/L			10/03/19 16:47	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/03/19 16:47	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/03/19 16:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*68 - 130*		*10/03/19 16:47*	*1*
4-Bromofluorobenzene (Surr)	*97*		*76 - 123*		*10/03/19 16:47*	*1*
Toluene-d8 (Surr)	*90*		*77 - 120*		*10/03/19 16:47*	*1*
Dibromofluoromethane (Surr)	*89*		*75 - 123*		*10/03/19 16:47*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		11	0.92	ug/L		10/04/19 08:15	10/07/19 20:04	1
1,2-Dichlorobenzene	ND		11	5.6	ug/L		10/04/19 08:15	10/07/19 20:04	1
1,2-Diphenylhydrazine	ND		11	0.88	ug/L		10/04/19 08:15	10/07/19 20:04	1
1,3-Dichlorobenzene	ND		11	0.78	ug/L		10/04/19 08:15	10/07/19 20:04	1
1,4-Dichlorobenzene	ND		11	6.3	ug/L		10/04/19 08:15	10/07/19 20:04	1
2,2'-Oxybis(1-chloropropane)	ND		5.6	0.94	ug/L		10/04/19 08:15	10/07/19 20:04	1
2,4,6-Trichlorophenol	ND		5.6	1.1	ug/L		10/04/19 08:15	10/07/19 20:04	1
2,4-Dichlorophenol	ND		5.6	0.87	ug/L		10/04/19 08:15	10/07/19 20:04	1
2,4-Dimethylphenol	ND		5.6	1.6	ug/L		10/04/19 08:15	10/07/19 20:04	1
2,4-Dinitrophenol	ND		11	5.6	ug/L		10/04/19 08:15	10/07/19 20:04	1

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 LAB COMPOSITE
Lab Sample ID: 480-160094-6
Date Collected: 10/01/19 13:10
Matrix: Water
Date Received: 10/01/19 13:30

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		11	5.6	ug/L		10/04/19 08:15	10/07/19 20:04	1
2,6-Dinitrotoluene	ND		5.6	1.1	ug/L		10/04/19 08:15	10/07/19 20:04	1
2-Chloronaphthalene	ND		5.6	1.0	ug/L		10/04/19 08:15	10/07/19 20:04	1
2-Chlorophenol	ND		5.6	0.74	ug/L		10/04/19 08:15	10/07/19 20:04	1
2-Nitrophenol	ND		5.6	0.79	ug/L		10/04/19 08:15	10/07/19 20:04	1
3,3'-Dichlorobenzidine	ND		5.6	0.92	ug/L		10/04/19 08:15	10/07/19 20:04	1
4,6-Dinitro-2-methylphenol	ND		11	0.74	ug/L		10/04/19 08:15	10/07/19 20:04	1
4-Bromophenyl phenyl ether	ND		5.6	1.6	ug/L		10/04/19 08:15	10/07/19 20:04	1
4-Chloro-3-methylphenol	ND		5.6	1.2	ug/L		10/04/19 08:15	10/07/19 20:04	1
4-Chlorophenyl phenyl ether	ND		5.6	1.5	ug/L		10/04/19 08:15	10/07/19 20:04	1
4-Nitrophenol	ND		17	11	ug/L		10/04/19 08:15	10/07/19 20:04	1
Acenaphthene	ND		5.6	0.91	ug/L		10/04/19 08:15	10/07/19 20:04	1
Acenaphthylene	ND		5.6	0.98	ug/L		10/04/19 08:15	10/07/19 20:04	1
Anthracene	ND		5.6	1.6	ug/L		10/04/19 08:15	10/07/19 20:04	1
Benzidine	ND	*	90	39	ug/L		10/04/19 08:15	10/07/19 20:04	1
Benzo[a]anthracene	ND		5.6	1.2	ug/L		10/04/19 08:15	10/07/19 20:04	1
Benzo[a]pyrene	ND		5.6	1.5	ug/L		10/04/19 08:15	10/07/19 20:04	1
Benzo[b]fluoranthene	ND		5.6	1.3	ug/L		10/04/19 08:15	10/07/19 20:04	1
Benzo[g,h,i]perylene	ND		5.6	1.7	ug/L		10/04/19 08:15	10/07/19 20:04	1
Benzo[k]fluoranthene	ND		5.6	1.5	ug/L		10/04/19 08:15	10/07/19 20:04	1
Bis(2-chloroethoxy)methane	ND		5.6	0.84	ug/L		10/04/19 08:15	10/07/19 20:04	1
Bis(2-chloroethyl)ether	ND		5.6	1.0	ug/L		10/04/19 08:15	10/07/19 20:04	1
Bis(2-ethylhexyl) phthalate	ND		11	1.3	ug/L		10/04/19 08:15	10/07/19 20:04	1
Butyl benzyl phthalate	ND		5.6	1.2	ug/L		10/04/19 08:15	10/07/19 20:04	1
Chrysene	ND		5.6	1.1	ug/L		10/04/19 08:15	10/07/19 20:04	1
Decane	ND		11	1.8	ug/L		10/04/19 08:15	10/07/19 20:04	1
Di-n-butyl phthalate	ND		5.6	1.8	ug/L		10/04/19 08:15	10/07/19 20:04	1
Di-n-octyl phthalate	ND		5.6	1.3	ug/L		10/04/19 08:15	10/07/19 20:04	1
Dibenz(a,h)anthracene	ND		5.6	1.7	ug/L		10/04/19 08:15	10/07/19 20:04	1
Diethyl phthalate	ND		5.6	1.1	ug/L		10/04/19 08:15	10/07/19 20:04	1
Dimethyl phthalate	ND		5.6	1.0	ug/L		10/04/19 08:15	10/07/19 20:04	1
Fluoranthene	ND		5.6	1.8	ug/L		10/04/19 08:15	10/07/19 20:04	1
Fluorene	ND		5.6	1.1	ug/L		10/04/19 08:15	10/07/19 20:04	1
Hexachlorobenzene	ND		5.6	1.1	ug/L		10/04/19 08:15	10/07/19 20:04	1
Hexachlorobutadiene	ND		5.6	1.1	ug/L		10/04/19 08:15	10/07/19 20:04	1
Hexachlorocyclopentadiene	ND		11	5.6	ug/L		10/04/19 08:15	10/07/19 20:04	1
Hexachloroethane	ND		5.6	0.67	ug/L		10/04/19 08:15	10/07/19 20:04	1
Indeno[1,2,3-cd]pyrene	ND		5.6	1.7	ug/L		10/04/19 08:15	10/07/19 20:04	1
Isophorone	ND		5.6	0.83	ug/L		10/04/19 08:15	10/07/19 20:04	1
N-Nitrosodi-n-propylamine	ND		5.6	1.0	ug/L		10/04/19 08:15	10/07/19 20:04	1
N-Nitrosodimethylamine	ND		11	5.6	ug/L		10/04/19 08:15	10/07/19 20:04	1
N-Nitrosodiphenylamine	ND		5.6	0.44	ug/L		10/04/19 08:15	10/07/19 20:04	1
Naphthalene	ND		5.6	0.97	ug/L		10/04/19 08:15	10/07/19 20:04	1
Nitrobenzene	ND		5.6	0.91	ug/L		10/04/19 08:15	10/07/19 20:04	1
Pentachlorophenol	ND		11	1.8	ug/L		10/04/19 08:15	10/07/19 20:04	1
Phenanthrene	ND		5.6	1.3	ug/L		10/04/19 08:15	10/07/19 20:04	1
Phenol	ND		5.6	0.39	ug/L		10/04/19 08:15	10/07/19 20:04	1
Pyrene	ND		5.6	1.6	ug/L		10/04/19 08:15	10/07/19 20:04	1
n-Octadecane	ND		11	1.3	ug/L		10/04/19 08:15	10/07/19 20:04	1

Client Sample ID: 001-1-4 LAB COMPOSITE

Lab Sample ID: 480-160094-6

Date Collected: 10/01/19 13:10

Matrix: Water

Date Received: 10/01/19 13:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*74*		*52 - 151*	*10/04/19 08:15*	*10/07/19 20:04*	*1*
2-Fluorobiphenyl	*65*		*44 - 120*	*10/04/19 08:15*	*10/07/19 20:04*	*1*
2-Fluorophenol	*35*		*17 - 120*	*10/04/19 08:15*	*10/07/19 20:04*	*1*
Nitrobenzene-d5	*63*		*15 - 314*	*10/04/19 08:15*	*10/07/19 20:04*	*1*
p-Terphenyl-d14	*76*		*22 - 125*	*10/04/19 08:15*	*10/07/19 20:04*	*1*
Phenol-d5	*26*		*8 - 424*	*10/04/19 08:15*	*10/07/19 20:04*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0030**	**J B**	0.010	0.0015	mg/L		10/03/19 10:16	10/04/19 02:35	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		10/10/19 12:27	10/10/19 17:19	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.091**		0.010	0.0050	mg/L		10/07/19 18:06	10/08/19 11:54	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.2**	**HF**	0.1	0.1	SU			10/10/19 16:12	1
Temperature	**19.8**	**HF**	0.001	0.001	Degrees C			10/10/19 16:12	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-160094-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-160094-5	TRIP BLANK	80	95	89	88
480-160094-6	001-1-4 LAB COMPOSITE	84	97	90	89
LCS 480-495655/5	Lab Control Sample	85	93	89	87
MB 480-495655/7	Method Blank	84	97	91	88

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-160094-6	001-1-4 LAB COMPOSITE	74	65	35	63	76	26
LCS 480-495898/2-A	Lab Control Sample	84	77	42	71	90	31
LCSD 480-495898/3-A	Lab Control Sample Dup	91	87	45	82	97	35
MB 480-495898/1-A	Method Blank	79	97	53	96	105	37

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-495655/7
Matrix: Water
Analysis Batch: 495655

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	ND		5.0	0.39	ug/L			10/03/19 12:17	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/03/19 12:17	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/03/19 12:17	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/03/19 12:17	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/03/19 12:17	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/03/19 12:17	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/03/19 12:17	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/03/19 12:17	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/03/19 12:17	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/03/19 12:17	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/03/19 12:17	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/03/19 12:17	1
Acrolein	ND		100	17	ug/L			10/03/19 12:17	1
Acrylonitrile	ND		50	1.9	ug/L			10/03/19 12:17	1
Benzene	ND		5.0	0.60	ug/L			10/03/19 12:17	1
Bromoform	ND		5.0	0.47	ug/L			10/03/19 12:17	1
Bromomethane	ND		5.0	1.2	ug/L			10/03/19 12:17	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/03/19 12:17	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/03/19 12:17	1
Dibromochloromethane	ND		5.0	0.41	ug/L			10/03/19 12:17	1
Chloroethane	ND		5.0	0.87	ug/L			10/03/19 12:17	1
Chloroform	ND		5.0	0.54	ug/L			10/03/19 12:17	1
Chloromethane	ND		5.0	0.64	ug/L			10/03/19 12:17	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/03/19 12:17	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/03/19 12:17	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/03/19 12:17	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/03/19 12:17	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/03/19 12:17	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/03/19 12:17	1
Toluene	ND		5.0	0.45	ug/L			10/03/19 12:17	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/03/19 12:17	1
Trichloroethene	ND		5.0	0.60	ug/L			10/03/19 12:17	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/03/19 12:17	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/03/19 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*68 - 130*		*10/03/19 12:17*	*1*
4-Bromofluorobenzene (Surr)	*97*		*76 - 123*		*10/03/19 12:17*	*1*
Toluene-d8 (Surr)	*91*		*77 - 120*		*10/03/19 12:17*	*1*
Dibromofluoromethane (Surr)	*88*		*75 - 123*		*10/03/19 12:17*	*1*

Lab Sample ID: LCS 480-495655/5
Matrix: Water
Analysis Batch: 495655

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	20.0	17.6		ug/L		88	52 - 162
1,1,2,2-Tetrachloroethane	20.0	18.6		ug/L		93	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-495655/5
Matrix: Water
Analysis Batch: 495655

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	18.8		ug/L		94	52 - 150
1,1-Dichloroethane	20.0	19.0		ug/L		95	59 - 155
1,1-Dichloroethene	20.0	19.6		ug/L		98	1 - 234
1,2-Dichlorobenzene	20.0	19.6		ug/L		98	18 - 190
1,2-Dichloroethane	20.0	18.4		ug/L		92	49 - 155
1,2-Dichloropropane	20.0	18.9		ug/L		95	1 - 210
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	59 - 156
1,4-Dichlorobenzene	20.0	19.7		ug/L		99	18 - 190
2-Chloroethyl vinyl ether	20.0	17.9	J	ug/L		90	1 - 305
Benzene	20.0	19.6		ug/L		98	37 - 151
Bromoform	20.0	16.9		ug/L		84	45 - 169
Bromomethane	20.0	21.3		ug/L		107	1 - 242
Carbon tetrachloride	20.0	17.2		ug/L		86	70 - 140
Chlorobenzene	20.0	19.2		ug/L		96	37 - 160
Dibromochloromethane	20.0	17.8		ug/L		89	53 - 149
Chloroethane	20.0	20.0		ug/L		100	14 - 230
Chloroform	20.0	18.6		ug/L		93	51 - 138
Chloromethane	20.0	20.1		ug/L		101	1 - 273
cis-1,3-Dichloropropene	20.0	18.8		ug/L		94	1 - 227
Bromodichloromethane	20.0	18.2		ug/L		91	35 - 155
Ethylbenzene	20.0	19.2		ug/L		96	37 - 162
Methylene Chloride	20.0	19.4		ug/L		97	1 - 221
Tetrachloroethene	20.0	19.6		ug/L		98	64 - 148
Toluene	20.0	19.0		ug/L		95	47 - 150
trans-1,3-Dichloropropene	20.0	17.8		ug/L		89	17 - 183
Trichloroethene	20.0	19.0		ug/L		95	71 - 157
Trichlorofluoromethane	20.0	20.3		ug/L		102	17 - 181
Vinyl chloride	20.0	21.7		ug/L		108	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*85*		*68 - 130*
4-Bromofluorobenzene (Surr)	*93*		*76 - 123*
Toluene-d8 (Surr)	*89*		*77 - 120*
Dibromofluoromethane (Surr)	*87*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-495898/1-A
Matrix: Water
Analysis Batch: 496311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 495898

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		10/04/19 08:15	10/07/19 18:24	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		10/04/19 08:15	10/07/19 18:24	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		10/04/19 08:15	10/07/19 18:24	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		10/04/19 08:15	10/07/19 18:24	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		10/04/19 08:15	10/07/19 18:24	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		10/04/19 08:15	10/07/19 18:24	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-495898/1-A
Matrix: Water
Analysis Batch: 496311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 495898

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		10/04/19 08:15	10/07/19 18:24	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		10/04/19 08:15	10/07/19 18:24	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		10/04/19 08:15	10/07/19 18:24	1
2-Chlorophenol	ND		5.0	0.66	ug/L		10/04/19 08:15	10/07/19 18:24	1
2-Nitrophenol	ND		5.0	0.70	ug/L		10/04/19 08:15	10/07/19 18:24	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		10/04/19 08:15	10/07/19 18:24	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		10/04/19 08:15	10/07/19 18:24	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		10/04/19 08:15	10/07/19 18:24	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		10/04/19 08:15	10/07/19 18:24	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		10/04/19 08:15	10/07/19 18:24	1
4-Nitrophenol	ND		15	10	ug/L		10/04/19 08:15	10/07/19 18:24	1
Acenaphthene	ND		5.0	0.81	ug/L		10/04/19 08:15	10/07/19 18:24	1
Acenaphthylene	ND		5.0	0.87	ug/L		10/04/19 08:15	10/07/19 18:24	1
Anthracene	ND		5.0	1.4	ug/L		10/04/19 08:15	10/07/19 18:24	1
Benzidine	ND		80	35	ug/L		10/04/19 08:15	10/07/19 18:24	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		10/04/19 08:15	10/07/19 18:24	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		10/04/19 08:15	10/07/19 18:24	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		10/04/19 08:15	10/07/19 18:24	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		10/04/19 08:15	10/07/19 18:24	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		10/04/19 08:15	10/07/19 18:24	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		10/04/19 08:15	10/07/19 18:24	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		10/04/19 08:15	10/07/19 18:24	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		10/04/19 08:15	10/07/19 18:24	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		10/04/19 08:15	10/07/19 18:24	1
Chrysene	ND		5.0	1.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
Decane	ND		10	1.6	ug/L		10/04/19 08:15	10/07/19 18:24	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		10/04/19 08:15	10/07/19 18:24	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		10/04/19 08:15	10/07/19 18:24	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		10/04/19 08:15	10/07/19 18:24	1
Diethyl phthalate	ND		5.0	1.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		10/04/19 08:15	10/07/19 18:24	1
Fluoranthene	ND		5.0	1.6	ug/L		10/04/19 08:15	10/07/19 18:24	1
Fluorene	ND		5.0	1.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
Hexachloroethane	ND		5.0	0.60	ug/L		10/04/19 08:15	10/07/19 18:24	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		10/04/19 08:15	10/07/19 18:24	1
Isophorone	ND		5.0	0.74	ug/L		10/04/19 08:15	10/07/19 18:24	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		10/04/19 08:15	10/07/19 18:24	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		10/04/19 08:15	10/07/19 18:24	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		10/04/19 08:15	10/07/19 18:24	1
Naphthalene	ND		5.0	0.86	ug/L		10/04/19 08:15	10/07/19 18:24	1
Nitrobenzene	ND		5.0	0.81	ug/L		10/04/19 08:15	10/07/19 18:24	1
Pentachlorophenol	ND		10	1.6	ug/L		10/04/19 08:15	10/07/19 18:24	1
Phenanthrene	ND		5.0	1.2	ug/L		10/04/19 08:15	10/07/19 18:24	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-495898/1-A
Matrix: Water
Analysis Batch: 496311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 495898

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		10/04/19 08:15	10/07/19 18:24	1
Pyrene	ND		5.0	1.4	ug/L		10/04/19 08:15	10/07/19 18:24	1
n-Octadecane	ND		10	1.2	ug/L		10/04/19 08:15	10/07/19 18:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*79*		*52 - 151*	*10/04/19 08:15*	*10/07/19 18:24*	*1*
2-Fluorobiphenyl	*97*		*44 - 120*	*10/04/19 08:15*	*10/07/19 18:24*	*1*
2-Fluorophenol	*53*		*17 - 120*	*10/04/19 08:15*	*10/07/19 18:24*	*1*
Nitrobenzene-d5	*96*		*15 - 314*	*10/04/19 08:15*	*10/07/19 18:24*	*1*
p-Terphenyl-d14	*105*		*22 - 125*	*10/04/19 08:15*	*10/07/19 18:24*	*1*
Phenol-d5	*37*		*8 - 424*	*10/04/19 08:15*	*10/07/19 18:24*	*1*

Lab Sample ID: LCS 480-495898/2-A
Matrix: Water
Analysis Batch: 496311

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 495898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	30.4		ug/L		61	44 - 142
1,2-Dichlorobenzene	50.0	30.3		ug/L		61	32 - 129
1,3-Dichlorobenzene	50.0	28.3		ug/L		57	1 - 172
1,4-Dichlorobenzene	50.0	28.8		ug/L		58	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	35.7		ug/L		71	36 - 166
2,4,6-Trichlorophenol	50.0	40.2		ug/L		80	37 - 144
2,4-Dichlorophenol	50.0	37.5		ug/L		75	39 - 135
2,4-Dimethylphenol	50.0	37.5		ug/L		75	32 - 120
2,4-Dinitrophenol	100	81.7		ug/L		82	1 - 191
2,4-Dinitrotoluene	50.0	44.7		ug/L		89	39 - 139
2,6-Dinitrotoluene	50.0	42.5		ug/L		85	50 - 158
2-Chloronaphthalene	50.0	37.0		ug/L		74	60 - 120
2-Chlorophenol	50.0	35.2		ug/L		70	23 - 134
2-Nitrophenol	50.0	35.6		ug/L		71	29 - 182
3,3'-Dichlorobenzidine	100	80.8		ug/L		81	1 - 262
4,6-Dinitro-2-methylphenol	100	86.8		ug/L		87	1 - 181
4-Bromophenyl phenyl ether	50.0	43.3		ug/L		87	53 - 127
4-Chloro-3-methylphenol	50.0	41.0		ug/L		82	22 - 147
4-Chlorophenyl phenyl ether	50.0	42.5		ug/L		85	25 - 158
4-Nitrophenol	100	45.2		ug/L		45	1 - 132
Acenaphthene	50.0	41.1		ug/L		82	47 - 145
Acenaphthylene	50.0	40.7		ug/L		81	33 - 145
Anthracene	50.0	45.4		ug/L		91	27 - 133
Benzidine	100	ND		ug/L		28	1 - 120
Benzo[a]anthracene	50.0	44.1		ug/L		88	33 - 143
Benzo[a]pyrene	50.0	45.0		ug/L		90	17 - 163
Benzo[b]fluoranthene	50.0	43.3		ug/L		87	24 - 159
Benzo[g,h,i]perylene	50.0	45.5		ug/L		91	1 - 219
Benzo[k]fluoranthene	50.0	45.4		ug/L		91	11 - 162
Bis(2-chloroethoxy)methane	50.0	38.0		ug/L		76	33 - 184
Bis(2-chloroethyl)ether	50.0	36.5		ug/L		73	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-495898/2-A
Matrix: Water
Analysis Batch: 496311

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 495898

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	44.8		ug/L		90	8 - 158
Butyl benzyl phthalate	50.0	43.9		ug/L		88	1 - 152
Chrysene	50.0	45.2		ug/L		90	17 - 168
Di-n-butyl phthalate	50.0	46.3		ug/L		93	1 - 120
Di-n-octyl phthalate	50.0	46.0		ug/L		92	4 - 146
Dibenz(a,h)anthracene	50.0	45.0		ug/L		90	1 - 227
Diethyl phthalate	50.0	44.9		ug/L		90	1 - 120
Dimethyl phthalate	50.0	42.8		ug/L		86	1 - 120
Fluoranthene	50.0	46.4		ug/L		93	26 - 137
Fluorene	50.0	42.8		ug/L		86	59 - 121
Hexachlorobenzene	50.0	42.0		ug/L		84	1 - 152
Hexachlorocyclopentadiene	50.0	23.1		ug/L		46	5 - 120
Hexachloroethane	50.0	26.1		ug/L		52	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	44.8		ug/L		90	1 - 171
Isophorone	50.0	39.4		ug/L		79	21 - 196
N-Nitrosodi-n-propylamine	50.0	38.2		ug/L		76	1 - 230
N-Nitrosodiphenylamine	50.0	44.4		ug/L		89	54 - 125
Naphthalene	50.0	35.8		ug/L		72	21 - 133
Nitrobenzene	50.0	35.7		ug/L		71	35 - 180
Pentachlorophenol	100	70.0		ug/L		70	14 - 176
Phenanthrene	50.0	44.8		ug/L		90	54 - 120
Phenol	50.0	16.7		ug/L		33	5 - 120
Pyrene	50.0	44.8		ug/L		90	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*84*		*52 - 151*
2-Fluorobiphenyl	*77*		*44 - 120*
2-Fluorophenol	*42*		*17 - 120*
Nitrobenzene-d5	*71*		*15 - 314*
p-Terphenyl-d14	*90*		*22 - 125*
Phenol-d5	*31*		*8 - 424*

Lab Sample ID: LCSD 480-495898/3-A
Matrix: Water
Analysis Batch: 496311

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 495898

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	34.8		ug/L		70	44 - 142	14	34
1,2-Dichlorobenzene	50.0	33.5		ug/L		67	32 - 129	10	38
1,3-Dichlorobenzene	50.0	31.5		ug/L		63	1 - 172	10	37
1,4-Dichlorobenzene	50.0	32.1		ug/L		64	20 - 124	11	40
2,2'-Oxybis(1-chloropropane)	50.0	40.0		ug/L		80	36 - 166	11	36
2,4,6-Trichlorophenol	50.0	44.9		ug/L		90	37 - 144	11	20
2,4-Dichlorophenol	50.0	43.6		ug/L		87	39 - 135	15	23
2,4-Dimethylphenol	50.0	42.1		ug/L		84	32 - 120	12	18
2,4-Dinitrophenol	100	93.0		ug/L		93	1 - 191	13	29
2,4-Dinitrotoluene	50.0	48.9		ug/L		98	39 - 139	9	20
2,6-Dinitrotoluene	50.0	47.8		ug/L		96	50 - 158	12	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-495898/3-A
Matrix: Water
Analysis Batch: 496311

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 495898

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene	50.0	42.6		ug/L		85	60 - 120	14	30
2-Chlorophenol	50.0	38.5		ug/L		77	23 - 134	9	26
2-Nitrophenol	50.0	40.5		ug/L		81	29 - 182	13	28
3,3'-Dichlorobenzidine	100	87.4		ug/L		87	1 - 262	8	31
4,6-Dinitro-2-methylphenol	100	96.4		ug/L		96	1 - 181	11	30
4-Bromophenyl phenyl ether	50.0	48.0		ug/L		96	53 - 127	10	16
4-Chloro-3-methylphenol	50.0	44.6		ug/L		89	22 - 147	8	16
4-Chlorophenyl phenyl ether	50.0	47.3		ug/L		95	25 - 158	11	15
4-Nitrophenol	100	50.7		ug/L		51	1 - 132	12	24
Acenaphthene	50.0	45.8		ug/L		92	47 - 145	11	25
Acenaphthylene	50.0	45.1		ug/L		90	33 - 145	10	22
Anthracene	50.0	49.7		ug/L		99	27 - 133	9	15
Benzidine	100	77.8	J *	ug/L		78	1 - 120	93	50
Benzo[a]anthracene	50.0	49.4		ug/L		99	33 - 143	11	15
Benzo[a]pyrene	50.0	49.8		ug/L		100	17 - 163	10	15
Benzo[b]fluoranthene	50.0	46.9		ug/L		94	24 - 159	8	17
Benzo[g,h,i]perylene	50.0	51.2		ug/L		102	1 - 219	12	19
Benzo[k]fluoranthene	50.0	51.4		ug/L		103	11 - 162	12	19
Bis(2-chloroethoxy)methane	50.0	42.4		ug/L		85	33 - 184	11	23
Bis(2-chloroethyl)ether	50.0	39.9		ug/L		80	12 - 158	9	33
Bis(2-ethylhexyl) phthalate	50.0	50.4		ug/L		101	8 - 158	12	15
Butyl benzyl phthalate	50.0	48.6		ug/L		97	1 - 152	10	15
Chrysene	50.0	48.9		ug/L		98	17 - 168	8	15
Di-n-butyl phthalate	50.0	51.3		ug/L		103	1 - 120	10	15
Di-n-octyl phthalate	50.0	50.8		ug/L		102	4 - 146	10	15
Dibenz(a,h)anthracene	50.0	49.8		ug/L		100	1 - 227	10	18
Diethyl phthalate	50.0	48.9		ug/L		98	1 - 120	9	15
Dimethyl phthalate	50.0	47.4		ug/L		95	1 - 120	10	15
Fluoranthene	50.0	51.0		ug/L		102	26 - 137	10	15
Fluorene	50.0	47.6		ug/L		95	59 - 121	11	18
Hexachlorobenzene	50.0	45.6		ug/L		91	1 - 152	8	15
Hexachlorocyclopentadiene	50.0	27.7		ug/L		55	5 - 120	18	50
Hexachloroethane	50.0	28.6		ug/L		57	40 - 120	9	43
Indeno[1,2,3-cd]pyrene	50.0	50.3		ug/L		101	1 - 171	12	17
Isophorone	50.0	44.0		ug/L		88	21 - 196	11	21
N-Nitrosodi-n-propylamine	50.0	42.8		ug/L		86	1 - 230	12	23
N-Nitrosodiphenylamine	50.0	48.3		ug/L		97	54 - 125	9	15
Naphthalene	50.0	40.6		ug/L		81	21 - 133	13	31
Nitrobenzene	50.0	40.9		ug/L		82	35 - 180	13	27
Pentachlorophenol	100	81.2		ug/L		81	14 - 176	15	21
Phenanthrene	50.0	49.6		ug/L		99	54 - 120	10	16
Phenol	50.0	17.8		ug/L		36	5 - 120	7	36
Pyrene	50.0	50.2		ug/L		100	52 - 120	11	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*91*		*52 - 151*
2-Fluorobiphenyl	*87*		*44 - 120*
2-Fluorophenol	*45*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-495898/3-A
Matrix: Water
Analysis Batch: 496311

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 495898

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	82		15 - 314
p-Terphenyl-d14	97		22 - 125
Phenol-d5	35		8 - 424

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-495664/1-A
Matrix: Water
Analysis Batch: 495875

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 495664

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	0.00234	J	0.010	0.0015	mg/L		10/03/19 10:16	10/04/19 01:32	1

Lab Sample ID: LCS 480-495664/2-A
Matrix: Water
Analysis Batch: 495875

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 495664

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.178		mg/L		89	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-497069/1-A
Matrix: Water
Analysis Batch: 497295

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 497069

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		10/10/19 12:27	10/10/19 17:01	1

Lab Sample ID: LCS 480-497069/2-A
Matrix: Water
Analysis Batch: 497295

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 497069

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00698		mg/L		105	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-496489/1-A
Matrix: Water
Analysis Batch: 496645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 496489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/07/19 18:06	10/08/19 11:50	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-496489/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 496645
Prep Batch: 496489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.250		mg/L		100	90 - 110

Lab Sample ID: 480-160094-6 DU
Client Sample ID: 001-1-4 LAB COMPOSITE
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 496645
Prep Batch: 496489

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.091		0.0883		mg/L		3	15

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-497288/23
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 497288

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 495655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-5	TRIP BLANK	Total/NA	Water	624.1	
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	624.1	
MB 480-495655/7	Method Blank	Total/NA	Water	624.1	
LCS 480-495655/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 495898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	625	
MB 480-495898/1-A	Method Blank	Total/NA	Water	625	
LCS 480-495898/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-495898/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 496311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	625.1	495898
MB 480-495898/1-A	Method Blank	Total/NA	Water	625.1	495898
LCS 480-495898/2-A	Lab Control Sample	Total/NA	Water	625.1	495898
LCSD 480-495898/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	495898

Metals

Prep Batch: 495664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	200.7	
MB 480-495664/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-495664/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 495875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	200.7 Rev 4.4	495664
MB 480-495664/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	495664
LCS 480-495664/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	495664

Prep Batch: 497069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	245.1	
MB 480-497069/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-497069/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 497295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	245.1	497069
MB 480-497069/1-A	Method Blank	Total/NA	Water	245.1	497069
LCS 480-497069/2-A	Lab Control Sample	Total/NA	Water	245.1	497069

General Chemistry

Prep Batch: 496489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	Distill/CN	

General Chemistry (Continued)

Prep Batch: 496489 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-496489/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-496489/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-160094-6 DU	001-1-4 LAB COMPOSITE	Total/NA	Water	Distill/CN	

Analysis Batch: 496645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	335.4	496489
MB 480-496489/1-A	Method Blank	Total/NA	Water	335.4	496489
LCS 480-496489/2-A	Lab Control Sample	Total/NA	Water	335.4	496489
480-160094-6 DU	001-1-4 LAB COMPOSITE	Total/NA	Water	335.4	496489

Analysis Batch: 497288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-160094-6	001-1-4 LAB COMPOSITE	Total/NA	Water	SM 4500 H+ B	
LCS 480-497288/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-160094-5

Date Collected: 10/01/19 00:00
Matrix: Water
Date Received: 10/01/19 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	495655	10/03/19 16:24	S1V	TAL BUF

Client Sample ID: 001-1-4 LAB COMPOSITE
Lab Sample ID: 480-160094-6

Date Collected: 10/01/19 13:10
Matrix: Water
Date Received: 10/01/19 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	495655	10/03/19 16:47	S1V	TAL BUF
Total/NA	Prep	625			495898	10/04/19 08:15	JMP	TAL BUF
Total/NA	Analysis	625.1		1	496311	10/07/19 20:04	RJS	TAL BUF
Total/NA	Prep	200.7			495664	10/03/19 10:16	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	495875	10/04/19 02:35	LMH	TAL BUF
Total/NA	Prep	245.1			497069	10/10/19 12:27	BMB	TAL BUF
Total/NA	Analysis	245.1		1	497295	10/10/19 17:19	BMB	TAL BUF
Total/NA	Prep	Distill/CN			496489	10/07/19 18:06	ZFM	TAL BUF
Total/NA	Analysis	335.4		1	496645	10/08/19 11:54	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	497288	10/10/19 16:12	AEF	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-160094-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-160094-5	TRIP BLANK	Water	10/01/19 00:00	10/01/19 13:30	
480-160094-6	001-1-4 LAB COMPOSITE	Water	10/01/19 13:10	10/01/19 13:30	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-127647-15940.1
Client Contact: Jason Gutkowski	Phone: 315 4363605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): Standard Turn			
State, Zip: NY, 13202				
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed			
Email: jason.gutkowski@arcadis.com	WO #: Project ~~B008FB70.0000.00001~~			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	10/1/19	0710	G	Water			X	X	X	X	X		Lab To
001-2	↓	0910	↓	↓			X	X	X	X	X		Composite
001-3		1110					X	X	X	X	X		Samples
001-4	↓	1310	↓				X	X	X	X	X		
Trip Blank	—	—	—	↓							X		

480-160094 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	10/1/19 / 1327	Arcadis			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				10-1-19 1330	TAL

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		2-9 #1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-160094-1

Login Number: 160094

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Hulbert, Michael J

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.	False	SC composite all but VOAs, VOAs comp in lab
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	False	NA: Check done at department level as required

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-162494-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Joseph V. Giacomazza

Authorized for release by:
11/26/2019 9:53:12 AM
Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-162494-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-162494-1

Comments
No additional comments.

Receipt
The samples were received on 11/7/2019 1:28 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.6º C.

GC/MS VOA
Method 624.1: The continuing calibration verification (CCV) associated with batch 480-504113 recovered above the upper control limit for Acrolein and Carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TRIP BLANK (480-162494-5) and 001-1-4 LAB COMPOSITE (480-162494-6).

Method 624.1: The following Volatile sample(s) was composited by the laboratory on 11/12/19 as requested by the client: 001-1-4 LAB COMPOSITE (480-162494-6).
Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

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

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: 001-1-4 LAB COMPOSITE (480-162494-6).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-162494-5

No Detections.

Client Sample ID: 001-1-4 LAB COMPOSITE
Lab Sample ID: 480-162494-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.4	J	5.0	0.81	ug/L	1		624.1	Total/NA
Cyanide, Total	0.14		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.9	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.2	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-162494-5

Date Collected: 11/07/19 00:00

Matrix: Water

Date Received: 11/07/19 13:28

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			11/13/19 14:03	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			11/13/19 14:03	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			11/13/19 14:03	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			11/13/19 14:03	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			11/13/19 14:03	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			11/13/19 14:03	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			11/13/19 14:03	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			11/13/19 14:03	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			11/13/19 14:03	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			11/13/19 14:03	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			11/13/19 14:03	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			11/13/19 14:03	1
Acrolein	ND		100	17	ug/L			11/13/19 14:03	1
Acrylonitrile	ND		50	1.9	ug/L			11/13/19 14:03	1
Benzene	ND		5.0	0.60	ug/L			11/13/19 14:03	1
Bromoform	ND		5.0	0.47	ug/L			11/13/19 14:03	1
Bromomethane	ND		5.0	1.2	ug/L			11/13/19 14:03	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			11/13/19 14:03	1
Chlorobenzene	ND		5.0	0.48	ug/L			11/13/19 14:03	1
Dibromochloromethane	ND		5.0	0.41	ug/L			11/13/19 14:03	1
Chloroethane	ND		5.0	0.87	ug/L			11/13/19 14:03	1
Chloroform	ND		5.0	0.54	ug/L			11/13/19 14:03	1
Chloromethane	ND		5.0	0.64	ug/L			11/13/19 14:03	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			11/13/19 14:03	1
Bromodichloromethane	ND		5.0	0.54	ug/L			11/13/19 14:03	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			11/13/19 14:03	1
Ethylbenzene	ND		5.0	0.46	ug/L			11/13/19 14:03	1
Methylene Chloride	ND		5.0	0.81	ug/L			11/13/19 14:03	1
Tetrachloroethene	ND		5.0	0.34	ug/L			11/13/19 14:03	1
Toluene	ND		5.0	0.45	ug/L			11/13/19 14:03	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			11/13/19 14:03	1
Trichloroethene	ND		5.0	0.60	ug/L			11/13/19 14:03	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			11/13/19 14:03	1
Vinyl chloride	ND		5.0	0.75	ug/L			11/13/19 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*68 - 130*		*11/13/19 14:03*	*1*
4-Bromofluorobenzene (Surr)	*112*		*76 - 123*		*11/13/19 14:03*	*1*
Toluene-d8 (Surr)	*98*		*77 - 120*		*11/13/19 14:03*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*11/13/19 14:03*	*1*

Client Sample ID: 001-1-4 LAB COMPOSITE

Lab Sample ID: 480-162494-6

Date Collected: 11/07/19 13:00

Matrix: Water

Date Received: 11/07/19 13:28

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			11/13/19 14:26	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			11/13/19 14:26	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			11/13/19 14:26	1

Client Sample ID: 001-1-4 LAB COMPOSITE
Lab Sample ID: 480-162494-6
Date Collected: 11/07/19 13:00
Matrix: Water
Date Received: 11/07/19 13:28

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			11/13/19 14:26	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			11/13/19 14:26	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			11/13/19 14:26	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			11/13/19 14:26	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			11/13/19 14:26	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			11/13/19 14:26	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			11/13/19 14:26	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			11/13/19 14:26	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			11/13/19 14:26	1
Acrolein	ND		100	17	ug/L			11/13/19 14:26	1
Acrylonitrile	ND		50	1.9	ug/L			11/13/19 14:26	1
Benzene	ND		5.0	0.60	ug/L			11/13/19 14:26	1
Bromoform	ND		5.0	0.47	ug/L			11/13/19 14:26	1
Bromomethane	ND		5.0	1.2	ug/L			11/13/19 14:26	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			11/13/19 14:26	1
Chlorobenzene	ND		5.0	0.48	ug/L			11/13/19 14:26	1
Dibromochloromethane	ND		5.0	0.41	ug/L			11/13/19 14:26	1
Chloroethane	ND		5.0	0.87	ug/L			11/13/19 14:26	1
Chloroform	ND		5.0	0.54	ug/L			11/13/19 14:26	1
Chloromethane	ND		5.0	0.64	ug/L			11/13/19 14:26	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			11/13/19 14:26	1
Bromodichloromethane	ND		5.0	0.54	ug/L			11/13/19 14:26	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			11/13/19 14:26	1
Ethylbenzene	ND		5.0	0.46	ug/L			11/13/19 14:26	1
Methylene Chloride	**1.4**	**J**	5.0	0.81	ug/L			11/13/19 14:26	1
Tetrachloroethene	ND		5.0	0.34	ug/L			11/13/19 14:26	1
Toluene	ND		5.0	0.45	ug/L			11/13/19 14:26	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			11/13/19 14:26	1
Trichloroethene	ND		5.0	0.60	ug/L			11/13/19 14:26	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			11/13/19 14:26	1
Vinyl chloride	ND		5.0	0.75	ug/L			11/13/19 14:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*68 - 130*		*11/13/19 14:26*	*1*
4-Bromofluorobenzene (Surr)	*111*		*76 - 123*		*11/13/19 14:26*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*11/13/19 14:26*	*1*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*11/13/19 14:26*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		11/13/19 15:16	11/16/19 05:11	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		11/13/19 15:16	11/16/19 05:11	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		11/13/19 15:16	11/16/19 05:11	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		11/13/19 15:16	11/16/19 05:11	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		11/13/19 15:16	11/16/19 05:11	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		11/13/19 15:16	11/16/19 05:11	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		11/13/19 15:16	11/16/19 05:11	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		11/13/19 15:16	11/16/19 05:11	1

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 LAB COMPOSITE
Lab Sample ID: 480-162494-6
Date Collected: 11/07/19 13:00
Matrix: Water
Date Received: 11/07/19 13:28

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		11/13/19 15:16	11/16/19 05:11	1
2-Chlorophenol	ND		5.0	0.66	ug/L		11/13/19 15:16	11/16/19 05:11	1
2-Nitrophenol	ND		5.0	0.70	ug/L		11/13/19 15:16	11/16/19 05:11	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		11/13/19 15:16	11/16/19 05:11	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		11/13/19 15:16	11/16/19 05:11	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		11/13/19 15:16	11/16/19 05:11	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		11/13/19 15:16	11/16/19 05:11	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		11/13/19 15:16	11/16/19 05:11	1
4-Nitrophenol	ND		15	10	ug/L		11/13/19 15:16	11/16/19 05:11	1
Acenaphthene	ND		5.0	0.81	ug/L		11/13/19 15:16	11/16/19 05:11	1
Acenaphthylene	ND		5.0	0.87	ug/L		11/13/19 15:16	11/16/19 05:11	1
Anthracene	ND		5.0	1.4	ug/L		11/13/19 15:16	11/16/19 05:11	1
Benzidine	ND		80	35	ug/L		11/13/19 15:16	11/16/19 05:11	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		11/13/19 15:16	11/16/19 05:11	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		11/13/19 15:16	11/16/19 05:11	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		11/13/19 15:16	11/16/19 05:11	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		11/13/19 15:16	11/16/19 05:11	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		11/13/19 15:16	11/16/19 05:11	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		11/13/19 15:16	11/16/19 05:11	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		11/13/19 15:16	11/16/19 05:11	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		11/13/19 15:16	11/16/19 05:11	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		11/13/19 15:16	11/16/19 05:11	1
Chrysene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
Decane	ND		10	1.6	ug/L		11/13/19 15:16	11/16/19 05:11	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		11/13/19 15:16	11/16/19 05:11	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		11/13/19 15:16	11/16/19 05:11	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		11/13/19 15:16	11/16/19 05:11	1
Diethyl phthalate	ND		5.0	1.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		11/13/19 15:16	11/16/19 05:11	1
Fluoranthene	ND		5.0	1.6	ug/L		11/13/19 15:16	11/16/19 05:11	1
Fluorene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
Hexachloroethane	ND		5.0	0.60	ug/L		11/13/19 15:16	11/16/19 05:11	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		11/13/19 15:16	11/16/19 05:11	1
Isophorone	ND		5.0	0.74	ug/L		11/13/19 15:16	11/16/19 05:11	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		11/13/19 15:16	11/16/19 05:11	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		11/13/19 15:16	11/16/19 05:11	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		11/13/19 15:16	11/16/19 05:11	1
Naphthalene	ND		5.0	0.86	ug/L		11/13/19 15:16	11/16/19 05:11	1
Nitrobenzene	ND		5.0	0.81	ug/L		11/13/19 15:16	11/16/19 05:11	1
Pentachlorophenol	ND		10	1.6	ug/L		11/13/19 15:16	11/16/19 05:11	1
Phenanthrene	ND		5.0	1.2	ug/L		11/13/19 15:16	11/16/19 05:11	1
Phenol	ND		5.0	0.35	ug/L		11/13/19 15:16	11/16/19 05:11	1
Pyrene	ND		5.0	1.4	ug/L		11/13/19 15:16	11/16/19 05:11	1
n-Octadecane	ND		10	1.2	ug/L		11/13/19 15:16	11/16/19 05:11	1

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 LAB COMPOSITE

Lab Sample ID: 480-162494-6

Date Collected: 11/07/19 13:00

Matrix: Water

Date Received: 11/07/19 13:28

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	*87*		*52 - 151*	*11/13/19 15:16*	*11/16/19 05:11*	*1*
2-Fluorobiphenyl	*92*		*44 - 120*	*11/13/19 15:16*	*11/16/19 05:11*	*1*
2-Fluorophenol	*48*		*17 - 120*	*11/13/19 15:16*	*11/16/19 05:11*	*1*
Nitrobenzene-d5	*92*		*15 - 314*	*11/13/19 15:16*	*11/16/19 05:11*	*1*
p-Terphenyl-d14	*102*		*22 - 125*	*11/13/19 15:16*	*11/16/19 05:11*	*1*
Phenol-d5	*35*		*8 - 424*	*11/13/19 15:16*	*11/16/19 05:11*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		11/14/19 09:48	11/14/19 23:44	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/18/19 14:09	11/18/19 17:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.14**		0.010	0.0050	mg/L		11/14/19 09:35	11/18/19 11:35	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.9**	**HF**	0.1	0.1	SU			11/25/19 12:46	1
Temperature	**19.2**	**HF**	0.001	0.001	Degrees C			11/25/19 12:46	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-162494-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-162494-5	TRIP BLANK	110	112	98	112
480-162494-6	001-1-4 LAB COMPOSITE	106	111	99	111
LCS 480-504113/5	Lab Control Sample	114	117	100	111
MB 480-504113/7	Method Blank	109	113	100	112

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-162494-6	001-1-4 LAB COMPOSITE	87	92	48	92	102	35
LCS 480-504279/2-A	Lab Control Sample	108	98	53	98	106	36
LCSD 480-504279/3-A	Lab Control Sample Dup	112	99	54	97	106	35
MB 480-504279/1-A	Method Blank	77	99	50	98	107	34

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-504113/7
Matrix: Water
Analysis Batch: 504113

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	ND		5.0	0.39	ug/L			11/13/19 11:38	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			11/13/19 11:38	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			11/13/19 11:38	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			11/13/19 11:38	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			11/13/19 11:38	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			11/13/19 11:38	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			11/13/19 11:38	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			11/13/19 11:38	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			11/13/19 11:38	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			11/13/19 11:38	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			11/13/19 11:38	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			11/13/19 11:38	1
Acrolein	ND		100	17	ug/L			11/13/19 11:38	1
Acrylonitrile	ND		50	1.9	ug/L			11/13/19 11:38	1
Benzene	ND		5.0	0.60	ug/L			11/13/19 11:38	1
Bromoform	ND		5.0	0.47	ug/L			11/13/19 11:38	1
Bromomethane	ND		5.0	1.2	ug/L			11/13/19 11:38	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			11/13/19 11:38	1
Chlorobenzene	ND		5.0	0.48	ug/L			11/13/19 11:38	1
Dibromochloromethane	ND		5.0	0.41	ug/L			11/13/19 11:38	1
Chloroethane	ND		5.0	0.87	ug/L			11/13/19 11:38	1
Chloroform	ND		5.0	0.54	ug/L			11/13/19 11:38	1
Chloromethane	ND		5.0	0.64	ug/L			11/13/19 11:38	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			11/13/19 11:38	1
Bromodichloromethane	ND		5.0	0.54	ug/L			11/13/19 11:38	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			11/13/19 11:38	1
Ethylbenzene	ND		5.0	0.46	ug/L			11/13/19 11:38	1
Methylene Chloride	ND		5.0	0.81	ug/L			11/13/19 11:38	1
Tetrachloroethene	ND		5.0	0.34	ug/L			11/13/19 11:38	1
Toluene	ND		5.0	0.45	ug/L			11/13/19 11:38	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			11/13/19 11:38	1
Trichloroethene	ND		5.0	0.60	ug/L			11/13/19 11:38	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			11/13/19 11:38	1
Vinyl chloride	ND		5.0	0.75	ug/L			11/13/19 11:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*68 - 130*		*11/13/19 11:38*	*1*
4-Bromofluorobenzene (Surr)	*113*		*76 - 123*		*11/13/19 11:38*	*1*
Toluene-d8 (Surr)	*100*		*77 - 120*		*11/13/19 11:38*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*11/13/19 11:38*	*1*

Lab Sample ID: LCS 480-504113/5
Matrix: Water
Analysis Batch: 504113

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	20.0	24.0		ug/L		120	52 - 162
1,1,2,2-Tetrachloroethane	20.0	20.7		ug/L		104	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-504113/5
Matrix: Water
Analysis Batch: 504113

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	20.5		ug/L		102	52 - 150
1,1-Dichloroethane	20.0	22.2		ug/L		111	59 - 155
1,1-Dichloroethene	20.0	22.5		ug/L		112	1 - 234
1,2-Dichlorobenzene	20.0	20.3		ug/L		101	18 - 190
1,2-Dichloroethane	20.0	22.0		ug/L		110	49 - 155
1,2-Dichloropropane	20.0	21.6		ug/L		108	1 - 210
1,3-Dichlorobenzene	20.0	21.1		ug/L		105	59 - 156
1,4-Dichlorobenzene	20.0	21.0		ug/L		105	18 - 190
2-Chloroethyl vinyl ether	20.0	23.5	J	ug/L		118	1 - 305
Benzene	20.0	21.9		ug/L		110	37 - 151
Bromoform	20.0	25.7		ug/L		128	45 - 169
Bromomethane	20.0	23.6		ug/L		118	1 - 242
Carbon tetrachloride	20.0	25.8		ug/L		129	70 - 140
Chlorobenzene	20.0	20.9		ug/L		104	37 - 160
Dibromochloromethane	20.0	23.5		ug/L		118	53 - 149
Chloroethane	20.0	23.5		ug/L		118	14 - 230
Chloroform	20.0	22.1		ug/L		111	51 - 138
Chloromethane	20.0	22.2		ug/L		111	1 - 273
cis-1,3-Dichloropropene	20.0	22.3		ug/L		111	1 - 227
Bromodichloromethane	20.0	23.1		ug/L		116	35 - 155
Ethylbenzene	20.0	21.3		ug/L		107	37 - 162
Methylene Chloride	20.0	21.9		ug/L		110	1 - 221
Tetrachloroethene	20.0	20.5		ug/L		103	64 - 148
Toluene	20.0	20.2		ug/L		101	47 - 150
trans-1,3-Dichloropropene	20.0	21.8		ug/L		109	17 - 183
Trichloroethene	20.0	22.3		ug/L		112	71 - 157
Trichlorofluoromethane	20.0	24.6		ug/L		123	17 - 181
Vinyl chloride	20.0	23.6		ug/L		118	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*114*		*68 - 130*
4-Bromofluorobenzene (Surr)	*117*		*76 - 123*
Toluene-d8 (Surr)	*100*		*77 - 120*
Dibromofluoromethane (Surr)	*111*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-504279/1-A
Matrix: Water
Analysis Batch: 504714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 504279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		11/13/19 15:16	11/15/19 20:19	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		11/13/19 15:16	11/15/19 20:19	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		11/13/19 15:16	11/15/19 20:19	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		11/13/19 15:16	11/15/19 20:19	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		11/13/19 15:16	11/15/19 20:19	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		11/13/19 15:16	11/15/19 20:19	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-504279/1-A
Matrix: Water
Analysis Batch: 504714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 504279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		11/13/19 15:16	11/15/19 20:19	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		11/13/19 15:16	11/15/19 20:19	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		11/13/19 15:16	11/15/19 20:19	1
2-Chlorophenol	ND		5.0	0.66	ug/L		11/13/19 15:16	11/15/19 20:19	1
2-Nitrophenol	ND		5.0	0.70	ug/L		11/13/19 15:16	11/15/19 20:19	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		11/13/19 15:16	11/15/19 20:19	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		11/13/19 15:16	11/15/19 20:19	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		11/13/19 15:16	11/15/19 20:19	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		11/13/19 15:16	11/15/19 20:19	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		11/13/19 15:16	11/15/19 20:19	1
4-Nitrophenol	ND		15	10	ug/L		11/13/19 15:16	11/15/19 20:19	1
Acenaphthene	ND		5.0	0.81	ug/L		11/13/19 15:16	11/15/19 20:19	1
Acenaphthylene	ND		5.0	0.87	ug/L		11/13/19 15:16	11/15/19 20:19	1
Anthracene	ND		5.0	1.4	ug/L		11/13/19 15:16	11/15/19 20:19	1
Benzidine	ND		80	35	ug/L		11/13/19 15:16	11/15/19 20:19	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		11/13/19 15:16	11/15/19 20:19	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		11/13/19 15:16	11/15/19 20:19	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		11/13/19 15:16	11/15/19 20:19	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		11/13/19 15:16	11/15/19 20:19	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		11/13/19 15:16	11/15/19 20:19	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		11/13/19 15:16	11/15/19 20:19	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		11/13/19 15:16	11/15/19 20:19	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		11/13/19 15:16	11/15/19 20:19	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		11/13/19 15:16	11/15/19 20:19	1
Chrysene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
Decane	ND		10	1.6	ug/L		11/13/19 15:16	11/15/19 20:19	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		11/13/19 15:16	11/15/19 20:19	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		11/13/19 15:16	11/15/19 20:19	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		11/13/19 15:16	11/15/19 20:19	1
Diethyl phthalate	ND		5.0	1.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		11/13/19 15:16	11/15/19 20:19	1
Fluoranthene	ND		5.0	1.6	ug/L		11/13/19 15:16	11/15/19 20:19	1
Fluorene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
Hexachloroethane	ND		5.0	0.60	ug/L		11/13/19 15:16	11/15/19 20:19	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		11/13/19 15:16	11/15/19 20:19	1
Isophorone	ND		5.0	0.74	ug/L		11/13/19 15:16	11/15/19 20:19	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		11/13/19 15:16	11/15/19 20:19	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		11/13/19 15:16	11/15/19 20:19	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		11/13/19 15:16	11/15/19 20:19	1
Naphthalene	ND		5.0	0.86	ug/L		11/13/19 15:16	11/15/19 20:19	1
Nitrobenzene	ND		5.0	0.81	ug/L		11/13/19 15:16	11/15/19 20:19	1
Pentachlorophenol	ND		10	1.6	ug/L		11/13/19 15:16	11/15/19 20:19	1
Phenanthrene	ND		5.0	1.2	ug/L		11/13/19 15:16	11/15/19 20:19	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-504279/1-A
Matrix: Water
Analysis Batch: 504714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 504279

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		11/13/19 15:16	11/15/19 20:19	1
Pyrene	ND		5.0	1.4	ug/L		11/13/19 15:16	11/15/19 20:19	1
n-Octadecane	ND		10	1.2	ug/L		11/13/19 15:16	11/15/19 20:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*52 - 151*	*11/13/19 15:16*	*11/15/19 20:19*	*1*
2-Fluorobiphenyl	*99*		*44 - 120*	*11/13/19 15:16*	*11/15/19 20:19*	*1*
2-Fluorophenol	*50*		*17 - 120*	*11/13/19 15:16*	*11/15/19 20:19*	*1*
Nitrobenzene-d5	*98*		*15 - 314*	*11/13/19 15:16*	*11/15/19 20:19*	*1*
p-Terphenyl-d14	*107*		*22 - 125*	*11/13/19 15:16*	*11/15/19 20:19*	*1*
Phenol-d5	*34*		*8 - 424*	*11/13/19 15:16*	*11/15/19 20:19*	*1*

Lab Sample ID: LCS 480-504279/2-A
Matrix: Water
Analysis Batch: 504714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 504279

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	45.6		ug/L		91	44 - 142
1,2-Dichlorobenzene	50.0	41.5		ug/L		83	32 - 129
1,3-Dichlorobenzene	50.0	40.0		ug/L		80	1 - 172
1,4-Dichlorobenzene	50.0	40.5		ug/L		81	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	41.6		ug/L		83	36 - 166
2,4,6-Trichlorophenol	50.0	48.4		ug/L		97	37 - 144
2,4-Dichlorophenol	50.0	50.3		ug/L		101	39 - 135
2,4-Dimethylphenol	50.0	49.6		ug/L		99	32 - 120
2,4-Dinitrophenol	100	91.5		ug/L		92	1 - 191
2,4-Dinitrotoluene	50.0	51.6		ug/L		103	39 - 139
2,6-Dinitrotoluene	50.0	50.2		ug/L		100	50 - 158
2-Chloronaphthalene	50.0	47.1		ug/L		94	60 - 120
2-Chlorophenol	50.0	43.1		ug/L		86	23 - 134
2-Nitrophenol	50.0	49.3		ug/L		99	29 - 182
3,3'-Dichlorobenzidine	100	100		ug/L		100	1 - 262
4,6-Dinitro-2-methylphenol	100	103		ug/L		103	1 - 181
4-Bromophenyl phenyl ether	50.0	51.6		ug/L		103	53 - 127
4-Chloro-3-methylphenol	50.0	50.5		ug/L		101	22 - 147
4-Chlorophenyl phenyl ether	50.0	50.1		ug/L		100	25 - 158
4-Nitrophenol	100	57.3		ug/L		57	1 - 132
Acenaphthene	50.0	48.8		ug/L		98	47 - 145
Acenaphthylene	50.0	48.9		ug/L		98	33 - 145
Anthracene	50.0	52.1		ug/L		104	27 - 133
Benzidine	100	38.3	J	ug/L		38	1 - 120
Benzo[a]anthracene	50.0	53.6		ug/L		107	33 - 143
Benzo[a]pyrene	50.0	53.8		ug/L		108	17 - 163
Benzo[b]fluoranthene	50.0	52.0		ug/L		104	24 - 159
Benzo[g,h,i]perylene	50.0	52.4		ug/L		105	1 - 219
Benzo[k]fluoranthene	50.0	52.9		ug/L		106	11 - 162
Bis(2-chloroethoxy)methane	50.0	47.7		ug/L		95	33 - 184
Bis(2-chloroethyl)ether	50.0	43.1		ug/L		86	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-504279/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 504714
Prep Batch: 504279

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	57.7		ug/L		115	8 - 158
Butyl benzyl phthalate	50.0	57.5		ug/L		115	1 - 152
Chrysene	50.0	51.3		ug/L		103	17 - 168
Di-n-butyl phthalate	50.0	57.4		ug/L		115	1 - 120
Di-n-octyl phthalate	50.0	63.2		ug/L		126	4 - 146
Dibenz(a,h)anthracene	50.0	56.4		ug/L		113	1 - 227
Diethyl phthalate	50.0	52.9		ug/L		106	1 - 120
Dimethyl phthalate	50.0	52.4		ug/L		105	1 - 120
Fluoranthene	50.0	55.6		ug/L		111	26 - 137
Fluorene	50.0	47.8		ug/L		96	59 - 121
Hexachlorobenzene	50.0	54.1		ug/L		108	1 - 152
Hexachlorocyclopentadiene	50.0	46.7		ug/L		93	5 - 120
Hexachloroethane	50.0	40.1		ug/L		80	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	52.2		ug/L		104	1 - 171
Isophorone	50.0	49.5		ug/L		99	21 - 196
N-Nitrosodi-n-propylamine	50.0	44.2		ug/L		88	1 - 230
N-Nitrosodiphenylamine	50.0	50.1		ug/L		100	54 - 125
Naphthalene	50.0	47.0		ug/L		94	21 - 133
Nitrobenzene	50.0	48.9		ug/L		98	35 - 180
Pentachlorophenol	100	99.7		ug/L		100	14 - 176
Phenanthrene	50.0	51.3		ug/L		103	54 - 120
Phenol	50.0	19.6		ug/L		39	5 - 120
Pyrene	50.0	53.8		ug/L		108	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*108*		*52 - 151*
2-Fluorobiphenyl	*98*		*44 - 120*
2-Fluorophenol	*53*		*17 - 120*
Nitrobenzene-d5	*98*		*15 - 314*
p-Terphenyl-d14	*106*		*22 - 125*
Phenol-d5	*36*		*8 - 424*

Lab Sample ID: LCSD 480-504279/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 504714
Prep Batch: 504279

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	45.2		ug/L		90	44 - 142	1	34
1,2-Dichlorobenzene	50.0	41.1		ug/L		82	32 - 129	1	38
1,3-Dichlorobenzene	50.0	40.3		ug/L		81	1 - 172	1	37
1,4-Dichlorobenzene	50.0	40.3		ug/L		81	20 - 124	0	40
2,2'-Oxybis(1-chloropropane)	50.0	41.2		ug/L		82	36 - 166	1	36
2,4,6-Trichlorophenol	50.0	48.8		ug/L		98	37 - 144	1	20
2,4-Dichlorophenol	50.0	49.3		ug/L		99	39 - 135	2	23
2,4-Dimethylphenol	50.0	49.7		ug/L		99	32 - 120	0	18
2,4-Dinitrophenol	100	98.1		ug/L		98	1 - 191	7	29
2,4-Dinitrotoluene	50.0	52.8		ug/L		106	39 - 139	2	20
2,6-Dinitrotoluene	50.0	51.1		ug/L		102	50 - 158	2	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-504279/3-A
Matrix: Water
Analysis Batch: 504714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 504279

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	47.7		ug/L		95	60 - 120	1	30
2-Chlorophenol			50.0	42.6		ug/L		85	23 - 134	1	26
2-Nitrophenol			50.0	47.6		ug/L		95	29 - 182	4	28
3,3'-Dichlorobenzidine			100	101		ug/L		101	1 - 262	1	31
4,6-Dinitro-2-methylphenol			100	104		ug/L		104	1 - 181	1	30
4-Bromophenyl phenyl ether			50.0	53.9		ug/L		108	53 - 127	4	16
4-Chloro-3-methylphenol			50.0	51.3		ug/L		103	22 - 147	2	16
4-Chlorophenyl phenyl ether			50.0	50.9		ug/L		102	25 - 158	2	15
4-Nitrophenol			100	58.5		ug/L		59	1 - 132	2	24
Acenaphthene			50.0	50.1		ug/L		100	47 - 145	3	25
Acenaphthylene			50.0	49.8		ug/L		100	33 - 145	2	22
Anthracene			50.0	52.7		ug/L		105	27 - 133	1	15
Benzidine			100	ND		ug/L		23	1 - 120	48	50
Benzo[a]anthracene			50.0	54.7		ug/L		109	33 - 143	2	15
Benzo[a]pyrene			50.0	54.1		ug/L		108	17 - 163	1	15
Benzo[b]fluoranthene			50.0	57.5		ug/L		115	24 - 159	10	17
Benzo[g,h,i]perylene			50.0	52.5		ug/L		105	1 - 219	0	19
Benzo[k]fluoranthene			50.0	47.5		ug/L		95	11 - 162	11	19
Bis(2-chloroethoxy)methane			50.0	45.8		ug/L		92	33 - 184	4	23
Bis(2-chloroethyl)ether			50.0	42.6		ug/L		85	12 - 158	1	33
Bis(2-ethylhexyl) phthalate			50.0	58.1		ug/L		116	8 - 158	1	15
Butyl benzyl phthalate			50.0	56.9		ug/L		114	1 - 152	1	15
Chrysene			50.0	51.6		ug/L		103	17 - 168	0	15
Di-n-butyl phthalate			50.0	57.5		ug/L		115	1 - 120	0	15
Di-n-octyl phthalate			50.0	61.6		ug/L		123	4 - 146	3	15
Dibenz(a,h)anthracene			50.0	56.6		ug/L		113	1 - 227	0	18
Diethyl phthalate			50.0	53.8		ug/L		108	1 - 120	2	15
Dimethyl phthalate			50.0	53.3		ug/L		107	1 - 120	2	15
Fluoranthene			50.0	55.3		ug/L		111	26 - 137	1	15
Fluorene			50.0	50.2		ug/L		100	59 - 121	5	18
Hexachlorobenzene			50.0	53.7		ug/L		107	1 - 152	1	15
Hexachlorocyclopentadiene			50.0	48.4		ug/L		97	5 - 120	3	50
Hexachloroethane			50.0	40.1		ug/L		80	40 - 120	0	43
Indeno[1,2,3-cd]pyrene			50.0	52.5		ug/L		105	1 - 171	1	17
Isophorone			50.0	48.5		ug/L		97	21 - 196	2	21
N-Nitrosodi-n-propylamine			50.0	45.2		ug/L		90	1 - 230	2	23
N-Nitrosodiphenylamine			50.0	51.3		ug/L		103	54 - 125	2	15
Naphthalene			50.0	45.8		ug/L		92	21 - 133	3	31
Nitrobenzene			50.0	48.1		ug/L		96	35 - 180	2	27
Pentachlorophenol			100	99.9		ug/L		100	14 - 176	0	21
Phenanthrene			50.0	51.8		ug/L		104	54 - 120	1	16
Phenol			50.0	19.1		ug/L		38	5 - 120	2	36
Pyrene			50.0	54.1		ug/L		108	52 - 120	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*112*		*52 - 151*
2-Fluorobiphenyl	*99*		*44 - 120*
2-Fluorophenol	*54*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-504279/3-A
Matrix: Water
Analysis Batch: 504714

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 504279

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*97*		*15 - 314*
p-Terphenyl-d14	*106*		*22 - 125*
Phenol-d5	*35*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-504244/1-A
Matrix: Water
Analysis Batch: 504706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 504244

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		11/14/19 09:48	11/14/19 23:02	1

Lab Sample ID: LCS 480-504244/2-A
Matrix: Water
Analysis Batch: 504706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 504244

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.205		mg/L		103	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-505173/1-A
Matrix: Water
Analysis Batch: 505235

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 505173

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/18/19 14:09	11/18/19 17:09	1

Lab Sample ID: LCS 480-505173/2-A
Matrix: Water
Analysis Batch: 505235

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 505173

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00708		mg/L		106	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-504507/1-A
Matrix: Water
Analysis Batch: 505142

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 504507

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		11/14/19 09:35	11/18/19 11:01	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-504507/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 505142
Prep Batch: 504507

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.384		mg/L		96	90 - 110

Lab Sample ID: LCS 480-504507/3-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 505142
Prep Batch: 504507

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.234		mg/L		94	90 - 110

Lab Sample ID: 480-162494-6 MS
Client Sample ID: 001-1-4 LAB COMPOSITE
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 505142
Prep Batch: 504507

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.14		0.100	0.238		mg/L		97	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-506636/1
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 506636

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 504113

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-5	TRIP BLANK	Total/NA	Water	624.1	
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	624.1	
MB 480-504113/7	Method Blank	Total/NA	Water	624.1	
LCS 480-504113/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 504279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	625	
MB 480-504279/1-A	Method Blank	Total/NA	Water	625	
LCS 480-504279/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-504279/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 504714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-504279/1-A	Method Blank	Total/NA	Water	625.1	504279
LCS 480-504279/2-A	Lab Control Sample	Total/NA	Water	625.1	504279
LCSD 480-504279/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	504279

Analysis Batch: 504722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	625.1	504279

Metals

Prep Batch: 504244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	200.7	
MB 480-504244/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-504244/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 504706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	200.7 Rev 4.4	504244
MB 480-504244/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	504244
LCS 480-504244/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	504244

Prep Batch: 505173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	245.1	
MB 480-505173/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-505173/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 505235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	245.1	505173
MB 480-505173/1-A	Method Blank	Total/NA	Water	245.1	505173
LCS 480-505173/2-A	Lab Control Sample	Total/NA	Water	245.1	505173

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Prep Batch: 504507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	Distill/CN	
MB 480-504507/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-504507/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-504507/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-162494-6 MS	001-1-4 LAB COMPOSITE	Total/NA	Water	Distill/CN	

Analysis Batch: 505142

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	335.4	504507
MB 480-504507/1-A	Method Blank	Total/NA	Water	335.4	504507
LCS 480-504507/2-A	Lab Control Sample	Total/NA	Water	335.4	504507
LCS 480-504507/3-A	Lab Control Sample	Total/NA	Water	335.4	504507
480-162494-6 MS	001-1-4 LAB COMPOSITE	Total/NA	Water	335.4	504507

Analysis Batch: 506636

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-162494-6	001-1-4 LAB COMPOSITE	Total/NA	Water	SM 4500 H+ B	
LCS 480-506636/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-162494-5

Date Collected: 11/07/19 00:00
Matrix: Water
Date Received: 11/07/19 13:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	504113	11/13/19 14:03	S1V	TAL BUF

Client Sample ID: 001-1-4 LAB COMPOSITE
Lab Sample ID: 480-162494-6

Date Collected: 11/07/19 13:00
Matrix: Water
Date Received: 11/07/19 13:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	504113	11/13/19 14:26	S1V	TAL BUF
Total/NA	Prep	625			504279	11/13/19 15:16	ATG	TAL BUF
Total/NA	Analysis	625.1		1	504722	11/16/19 05:11	JMM	TAL BUF
Total/NA	Prep	200.7			504244	11/14/19 09:48	JLC	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	504706	11/14/19 23:44	AMH	TAL BUF
Total/NA	Prep	245.1			505173	11/18/19 14:09	BMB	TAL BUF
Total/NA	Analysis	245.1		1	505235	11/18/19 17:14	BMB	TAL BUF
Total/NA	Prep	Distill/CN			504507	11/14/19 09:35	JRF	TAL BUF
Total/NA	Analysis	335.4		1	505142	11/18/19 11:35	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	506636	11/25/19 12:46	NLA	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-162494-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-162494-5	TRIP BLANK	Water	11/07/19 00:00	11/07/19 13:28	
480-162494-6	001-1-4 LAB COMPOSITE	Water	11/07/19 13:00	11/07/19 13:28	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-127648-15940.1
Client Contact: Jason Gutkowski	Phone: 315 436 3605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			Preservation Codes: A - HCL, M - Hexane, N - None, O - AsNaO2
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13202				
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed			
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056			
Site:	SSOW#:			Other:

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of conta	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	11/7/19	0700	G	Water			X	X	X	X	X		Lab To
001-2		0900					X	X	X	X	X		Composite
001-3		1100					X	X	X	X	X		Samples
001-4		1300					X	X	X	X	X		
Trip Blank	—	—	—								X		

480-162494 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	11/7/19 / 1328				
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

11/7/19 1328 2-C #1

Ver: 01/16/2019

11/26/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-162494-1

Login Number: 162494

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Hulbert, Michael J

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.	False	Lab to composite
Sampling Company provided.	True	ARCADIS
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	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-164143-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
12/24/2019 3:16:55 PM
Orlette Johnson, Senior Project Manager
(484)685-0864
orlette.johnson@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-164143-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-164143-1

Job ID: 480-164143-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-164143-1

Receipt
The samples were received on 12/12/2019 1:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8º C.

GC/MS VOA
Method 624.1: The continuing calibration verification (CCV) associated with batch 480-509683 recovered above the upper control limit for 1,1,1-Trichloroethane and Carbon tetrachloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: TRIP BLANK (480-164143-5) and COMP 001 1-4 (480-164143-6).

Method 624.1: The following Volatile sample(s) was composited by the laboratory on 12/13/19 as requested by the client: COMP 001 1-4 (480-164143-6). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The RPD of the laboratory control sample duplicate (LCSD) for preparation batch 480-510934 and analytical batch 480-511063 recovered outside control limits for the following analytes: Benzidine.

Method 625.1: The following compound has been spiked at a level above the upper range of the initial calibration: Benzidine. The laboratory control sample (LCS) and/or laboratory control sample duplicate (LCSD) associated with preparation batch 480-510934 and analytical batch 480-511063 recovered within acceptable limits for this analyte and has been qualified with an "E" flag.

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

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

General Chemistry
Methods 335.4: The laboratory control sample (LCS) for preparation batch 480-510071 and analytical batch 480-510381 recovered outside control limits for the following analytes: Cyanide. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Methods SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP 001 1-4 (480-164143-6).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-164143-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-164143-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.0	J	5.0	0.54	ug/L	1		624.1	Total/NA

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-164143-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.59	J	5.0	0.54	ug/L	1		624.1	Total/NA
Zinc	0.020		0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
pH	7.6	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.7	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-164143-5
Date Collected: 12/12/19 00:00
Matrix: Water
Date Received: 12/12/19 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			12/13/19 17:50	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			12/13/19 17:50	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			12/13/19 17:50	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			12/13/19 17:50	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			12/13/19 17:50	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			12/13/19 17:50	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			12/13/19 17:50	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			12/13/19 17:50	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			12/13/19 17:50	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			12/13/19 17:50	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			12/13/19 17:50	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			12/13/19 17:50	1
Acrolein	ND		100	17	ug/L			12/13/19 17:50	1
Acrylonitrile	ND		50	1.9	ug/L			12/13/19 17:50	1
Benzene	ND		5.0	0.60	ug/L			12/13/19 17:50	1
Bromoform	ND		5.0	0.47	ug/L			12/13/19 17:50	1
Bromomethane	ND		5.0	1.2	ug/L			12/13/19 17:50	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			12/13/19 17:50	1
Chlorobenzene	ND		5.0	0.48	ug/L			12/13/19 17:50	1
Dibromochloromethane	ND		5.0	0.41	ug/L			12/13/19 17:50	1
Chloroethane	ND		5.0	0.87	ug/L			12/13/19 17:50	1
Chloroform	**1.0**	**J**	5.0	0.54	ug/L			12/13/19 17:50	1
Chloromethane	ND		5.0	0.64	ug/L			12/13/19 17:50	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			12/13/19 17:50	1
Bromodichloromethane	ND		5.0	0.54	ug/L			12/13/19 17:50	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			12/13/19 17:50	1
Ethylbenzene	ND		5.0	0.46	ug/L			12/13/19 17:50	1
Methylene Chloride	ND		5.0	0.81	ug/L			12/13/19 17:50	1
Tetrachloroethene	ND		5.0	0.34	ug/L			12/13/19 17:50	1
Toluene	ND		5.0	0.45	ug/L			12/13/19 17:50	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			12/13/19 17:50	1
Trichloroethene	ND		5.0	0.60	ug/L			12/13/19 17:50	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			12/13/19 17:50	1
Vinyl chloride	ND		5.0	0.75	ug/L			12/13/19 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*68 - 130*		*12/13/19 17:50*	*1*
4-Bromofluorobenzene (Surr)	*96*		*76 - 123*		*12/13/19 17:50*	*1*
Toluene-d8 (Surr)	*87*		*77 - 120*		*12/13/19 17:50*	*1*
Dibromofluoromethane (Surr)	*120*		*75 - 123*		*12/13/19 17:50*	*1*

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-164143-6
Date Collected: 12/12/19 13:00
Matrix: Water
Date Received: 12/12/19 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			12/13/19 18:14	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			12/13/19 18:14	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			12/13/19 18:14	1

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-164143-6

Date Collected: 12/12/19 13:00
Matrix: Water
Date Received: 12/12/19 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			12/13/19 18:14	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			12/13/19 18:14	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			12/13/19 18:14	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			12/13/19 18:14	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			12/13/19 18:14	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			12/13/19 18:14	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			12/13/19 18:14	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			12/13/19 18:14	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			12/13/19 18:14	1
Acrolein	ND		100	17	ug/L			12/13/19 18:14	1
Acrylonitrile	ND		50	1.9	ug/L			12/13/19 18:14	1
Benzene	ND		5.0	0.60	ug/L			12/13/19 18:14	1
Bromoform	ND		5.0	0.47	ug/L			12/13/19 18:14	1
Bromomethane	ND		5.0	1.2	ug/L			12/13/19 18:14	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			12/13/19 18:14	1
Chlorobenzene	ND		5.0	0.48	ug/L			12/13/19 18:14	1
Dibromochloromethane	ND		5.0	0.41	ug/L			12/13/19 18:14	1
Chloroethane	ND		5.0	0.87	ug/L			12/13/19 18:14	1
Chloroform	**0.59**	**J**	5.0	0.54	ug/L			12/13/19 18:14	1
Chloromethane	ND		5.0	0.64	ug/L			12/13/19 18:14	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			12/13/19 18:14	1
Bromodichloromethane	ND		5.0	0.54	ug/L			12/13/19 18:14	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			12/13/19 18:14	1
Ethylbenzene	ND		5.0	0.46	ug/L			12/13/19 18:14	1
Methylene Chloride	ND		5.0	0.81	ug/L			12/13/19 18:14	1
Tetrachloroethene	ND		5.0	0.34	ug/L			12/13/19 18:14	1
Toluene	ND		5.0	0.45	ug/L			12/13/19 18:14	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			12/13/19 18:14	1
Trichloroethene	ND		5.0	0.60	ug/L			12/13/19 18:14	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			12/13/19 18:14	1
Vinyl chloride	ND		5.0	0.75	ug/L			12/13/19 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*118*		*68 - 130*		*12/13/19 18:14*	*1*
4-Bromofluorobenzene (Surr)	*96*		*76 - 123*		*12/13/19 18:14*	*1*
Toluene-d8 (Surr)	*86*		*77 - 120*		*12/13/19 18:14*	*1*
Dibromofluoromethane (Surr)	*116*		*75 - 123*		*12/13/19 18:14*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		12/19/19 15:42	12/20/19 16:36	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		12/19/19 15:42	12/20/19 16:36	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		12/19/19 15:42	12/20/19 16:36	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		12/19/19 15:42	12/20/19 16:36	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		12/19/19 15:42	12/20/19 16:36	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		12/19/19 15:42	12/20/19 16:36	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		12/19/19 15:42	12/20/19 16:36	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 16:36	1

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-164143-1

Client Sample ID: COMP 001 1-4
Date Collected: 12/12/19 13:00
Date Received: 12/12/19 13:30

Lab Sample ID: 480-164143-6
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		12/19/19 15:42	12/20/19 16:36	1
2-Chlorophenol	ND		5.0	0.66	ug/L		12/19/19 15:42	12/20/19 16:36	1
2-Nitrophenol	ND		5.0	0.70	ug/L		12/19/19 15:42	12/20/19 16:36	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		12/19/19 15:42	12/20/19 16:36	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		12/19/19 15:42	12/20/19 16:36	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		12/19/19 15:42	12/20/19 16:36	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		12/19/19 15:42	12/20/19 16:36	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		12/19/19 15:42	12/20/19 16:36	1
4-Nitrophenol	ND		15	10	ug/L		12/19/19 15:42	12/20/19 16:36	1
Acenaphthene	ND		5.0	0.81	ug/L		12/19/19 15:42	12/20/19 16:36	1
Acenaphthylene	ND		5.0	0.87	ug/L		12/19/19 15:42	12/20/19 16:36	1
Anthracene	ND		5.0	1.4	ug/L		12/19/19 15:42	12/20/19 16:36	1
Benzidine	ND	*	80	35	ug/L		12/19/19 15:42	12/20/19 16:36	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		12/19/19 15:42	12/20/19 16:36	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		12/19/19 15:42	12/20/19 16:36	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		12/19/19 15:42	12/20/19 16:36	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		12/19/19 15:42	12/20/19 16:36	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		12/19/19 15:42	12/20/19 16:36	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		12/19/19 15:42	12/20/19 16:36	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		12/19/19 15:42	12/20/19 16:36	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		12/19/19 15:42	12/20/19 16:36	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		12/19/19 15:42	12/20/19 16:36	1
Chrysene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
Decane	ND		10	1.6	ug/L		12/19/19 15:42	12/20/19 16:36	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		12/19/19 15:42	12/20/19 16:36	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		12/19/19 15:42	12/20/19 16:36	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		12/19/19 15:42	12/20/19 16:36	1
Diethyl phthalate	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		12/19/19 15:42	12/20/19 16:36	1
Fluoranthene	ND		5.0	1.6	ug/L		12/19/19 15:42	12/20/19 16:36	1
Fluorene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
Hexachloroethane	ND		5.0	0.60	ug/L		12/19/19 15:42	12/20/19 16:36	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		12/19/19 15:42	12/20/19 16:36	1
Isophorone	ND		5.0	0.74	ug/L		12/19/19 15:42	12/20/19 16:36	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		12/19/19 15:42	12/20/19 16:36	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 16:36	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		12/19/19 15:42	12/20/19 16:36	1
Naphthalene	ND		5.0	0.86	ug/L		12/19/19 15:42	12/20/19 16:36	1
Nitrobenzene	ND		5.0	0.81	ug/L		12/19/19 15:42	12/20/19 16:36	1
Pentachlorophenol	ND		10	1.6	ug/L		12/19/19 15:42	12/20/19 16:36	1
Phenanthrene	ND		5.0	1.2	ug/L		12/19/19 15:42	12/20/19 16:36	1
Phenol	ND		5.0	0.35	ug/L		12/19/19 15:42	12/20/19 16:36	1
Pyrene	ND		5.0	1.4	ug/L		12/19/19 15:42	12/20/19 16:36	1
n-Octadecane	ND		10	1.2	ug/L		12/19/19 15:42	12/20/19 16:36	1

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-164143-6

Date Collected: 12/12/19 13:00
Matrix: Water
Date Received: 12/12/19 13:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*75*		*52 - 151*	*12/19/19 15:42*	*12/20/19 16:36*	*1*
2-Fluorobiphenyl	*91*		*44 - 120*	*12/19/19 15:42*	*12/20/19 16:36*	*1*
2-Fluorophenol	*42*		*17 - 120*	*12/19/19 15:42*	*12/20/19 16:36*	*1*
Nitrobenzene-d5	*86*		*15 - 314*	*12/19/19 15:42*	*12/20/19 16:36*	*1*
p-Terphenyl-d14	*74*		*22 - 125*	*12/19/19 15:42*	*12/20/19 16:36*	*1*
Phenol-d5	*28*		*8 - 424*	*12/19/19 15:42*	*12/20/19 16:36*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.020**		0.010	0.0015	mg/L		12/16/19 05:30	12/16/19 13:47	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/17/19 11:24	12/17/19 15:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND	F1 *	0.010	0.0050	mg/L		12/16/19 10:50	12/17/19 14:48	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.6**	**HF**	0.1	0.1	SU			12/14/19 20:49	1
Temperature	**17.7**	**HF**	0.001	0.001	Degrees C			12/14/19 20:49	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-164143-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-164143-5	TRIP BLANK	119	96	87	120
480-164143-6	COMP 001 1-4	118	96	86	116
LCS 480-509683/5	Lab Control Sample	118	99	89	115
MB 480-509683/7	Method Blank	114	98	87	114

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-164143-6	COMP 001 1-4	75	91	42	86	74	28
LCS 480-510934/2-A	Lab Control Sample	98	93	50	88	100	35
LCSD 480-510934/3-A	Lab Control Sample Dup	97	93	47	86	98	33
MB 480-510934/1-A	Method Blank	68	88	44	84	98	30

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-509683/7
Matrix: Water
Analysis Batch: 509683

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	ND		5.0	0.39	ug/L			12/13/19 11:33	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			12/13/19 11:33	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			12/13/19 11:33	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			12/13/19 11:33	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			12/13/19 11:33	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			12/13/19 11:33	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			12/13/19 11:33	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			12/13/19 11:33	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			12/13/19 11:33	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			12/13/19 11:33	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			12/13/19 11:33	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			12/13/19 11:33	1
Acrolein	ND		100	17	ug/L			12/13/19 11:33	1
Acrylonitrile	ND		50	1.9	ug/L			12/13/19 11:33	1
Benzene	ND		5.0	0.60	ug/L			12/13/19 11:33	1
Bromoform	ND		5.0	0.47	ug/L			12/13/19 11:33	1
Bromomethane	ND		5.0	1.2	ug/L			12/13/19 11:33	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			12/13/19 11:33	1
Chlorobenzene	ND		5.0	0.48	ug/L			12/13/19 11:33	1
Dibromochloromethane	ND		5.0	0.41	ug/L			12/13/19 11:33	1
Chloroethane	ND		5.0	0.87	ug/L			12/13/19 11:33	1
Chloroform	ND		5.0	0.54	ug/L			12/13/19 11:33	1
Chloromethane	ND		5.0	0.64	ug/L			12/13/19 11:33	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			12/13/19 11:33	1
Bromodichloromethane	ND		5.0	0.54	ug/L			12/13/19 11:33	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			12/13/19 11:33	1
Ethylbenzene	ND		5.0	0.46	ug/L			12/13/19 11:33	1
Methylene Chloride	ND		5.0	0.81	ug/L			12/13/19 11:33	1
Tetrachloroethene	ND		5.0	0.34	ug/L			12/13/19 11:33	1
Toluene	ND		5.0	0.45	ug/L			12/13/19 11:33	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			12/13/19 11:33	1
Trichloroethene	ND		5.0	0.60	ug/L			12/13/19 11:33	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			12/13/19 11:33	1
Vinyl chloride	ND		5.0	0.75	ug/L			12/13/19 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*114*		*68 - 130*		*12/13/19 11:33*	*1*
4-Bromofluorobenzene (Surr)	*98*		*76 - 123*		*12/13/19 11:33*	*1*
Toluene-d8 (Surr)	*87*		*77 - 120*		*12/13/19 11:33*	*1*
Dibromofluoromethane (Surr)	*114*		*75 - 123*		*12/13/19 11:33*	*1*

Lab Sample ID: LCS 480-509683/5
Matrix: Water
Analysis Batch: 509683

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	20.0	26.3		ug/L		132	52 - 162
1,1,2,2-Tetrachloroethane	20.0	17.6		ug/L		88	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-509683/5
Matrix: Water
Analysis Batch: 509683

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	18.4		ug/L		92	52 - 150
1,1-Dichloroethane	20.0	23.7		ug/L		118	59 - 155
1,1-Dichloroethene	20.0	24.5		ug/L		123	1 - 234
1,2-Dichlorobenzene	20.0	18.4		ug/L		92	18 - 190
1,2-Dichloroethane	20.0	24.1		ug/L		120	49 - 155
1,2-Dichloropropane	20.0	22.4		ug/L		112	1 - 210
1,3-Dichlorobenzene	20.0	18.0		ug/L		90	59 - 156
1,4-Dichlorobenzene	20.0	17.9		ug/L		90	18 - 190
2-Chloroethyl vinyl ether	20.0	22.4	J	ug/L		112	1 - 305
Benzene	20.0	23.8		ug/L		119	37 - 151
Bromoform	20.0	19.6		ug/L		98	45 - 169
Bromomethane	20.0	24.3		ug/L		122	1 - 242
Carbon tetrachloride	20.0	27.6		ug/L		138	70 - 140
Chlorobenzene	20.0	18.7		ug/L		93	37 - 160
Dibromochloromethane	20.0	19.6		ug/L		98	53 - 149
Chloroethane	20.0	23.9		ug/L		120	14 - 230
Chloroform	20.0	24.6		ug/L		123	51 - 138
Chloromethane	20.0	21.9		ug/L		110	1 - 273
cis-1,3-Dichloropropene	20.0	24.1		ug/L		121	1 - 227
Bromodichloromethane	20.0	24.8		ug/L		124	35 - 155
Ethylbenzene	20.0	19.4		ug/L		97	37 - 162
Methylene Chloride	20.0	22.0		ug/L		110	1 - 221
Tetrachloroethene	20.0	19.5		ug/L		98	64 - 148
Toluene	20.0	18.9		ug/L		94	47 - 150
trans-1,3-Dichloropropene	20.0	19.9		ug/L		99	17 - 183
Trichloroethene	20.0	24.9		ug/L		125	71 - 157
Trichlorofluoromethane	20.0	26.5		ug/L		132	17 - 181
Vinyl chloride	20.0	24.1		ug/L		121	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*118*		*68 - 130*
4-Bromofluorobenzene (Surr)	*99*		*76 - 123*
Toluene-d8 (Surr)	*89*		*77 - 120*
Dibromofluoromethane (Surr)	*115*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-510934/1-A
Matrix: Water
Analysis Batch: 511063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		12/19/19 15:42	12/20/19 15:23	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		12/19/19 15:42	12/20/19 15:23	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		12/19/19 15:42	12/20/19 15:23	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		12/19/19 15:42	12/20/19 15:23	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		12/19/19 15:42	12/20/19 15:23	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 15:23	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-510934/1-A
Matrix: Water
Analysis Batch: 511063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		12/19/19 15:42	12/20/19 15:23	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		12/19/19 15:42	12/20/19 15:23	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		12/19/19 15:42	12/20/19 15:23	1
2-Chlorophenol	ND		5.0	0.66	ug/L		12/19/19 15:42	12/20/19 15:23	1
2-Nitrophenol	ND		5.0	0.70	ug/L		12/19/19 15:42	12/20/19 15:23	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		12/19/19 15:42	12/20/19 15:23	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		12/19/19 15:42	12/20/19 15:23	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		12/19/19 15:42	12/20/19 15:23	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		12/19/19 15:42	12/20/19 15:23	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		12/19/19 15:42	12/20/19 15:23	1
4-Nitrophenol	ND		15	10	ug/L		12/19/19 15:42	12/20/19 15:23	1
Acenaphthene	ND		5.0	0.81	ug/L		12/19/19 15:42	12/20/19 15:23	1
Acenaphthylene	ND		5.0	0.87	ug/L		12/19/19 15:42	12/20/19 15:23	1
Anthracene	ND		5.0	1.4	ug/L		12/19/19 15:42	12/20/19 15:23	1
Benzidine	ND		80	35	ug/L		12/19/19 15:42	12/20/19 15:23	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		12/19/19 15:42	12/20/19 15:23	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		12/19/19 15:42	12/20/19 15:23	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		12/19/19 15:42	12/20/19 15:23	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		12/19/19 15:42	12/20/19 15:23	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		12/19/19 15:42	12/20/19 15:23	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		12/19/19 15:42	12/20/19 15:23	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		12/19/19 15:42	12/20/19 15:23	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		12/19/19 15:42	12/20/19 15:23	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		12/19/19 15:42	12/20/19 15:23	1
Chrysene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
Decane	ND		10	1.6	ug/L		12/19/19 15:42	12/20/19 15:23	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		12/19/19 15:42	12/20/19 15:23	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		12/19/19 15:42	12/20/19 15:23	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		12/19/19 15:42	12/20/19 15:23	1
Diethyl phthalate	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		12/19/19 15:42	12/20/19 15:23	1
Fluoranthene	ND		5.0	1.6	ug/L		12/19/19 15:42	12/20/19 15:23	1
Fluorene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
Hexachloroethane	ND		5.0	0.60	ug/L		12/19/19 15:42	12/20/19 15:23	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		12/19/19 15:42	12/20/19 15:23	1
Isophorone	ND		5.0	0.74	ug/L		12/19/19 15:42	12/20/19 15:23	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		12/19/19 15:42	12/20/19 15:23	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		12/19/19 15:42	12/20/19 15:23	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		12/19/19 15:42	12/20/19 15:23	1
Naphthalene	ND		5.0	0.86	ug/L		12/19/19 15:42	12/20/19 15:23	1
Nitrobenzene	ND		5.0	0.81	ug/L		12/19/19 15:42	12/20/19 15:23	1
Pentachlorophenol	ND		10	1.6	ug/L		12/19/19 15:42	12/20/19 15:23	1
Phenanthrene	ND		5.0	1.2	ug/L		12/19/19 15:42	12/20/19 15:23	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-510934/1-A
Matrix: Water
Analysis Batch: 511063

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510934

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		12/19/19 15:42	12/20/19 15:23	1
Pyrene	ND		5.0	1.4	ug/L		12/19/19 15:42	12/20/19 15:23	1
n-Octadecane	ND		10	1.2	ug/L		12/19/19 15:42	12/20/19 15:23	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*68*		*52 - 151*	*12/19/19 15:42*	*12/20/19 15:23*	*1*
2-Fluorobiphenyl	*88*		*44 - 120*	*12/19/19 15:42*	*12/20/19 15:23*	*1*
2-Fluorophenol	*44*		*17 - 120*	*12/19/19 15:42*	*12/20/19 15:23*	*1*
Nitrobenzene-d5	*84*		*15 - 314*	*12/19/19 15:42*	*12/20/19 15:23*	*1*
p-Terphenyl-d14	*98*		*22 - 125*	*12/19/19 15:42*	*12/20/19 15:23*	*1*
Phenol-d5	*30*		*8 - 424*	*12/19/19 15:42*	*12/20/19 15:23*	*1*

Lab Sample ID: LCS 480-510934/2-A
Matrix: Water
Analysis Batch: 511063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	42.6		ug/L		85	44 - 142
1,2-Dichlorobenzene	50.0	42.2		ug/L		84	32 - 129
1,3-Dichlorobenzene	50.0	39.5		ug/L		79	1 - 172
1,4-Dichlorobenzene	50.0	41.4		ug/L		83	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	42.4		ug/L		85	36 - 166
2,4,6-Trichlorophenol	50.0	46.6		ug/L		93	37 - 144
2,4-Dichlorophenol	50.0	45.5		ug/L		91	39 - 135
2,4-Dimethylphenol	50.0	43.6		ug/L		87	32 - 120
2,4-Dinitrophenol	100	93.1		ug/L		93	1 - 191
2,4-Dinitrotoluene	50.0	48.1		ug/L		96	39 - 139
2,6-Dinitrotoluene	50.0	47.4		ug/L		95	50 - 158
2-Chloronaphthalene	50.0	46.1		ug/L		92	60 - 120
2-Chlorophenol	50.0	41.2		ug/L		82	23 - 134
2-Nitrophenol	50.0	45.8		ug/L		92	29 - 182
3,3'-Dichlorobenzidine	100	104		ug/L		104	1 - 262
4,6-Dinitro-2-methylphenol	100	99.5		ug/L		99	1 - 181
4-Bromophenyl phenyl ether	50.0	50.0		ug/L		100	53 - 127
4-Chloro-3-methylphenol	50.0	44.8		ug/L		90	22 - 147
4-Chlorophenyl phenyl ether	50.0	49.2		ug/L		98	25 - 158
4-Nitrophenol	100	42.5		ug/L		43	1 - 132
Acenaphthene	50.0	48.0		ug/L		96	47 - 145
Acenaphthylene	50.0	48.3		ug/L		97	33 - 145
Anthracene	50.0	51.8		ug/L		104	27 - 133
Benzidine	100	80.3	E	ug/L		80	1 - 120
Benzo[a]anthracene	50.0	52.0		ug/L		104	33 - 143
Benzo[a]pyrene	50.0	50.9		ug/L		102	17 - 163
Benzo[b]fluoranthene	50.0	51.2		ug/L		102	24 - 159
Benzo[g,h,i]perylene	50.0	50.6		ug/L		101	1 - 219
Benzo[k]fluoranthene	50.0	49.6		ug/L		99	11 - 162
Bis(2-chloroethoxy)methane	50.0	45.4		ug/L		91	33 - 184
Bis(2-chloroethyl)ether	50.0	45.2		ug/L		90	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-510934/2-A
Matrix: Water
Analysis Batch: 511063

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510934

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	53.8		ug/L		108	8 - 158
Butyl benzyl phthalate	50.0	54.8		ug/L		110	1 - 152
Chrysene	50.0	53.8		ug/L		108	17 - 168
Di-n-butyl phthalate	50.0	52.6		ug/L		105	1 - 120
Di-n-octyl phthalate	50.0	54.5		ug/L		109	4 - 146
Dibenz(a,h)anthracene	50.0	51.7		ug/L		103	1 - 227
Diethyl phthalate	50.0	49.7		ug/L		99	1 - 120
Dimethyl phthalate	50.0	48.3		ug/L		97	1 - 120
Fluoranthene	50.0	52.3		ug/L		105	26 - 137
Fluorene	50.0	49.0		ug/L		98	59 - 121
Hexachlorobenzene	50.0	51.3		ug/L		103	1 - 152
Hexachlorocyclopentadiene	50.0	40.3		ug/L		81	5 - 120
Hexachloroethane	50.0	37.0		ug/L		74	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	49.6		ug/L		99	1 - 171
Isophorone	50.0	46.7		ug/L		93	21 - 196
N-Nitrosodi-n-propylamine	50.0	45.2		ug/L		90	1 - 230
N-Nitrosodiphenylamine	50.0	50.0		ug/L		100	54 - 125
Naphthalene	50.0	45.1		ug/L		90	21 - 133
Nitrobenzene	50.0	44.6		ug/L		89	35 - 180
Pentachlorophenol	100	84.3		ug/L		84	14 - 176
Phenanthrene	50.0	50.0		ug/L		100	54 - 120
Phenol	50.0	19.8		ug/L		40	5 - 120
Pyrene	50.0	54.2		ug/L		108	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*52 - 151*
2-Fluorobiphenyl	*93*		*44 - 120*
2-Fluorophenol	*50*		*17 - 120*
Nitrobenzene-d5	*88*		*15 - 314*
p-Terphenyl-d14	*100*		*22 - 125*
Phenol-d5	*35*		*8 - 424*

Lab Sample ID: LCSD 480-510934/3-A
Matrix: Water
Analysis Batch: 511063

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510934

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	41.1		ug/L		82	44 - 142	4	34
1,2-Dichlorobenzene	50.0	38.9		ug/L		78	32 - 129	8	38
1,3-Dichlorobenzene	50.0	37.9		ug/L		76	1 - 172	4	37
1,4-Dichlorobenzene	50.0	38.5		ug/L		77	20 - 124	7	40
2,2'-Oxybis(1-chloropropane)	50.0	39.3		ug/L		79	36 - 166	8	36
2,4,6-Trichlorophenol	50.0	46.8		ug/L		94	37 - 144	0	20
2,4-Dichlorophenol	50.0	44.0		ug/L		88	39 - 135	4	23
2,4-Dimethylphenol	50.0	42.0		ug/L		84	32 - 120	4	18
2,4-Dinitrophenol	100	92.0		ug/L		92	1 - 191	1	29
2,4-Dinitrotoluene	50.0	46.8		ug/L		94	39 - 139	3	20
2,6-Dinitrotoluene	50.0	47.3		ug/L		95	50 - 158	0	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-510934/3-A
Matrix: Water
Analysis Batch: 511063

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510934

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene	50.0	45.8		ug/L		92	60 - 120	1	30
2-Chlorophenol	50.0	37.4		ug/L		75	23 - 134	10	26
2-Nitrophenol	50.0	44.2		ug/L		88	29 - 182	4	28
3,3'-Dichlorobenzidine	100	104		ug/L		104	1 - 262	0	31
4,6-Dinitro-2-methylphenol	100	98.9		ug/L		99	1 - 181	1	30
4-Bromophenyl phenyl ether	50.0	49.4		ug/L		99	53 - 127	1	16
4-Chloro-3-methylphenol	50.0	44.2		ug/L		88	22 - 147	1	16
4-Chlorophenyl phenyl ether	50.0	49.7		ug/L		99	25 - 158	1	15
4-Nitrophenol	100	41.3		ug/L		41	1 - 132	3	24
Acenaphthene	50.0	48.0		ug/L		96	47 - 145	0	25
Acenaphthylene	50.0	48.6		ug/L		97	33 - 145	1	22
Anthracene	50.0	50.7		ug/L		101	27 - 133	2	15
Benzidine	100	40.6	J *	ug/L		41	1 - 120	66	50
Benzo[a]anthracene	50.0	51.5		ug/L		103	33 - 143	1	15
Benzo[a]pyrene	50.0	49.7		ug/L		99	17 - 163	2	15
Benzo[b]fluoranthene	50.0	48.1		ug/L		96	24 - 159	6	17
Benzo[g,h,i]perylene	50.0	51.0		ug/L		102	1 - 219	1	19
Benzo[k]fluoranthene	50.0	48.2		ug/L		96	11 - 162	3	19
Bis(2-chloroethoxy)methane	50.0	44.9		ug/L		90	33 - 184	1	23
Bis(2-chloroethyl)ether	50.0	41.1		ug/L		82	12 - 158	9	33
Bis(2-ethylhexyl) phthalate	50.0	53.6		ug/L		107	8 - 158	0	15
Butyl benzyl phthalate	50.0	54.2		ug/L		108	1 - 152	1	15
Chrysene	50.0	52.0		ug/L		104	17 - 168	3	15
Di-n-butyl phthalate	50.0	51.9		ug/L		104	1 - 120	1	15
Di-n-octyl phthalate	50.0	54.0		ug/L		108	4 - 146	1	15
Dibenz(a,h)anthracene	50.0	51.6		ug/L		103	1 - 227	0	18
Diethyl phthalate	50.0	48.7		ug/L		97	1 - 120	2	15
Dimethyl phthalate	50.0	47.9		ug/L		96	1 - 120	1	15
Fluoranthene	50.0	51.8		ug/L		104	26 - 137	1	15
Fluorene	50.0	48.6		ug/L		97	59 - 121	1	18
Hexachlorobenzene	50.0	50.1		ug/L		100	1 - 152	2	15
Hexachlorocyclopentadiene	50.0	40.2		ug/L		80	5 - 120	0	50
Hexachloroethane	50.0	33.8		ug/L		68	40 - 120	9	43
Indeno[1,2,3-cd]pyrene	50.0	51.1		ug/L		102	1 - 171	3	17
Isophorone	50.0	44.7		ug/L		89	21 - 196	4	21
N-Nitrosodi-n-propylamine	50.0	41.6		ug/L		83	1 - 230	8	23
N-Nitrosodiphenylamine	50.0	47.9		ug/L		96	54 - 125	4	15
Naphthalene	50.0	43.6		ug/L		87	21 - 133	3	31
Nitrobenzene	50.0	43.4		ug/L		87	35 - 180	3	27
Pentachlorophenol	100	79.9		ug/L		80	14 - 176	5	21
Phenanthrene	50.0	49.4		ug/L		99	54 - 120	1	16
Phenol	50.0	18.3		ug/L		37	5 - 120	8	36
Pyrene	50.0	52.0		ug/L		104	52 - 120	4	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*97*		*52 - 151*
2-Fluorobiphenyl	*93*		*44 - 120*
2-Fluorophenol	*47*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-510934/3-A
Matrix: Water
Analysis Batch: 511063

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510934

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*86*		*15 - 314*
p-Terphenyl-d14	*98*		*22 - 125*
Phenol-d5	*33*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-509939/1-A
Matrix: Water
Analysis Batch: 510195

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 509939

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		12/16/19 05:30	12/16/19 12:16	1

Lab Sample ID: LCS 480-509939/2-A
Matrix: Water
Analysis Batch: 510195

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 509939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.211		mg/L		106	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-510150/1-A
Matrix: Water
Analysis Batch: 510435

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510150

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		12/17/19 11:24	12/17/19 14:50	1

Lab Sample ID: LCS 480-510150/2-A
Matrix: Water
Analysis Batch: 510435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510150

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00708		mg/L		106	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-510071/1-A
Matrix: Water
Analysis Batch: 510381

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 510071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		12/16/19 10:50	12/17/19 14:13	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-510071/2-A
Matrix: Water
Analysis Batch: 510381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 510071

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.250	0.278	*	mg/L		111	90 - 110		

Lab Sample ID: LCSD 480-510071/3-A
Matrix: Water
Analysis Batch: 510381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 510071

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total			0.250	0.272		mg/L		109	90 - 110	2	15

Lab Sample ID: 480-164143-6 MS
Matrix: Water
Analysis Batch: 510381

Client Sample ID: COMP 001 1-4
Prep Type: Total/NA
Prep Batch: 510071

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	ND	F1 *	0.100	0.111	F1	mg/L		111	90 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-509972/23
Matrix: Water
Analysis Batch: 509972

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.1		SU		101	99 - 101		

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-164143-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 509683

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-5	TRIP BLANK	Total/NA	Water	624.1	
480-164143-6	COMP 001 1-4	Total/NA	Water	624.1	
MB 480-509683/7	Method Blank	Total/NA	Water	624.1	
LCS 480-509683/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 510934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	625	
MB 480-510934/1-A	Method Blank	Total/NA	Water	625	
LCS 480-510934/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-510934/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 511063

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	625.1	510934
MB 480-510934/1-A	Method Blank	Total/NA	Water	625.1	510934
LCS 480-510934/2-A	Lab Control Sample	Total/NA	Water	625.1	510934
LCSD 480-510934/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	510934

Metals

Prep Batch: 509939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	200.7	
MB 480-509939/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-509939/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 510150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	245.1	
MB 480-510150/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-510150/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 510195

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	200.7 Rev 4.4	509939
MB 480-509939/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	509939
LCS 480-509939/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	509939

Analysis Batch: 510435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	245.1	510150
MB 480-510150/1-A	Method Blank	Total/NA	Water	245.1	510150
LCS 480-510150/2-A	Lab Control Sample	Total/NA	Water	245.1	510150

General Chemistry

Analysis Batch: 509972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 509972 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-509972/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 510071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	Distill/CN	
MB 480-510071/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-510071/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 480-510071/3-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
480-164143-6 MS	COMP 001 1-4	Total/NA	Water	Distill/CN	

Analysis Batch: 510381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-164143-6	COMP 001 1-4	Total/NA	Water	335.4	510071
MB 480-510071/1-A	Method Blank	Total/NA	Water	335.4	510071
LCS 480-510071/2-A	Lab Control Sample	Total/NA	Water	335.4	510071
LCSD 480-510071/3-A	Lab Control Sample Dup	Total/NA	Water	335.4	510071
480-164143-6 MS	COMP 001 1-4	Total/NA	Water	335.4	510071

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-164143-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-164143-5
Date Collected: 12/12/19 00:00
Matrix: Water
Date Received: 12/12/19 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	509683	12/13/19 17:50	S1V	TAL BUF

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-164143-6
Date Collected: 12/12/19 13:00
Matrix: Water
Date Received: 12/12/19 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	509683	12/13/19 18:14	S1V	TAL BUF
Total/NA	Prep	625			510934	12/19/19 15:42	ATG	TAL BUF
Total/NA	Analysis	625.1		1	511063	12/20/19 16:36	JMM	TAL BUF
Total/NA	Prep	200.7			509939	12/16/19 05:30	JLC	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	510195	12/16/19 13:47	LMH	TAL BUF
Total/NA	Prep	245.1			510150	12/17/19 11:24	BMB	TAL BUF
Total/NA	Analysis	245.1		1	510435	12/17/19 15:21	BMB	TAL BUF
Total/NA	Prep	Distill/CN			510071	12/16/19 10:50	JRF	TAL BUF
Total/NA	Analysis	335.4		1	510381	12/17/19 14:48	MDL	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	509972	12/14/19 20:49	BEF	TAL BUF

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-164143-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-164143-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-164143-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-164143-5	TRIP BLANK	Water	12/12/19 00:00	12/12/19 13:30	
480-164143-6	COMP 001 1-4	Water	12/12/19 13:00	12/12/19 13:30	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

480-164143 Chain of Custody

40.1

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L
Client Contact: Jason Gutkowski	Phone: 3154363605	E-Mail: judy.stone@testamericainc.com
Company: ARCADIS U.S., Inc.		
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	
City: Syracuse	TAT Requested (days): 1wk. Turn	
State, Zip: NY, 13202		
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed	
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001	
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056	
Site:	SSOW#:	

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	12/12/19	0700	G	Water			X	X	X	X	X		Lab To Composite
001-2		0900					X	X	X	X	X		Samples
001-3		1100					X	X	X	X	X		
001-4		1300					X	X	X	X	X		
Trip Blank	—	—	—								X		

Possible Hazard Identification
☐ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown* ☐ *Radiological*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For _____ Months*

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	12/12/19 / 1330	Arcadis	[signature]	12-12-19 1830	TAB KF
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 1.8 IR

Ver: 01/16/2019

12/24/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-164143-1

Login Number: 164143
List Number: 1
Creator: Stopa, Erik S

List Source: Eurofins TestAmerica, 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.	False	sample control and VOA lab to composite
Sampling Company provided.	True	ARCADIS
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	

ARCADIS Design & Consultancy for natural and built assets

Ms. Leslie Sedita
Industrial Waste Section
Buffalo Sewer Authority Treatment Plant
90 West Ferry Street
Buffalo, NY 14213-1799

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017
www.arcadis.com

ENVIRONMENT

Subject:
Discharge Monitoring Report – First Quarter 2020
Bristol-Myers Squibb Company, Inc.
Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
100 Forest Avenue, Buffalo, NY 14213
BSA Discharge Permit # 18-07-BU174

Date:
March 31, 2020

Contact:
Vincent S. Maresco

Phone:
315 671 9256

Email:
Vin.Maresco@arcadis.com

Our ref:
30003542.00002

Dear Ms. Sedita:

On behalf of Bristol-Myers Squibb Company, Arcadis of New York, Inc. (Arcadis) is pleased to submit this first quarter 2020 Discharge Monitoring Report (DMR) for the above-referenced site which covers the period January 1 through March 31, 2020. The monthly discharge sampling and DMR preparation were completed in accordance with the Buffalo Sewer Authority (BSA) Sampling Measurement and Analytical Guidelines Sheet. A total of 227,082 gallons of water were discharged during the reporting period (i.e., flow meter totalizer readings from 12/30/2019 to 3/30/2020). Laboratory analytical results indicate that the remedial system operated within BSA permit requirements during the first quarter 2020.

The sampling protocol and calculated discharges are based on the following: (1) Total flows are a daily average taken over approximately seven days; and (2) Monthly composite samples are collected over an eight-hour period where grab samples are collected every two hours. A total of four grab samples are collected throughout the eight-hour period. The discharge sample point location, following carbon treatment, is labeled as “C001 Sample Location” on the Process Flow Diagram (**Attachment A**). The Sample Collection and Log Sheets for the January, February, and March 2020 monthly sampling events are provided in **Attachment B**.

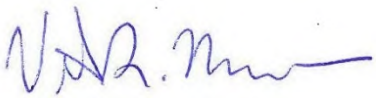
The monthly grab samples were submitted to Eurofins TestAmerica in Amherst, New York, where samples are composited and analyzed for pH via Method 4500 H+B, Total Mercury via EPA Method 245.1, Total Zinc via EPA Method 200.7, Total Cyanide via EPA Method 335.4, Volatile Organic Compounds via EPA Method 624.1, and Semi-Volatile Organic Compounds via EPA Method 625.1.

Laboratory analytical results and average daily flows are provided in the Quarterly Analytical Data Table (**Attachment C**). No exceedances of Daily Maximum or Maximum Allowable Instantaneous Discharge Limitations were observed during the reporting period. BSA Permit Specific Conditions require reporting of any compounds analyzed by EPA Methods 624 and 625 that are detected at a concentration above a threshold of 0.01 milligrams per liter (mg/L). In January, February, and March 2020, there were no detections. The laboratory analytical data packages are provided in **Attachment D**.

If you have any questions or would like to discuss further, please feel free to contact the undersigned.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation.

Signed on behalf of Bristol-Myers Squibb Company and submitted by:



Vincent S. Maresco
Arcadis of New York, Inc.
Project Manager

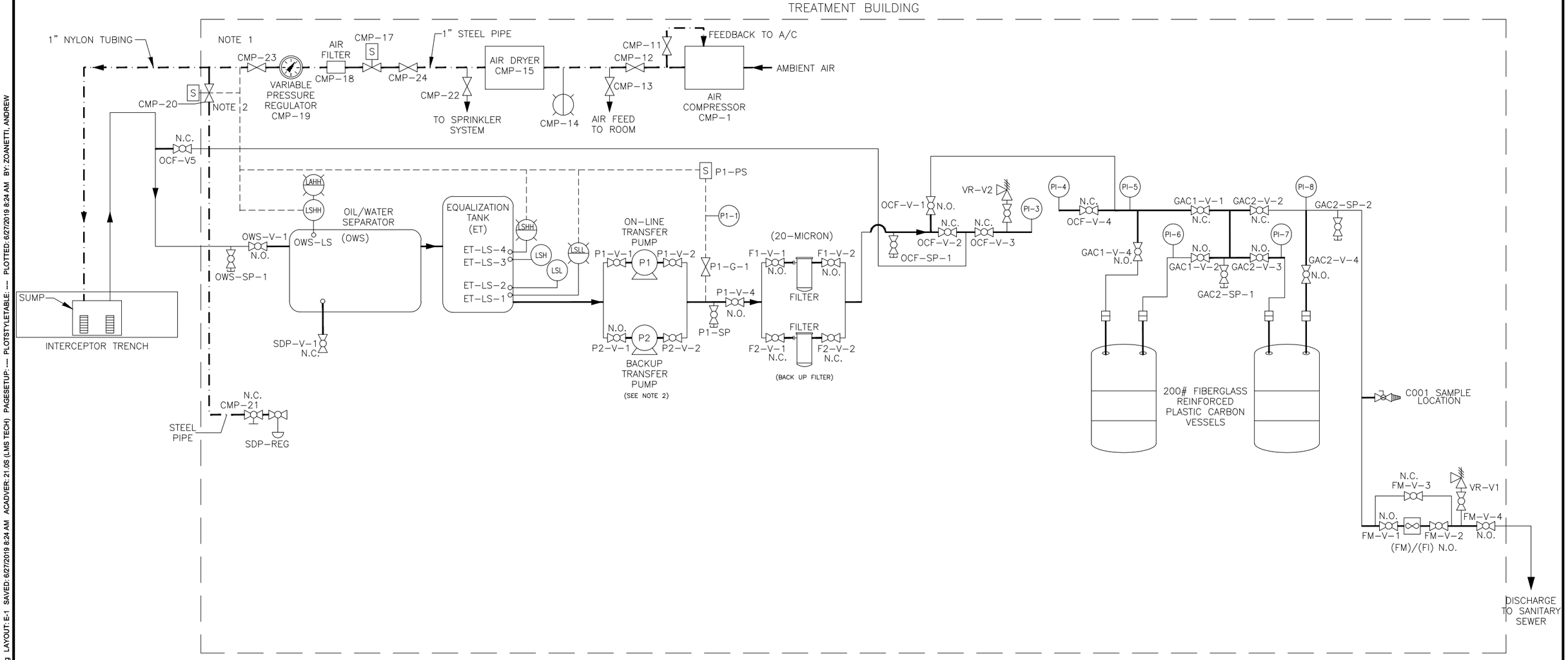
Copies:
Traserra Adams, BSA
Richard Mator, BMS
John Alonzo, de maximis, inc.
Dan Darragh, Cohen & Grigsby, PC
Katie Hoelscher, NFG

Attachments:

- A Process Flow Diagram
- B Sample Collection and Log Sheets for Monthly Sampling Events
- C Quarterly Analytical Data Table
- D Laboratory Analytical Data Package

ATTACHMENT A

Process Flow Diagram



NOTES:

1. SOLENOID VALVE IS ACTIVATED TO THE OFF-POSITION UNDER ANY OF THE FOLLOWING CONDITIONS:
   a) LSHH AT THE OIL-WATER SEPARATOR;
   b) LSHH AT THE EQUILIZATION TANK IS ACTIVATED;
   c) P1-PS HIGH PUMP DISCHARGE PRESSURE SWISWITCH IS ACTIVATED.

2. USE OF TRANSFER PUMPS IS ALTERED ON A QUARTERLY BASIS.

CITY: SYRACUSE, NY DIV/GROUP: DB: PM: TM: LYR:ON=*;OFF=*REF*
C:\Users\AZoianetti\Documents\Bristol-Myers Squibb\BMS Buffalo, NY\ATTACHMENT A.dwg LAYOUT: E-1 SAVED: 6/27/2019 8:24 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 6/27/2019 8:24 AM BY: ZOIANETTI, ANDREW
XREFS:
TITLE

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name

Professional Engineer's No.

State	Date Signed	Project Mgr.
Designed by	Drawn by	Checked by

ARCADIS Design & Consultancy for natural and built assets
ARCADIS OF NEW YORK, INC.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

BRISTOL-MYERS SQUIBB • 100 FOREST AVE., BUFFALO, NY

PROCESS FLOW DIAGRAM

ARCADIS Project No.
B0087370.0000.00001

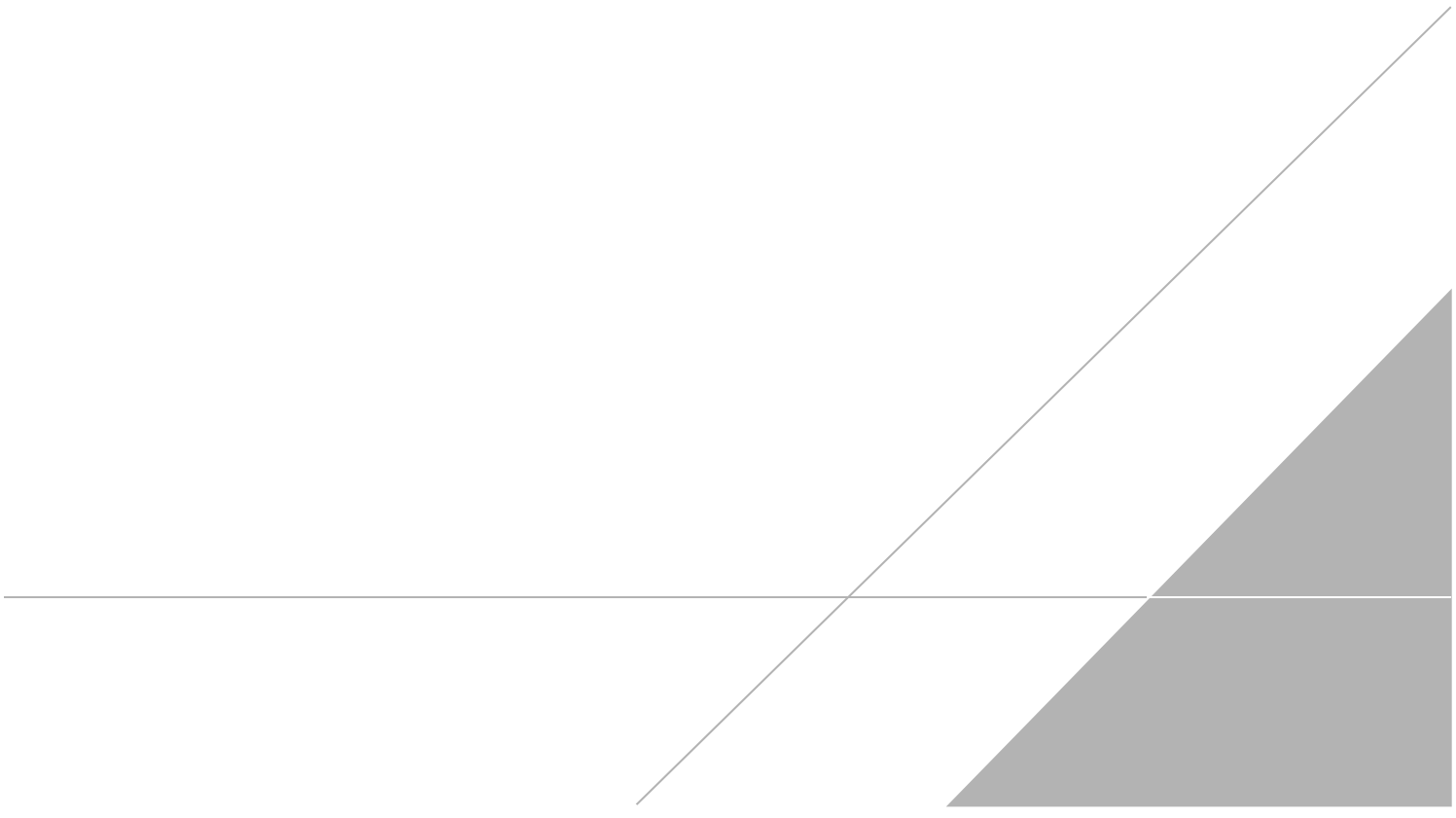
Date
SEPTEMBER 2017

ARCADIS
ARCADIS OF NEW YORK, INC.
110 W. FAYETTE ST., STE 300
SYRACUSE, NY 13202
TEL. 315.446.9120

PFD

ATTACHMENT B

Sample Collection and Log Sheets for Monthly Sampling Events



SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	1/14/20	→	→	→	JTG
Sample Time	0700	0900	1100	1300	JTG
Sample Observations	clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	33°F Cloudy	35°F sunny	43°F Sunny	45°F Sunny	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski — Sample Technician

1/14/20 — Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	2/10/20	→	→	→	JTG
Sample Time	0650	0850	1050	1250	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	34°F Cloudy	35°F Cloudy	36°F Cloudy	37°F Cloudy	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski — Sample Technician

2/10/20 — Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	3/3/20	→	→	→	JTG
Sample Time	0735	0935	1135	1335	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	37°F Overcast	40°F Overcast	46°F Rain	47°F Rain	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

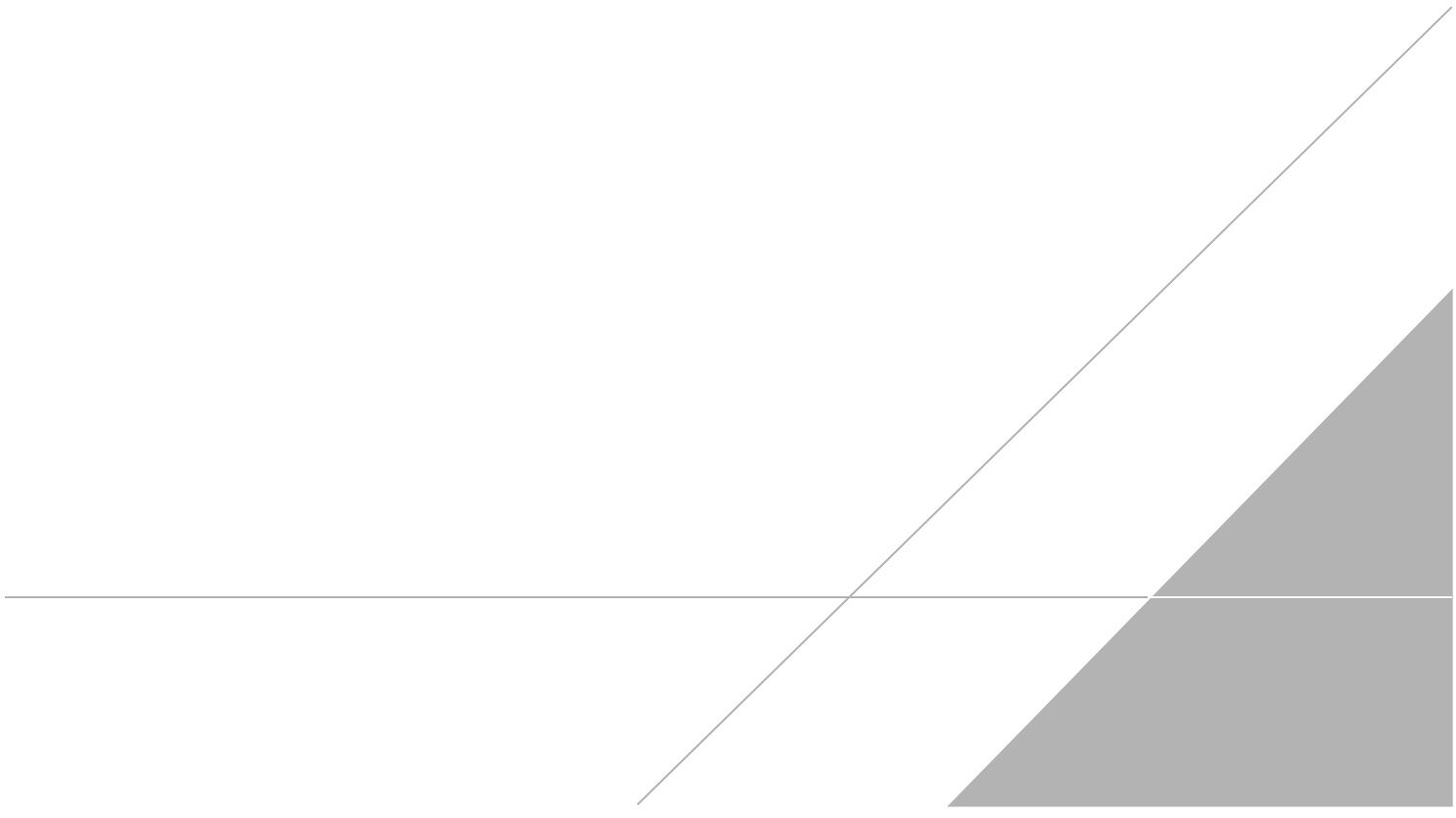
**pH will be analyzed at the lab once grab samples are composited.

Jason Gothlowski — **Sample Technician**

3/3/20 — **Date**

ATTACHMENT C

Quarterly Analytical Data Table



Quarterly Analytical Data Table
Iroquois Gas / Westwood Pharmaceuticals Terrestrial Site
BSA Discharge Permit No. 18-07-BU174
Buffalo, NY

Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	12/30/2019	1/7/2020	1/14/2020	1/22/2020	1/28/2020	2/10/2020	2/20/2020
Totalizer	gal	NA	3,432,894	3,445,154	3,455,627	3,476,826	3,492,907	3,516,140	3,543,309
Total Mercury	lbs	0.00001**	NA	NS	ND	NS	NS	ND	NS
Total Zinc	lbs	3.0**	NA	NS	9.09E-05 J	NS	NS	5.80E-05 J	NS
Total Cyanide	lbs	7.93**	NA	NS	6.98E-04	NS	NS	3.87E-03	NS
Total VOCs	mg/L	NA	NA	NS	ND	NS	NS	ND	NS
Total SVOCs	mg/L	NA	NA	NS	ND	NS	NS	ND *	NS
pH	SU	5.0-12.0	NA	NS	7.3 HF	NS	NS	7.5 HF	NS
Total Daily Flow	gal	14,400	-	1,533	1,496	2,650	2,680	1,787	2,717

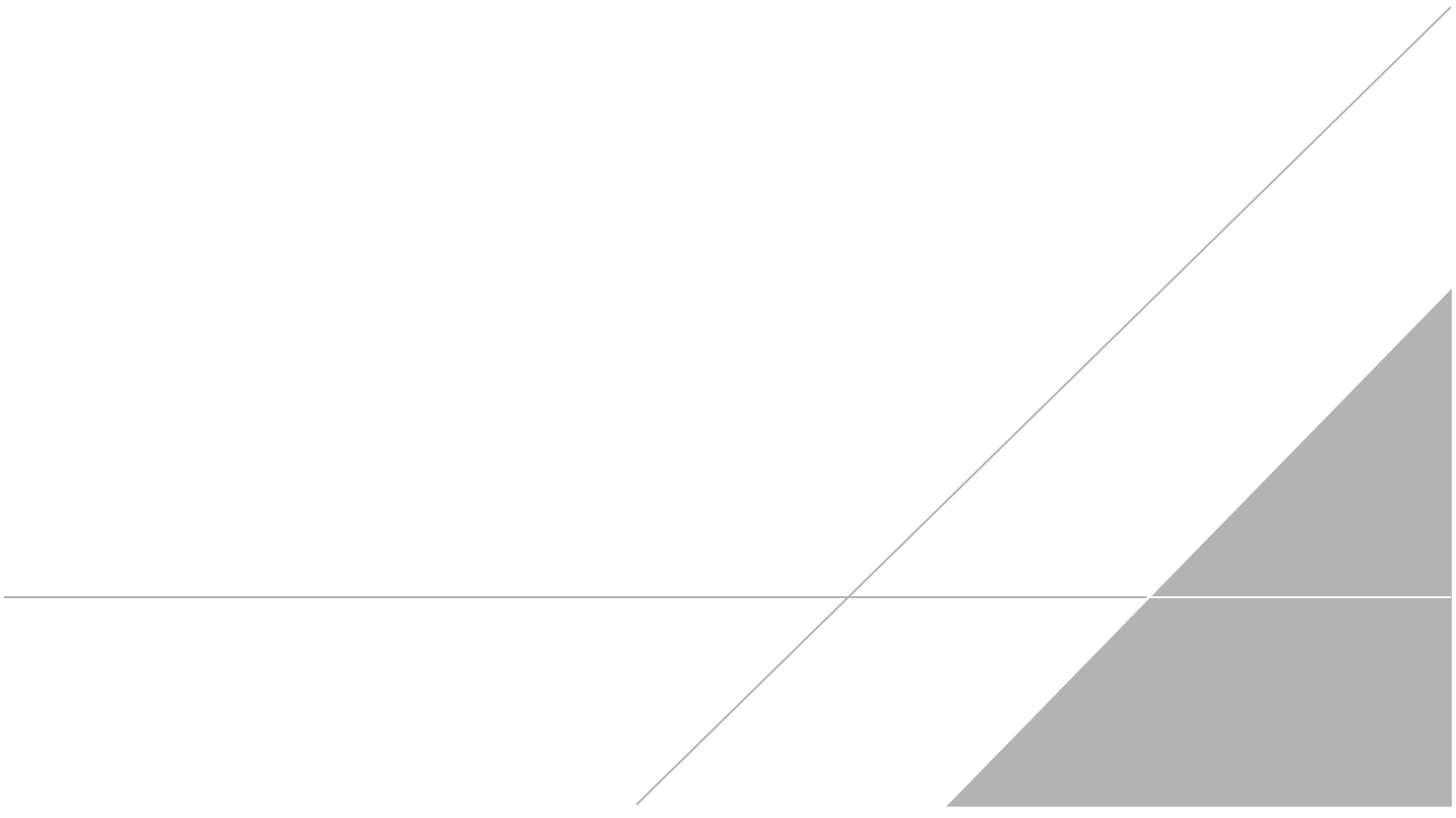
Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	2/24/2020	3/3/2020	3/11/2020	3/19/2020	3/26/2020	3/30/2020
Totalizer	gal	NA	3,556,094	3,582,797	3,609,420	3,625,402	3,647,832	3,659,976
Total Mercury	lbs	0.00001**	NS	ND	NS	NS	NS	NS
Total Zinc	lbs	3.0**	NS	1.61E-04 J B	NS	NS	NS	NS
Total Cyanide	lbs	7.93**	NS	3.06E-03	NS	NS	NS	NS
Total VOCs	mg/L	NA	NS	ND	NS	NS	NS	NS
Total SVOCs	mg/L	NA	NS	1.5 J *	NS	NS	NS	NS
pH	SU	5.0-12.0	NS	7.4 HF	NS	NS	NS	NS
Total Daily Flow	gal	14,400	3,196	3,338	3,328	1,998	3,204	3,036

Notes:

B - Compound was found in the blank and the sample.
HF - Field parameter with a holding time of 15 minutes. Test performed by laboratory at clients request. Analytical performed as required and in compliance by BSA permit.
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
* - Relative percent difference of the LCS and LCSD exceeds the control limits.
NS - Not Sampled
ND - Not Detected at the reporting limit
gal - Gallons
NA - Not Applicable
lbs - Pounds
mg/L - Milligrams per liter
SU - Standard Units
** - Maximum Allowable Instantaneous Discharge limits are also included in the permit. All analytical data for this quarter in in compliance with the Maximum Allowable Instantaneous Discharge limits. Analytical results are not presented in this table, they can be found in the attached analytical reports.
*** - The permittee must report any compound whose concentration is greater than 0.01 mg/L. The permittee is not authorized to discharge any of the parameters evaluated by this test procedure, which may cause or contribute to a violation of water quality incorporated into the permit.
Start of first-quarter values

ATTACHMENT D

Laboratory Analytical Data Package



eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-165139-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
1/23/2020 12:18:00 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-165139-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 480-165139-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-165139-1

Receipt
The samples were received on 1/14/2020 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 1/16/20 as requested by the client: COMP 001 1-4 (480-165139-6). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

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

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP 001 1-4 (480-165139-6).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-165139-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-165139-5

No Detections.

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-165139-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0073	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.056		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.8	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-165139-5
Date Collected: 01/14/20 00:00
Matrix: Water
Date Received: 01/14/20 14:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			01/16/20 14:42	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			01/16/20 14:42	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			01/16/20 14:42	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			01/16/20 14:42	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			01/16/20 14:42	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			01/16/20 14:42	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			01/16/20 14:42	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			01/16/20 14:42	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			01/16/20 14:42	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			01/16/20 14:42	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			01/16/20 14:42	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			01/16/20 14:42	1
Acrolein	ND		100	17	ug/L			01/16/20 14:42	1
Acrylonitrile	ND		50	1.9	ug/L			01/16/20 14:42	1
Benzene	ND		5.0	0.60	ug/L			01/16/20 14:42	1
Bromoform	ND		5.0	0.47	ug/L			01/16/20 14:42	1
Bromomethane	ND		5.0	1.2	ug/L			01/16/20 14:42	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			01/16/20 14:42	1
Chlorobenzene	ND		5.0	0.48	ug/L			01/16/20 14:42	1
Dibromochloromethane	ND		5.0	0.41	ug/L			01/16/20 14:42	1
Chloroethane	ND		5.0	0.87	ug/L			01/16/20 14:42	1
Chloroform	ND		5.0	0.54	ug/L			01/16/20 14:42	1
Chloromethane	ND		5.0	0.64	ug/L			01/16/20 14:42	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			01/16/20 14:42	1
Bromodichloromethane	ND		5.0	0.54	ug/L			01/16/20 14:42	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			01/16/20 14:42	1
Ethylbenzene	ND		5.0	0.46	ug/L			01/16/20 14:42	1
Methylene Chloride	ND		5.0	0.81	ug/L			01/16/20 14:42	1
Tetrachloroethene	ND		5.0	0.34	ug/L			01/16/20 14:42	1
Toluene	ND		5.0	0.45	ug/L			01/16/20 14:42	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			01/16/20 14:42	1
Trichloroethene	ND		5.0	0.60	ug/L			01/16/20 14:42	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			01/16/20 14:42	1
Vinyl chloride	ND		5.0	0.75	ug/L			01/16/20 14:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*68 - 130*		*01/16/20 14:42*	*1*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*		*01/16/20 14:42*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*01/16/20 14:42*	*1*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*01/16/20 14:42*	*1*

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-165139-6
Date Collected: 01/14/20 13:00
Matrix: Water
Date Received: 01/14/20 14:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			01/16/20 15:06	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			01/16/20 15:06	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			01/16/20 15:06	1

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-165139-1

Client Sample ID: COMP 001 1-4
Date Collected: 01/14/20 13:00
Date Received: 01/14/20 14:00

Lab Sample ID: 480-165139-6
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			01/16/20 15:06	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			01/16/20 15:06	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			01/16/20 15:06	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			01/16/20 15:06	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			01/16/20 15:06	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			01/16/20 15:06	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			01/16/20 15:06	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			01/16/20 15:06	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			01/16/20 15:06	1
Acrolein	ND		100	17	ug/L			01/16/20 15:06	1
Acrylonitrile	ND		50	1.9	ug/L			01/16/20 15:06	1
Benzene	ND		5.0	0.60	ug/L			01/16/20 15:06	1
Bromoform	ND		5.0	0.47	ug/L			01/16/20 15:06	1
Bromomethane	ND		5.0	1.2	ug/L			01/16/20 15:06	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			01/16/20 15:06	1
Chlorobenzene	ND		5.0	0.48	ug/L			01/16/20 15:06	1
Dibromochloromethane	ND		5.0	0.41	ug/L			01/16/20 15:06	1
Chloroethane	ND		5.0	0.87	ug/L			01/16/20 15:06	1
Chloroform	ND		5.0	0.54	ug/L			01/16/20 15:06	1
Chloromethane	ND		5.0	0.64	ug/L			01/16/20 15:06	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			01/16/20 15:06	1
Bromodichloromethane	ND		5.0	0.54	ug/L			01/16/20 15:06	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			01/16/20 15:06	1
Ethylbenzene	ND		5.0	0.46	ug/L			01/16/20 15:06	1
Methylene Chloride	ND		5.0	0.81	ug/L			01/16/20 15:06	1
Tetrachloroethene	ND		5.0	0.34	ug/L			01/16/20 15:06	1
Toluene	ND		5.0	0.45	ug/L			01/16/20 15:06	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			01/16/20 15:06	1
Trichloroethene	ND		5.0	0.60	ug/L			01/16/20 15:06	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			01/16/20 15:06	1
Vinyl chloride	ND		5.0	0.75	ug/L			01/16/20 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 130*		*01/16/20 15:06*	*1*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*01/16/20 15:06*	*1*
Toluene-d8 (Surr)	*101*		*77 - 120*		*01/16/20 15:06*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*01/16/20 15:06*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		01/15/20 15:24	01/16/20 14:21	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		01/15/20 15:24	01/16/20 14:21	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		01/15/20 15:24	01/16/20 14:21	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		01/15/20 15:24	01/16/20 14:21	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		01/15/20 15:24	01/16/20 14:21	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		01/15/20 15:24	01/16/20 14:21	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		01/15/20 15:24	01/16/20 14:21	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 14:21	1

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-165139-1

Client Sample ID: COMP 001 1-4
Date Collected: 01/14/20 13:00
Date Received: 01/14/20 14:00

Lab Sample ID: 480-165139-6
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		01/15/20 15:24	01/16/20 14:21	1
2-Chlorophenol	ND		5.0	0.66	ug/L		01/15/20 15:24	01/16/20 14:21	1
2-Nitrophenol	ND		5.0	0.70	ug/L		01/15/20 15:24	01/16/20 14:21	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		01/15/20 15:24	01/16/20 14:21	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		01/15/20 15:24	01/16/20 14:21	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		01/15/20 15:24	01/16/20 14:21	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		01/15/20 15:24	01/16/20 14:21	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		01/15/20 15:24	01/16/20 14:21	1
4-Nitrophenol	ND		15	10	ug/L		01/15/20 15:24	01/16/20 14:21	1
Acenaphthene	ND		5.0	0.81	ug/L		01/15/20 15:24	01/16/20 14:21	1
Acenaphthylene	ND		5.0	0.87	ug/L		01/15/20 15:24	01/16/20 14:21	1
Anthracene	ND		5.0	1.4	ug/L		01/15/20 15:24	01/16/20 14:21	1
Benzidine	ND		80	35	ug/L		01/15/20 15:24	01/16/20 14:21	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		01/15/20 15:24	01/16/20 14:21	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		01/15/20 15:24	01/16/20 14:21	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		01/15/20 15:24	01/16/20 14:21	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		01/15/20 15:24	01/16/20 14:21	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		01/15/20 15:24	01/16/20 14:21	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		01/15/20 15:24	01/16/20 14:21	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		01/15/20 15:24	01/16/20 14:21	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		01/15/20 15:24	01/16/20 14:21	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		01/15/20 15:24	01/16/20 14:21	1
Chrysene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
Decane	ND		10	1.6	ug/L		01/15/20 15:24	01/16/20 14:21	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		01/15/20 15:24	01/16/20 14:21	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		01/15/20 15:24	01/16/20 14:21	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		01/15/20 15:24	01/16/20 14:21	1
Diethyl phthalate	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		01/15/20 15:24	01/16/20 14:21	1
Fluoranthene	ND		5.0	1.6	ug/L		01/15/20 15:24	01/16/20 14:21	1
Fluorene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
Hexachloroethane	ND		5.0	0.60	ug/L		01/15/20 15:24	01/16/20 14:21	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		01/15/20 15:24	01/16/20 14:21	1
Isophorone	ND		5.0	0.74	ug/L		01/15/20 15:24	01/16/20 14:21	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		01/15/20 15:24	01/16/20 14:21	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 14:21	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		01/15/20 15:24	01/16/20 14:21	1
Naphthalene	ND		5.0	0.86	ug/L		01/15/20 15:24	01/16/20 14:21	1
Nitrobenzene	ND		5.0	0.81	ug/L		01/15/20 15:24	01/16/20 14:21	1
Pentachlorophenol	ND		10	1.6	ug/L		01/15/20 15:24	01/16/20 14:21	1
Phenanthrene	ND		5.0	1.2	ug/L		01/15/20 15:24	01/16/20 14:21	1
Phenol	ND		5.0	0.35	ug/L		01/15/20 15:24	01/16/20 14:21	1
Pyrene	ND		5.0	1.4	ug/L		01/15/20 15:24	01/16/20 14:21	1
n-Octadecane	ND		10	1.2	ug/L		01/15/20 15:24	01/16/20 14:21	1

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-165139-6

Date Collected: 01/14/20 13:00
Matrix: Water
Date Received: 01/14/20 14:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*52 - 151*	*01/15/20 15:24*	*01/16/20 14:21*	*1*
2-Fluorobiphenyl	*90*		*44 - 120*	*01/15/20 15:24*	*01/16/20 14:21*	*1*
2-Fluorophenol	*43*		*17 - 120*	*01/15/20 15:24*	*01/16/20 14:21*	*1*
Nitrobenzene-d5	*83*		*15 - 314*	*01/15/20 15:24*	*01/16/20 14:21*	*1*
p-Terphenyl-d14	*78*		*22 - 125*	*01/15/20 15:24*	*01/16/20 14:21*	*1*
Phenol-d5	*30*		*8 - 424*	*01/15/20 15:24*	*01/16/20 14:21*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0073**	**J**	0.010	0.0015	mg/L		01/15/20 07:37	01/15/20 16:18	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/16/20 11:44	01/16/20 14:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.056**		0.010	0.0050	mg/L		01/20/20 14:00	01/21/20 11:57	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.3**	**HF**	0.1	0.1	SU			01/15/20 16:35	1
Temperature	**19.8**	**HF**	0.001	0.001	Degrees C			01/15/20 16:35	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-165139-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-165139-5	TRIP BLANK	104	102	99	99
480-165139-6	COMP 001 1-4	102	100	101	103
LCS 480-513833/5	Lab Control Sample	100	101	100	101
MB 480-513833/7	Method Blank	99	100	104	101

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-165139-6	COMP 001 1-4	83	90	43	83	78	30
LCS 480-513697/2-A	Lab Control Sample	97	92	47	83	102	35
LCSD 480-513697/3-A	Lab Control Sample Dup	95	88	48	81	99	32
MB 480-513697/1-A	Method Blank	86	99	51	96	105	35

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-513833/7
Matrix: Water
Analysis Batch: 513833

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	ND		5.0	0.39	ug/L			01/16/20 13:19	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			01/16/20 13:19	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			01/16/20 13:19	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			01/16/20 13:19	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			01/16/20 13:19	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			01/16/20 13:19	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			01/16/20 13:19	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			01/16/20 13:19	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			01/16/20 13:19	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			01/16/20 13:19	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			01/16/20 13:19	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			01/16/20 13:19	1
Acrolein	ND		100	17	ug/L			01/16/20 13:19	1
Acrylonitrile	ND		50	1.9	ug/L			01/16/20 13:19	1
Benzene	ND		5.0	0.60	ug/L			01/16/20 13:19	1
Bromoform	ND		5.0	0.47	ug/L			01/16/20 13:19	1
Bromomethane	ND		5.0	1.2	ug/L			01/16/20 13:19	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			01/16/20 13:19	1
Chlorobenzene	ND		5.0	0.48	ug/L			01/16/20 13:19	1
Dibromochloromethane	ND		5.0	0.41	ug/L			01/16/20 13:19	1
Chloroethane	ND		5.0	0.87	ug/L			01/16/20 13:19	1
Chloroform	ND		5.0	0.54	ug/L			01/16/20 13:19	1
Chloromethane	ND		5.0	0.64	ug/L			01/16/20 13:19	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			01/16/20 13:19	1
Bromodichloromethane	ND		5.0	0.54	ug/L			01/16/20 13:19	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			01/16/20 13:19	1
Ethylbenzene	ND		5.0	0.46	ug/L			01/16/20 13:19	1
Methylene Chloride	ND		5.0	0.81	ug/L			01/16/20 13:19	1
Tetrachloroethene	ND		5.0	0.34	ug/L			01/16/20 13:19	1
Toluene	ND		5.0	0.45	ug/L			01/16/20 13:19	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			01/16/20 13:19	1
Trichloroethene	ND		5.0	0.60	ug/L			01/16/20 13:19	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			01/16/20 13:19	1
Vinyl chloride	ND		5.0	0.75	ug/L			01/16/20 13:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*		*01/16/20 13:19*	*1*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*01/16/20 13:19*	*1*
Toluene-d8 (Surr)	*104*		*77 - 120*		*01/16/20 13:19*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*01/16/20 13:19*	*1*

Lab Sample ID: LCS 480-513833/5
Matrix: Water
Analysis Batch: 513833

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	20.0	21.3		ug/L		107	52 - 162
1,1,2,2-Tetrachloroethane	20.0	20.0		ug/L		100	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-513833/5
Matrix: Water
Analysis Batch: 513833

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	20.0		ug/L		100	52 - 150
1,1-Dichloroethane	20.0	20.4		ug/L		102	59 - 155
1,1-Dichloroethene	20.0	21.4		ug/L		107	1 - 234
1,2-Dichlorobenzene	20.0	20.1		ug/L		101	18 - 190
1,2-Dichloroethane	20.0	19.7		ug/L		99	49 - 155
1,2-Dichloropropane	20.0	19.8		ug/L		99	1 - 210
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	59 - 156
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	18 - 190
2-Chloroethyl vinyl ether	20.0	19.9	J	ug/L		100	1 - 305
Benzene	20.0	19.9		ug/L		99	37 - 151
Bromoform	20.0	20.5		ug/L		103	45 - 169
Bromomethane	20.0	20.4		ug/L		102	1 - 242
Carbon tetrachloride	20.0	21.5		ug/L		107	70 - 140
Chlorobenzene	20.0	20.1		ug/L		101	37 - 160
Dibromochloromethane	20.0	21.0		ug/L		105	53 - 149
Chloroethane	20.0	21.0		ug/L		105	14 - 230
Chloroform	20.0	20.2		ug/L		101	51 - 138
Chloromethane	20.0	19.0		ug/L		95	1 - 273
cis-1,3-Dichloropropene	20.0	20.4		ug/L		102	1 - 227
Bromodichloromethane	20.0	20.4		ug/L		102	35 - 155
Ethylbenzene	20.0	20.4		ug/L		102	37 - 162
Methylene Chloride	20.0	19.9		ug/L		99	1 - 221
Tetrachloroethene	20.0	20.8		ug/L		104	64 - 148
Toluene	20.0	20.6		ug/L		103	47 - 150
trans-1,3-Dichloropropene	20.0	20.4		ug/L		102	17 - 183
Trichloroethene	20.0	21.1		ug/L		105	71 - 157
Trichlorofluoromethane	20.0	20.8		ug/L		104	17 - 181
Vinyl chloride	20.0	20.9		ug/L		105	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*
Toluene-d8 (Surr)	*100*		*77 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-513697/1-A
Matrix: Water
Analysis Batch: 513803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513697

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		01/15/20 15:24	01/16/20 12:17	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		01/15/20 15:24	01/16/20 12:17	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		01/15/20 15:24	01/16/20 12:17	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		01/15/20 15:24	01/16/20 12:17	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		01/15/20 15:24	01/16/20 12:17	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 12:17	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-513697/1-A
Matrix: Water
Analysis Batch: 513803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513697

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		01/15/20 15:24	01/16/20 12:17	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		01/15/20 15:24	01/16/20 12:17	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		01/15/20 15:24	01/16/20 12:17	1
2-Chlorophenol	ND		5.0	0.66	ug/L		01/15/20 15:24	01/16/20 12:17	1
2-Nitrophenol	ND		5.0	0.70	ug/L		01/15/20 15:24	01/16/20 12:17	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		01/15/20 15:24	01/16/20 12:17	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		01/15/20 15:24	01/16/20 12:17	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		01/15/20 15:24	01/16/20 12:17	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		01/15/20 15:24	01/16/20 12:17	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		01/15/20 15:24	01/16/20 12:17	1
4-Nitrophenol	ND		15	10	ug/L		01/15/20 15:24	01/16/20 12:17	1
Acenaphthene	ND		5.0	0.81	ug/L		01/15/20 15:24	01/16/20 12:17	1
Acenaphthylene	ND		5.0	0.87	ug/L		01/15/20 15:24	01/16/20 12:17	1
Anthracene	ND		5.0	1.4	ug/L		01/15/20 15:24	01/16/20 12:17	1
Benzidine	ND		80	35	ug/L		01/15/20 15:24	01/16/20 12:17	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		01/15/20 15:24	01/16/20 12:17	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		01/15/20 15:24	01/16/20 12:17	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		01/15/20 15:24	01/16/20 12:17	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		01/15/20 15:24	01/16/20 12:17	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		01/15/20 15:24	01/16/20 12:17	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		01/15/20 15:24	01/16/20 12:17	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		01/15/20 15:24	01/16/20 12:17	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		01/15/20 15:24	01/16/20 12:17	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		01/15/20 15:24	01/16/20 12:17	1
Chrysene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
Decane	ND		10	1.6	ug/L		01/15/20 15:24	01/16/20 12:17	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		01/15/20 15:24	01/16/20 12:17	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		01/15/20 15:24	01/16/20 12:17	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		01/15/20 15:24	01/16/20 12:17	1
Diethyl phthalate	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		01/15/20 15:24	01/16/20 12:17	1
Fluoranthene	ND		5.0	1.6	ug/L		01/15/20 15:24	01/16/20 12:17	1
Fluorene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
Hexachloroethane	ND		5.0	0.60	ug/L		01/15/20 15:24	01/16/20 12:17	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		01/15/20 15:24	01/16/20 12:17	1
Isophorone	ND		5.0	0.74	ug/L		01/15/20 15:24	01/16/20 12:17	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		01/15/20 15:24	01/16/20 12:17	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		01/15/20 15:24	01/16/20 12:17	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		01/15/20 15:24	01/16/20 12:17	1
Naphthalene	ND		5.0	0.86	ug/L		01/15/20 15:24	01/16/20 12:17	1
Nitrobenzene	ND		5.0	0.81	ug/L		01/15/20 15:24	01/16/20 12:17	1
Pentachlorophenol	ND		10	1.6	ug/L		01/15/20 15:24	01/16/20 12:17	1
Phenanthrene	ND		5.0	1.2	ug/L		01/15/20 15:24	01/16/20 12:17	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-513697/1-A
Matrix: Water
Analysis Batch: 513803

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513697

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		01/15/20 15:24	01/16/20 12:17	1
Pyrene	ND		5.0	1.4	ug/L		01/15/20 15:24	01/16/20 12:17	1
n-Octadecane	ND		10	1.2	ug/L		01/15/20 15:24	01/16/20 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*86*		*52 - 151*	*01/15/20 15:24*	*01/16/20 12:17*	*1*
2-Fluorobiphenyl	*99*		*44 - 120*	*01/15/20 15:24*	*01/16/20 12:17*	*1*
2-Fluorophenol	*51*		*17 - 120*	*01/15/20 15:24*	*01/16/20 12:17*	*1*
Nitrobenzene-d5	*96*		*15 - 314*	*01/15/20 15:24*	*01/16/20 12:17*	*1*
p-Terphenyl-d14	*105*		*22 - 125*	*01/15/20 15:24*	*01/16/20 12:17*	*1*
Phenol-d5	*35*		*8 - 424*	*01/15/20 15:24*	*01/16/20 12:17*	*1*

Lab Sample ID: LCS 480-513697/2-A
Matrix: Water
Analysis Batch: 513803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	41.3		ug/L		83	44 - 142
1,2-Dichlorobenzene	50.0	40.2		ug/L		80	32 - 129
1,3-Dichlorobenzene	50.0	39.0		ug/L		78	1 - 172
1,4-Dichlorobenzene	50.0	39.5		ug/L		79	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	39.6		ug/L		79	36 - 166
2,4,6-Trichlorophenol	50.0	46.1		ug/L		92	37 - 144
2,4-Dichlorophenol	50.0	44.8		ug/L		90	39 - 135
2,4-Dimethylphenol	50.0	43.3		ug/L		87	32 - 120
2,4-Dinitrophenol	100	104		ug/L		104	1 - 191
2,4-Dinitrotoluene	50.0	48.5		ug/L		97	39 - 139
2,6-Dinitrotoluene	50.0	48.6		ug/L		97	50 - 158
2-Chloronaphthalene	50.0	46.5		ug/L		93	60 - 120
2-Chlorophenol	50.0	40.8		ug/L		82	23 - 134
2-Nitrophenol	50.0	45.6		ug/L		91	29 - 182
3,3'-Dichlorobenzidine	100	107		ug/L		107	1 - 262
4,6-Dinitro-2-methylphenol	100	99.2		ug/L		99	1 - 181
4-Bromophenyl phenyl ether	50.0	52.0		ug/L		104	53 - 127
4-Chloro-3-methylphenol	50.0	44.8		ug/L		90	22 - 147
4-Chlorophenyl phenyl ether	50.0	48.0		ug/L		96	25 - 158
4-Nitrophenol	100	45.3		ug/L		45	1 - 132
Acenaphthene	50.0	48.3		ug/L		97	47 - 145
Acenaphthylene	50.0	48.1		ug/L		96	33 - 145
Anthracene	50.0	52.4		ug/L		105	27 - 133
Benzidine	100	ND		ug/L		25	1 - 120
Benzo[a]anthracene	50.0	52.8		ug/L		106	33 - 143
Benzo[a]pyrene	50.0	49.7		ug/L		99	17 - 163
Benzo[b]fluoranthene	50.0	45.5		ug/L		91	24 - 159
Benzo[g,h,i]perylene	50.0	46.7		ug/L		93	1 - 219
Benzo[k]fluoranthene	50.0	53.8		ug/L		108	11 - 162
Bis(2-chloroethoxy)methane	50.0	43.8		ug/L		88	33 - 184
Bis(2-chloroethyl)ether	50.0	43.1		ug/L		86	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-513697/2-A
Matrix: Water
Analysis Batch: 513803

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	54.1		ug/L		108	8 - 158
Butyl benzyl phthalate	50.0	55.8		ug/L		112	1 - 152
Chrysene	50.0	52.2		ug/L		104	17 - 168
Di-n-butyl phthalate	50.0	53.5		ug/L		107	1 - 120
Di-n-octyl phthalate	50.0	54.8		ug/L		110	4 - 146
Dibenz(a,h)anthracene	50.0	50.4		ug/L		101	1 - 227
Diethyl phthalate	50.0	48.9		ug/L		98	1 - 120
Dimethyl phthalate	50.0	49.0		ug/L		98	1 - 120
Fluoranthene	50.0	53.1		ug/L		106	26 - 137
Fluorene	50.0	49.2		ug/L		98	59 - 121
Hexachlorobenzene	50.0	51.0		ug/L		102	1 - 152
Hexachlorocyclopentadiene	50.0	34.8		ug/L		70	5 - 120
Hexachloroethane	50.0	38.6		ug/L		77	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	49.1		ug/L		98	1 - 171
Isophorone	50.0	43.7		ug/L		87	21 - 196
N-Nitrosodi-n-propylamine	50.0	42.5		ug/L		85	1 - 230
N-Nitrosodiphenylamine	50.0	50.2		ug/L		100	54 - 125
Naphthalene	50.0	42.9		ug/L		86	21 - 133
Nitrobenzene	50.0	43.8		ug/L		88	35 - 180
Pentachlorophenol	100	86.4		ug/L		86	14 - 176
Phenanthrene	50.0	50.8		ug/L		102	54 - 120
Phenol	50.0	16.3		ug/L		33	5 - 120
Pyrene	50.0	53.1		ug/L		106	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*97*		*52 - 151*
2-Fluorobiphenyl	*92*		*44 - 120*
2-Fluorophenol	*47*		*17 - 120*
Nitrobenzene-d5	*83*		*15 - 314*
p-Terphenyl-d14	*102*		*22 - 125*
Phenol-d5	*35*		*8 - 424*

Lab Sample ID: LCSD 480-513697/3-A
Matrix: Water
Analysis Batch: 513803

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 513697

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	38.1		ug/L		76	44 - 142	8	34
1,2-Dichlorobenzene	50.0	38.4		ug/L		77	32 - 129	4	38
1,3-Dichlorobenzene	50.0	35.2		ug/L		70	1 - 172	10	37
1,4-Dichlorobenzene	50.0	35.6		ug/L		71	20 - 124	10	40
2,2'-Oxybis(1-chloropropane)	50.0	34.9		ug/L		70	36 - 166	12	36
2,4,6-Trichlorophenol	50.0	45.2		ug/L		90	37 - 144	2	20
2,4-Dichlorophenol	50.0	41.9		ug/L		84	39 - 135	7	23
2,4-Dimethylphenol	50.0	40.7		ug/L		81	32 - 120	6	18
2,4-Dinitrophenol	100	97.0		ug/L		97	1 - 191	7	29
2,4-Dinitrotoluene	50.0	48.1		ug/L		96	39 - 139	1	20
2,6-Dinitrotoluene	50.0	45.2		ug/L		90	50 - 158	7	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-513697/3-A
Matrix: Water
Analysis Batch: 513803

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 513697

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	44.5		ug/L		89	60 - 120	4	30
2-Chlorophenol			50.0	38.2		ug/L		76	23 - 134	7	26
2-Nitrophenol			50.0	44.6		ug/L		89	29 - 182	2	28
3,3'-Dichlorobenzidine			100	103		ug/L		103	1 - 262	4	31
4,6-Dinitro-2-methylphenol			100	101		ug/L		101	1 - 181	1	30
4-Bromophenyl phenyl ether			50.0	50.4		ug/L		101	53 - 127	3	16
4-Chloro-3-methylphenol			50.0	43.9		ug/L		88	22 - 147	2	16
4-Chlorophenyl phenyl ether			50.0	46.9		ug/L		94	25 - 158	2	15
4-Nitrophenol			100	46.1		ug/L		46	1 - 132	2	24
Acenaphthene			50.0	47.0		ug/L		94	47 - 145	3	25
Acenaphthylene			50.0	46.7		ug/L		93	33 - 145	3	22
Anthracene			50.0	51.5		ug/L		103	27 - 133	2	15
Benzidine			100	ND		ug/L		32	1 - 120	25	50
Benzo[a]anthracene			50.0	52.1		ug/L		104	33 - 143	1	15
Benzo[a]pyrene			50.0	48.3		ug/L		97	17 - 163	3	15
Benzo[b]fluoranthene			50.0	52.5		ug/L		105	24 - 159	14	17
Benzo[g,h,i]perylene			50.0	45.7		ug/L		91	1 - 219	2	19
Benzo[k]fluoranthene			50.0	46.0		ug/L		92	11 - 162	16	19
Bis(2-chloroethoxy)methane			50.0	41.0		ug/L		82	33 - 184	7	23
Bis(2-chloroethyl)ether			50.0	39.4		ug/L		79	12 - 158	9	33
Bis(2-ethylhexyl) phthalate			50.0	53.7		ug/L		107	8 - 158	1	15
Butyl benzyl phthalate			50.0	55.3		ug/L		111	1 - 152	1	15
Chrysene			50.0	51.9		ug/L		104	17 - 168	1	15
Di-n-butyl phthalate			50.0	53.4		ug/L		107	1 - 120	0	15
Di-n-octyl phthalate			50.0	54.2		ug/L		108	4 - 146	1	15
Dibenz(a,h)anthracene			50.0	49.1		ug/L		98	1 - 227	3	18
Diethyl phthalate			50.0	48.1		ug/L		96	1 - 120	2	15
Dimethyl phthalate			50.0	46.6		ug/L		93	1 - 120	5	15
Fluoranthene			50.0	51.7		ug/L		103	26 - 137	3	15
Fluorene			50.0	47.8		ug/L		96	59 - 121	3	18
Hexachlorobenzene			50.0	51.1		ug/L		102	1 - 152	0	15
Hexachlorocyclopentadiene			50.0	35.7		ug/L		71	5 - 120	2	50
Hexachloroethane			50.0	33.8		ug/L		68	40 - 120	13	43
Indeno[1,2,3-cd]pyrene			50.0	47.1		ug/L		94	1 - 171	4	17
Isophorone			50.0	41.5		ug/L		83	21 - 196	5	21
N-Nitrosodi-n-propylamine			50.0	40.1		ug/L		80	1 - 230	6	23
N-Nitrosodiphenylamine			50.0	48.9		ug/L		98	54 - 125	3	15
Naphthalene			50.0	42.1		ug/L		84	21 - 133	2	31
Nitrobenzene			50.0	42.0		ug/L		84	35 - 180	4	27
Pentachlorophenol			100	83.5		ug/L		84	14 - 176	3	21
Phenanthrene			50.0	50.1		ug/L		100	54 - 120	2	16
Phenol			50.0	15.4		ug/L		31	5 - 120	6	36
Pyrene			50.0	52.3		ug/L		105	52 - 120	1	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*95*		*52 - 151*
2-Fluorobiphenyl	*88*		*44 - 120*
2-Fluorophenol	*48*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-513697/3-A
Matrix: Water
Analysis Batch: 513803

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 513697

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*81*		*15 - 314*
p-Terphenyl-d14	*99*		*22 - 125*
Phenol-d5	*32*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-513593/1-A
Matrix: Water
Analysis Batch: 513795

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513593

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		01/15/20 07:37	01/15/20 15:37	1

Lab Sample ID: LCS 480-513593/2-A
Matrix: Water
Analysis Batch: 513795

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513593

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.196		mg/L		98	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-513717/1-A
Matrix: Water
Analysis Batch: 513881

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 513717

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/16/20 11:44	01/16/20 14:18	1

Lab Sample ID: LCS 480-513717/2-A
Matrix: Water
Analysis Batch: 513881

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 513717

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00718		mg/L		108	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-514202/1-A
Matrix: Water
Analysis Batch: 514352

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 514202

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/20/20 14:00	01/21/20 11:37	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-514202/2-A
Matrix: Water
Analysis Batch: 514352

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 514202

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.240		mg/L		96	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-513729/1
Matrix: Water
Analysis Batch: 513729

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-165139-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 513833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-5	TRIP BLANK	Total/NA	Water	624.1	
480-165139-6	COMP 001 1-4	Total/NA	Water	624.1	
MB 480-513833/7	Method Blank	Total/NA	Water	624.1	
LCS 480-513833/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 513697

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	625	
MB 480-513697/1-A	Method Blank	Total/NA	Water	625	
LCS 480-513697/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-513697/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 513803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	625.1	513697
MB 480-513697/1-A	Method Blank	Total/NA	Water	625.1	513697
LCS 480-513697/2-A	Lab Control Sample	Total/NA	Water	625.1	513697
LCSD 480-513697/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	513697

Metals

Prep Batch: 513593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	200.7	
MB 480-513593/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-513593/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 513717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	245.1	
MB 480-513717/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-513717/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 513795

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	200.7 Rev 4.4	513593
MB 480-513593/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	513593
LCS 480-513593/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	513593

Analysis Batch: 513881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	245.1	513717
MB 480-513717/1-A	Method Blank	Total/NA	Water	245.1	513717
LCS 480-513717/2-A	Lab Control Sample	Total/NA	Water	245.1	513717

General Chemistry

Analysis Batch: 513729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 513729 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-513729/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 514202

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	Distill/CN	
MB 480-514202/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-514202/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 514352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165139-6	COMP 001 1-4	Total/NA	Water	335.4	514202
MB 480-514202/1-A	Method Blank	Total/NA	Water	335.4	514202
LCS 480-514202/2-A	Lab Control Sample	Total/NA	Water	335.4	514202

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-165139-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-165139-5
Date Collected: 01/14/20 00:00
Matrix: Water
Date Received: 01/14/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	513833	01/16/20 14:42	RJF	TAL BUF

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-165139-6
Date Collected: 01/14/20 13:00
Matrix: Water
Date Received: 01/14/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	513833	01/16/20 15:06	RJF	TAL BUF
Total/NA	Prep	625			513697	01/15/20 15:24	ATG	TAL BUF
Total/NA	Analysis	625.1		1	513803	01/16/20 14:21	JMM	TAL BUF
Total/NA	Prep	200.7			513593	01/15/20 07:37	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	513795	01/15/20 16:18	AMH	TAL BUF
Total/NA	Prep	245.1			513717	01/16/20 11:44	BMB	TAL BUF
Total/NA	Analysis	245.1		1	513881	01/16/20 14:55	BMB	TAL BUF
Total/NA	Prep	Distill/CN			514202	01/20/20 14:00	JRF	TAL BUF
Total/NA	Analysis	335.4		1	514352	01/21/20 11:57	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	513729	01/15/20 16:35	BEF	TAL BUF

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-165139-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-20 *

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-165139-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-165139-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-165139-5	TRIP BLANK	Water	01/14/20 00:00	01/14/20 14:00	
480-165139-6	COMP 001 1-4	Water	01/14/20 13:00	01/14/20 14:00	

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-127651-15940.1
Client Contact: Jason Gutkowski	Phone: 315 436 3605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): Standard Turn			
State, Zip: NY, 13202				
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed			
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056			
Site:	SSOW#:			

Analysis Requested

480-165139 Chain of Custody

I - Ice; J - DI Water; K - EDTA; L - EDA; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	1/14/20	0700		Water			X	X	X	X	X		Lab To
001-2		0900					X	X	X	X	X		Composite
001-3		1100					X	X	X	X	X		Samples
001-4		1300					X	X	X	X	X		
Trip Blank	—	—	—								X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	1/14/20 / 1400	Arcadis		1/14/20 1400	TAL
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: #1 3.4°C

1/23/2020

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-165139-1

Login Number: 165139
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins TestAmerica, 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.	False	lab to composite
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 480-166181-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
2/19/2020 8:02:47 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-166181-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-166181-1

Receipt
The samples were received on 2/10/2020 1:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 6.7º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 2-12-2020 as requested by the client: COMP 001 1-4 (480-166181-6). Regulatory defined guidance for in-laboratory compositing of samples is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-517310 and analytical batch 480-517463 recovered outside control limits for the following analyte: Benzidine.

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

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP 001 1-4 (480-166181-6).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-166181-5

No Detections.

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-166181-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0039	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.26		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.3	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-166181-5

Date Collected: 02/10/20 00:00

Matrix: Water

Date Received: 02/10/20 13:20

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/13/20 00:58	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/13/20 00:58	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/13/20 00:58	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/13/20 00:58	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/13/20 00:58	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/13/20 00:58	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/13/20 00:58	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			02/13/20 00:58	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/13/20 00:58	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/13/20 00:58	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/13/20 00:58	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/13/20 00:58	1
Acrolein	ND		100	17	ug/L			02/13/20 00:58	1
Acrylonitrile	ND		50	1.9	ug/L			02/13/20 00:58	1
Benzene	ND		5.0	0.60	ug/L			02/13/20 00:58	1
Bromoform	ND		5.0	0.47	ug/L			02/13/20 00:58	1
Bromomethane	ND		5.0	1.2	ug/L			02/13/20 00:58	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/13/20 00:58	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/13/20 00:58	1
Dibromochloromethane	ND		5.0	0.41	ug/L			02/13/20 00:58	1
Chloroethane	ND		5.0	0.87	ug/L			02/13/20 00:58	1
Chloroform	ND		5.0	0.54	ug/L			02/13/20 00:58	1
Chloromethane	ND		5.0	0.64	ug/L			02/13/20 00:58	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/13/20 00:58	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/13/20 00:58	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			02/13/20 00:58	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/13/20 00:58	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/13/20 00:58	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/13/20 00:58	1
Toluene	ND		5.0	0.45	ug/L			02/13/20 00:58	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/13/20 00:58	1
Trichloroethene	ND		5.0	0.60	ug/L			02/13/20 00:58	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/13/20 00:58	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/13/20 00:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*02/13/20 00:58*	*1*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*		*02/13/20 00:58*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*02/13/20 00:58*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*02/13/20 00:58*	*1*

Client Sample ID: COMP 001 1-4

Lab Sample ID: 480-166181-6

Date Collected: 02/10/20 12:50

Matrix: Water

Date Received: 02/10/20 13:20

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/13/20 01:21	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/13/20 01:21	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/13/20 01:21	1

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-166181-6
Date Collected: 02/10/20 12:50
Matrix: Water
Date Received: 02/10/20 13:20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/13/20 01:21	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/13/20 01:21	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/13/20 01:21	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/13/20 01:21	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			02/13/20 01:21	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/13/20 01:21	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/13/20 01:21	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/13/20 01:21	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/13/20 01:21	1
Acrolein	ND		100	17	ug/L			02/13/20 01:21	1
Acrylonitrile	ND		50	1.9	ug/L			02/13/20 01:21	1
Benzene	ND		5.0	0.60	ug/L			02/13/20 01:21	1
Bromoform	ND		5.0	0.47	ug/L			02/13/20 01:21	1
Bromomethane	ND		5.0	1.2	ug/L			02/13/20 01:21	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/13/20 01:21	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/13/20 01:21	1
Dibromochloromethane	ND		5.0	0.41	ug/L			02/13/20 01:21	1
Chloroethane	ND		5.0	0.87	ug/L			02/13/20 01:21	1
Chloroform	ND		5.0	0.54	ug/L			02/13/20 01:21	1
Chloromethane	ND		5.0	0.64	ug/L			02/13/20 01:21	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/13/20 01:21	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/13/20 01:21	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			02/13/20 01:21	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/13/20 01:21	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/13/20 01:21	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/13/20 01:21	1
Toluene	ND		5.0	0.45	ug/L			02/13/20 01:21	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/13/20 01:21	1
Trichloroethene	ND		5.0	0.60	ug/L			02/13/20 01:21	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/13/20 01:21	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/13/20 01:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*68 - 130*		*02/13/20 01:21*	*1*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*		*02/13/20 01:21*	*1*
Toluene-d8 (Surr)	*100*		*77 - 120*		*02/13/20 01:21*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*02/13/20 01:21*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		02/12/20 15:36	02/14/20 05:02	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		02/12/20 15:36	02/14/20 05:02	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		02/12/20 15:36	02/14/20 05:02	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		02/12/20 15:36	02/14/20 05:02	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		02/12/20 15:36	02/14/20 05:02	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		02/12/20 15:36	02/14/20 05:02	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		02/12/20 15:36	02/14/20 05:02	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 05:02	1

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-166181-6
Date Collected: 02/10/20 12:50
Matrix: Water
Date Received: 02/10/20 13:20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		02/12/20 15:36	02/14/20 05:02	1
2-Chlorophenol	ND		5.0	0.66	ug/L		02/12/20 15:36	02/14/20 05:02	1
2-Nitrophenol	ND		5.0	0.70	ug/L		02/12/20 15:36	02/14/20 05:02	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		02/12/20 15:36	02/14/20 05:02	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		02/12/20 15:36	02/14/20 05:02	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		02/12/20 15:36	02/14/20 05:02	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		02/12/20 15:36	02/14/20 05:02	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		02/12/20 15:36	02/14/20 05:02	1
4-Nitrophenol	ND		15	10	ug/L		02/12/20 15:36	02/14/20 05:02	1
Acenaphthene	ND		5.0	0.81	ug/L		02/12/20 15:36	02/14/20 05:02	1
Acenaphthylene	ND		5.0	0.87	ug/L		02/12/20 15:36	02/14/20 05:02	1
Anthracene	ND		5.0	1.4	ug/L		02/12/20 15:36	02/14/20 05:02	1
Benzidine	ND	*	80	35	ug/L		02/12/20 15:36	02/14/20 05:02	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		02/12/20 15:36	02/14/20 05:02	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		02/12/20 15:36	02/14/20 05:02	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		02/12/20 15:36	02/14/20 05:02	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		02/12/20 15:36	02/14/20 05:02	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		02/12/20 15:36	02/14/20 05:02	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		02/12/20 15:36	02/14/20 05:02	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		02/12/20 15:36	02/14/20 05:02	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		02/12/20 15:36	02/14/20 05:02	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		02/12/20 15:36	02/14/20 05:02	1
Chrysene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
Decane	ND		10	1.6	ug/L		02/12/20 15:36	02/14/20 05:02	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		02/12/20 15:36	02/14/20 05:02	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		02/12/20 15:36	02/14/20 05:02	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		02/12/20 15:36	02/14/20 05:02	1
Diethyl phthalate	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		02/12/20 15:36	02/14/20 05:02	1
Fluoranthene	ND		5.0	1.6	ug/L		02/12/20 15:36	02/14/20 05:02	1
Fluorene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
Hexachloroethane	ND		5.0	0.60	ug/L		02/12/20 15:36	02/14/20 05:02	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		02/12/20 15:36	02/14/20 05:02	1
Isophorone	ND		5.0	0.74	ug/L		02/12/20 15:36	02/14/20 05:02	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		02/12/20 15:36	02/14/20 05:02	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 05:02	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		02/12/20 15:36	02/14/20 05:02	1
Naphthalene	ND		5.0	0.86	ug/L		02/12/20 15:36	02/14/20 05:02	1
Nitrobenzene	ND		5.0	0.81	ug/L		02/12/20 15:36	02/14/20 05:02	1
Pentachlorophenol	ND		10	1.6	ug/L		02/12/20 15:36	02/14/20 05:02	1
Phenanthrene	ND		5.0	1.2	ug/L		02/12/20 15:36	02/14/20 05:02	1
Phenol	ND		5.0	0.35	ug/L		02/12/20 15:36	02/14/20 05:02	1
Pyrene	ND		5.0	1.4	ug/L		02/12/20 15:36	02/14/20 05:02	1
n-Octadecane	ND		10	1.2	ug/L		02/12/20 15:36	02/14/20 05:02	1

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-166181-6

Date Collected: 02/10/20 12:50
Matrix: Water
Date Received: 02/10/20 13:20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*93*		*52 - 151*	*02/12/20 15:36*	*02/14/20 05:02*	*1*
2-Fluorobiphenyl	*106*		*44 - 120*	*02/12/20 15:36*	*02/14/20 05:02*	*1*
2-Fluorophenol	*58*		*17 - 120*	*02/12/20 15:36*	*02/14/20 05:02*	*1*
Nitrobenzene-d5	*91*		*15 - 314*	*02/12/20 15:36*	*02/14/20 05:02*	*1*
p-Terphenyl-d14	*115*		*22 - 125*	*02/12/20 15:36*	*02/14/20 05:02*	*1*
Phenol-d5	*38*		*8 - 424*	*02/12/20 15:36*	*02/14/20 05:02*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0039**	**J**	0.010	0.0015	mg/L		02/12/20 08:10	02/12/20 13:09	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/13/20 11:40	02/13/20 15:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.26**		0.010	0.0050	mg/L		02/12/20 10:45	02/12/20 15:34	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**	**HF**	0.1	0.1	SU			02/13/20 14:47	1
Temperature	**19.3**	**HF**	0.001	0.001	Degrees C			02/13/20 14:47	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-166181-5	TRIP BLANK	100	101	99	101
480-166181-6	COMP 001 1-4	101	101	100	100
LCS 480-517273/5	Lab Control Sample	98	99	101	100
MB 480-517273/7	Method Blank	99	102	99	105

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-166181-6	COMP 001 1-4	93	106	58	91	115	38
LCS 480-517310/2-A	Lab Control Sample	106	96	51	86	105	36
LCSD 480-517310/3-A	Lab Control Sample Dup	109	100	53	91	117	37
MB 480-517310/1-A	Method Blank	74	89	49	80	97	30

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-517273/7
Matrix: Water
Analysis Batch: 517273

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	ND		5.0	0.39	ug/L			02/12/20 23:21	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/12/20 23:21	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/12/20 23:21	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/12/20 23:21	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/12/20 23:21	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/12/20 23:21	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/12/20 23:21	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			02/12/20 23:21	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/12/20 23:21	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/12/20 23:21	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/12/20 23:21	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/12/20 23:21	1
Acrolein	ND		100	17	ug/L			02/12/20 23:21	1
Acrylonitrile	ND		50	1.9	ug/L			02/12/20 23:21	1
Benzene	ND		5.0	0.60	ug/L			02/12/20 23:21	1
Bromoform	ND		5.0	0.47	ug/L			02/12/20 23:21	1
Bromomethane	ND		5.0	1.2	ug/L			02/12/20 23:21	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/12/20 23:21	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/12/20 23:21	1
Dibromochloromethane	ND		5.0	0.41	ug/L			02/12/20 23:21	1
Chloroethane	ND		5.0	0.87	ug/L			02/12/20 23:21	1
Chloroform	ND		5.0	0.54	ug/L			02/12/20 23:21	1
Chloromethane	ND		5.0	0.64	ug/L			02/12/20 23:21	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/12/20 23:21	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/12/20 23:21	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			02/12/20 23:21	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/12/20 23:21	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/12/20 23:21	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/12/20 23:21	1
Toluene	ND		5.0	0.45	ug/L			02/12/20 23:21	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/12/20 23:21	1
Trichloroethene	ND		5.0	0.60	ug/L			02/12/20 23:21	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/12/20 23:21	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/12/20 23:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*		*02/12/20 23:21*	*1*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*		*02/12/20 23:21*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*02/12/20 23:21*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*02/12/20 23:21*	*1*

Lab Sample ID: LCS 480-517273/5
Matrix: Water
Analysis Batch: 517273

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	20.0	22.7		ug/L		114	52 - 162
1,1,2,2-Tetrachloroethane	20.0	20.7		ug/L		103	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-517273/5
Matrix: Water
Analysis Batch: 517273

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	20.5		ug/L		103	52 - 150
1,1-Dichloroethane	20.0	21.7		ug/L		108	59 - 155
1,1-Dichloroethene	20.0	23.5		ug/L		117	1 - 234
1,2-Dichlorobenzene	20.0	21.7		ug/L		108	18 - 190
1,2-Dichloroethane	20.0	20.8		ug/L		104	49 - 155
1,2-Dichloropropane	20.0	21.0		ug/L		105	1 - 210
1,3-Dichlorobenzene	20.0	21.3		ug/L		106	59 - 156
1,4-Dichlorobenzene	20.0	21.2		ug/L		106	18 - 190
2-Chloroethyl vinyl ether	20.0	20.1	J	ug/L		101	1 - 305
Benzene	20.0	21.7		ug/L		108	37 - 151
Bromoform	20.0	20.7		ug/L		104	45 - 169
Bromomethane	20.0	20.6		ug/L		103	1 - 242
Carbon tetrachloride	20.0	22.9		ug/L		115	70 - 140
Chlorobenzene	20.0	21.1		ug/L		105	37 - 160
Dibromochloromethane	20.0	20.7		ug/L		103	53 - 149
Chloroethane	20.0	21.1		ug/L		105	14 - 230
Chloroform	20.0	21.0		ug/L		105	51 - 138
Chloromethane	20.0	22.2		ug/L		111	1 - 273
cis-1,3-Dichloropropene	20.0	21.0		ug/L		105	1 - 227
Bromodichloromethane	20.0	21.1		ug/L		105	35 - 155
Ethylbenzene	20.0	22.0		ug/L		110	37 - 162
Methylene Chloride	20.0	20.2		ug/L		101	1 - 221
Tetrachloroethene	20.0	22.8		ug/L		114	64 - 148
Toluene	20.0	21.9		ug/L		109	47 - 150
trans-1,3-Dichloropropene	20.0	21.0		ug/L		105	17 - 183
Trichloroethene	20.0	22.1		ug/L		111	71 - 157
Trichlorofluoromethane	20.0	22.4		ug/L		112	17 - 181
Vinyl chloride	20.0	21.5		ug/L		108	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 130*
4-Bromofluorobenzene (Surr)	*99*		*76 - 123*
Toluene-d8 (Surr)	*101*		*77 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-517310/1-A
Matrix: Water
Analysis Batch: 517463

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 517310

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		02/12/20 15:36	02/14/20 03:21	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		02/12/20 15:36	02/14/20 03:21	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		02/12/20 15:36	02/14/20 03:21	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		02/12/20 15:36	02/14/20 03:21	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		02/12/20 15:36	02/14/20 03:21	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 03:21	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-517310/1-A
Matrix: Water
Analysis Batch: 517463

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 517310

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		02/12/20 15:36	02/14/20 03:21	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		02/12/20 15:36	02/14/20 03:21	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		02/12/20 15:36	02/14/20 03:21	1
2-Chlorophenol	ND		5.0	0.66	ug/L		02/12/20 15:36	02/14/20 03:21	1
2-Nitrophenol	ND		5.0	0.70	ug/L		02/12/20 15:36	02/14/20 03:21	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		02/12/20 15:36	02/14/20 03:21	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		02/12/20 15:36	02/14/20 03:21	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		02/12/20 15:36	02/14/20 03:21	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		02/12/20 15:36	02/14/20 03:21	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		02/12/20 15:36	02/14/20 03:21	1
4-Nitrophenol	ND		15	10	ug/L		02/12/20 15:36	02/14/20 03:21	1
Acenaphthene	ND		5.0	0.81	ug/L		02/12/20 15:36	02/14/20 03:21	1
Acenaphthylene	ND		5.0	0.87	ug/L		02/12/20 15:36	02/14/20 03:21	1
Anthracene	ND		5.0	1.4	ug/L		02/12/20 15:36	02/14/20 03:21	1
Benzidine	ND		80	35	ug/L		02/12/20 15:36	02/14/20 03:21	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		02/12/20 15:36	02/14/20 03:21	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		02/12/20 15:36	02/14/20 03:21	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		02/12/20 15:36	02/14/20 03:21	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		02/12/20 15:36	02/14/20 03:21	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		02/12/20 15:36	02/14/20 03:21	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		02/12/20 15:36	02/14/20 03:21	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		02/12/20 15:36	02/14/20 03:21	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		02/12/20 15:36	02/14/20 03:21	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		02/12/20 15:36	02/14/20 03:21	1
Chrysene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
Decane	ND		10	1.6	ug/L		02/12/20 15:36	02/14/20 03:21	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		02/12/20 15:36	02/14/20 03:21	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		02/12/20 15:36	02/14/20 03:21	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		02/12/20 15:36	02/14/20 03:21	1
Diethyl phthalate	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		02/12/20 15:36	02/14/20 03:21	1
Fluoranthene	ND		5.0	1.6	ug/L		02/12/20 15:36	02/14/20 03:21	1
Fluorene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
Hexachloroethane	ND		5.0	0.60	ug/L		02/12/20 15:36	02/14/20 03:21	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		02/12/20 15:36	02/14/20 03:21	1
Isophorone	ND		5.0	0.74	ug/L		02/12/20 15:36	02/14/20 03:21	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		02/12/20 15:36	02/14/20 03:21	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		02/12/20 15:36	02/14/20 03:21	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		02/12/20 15:36	02/14/20 03:21	1
Naphthalene	ND		5.0	0.86	ug/L		02/12/20 15:36	02/14/20 03:21	1
Nitrobenzene	ND		5.0	0.81	ug/L		02/12/20 15:36	02/14/20 03:21	1
Pentachlorophenol	ND		10	1.6	ug/L		02/12/20 15:36	02/14/20 03:21	1
Phenanthrene	ND		5.0	1.2	ug/L		02/12/20 15:36	02/14/20 03:21	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-517310/1-A
Matrix: Water
Analysis Batch: 517463

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 517310

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		02/12/20 15:36	02/14/20 03:21	1
Pyrene	ND		5.0	1.4	ug/L		02/12/20 15:36	02/14/20 03:21	1
n-Octadecane	ND		10	1.2	ug/L		02/12/20 15:36	02/14/20 03:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*74*		*52 - 151*	*02/12/20 15:36*	*02/14/20 03:21*	*1*
2-Fluorobiphenyl	*89*		*44 - 120*	*02/12/20 15:36*	*02/14/20 03:21*	*1*
2-Fluorophenol	*49*		*17 - 120*	*02/12/20 15:36*	*02/14/20 03:21*	*1*
Nitrobenzene-d5	*80*		*15 - 314*	*02/12/20 15:36*	*02/14/20 03:21*	*1*
p-Terphenyl-d14	*97*		*22 - 125*	*02/12/20 15:36*	*02/14/20 03:21*	*1*
Phenol-d5	*30*		*8 - 424*	*02/12/20 15:36*	*02/14/20 03:21*	*1*

Lab Sample ID: LCS 480-517310/2-A
Matrix: Water
Analysis Batch: 517463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 517310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	42.9		ug/L		86	44 - 142
1,2-Dichlorobenzene	50.0	43.8		ug/L		88	32 - 129
1,3-Dichlorobenzene	50.0	43.4		ug/L		87	1 - 172
1,4-Dichlorobenzene	50.0	41.4		ug/L		83	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	50.3		ug/L		101	36 - 166
2,4,6-Trichlorophenol	50.0	42.5		ug/L		85	37 - 144
2,4-Dichlorophenol	50.0	45.6		ug/L		91	39 - 135
2,4-Dimethylphenol	50.0	43.7		ug/L		87	32 - 120
2,4-Dinitrophenol	100	74.0		ug/L		74	1 - 191
2,4-Dinitrotoluene	50.0	50.0		ug/L		100	39 - 139
2,6-Dinitrotoluene	50.0	51.5		ug/L		103	50 - 158
2-Chloronaphthalene	50.0	45.4		ug/L		91	60 - 120
2-Chlorophenol	50.0	43.3		ug/L		87	23 - 134
2-Nitrophenol	50.0	43.0		ug/L		86	29 - 182
3,3'-Dichlorobenzidine	100	95.9		ug/L		96	1 - 262
4,6-Dinitro-2-methylphenol	100	96.0		ug/L		96	1 - 181
4-Bromophenyl phenyl ether	50.0	49.9		ug/L		100	53 - 127
4-Chloro-3-methylphenol	50.0	43.6		ug/L		87	22 - 147
4-Chlorophenyl phenyl ether	50.0	45.9		ug/L		92	25 - 158
4-Nitrophenol	100	44.2		ug/L		44	1 - 132
Acenaphthene	50.0	48.8		ug/L		98	47 - 145
Acenaphthylene	50.0	47.6		ug/L		95	33 - 145
Anthracene	50.0	52.0		ug/L		104	27 - 133
Benzidine	100	ND		ug/L		10	1 - 120
Benzo[a]anthracene	50.0	51.4		ug/L		103	33 - 143
Benzo[a]pyrene	50.0	52.2		ug/L		104	17 - 163
Benzo[b]fluoranthene	50.0	53.9		ug/L		108	24 - 159
Benzo[g,h,i]perylene	50.0	50.2		ug/L		100	1 - 219
Benzo[k]fluoranthene	50.0	50.3		ug/L		101	11 - 162
Bis(2-chloroethoxy)methane	50.0	45.2		ug/L		90	33 - 184
Bis(2-chloroethyl)ether	50.0	45.3		ug/L		91	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-517310/2-A
Matrix: Water
Analysis Batch: 517463

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 517310

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	53.7		ug/L		107	8 - 158
Butyl benzyl phthalate	50.0	50.1		ug/L		100	1 - 152
Chrysene	50.0	53.1		ug/L		106	17 - 168
Di-n-butyl phthalate	50.0	53.7		ug/L		107	1 - 120
Di-n-octyl phthalate	50.0	55.6		ug/L		111	4 - 146
Dibenz(a,h)anthracene	50.0	53.2		ug/L		106	1 - 227
Diethyl phthalate	50.0	47.1		ug/L		94	1 - 120
Dimethyl phthalate	50.0	47.2		ug/L		94	1 - 120
Fluoranthene	50.0	52.3		ug/L		105	26 - 137
Fluorene	50.0	48.5		ug/L		97	59 - 121
Hexachlorobenzene	50.0	50.9		ug/L		102	1 - 152
Hexachlorocyclopentadiene	50.0	33.6		ug/L		67	5 - 120
Hexachloroethane	50.0	43.7		ug/L		87	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	51.6		ug/L		103	1 - 171
Isophorone	50.0	43.5		ug/L		87	21 - 196
N-Nitrosodi-n-propylamine	50.0	43.9		ug/L		88	1 - 230
N-Nitrosodiphenylamine	50.0	48.5		ug/L		97	54 - 125
Naphthalene	50.0	45.6		ug/L		91	21 - 133
Nitrobenzene	50.0	42.5		ug/L		85	35 - 180
Pentachlorophenol	100	80.6		ug/L		81	14 - 176
Phenanthrene	50.0	50.3		ug/L		101	54 - 120
Phenol	50.0	17.8		ug/L		36	5 - 120
Pyrene	50.0	51.3		ug/L		103	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*106*		*52 - 151*
2-Fluorobiphenyl	*96*		*44 - 120*
2-Fluorophenol	*51*		*17 - 120*
Nitrobenzene-d5	*86*		*15 - 314*
p-Terphenyl-d14	*105*		*22 - 125*
Phenol-d5	*36*		*8 - 424*

Lab Sample ID: LCSD 480-517310/3-A
Matrix: Water
Analysis Batch: 517463

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 517310

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	42.6		ug/L		85	44 - 142	1	34
1,2-Dichlorobenzene	50.0	43.8		ug/L		88	32 - 129	0	38
1,3-Dichlorobenzene	50.0	42.8		ug/L		86	1 - 172	1	37
1,4-Dichlorobenzene	50.0	42.1		ug/L		84	20 - 124	2	40
2,2'-Oxybis(1-chloropropane)	50.0	49.8		ug/L		100	36 - 166	1	36
2,4,6-Trichlorophenol	50.0	46.0		ug/L		92	37 - 144	8	20
2,4-Dichlorophenol	50.0	48.9		ug/L		98	39 - 135	7	23
2,4-Dimethylphenol	50.0	47.8		ug/L		96	32 - 120	9	18
2,4-Dinitrophenol	100	88.1		ug/L		88	1 - 191	17	29
2,4-Dinitrotoluene	50.0	53.7		ug/L		107	39 - 139	7	20
2,6-Dinitrotoluene	50.0	53.9		ug/L		108	50 - 158	5	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-517310/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 517463
Prep Batch: 517310

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	46.8		ug/L		94	60 - 120	3	30
2-Chlorophenol			50.0	44.5		ug/L		89	23 - 134	3	26
2-Nitrophenol			50.0	47.5		ug/L		95	29 - 182	10	28
3,3'-Dichlorobenzidine			100	99.8		ug/L		100	1 - 262	4	31
4,6-Dinitro-2-methylphenol			100	105		ug/L		105	1 - 181	9	30
4-Bromophenyl phenyl ether			50.0	53.5		ug/L		107	53 - 127	7	16
4-Chloro-3-methylphenol			50.0	46.2		ug/L		92	22 - 147	6	16
4-Chlorophenyl phenyl ether			50.0	48.2		ug/L		96	25 - 158	5	15
4-Nitrophenol			100	47.5		ug/L		48	1 - 132	7	24
Acenaphthene			50.0	51.0		ug/L		102	47 - 145	4	25
Acenaphthylene			50.0	49.0		ug/L		98	33 - 145	3	22
Anthracene			50.0	55.6		ug/L		111	27 - 133	7	15
Benzidine			100	37.7	J *	ug/L		38	1 - 120	114	50
Benzo[a]anthracene			50.0	55.8		ug/L		112	33 - 143	8	15
Benzo[a]pyrene			50.0	55.5		ug/L		111	17 - 163	6	15
Benzo[b]fluoranthene			50.0	57.3		ug/L		115	24 - 159	6	17
Benzo[g,h,i]perylene			50.0	52.9		ug/L		106	1 - 219	5	19
Benzo[k]fluoranthene			50.0	54.5		ug/L		109	11 - 162	8	19
Bis(2-chloroethoxy)methane			50.0	46.2		ug/L		92	33 - 184	2	23
Bis(2-chloroethyl)ether			50.0	45.6		ug/L		91	12 - 158	1	33
Bis(2-ethylhexyl) phthalate			50.0	57.2		ug/L		114	8 - 158	6	15
Butyl benzyl phthalate			50.0	54.7		ug/L		109	1 - 152	9	15
Chrysene			50.0	57.3		ug/L		115	17 - 168	8	15
Di-n-butyl phthalate			50.0	58.5		ug/L		117	1 - 120	9	15
Di-n-octyl phthalate			50.0	58.3		ug/L		117	4 - 146	5	15
Dibenz(a,h)anthracene			50.0	55.5		ug/L		111	1 - 227	4	18
Diethyl phthalate			50.0	51.8		ug/L		104	1 - 120	9	15
Dimethyl phthalate			50.0	50.7		ug/L		101	1 - 120	7	15
Fluoranthene			50.0	56.5		ug/L		113	26 - 137	8	15
Fluorene			50.0	50.8		ug/L		102	59 - 121	5	18
Hexachlorobenzene			50.0	53.4		ug/L		107	1 - 152	5	15
Hexachlorocyclopentadiene			50.0	35.7		ug/L		71	5 - 120	6	50
Hexachloroethane			50.0	41.9		ug/L		84	40 - 120	4	43
Indeno[1,2,3-cd]pyrene			50.0	55.1		ug/L		110	1 - 171	7	17
Isophorone			50.0	47.3		ug/L		95	21 - 196	8	21
N-Nitrosodi-n-propylamine			50.0	46.0		ug/L		92	1 - 230	5	23
N-Nitrosodiphenylamine			50.0	52.6		ug/L		105	54 - 125	8	15
Naphthalene			50.0	47.6		ug/L		95	21 - 133	4	31
Nitrobenzene			50.0	44.4		ug/L		89	35 - 180	4	27
Pentachlorophenol			100	91.0		ug/L		91	14 - 176	12	21
Phenanthrene			50.0	55.5		ug/L		111	54 - 120	10	16
Phenol			50.0	17.6		ug/L		35	5 - 120	1	36
Pyrene			50.0	56.2		ug/L		112	52 - 120	9	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*109*		*52 - 151*
2-Fluorobiphenyl	*100*		*44 - 120*
2-Fluorophenol	*53*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-517310/3-A
Matrix: Water
Analysis Batch: 517463

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 517310

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	91		15 - 314
p-Terphenyl-d14	117		22 - 125
Phenol-d5	37		8 - 424

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-517168/1-A
Matrix: Water
Analysis Batch: 517405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 517168

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		02/12/20 08:10	02/12/20 13:02	1

Lab Sample ID: LCS 480-517168/2-A
Matrix: Water
Analysis Batch: 517405

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 517168

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.213		mg/L		106	85 - 115

Lab Sample ID: 480-166181-6 MS
Matrix: Water
Analysis Batch: 517405

Client Sample ID: COMP 001 1-4
Prep Type: Total/NA
Prep Batch: 517168

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.0039	J	0.200	0.202		mg/L		99	70 - 130

Lab Sample ID: 480-166181-6 MSD
Matrix: Water
Analysis Batch: 517405

Client Sample ID: COMP 001 1-4
Prep Type: Total/NA
Prep Batch: 517168

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	0.0039	J	0.200	0.204		mg/L		100	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-517439/1-A
Matrix: Water
Analysis Batch: 517536

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 517439

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/13/20 11:40	02/13/20 15:09	1

Lab Sample ID: LCS 480-517439/2-A
Matrix: Water
Analysis Batch: 517536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 517439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00733		mg/L		110	85 - 115

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-166181-1

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-517244/1-A
Matrix: Water
Analysis Batch: 517314

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 517244

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		02/12/20 10:45	02/12/20 15:30	1

Lab Sample ID: LCS 480-517244/2-A
Matrix: Water
Analysis Batch: 517314

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 517244

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.239		mg/L		96	90 - 110

Lab Sample ID: 480-166181-6 DU
Matrix: Water
Analysis Batch: 517314

Client Sample ID: COMP 001 1-4
Prep Type: Total/NA
Prep Batch: 517244

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.26		0.258		mg/L		1	15

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-517644/1
Matrix: Water
Analysis Batch: 517644

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 517273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-5	TRIP BLANK	Total/NA	Water	624.1	
480-166181-6	COMP 001 1-4	Total/NA	Water	624.1	
MB 480-517273/7	Method Blank	Total/NA	Water	624.1	
LCS 480-517273/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 517310

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	625	
MB 480-517310/1-A	Method Blank	Total/NA	Water	625	
LCS 480-517310/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-517310/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 517463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	625.1	517310
MB 480-517310/1-A	Method Blank	Total/NA	Water	625.1	517310
LCS 480-517310/2-A	Lab Control Sample	Total/NA	Water	625.1	517310
LCSD 480-517310/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	517310

Metals

Prep Batch: 517168

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	200.7	
MB 480-517168/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-517168/2-A	Lab Control Sample	Total/NA	Water	200.7	
480-166181-6 MS	COMP 001 1-4	Total/NA	Water	200.7	
480-166181-6 MSD	COMP 001 1-4	Total/NA	Water	200.7	

Analysis Batch: 517405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	200.7 Rev 4.4	517168
MB 480-517168/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	517168
LCS 480-517168/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	517168
480-166181-6 MS	COMP 001 1-4	Total/NA	Water	200.7 Rev 4.4	517168
480-166181-6 MSD	COMP 001 1-4	Total/NA	Water	200.7 Rev 4.4	517168

Prep Batch: 517439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	245.1	
MB 480-517439/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-517439/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 517536

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	245.1	517439
MB 480-517439/1-A	Method Blank	Total/NA	Water	245.1	517439
LCS 480-517439/2-A	Lab Control Sample	Total/NA	Water	245.1	517439

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Prep Batch: 517244

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	Distill/CN	
MB 480-517244/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-517244/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-166181-6 DU	COMP 001 1-4	Total/NA	Water	Distill/CN	

Analysis Batch: 517314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	335.4	517244
MB 480-517244/1-A	Method Blank	Total/NA	Water	335.4	517244
LCS 480-517244/2-A	Lab Control Sample	Total/NA	Water	335.4	517244
480-166181-6 DU	COMP 001 1-4	Total/NA	Water	335.4	517244

Analysis Batch: 517644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166181-6	COMP 001 1-4	Total/NA	Water	SM 4500 H+ B	
LCS 480-517644/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-166181-5

Date Collected: 02/10/20 00:00
Matrix: Water
Date Received: 02/10/20 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	517273	02/13/20 00:58	LCH	TAL BUF

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-166181-6

Date Collected: 02/10/20 12:50
Matrix: Water
Date Received: 02/10/20 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	517273	02/13/20 01:21	LCH	TAL BUF
Total/NA	Prep	625			517310	02/12/20 15:36	ATG	TAL BUF
Total/NA	Analysis	625.1		1	517463	02/14/20 05:02	PJQ	TAL BUF
Total/NA	Prep	200.7			517168	02/12/20 08:10	EMB	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	517405	02/12/20 13:09	AMH	TAL BUF
Total/NA	Prep	245.1			517439	02/13/20 11:40	BMB	TAL BUF
Total/NA	Analysis	245.1		1	517536	02/13/20 15:22	BMB	TAL BUF
Total/NA	Prep	Distill/CN			517244	02/12/20 10:45	JRF	TAL BUF
Total/NA	Analysis	335.4		1	517314	02/12/20 15:34	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	517644	02/13/20 14:47	KEB	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-20 *

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166181-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-166181-5	TRIP BLANK	Water	02/10/20 00:00	02/10/20 13:20	
480-166181-6	COMP 001 1-4	Water	02/10/20 12:50	02/10/20 13:20	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing TestAmerica

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-127652-15940.1
Client Contact: Jason Gutkowski	Phone: 315 4363605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): Standard Turn			
State, Zip: NY, 13202				
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed			
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - Di Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	2/10/20	0650	G	Water			X	X	X	X	X		Lab To
001-2		0850					X	X	X	X	X		Composite
001-3		1050					X	X	X	X	X		Samples
001-4		1250					X	X	X	X	X		
TripBlank	—	—	—								X		

480-166181 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Jason Gutkowski	Date/Time: 2/10/20 / 1320	Company: Arcadis	Received by: [signature]	Date/Time: 2/10/20 1320	Company: TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 6.7 #1 ICE

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-166181-1

Login Number: 166181

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Kolb, Chris M

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	Yes: Received same day of collection; chilling process has begun
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.	False	lab to composite
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-166933-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
3/10/2020 2:27:26 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

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

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

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

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Client: ARCADIS U.S. Inc
Job ID: 480-166933-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 480-166933-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-166933-1

Receipt
The samples were received on 3/3/2020 1:55 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 03-04-2020 as requested by the client: 001 COMP 1-4 (480-166933-6). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-519982 and analytical batch 480-520157 recovered outside control limits for the following analytes: Benzidine.

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

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: 001 COMP 1-4 (480-166933-6).

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

Organic Prep
Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-519982.

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166933-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-166933-5

No Detections.

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-166933-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Butyl benzyl phthalate	1.5	J	4.8	1.1	ug/L	1		625.1	Total/NA
Zinc	0.0058	J B	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.11		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.4	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-166933-5

Date Collected: 03/03/20 00:00

Matrix: Water

Date Received: 03/03/20 13:55

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/04/20 12:54	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/04/20 12:54	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/04/20 12:54	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/04/20 12:54	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/04/20 12:54	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/04/20 12:54	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/04/20 12:54	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/04/20 12:54	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/04/20 12:54	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/04/20 12:54	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/04/20 12:54	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/04/20 12:54	1
Acrolein	ND		100	17	ug/L			03/04/20 12:54	1
Acrylonitrile	ND		50	1.9	ug/L			03/04/20 12:54	1
Benzene	ND		5.0	0.60	ug/L			03/04/20 12:54	1
Bromoform	ND		5.0	0.47	ug/L			03/04/20 12:54	1
Bromomethane	ND		5.0	1.2	ug/L			03/04/20 12:54	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/04/20 12:54	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/04/20 12:54	1
Dibromochloromethane	ND		5.0	0.41	ug/L			03/04/20 12:54	1
Chloroethane	ND		5.0	0.87	ug/L			03/04/20 12:54	1
Chloroform	ND		5.0	0.54	ug/L			03/04/20 12:54	1
Chloromethane	ND		5.0	0.64	ug/L			03/04/20 12:54	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/04/20 12:54	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/04/20 12:54	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			03/04/20 12:54	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/04/20 12:54	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/04/20 12:54	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/04/20 12:54	1
Toluene	ND		5.0	0.45	ug/L			03/04/20 12:54	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/04/20 12:54	1
Trichloroethene	ND		5.0	0.60	ug/L			03/04/20 12:54	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			03/04/20 12:54	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/04/20 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*68 - 130*		*03/04/20 12:54*	*1*
4-Bromofluorobenzene (Surr)	*95*		*76 - 123*		*03/04/20 12:54*	*1*
Toluene-d8 (Surr)	*93*		*77 - 120*		*03/04/20 12:54*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*03/04/20 12:54*	*1*

Client Sample ID: 001 COMP 1-4

Lab Sample ID: 480-166933-6

Date Collected: 03/03/20 13:35

Matrix: Water

Date Received: 03/03/20 13:55

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/04/20 13:18	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/04/20 13:18	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/04/20 13:18	1

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-166933-6
Date Collected: 03/03/20 13:35
Matrix: Water
Date Received: 03/03/20 13:55

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/04/20 13:18	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/04/20 13:18	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/04/20 13:18	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/04/20 13:18	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/04/20 13:18	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/04/20 13:18	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/04/20 13:18	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/04/20 13:18	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/04/20 13:18	1
Acrolein	ND		100	17	ug/L			03/04/20 13:18	1
Acrylonitrile	ND		50	1.9	ug/L			03/04/20 13:18	1
Benzene	ND		5.0	0.60	ug/L			03/04/20 13:18	1
Bromoform	ND		5.0	0.47	ug/L			03/04/20 13:18	1
Bromomethane	ND		5.0	1.2	ug/L			03/04/20 13:18	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/04/20 13:18	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/04/20 13:18	1
Dibromochloromethane	ND		5.0	0.41	ug/L			03/04/20 13:18	1
Chloroethane	ND		5.0	0.87	ug/L			03/04/20 13:18	1
Chloroform	ND		5.0	0.54	ug/L			03/04/20 13:18	1
Chloromethane	ND		5.0	0.64	ug/L			03/04/20 13:18	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/04/20 13:18	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/04/20 13:18	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			03/04/20 13:18	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/04/20 13:18	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/04/20 13:18	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/04/20 13:18	1
Toluene	ND		5.0	0.45	ug/L			03/04/20 13:18	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/04/20 13:18	1
Trichloroethene	ND		5.0	0.60	ug/L			03/04/20 13:18	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			03/04/20 13:18	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/04/20 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*68 - 130*		*03/04/20 13:18*	*1*
4-Bromofluorobenzene (Surr)	*98*		*76 - 123*		*03/04/20 13:18*	*1*
Toluene-d8 (Surr)	*94*		*77 - 120*		*03/04/20 13:18*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*03/04/20 13:18*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.6	0.79	ug/L		03/04/20 09:36	03/05/20 15:18	1
1,2-Dichlorobenzene	ND		9.6	4.8	ug/L		03/04/20 09:36	03/05/20 15:18	1
1,2-Diphenylhydrazine	ND		9.6	0.75	ug/L		03/04/20 09:36	03/05/20 15:18	1
1,3-Dichlorobenzene	ND		9.6	0.66	ug/L		03/04/20 09:36	03/05/20 15:18	1
1,4-Dichlorobenzene	ND		9.6	5.4	ug/L		03/04/20 09:36	03/05/20 15:18	1
2,2'-Oxybis(1-chloropropane)	ND		4.8	0.81	ug/L		03/04/20 09:36	03/05/20 15:18	1
2,4,6-Trichlorophenol	ND		4.8	0.96	ug/L		03/04/20 09:36	03/05/20 15:18	1
2,4-Dichlorophenol	ND		4.8	0.74	ug/L		03/04/20 09:36	03/05/20 15:18	1
2,4-Dimethylphenol	ND		4.8	1.3	ug/L		03/04/20 09:36	03/05/20 15:18	1
2,4-Dinitrophenol	ND		9.6	4.8	ug/L		03/04/20 09:36	03/05/20 15:18	1

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-166933-6
Date Collected: 03/03/20 13:35
Matrix: Water
Date Received: 03/03/20 13:55

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		9.6	4.8	ug/L		03/04/20 09:36	03/05/20 15:18	1
2,6-Dinitrotoluene	ND		4.8	0.96	ug/L		03/04/20 09:36	03/05/20 15:18	1
2-Chloronaphthalene	ND		4.8	0.88	ug/L		03/04/20 09:36	03/05/20 15:18	1
2-Chlorophenol	ND		4.8	0.63	ug/L		03/04/20 09:36	03/05/20 15:18	1
2-Nitrophenol	ND		4.8	0.67	ug/L		03/04/20 09:36	03/05/20 15:18	1
3,3'-Dichlorobenzidine	ND		4.8	0.79	ug/L		03/04/20 09:36	03/05/20 15:18	1
4,6-Dinitro-2-methylphenol	ND		9.6	0.63	ug/L		03/04/20 09:36	03/05/20 15:18	1
4-Bromophenyl phenyl ether	ND		4.8	1.3	ug/L		03/04/20 09:36	03/05/20 15:18	1
4-Chloro-3-methylphenol	ND		4.8	1.1	ug/L		03/04/20 09:36	03/05/20 15:18	1
4-Chlorophenyl phenyl ether	ND		4.8	1.3	ug/L		03/04/20 09:36	03/05/20 15:18	1
4-Nitrophenol	ND		14	9.6	ug/L		03/04/20 09:36	03/05/20 15:18	1
Acenaphthene	ND		4.8	0.78	ug/L		03/04/20 09:36	03/05/20 15:18	1
Acenaphthylene	ND		4.8	0.84	ug/L		03/04/20 09:36	03/05/20 15:18	1
Anthracene	ND		4.8	1.3	ug/L		03/04/20 09:36	03/05/20 15:18	1
Benzidine	ND	*	77	34	ug/L		03/04/20 09:36	03/05/20 15:18	1
Benzo[a]anthracene	ND		4.8	1.1	ug/L		03/04/20 09:36	03/05/20 15:18	1
Benzo[a]pyrene	ND		4.8	1.3	ug/L		03/04/20 09:36	03/05/20 15:18	1
Benzo[b]fluoranthene	ND		4.8	1.2	ug/L		03/04/20 09:36	03/05/20 15:18	1
Benzo[g,h,i]perylene	ND		4.8	1.4	ug/L		03/04/20 09:36	03/05/20 15:18	1
Benzo[k]fluoranthene	ND		4.8	1.3	ug/L		03/04/20 09:36	03/05/20 15:18	1
Bis(2-chloroethoxy)methane	ND		4.8	0.72	ug/L		03/04/20 09:36	03/05/20 15:18	1
Bis(2-chloroethyl)ether	ND		4.8	0.89	ug/L		03/04/20 09:36	03/05/20 15:18	1
Bis(2-ethylhexyl) phthalate	ND		9.6	1.2	ug/L		03/04/20 09:36	03/05/20 15:18	1
Butyl benzyl phthalate	**1.5**	**J**	4.8	1.1	ug/L		03/04/20 09:36	03/05/20 15:18	1
Chrysene	ND		4.8	0.96	ug/L		03/04/20 09:36	03/05/20 15:18	1
Decane	ND		9.6	1.5	ug/L		03/04/20 09:36	03/05/20 15:18	1
Di-n-butyl phthalate	ND		4.8	1.5	ug/L		03/04/20 09:36	03/05/20 15:18	1
Di-n-octyl phthalate	ND		4.8	1.2	ug/L		03/04/20 09:36	03/05/20 15:18	1
Dibenz(a,h)anthracene	ND		4.8	1.4	ug/L		03/04/20 09:36	03/05/20 15:18	1
Diethyl phthalate	ND		4.8	0.96	ug/L		03/04/20 09:36	03/05/20 15:18	1
Dimethyl phthalate	ND		4.8	0.88	ug/L		03/04/20 09:36	03/05/20 15:18	1
Fluoranthene	ND		4.8	1.5	ug/L		03/04/20 09:36	03/05/20 15:18	1
Fluorene	ND		4.8	0.96	ug/L		03/04/20 09:36	03/05/20 15:18	1
Hexachlorobenzene	ND		4.8	0.96	ug/L		03/04/20 09:36	03/05/20 15:18	1
Hexachlorobutadiene	ND		4.8	0.96	ug/L		03/04/20 09:36	03/05/20 15:18	1
Hexachlorocyclopentadiene	ND		9.6	4.8	ug/L		03/04/20 09:36	03/05/20 15:18	1
Hexachloroethane	ND		4.8	0.58	ug/L		03/04/20 09:36	03/05/20 15:18	1
Indeno[1,2,3-cd]pyrene	ND		4.8	1.4	ug/L		03/04/20 09:36	03/05/20 15:18	1
Isophorone	ND		4.8	0.71	ug/L		03/04/20 09:36	03/05/20 15:18	1
N-Nitrosodi-n-propylamine	ND		4.8	0.86	ug/L		03/04/20 09:36	03/05/20 15:18	1
N-Nitrosodimethylamine	ND		9.6	4.8	ug/L		03/04/20 09:36	03/05/20 15:18	1
N-Nitrosodiphenylamine	ND		4.8	0.38	ug/L		03/04/20 09:36	03/05/20 15:18	1
Naphthalene	ND		4.8	0.83	ug/L		03/04/20 09:36	03/05/20 15:18	1
Nitrobenzene	ND		4.8	0.78	ug/L		03/04/20 09:36	03/05/20 15:18	1
Pentachlorophenol	ND		9.6	1.5	ug/L		03/04/20 09:36	03/05/20 15:18	1
Phenanthrene	ND		4.8	1.2	ug/L		03/04/20 09:36	03/05/20 15:18	1
Phenol	ND		4.8	0.34	ug/L		03/04/20 09:36	03/05/20 15:18	1
Pyrene	ND		4.8	1.3	ug/L		03/04/20 09:36	03/05/20 15:18	1
n-Octadecane	ND		9.6	1.2	ug/L		03/04/20 09:36	03/05/20 15:18	1

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-166933-6

Date Collected: 03/03/20 13:35
Matrix: Water
Date Received: 03/03/20 13:55

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*87*		*52 - 151*	*03/04/20 09:36*	*03/05/20 15:18*	*1*
2-Fluorobiphenyl	*91*		*44 - 120*	*03/04/20 09:36*	*03/05/20 15:18*	*1*
2-Fluorophenol	*45*		*17 - 120*	*03/04/20 09:36*	*03/05/20 15:18*	*1*
Nitrobenzene-d5	*85*		*15 - 314*	*03/04/20 09:36*	*03/05/20 15:18*	*1*
p-Terphenyl-d14	*95*		*22 - 125*	*03/04/20 09:36*	*03/05/20 15:18*	*1*
Phenol-d5	*31*		*8 - 424*	*03/04/20 09:36*	*03/05/20 15:18*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0058**	**J B**	0.010	0.0015	mg/L		03/05/20 10:57	03/05/20 19:38	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/05/20 11:51	03/05/20 14:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.11**		0.010	0.0050	mg/L		03/04/20 14:15	03/04/20 16:30	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.4**	**HF**	0.1	0.1	SU			03/05/20 19:56	1
Temperature	**20.4**	**HF**	0.001	0.001	Degrees C			03/05/20 19:56	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-166933-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-166933-5	TRIP BLANK	107	95	93	109
480-166933-6	001 COMP 1-4	111	98	94	108
LCS 480-519942/5	Lab Control Sample	111	98	93	107
MB 480-519942/7	Method Blank	109	97	94	107

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-166933-6	001 COMP 1-4	87	91	45	85	95	31
LCS 480-519982/2-A	Lab Control Sample	97	94	50	88	102	36
LCSD 480-519982/3-A	Lab Control Sample Dup	103	90	49	86	108	36
MB 480-519982/1-A	Method Blank	89	94	53	92	102	34

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-519942/7
Matrix: Water
Analysis Batch: 519942

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	ND		5.0	0.39	ug/L			03/04/20 11:25	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/04/20 11:25	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/04/20 11:25	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/04/20 11:25	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/04/20 11:25	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/04/20 11:25	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/04/20 11:25	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/04/20 11:25	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/04/20 11:25	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/04/20 11:25	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/04/20 11:25	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/04/20 11:25	1
Acrolein	ND		100	17	ug/L			03/04/20 11:25	1
Acrylonitrile	ND		50	1.9	ug/L			03/04/20 11:25	1
Benzene	ND		5.0	0.60	ug/L			03/04/20 11:25	1
Bromoform	ND		5.0	0.47	ug/L			03/04/20 11:25	1
Bromomethane	ND		5.0	1.2	ug/L			03/04/20 11:25	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/04/20 11:25	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/04/20 11:25	1
Dibromochloromethane	ND		5.0	0.41	ug/L			03/04/20 11:25	1
Chloroethane	ND		5.0	0.87	ug/L			03/04/20 11:25	1
Chloroform	ND		5.0	0.54	ug/L			03/04/20 11:25	1
Chloromethane	ND		5.0	0.64	ug/L			03/04/20 11:25	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/04/20 11:25	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/04/20 11:25	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			03/04/20 11:25	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/04/20 11:25	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/04/20 11:25	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/04/20 11:25	1
Toluene	ND		5.0	0.45	ug/L			03/04/20 11:25	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/04/20 11:25	1
Trichloroethene	ND		5.0	0.60	ug/L			03/04/20 11:25	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			03/04/20 11:25	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/04/20 11:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*68 - 130*		*03/04/20 11:25*	*1*
4-Bromofluorobenzene (Surr)	*97*		*76 - 123*		*03/04/20 11:25*	*1*
Toluene-d8 (Surr)	*94*		*77 - 120*		*03/04/20 11:25*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*03/04/20 11:25*	*1*

Lab Sample ID: LCS 480-519942/5
Matrix: Water
Analysis Batch: 519942

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	20.0	20.5		ug/L		103	52 - 162
1,1,2,2-Tetrachloroethane	20.0	18.5		ug/L		93	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-519942/5
Matrix: Water
Analysis Batch: 519942

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	18.4		ug/L		92	52 - 150
1,1-Dichloroethane	20.0	21.3		ug/L		106	59 - 155
1,1-Dichloroethene	20.0	20.5		ug/L		102	1 - 234
1,2-Dichlorobenzene	20.0	17.2		ug/L		86	18 - 190
1,2-Dichloroethane	20.0	21.0		ug/L		105	49 - 155
1,2-Dichloropropane	20.0	21.3		ug/L		107	1 - 210
1,3-Dichlorobenzene	20.0	17.3		ug/L		86	59 - 156
1,4-Dichlorobenzene	20.0	17.4		ug/L		87	18 - 190
2-Chloroethyl vinyl ether	20.0	21.7	J	ug/L		108	1 - 305
Benzene	20.0	21.0		ug/L		105	37 - 151
Bromoform	20.0	18.2		ug/L		91	45 - 169
Bromomethane	20.0	20.7		ug/L		104	1 - 242
Carbon tetrachloride	20.0	21.2		ug/L		106	70 - 140
Chlorobenzene	20.0	18.1		ug/L		90	37 - 160
Dibromochloromethane	20.0	17.8		ug/L		89	53 - 149
Chloroethane	20.0	20.8		ug/L		104	14 - 230
Chloroform	20.0	20.7		ug/L		104	51 - 138
Chloromethane	20.0	18.8		ug/L		94	1 - 273
cis-1,3-Dichloropropene	20.0	21.3		ug/L		106	1 - 227
Bromodichloromethane	20.0	21.0		ug/L		105	35 - 155
Ethylbenzene	20.0	18.1		ug/L		91	37 - 162
Methylene Chloride	20.0	20.0		ug/L		100	1 - 221
Tetrachloroethene	20.0	17.8		ug/L		89	64 - 148
Toluene	20.0	17.9		ug/L		90	47 - 150
trans-1,3-Dichloropropene	20.0	18.3		ug/L		91	17 - 183
Trichloroethene	20.0	21.0		ug/L		105	71 - 157
Trichlorofluoromethane	20.0	21.6		ug/L		108	17 - 181
Vinyl chloride	20.0	19.4		ug/L		97	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*68 - 130*
4-Bromofluorobenzene (Surr)	*98*		*76 - 123*
Toluene-d8 (Surr)	*93*		*77 - 120*
Dibromofluoromethane (Surr)	*107*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-519982/1-A
Matrix: Water
Analysis Batch: 520157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 519982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		03/04/20 09:36	03/05/20 12:27	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		03/04/20 09:36	03/05/20 12:27	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		03/04/20 09:36	03/05/20 12:27	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		03/04/20 09:36	03/05/20 12:27	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		03/04/20 09:36	03/05/20 12:27	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		03/04/20 09:36	03/05/20 12:27	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-519982/1-A
Matrix: Water
Analysis Batch: 520157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 519982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		03/04/20 09:36	03/05/20 12:27	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		03/04/20 09:36	03/05/20 12:27	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		03/04/20 09:36	03/05/20 12:27	1
2-Chlorophenol	ND		5.0	0.66	ug/L		03/04/20 09:36	03/05/20 12:27	1
2-Nitrophenol	ND		5.0	0.70	ug/L		03/04/20 09:36	03/05/20 12:27	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		03/04/20 09:36	03/05/20 12:27	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		03/04/20 09:36	03/05/20 12:27	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		03/04/20 09:36	03/05/20 12:27	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		03/04/20 09:36	03/05/20 12:27	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		03/04/20 09:36	03/05/20 12:27	1
4-Nitrophenol	ND		15	10	ug/L		03/04/20 09:36	03/05/20 12:27	1
Acenaphthene	ND		5.0	0.81	ug/L		03/04/20 09:36	03/05/20 12:27	1
Acenaphthylene	ND		5.0	0.87	ug/L		03/04/20 09:36	03/05/20 12:27	1
Anthracene	ND		5.0	1.4	ug/L		03/04/20 09:36	03/05/20 12:27	1
Benzidine	ND		80	35	ug/L		03/04/20 09:36	03/05/20 12:27	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		03/04/20 09:36	03/05/20 12:27	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		03/04/20 09:36	03/05/20 12:27	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		03/04/20 09:36	03/05/20 12:27	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		03/04/20 09:36	03/05/20 12:27	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		03/04/20 09:36	03/05/20 12:27	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		03/04/20 09:36	03/05/20 12:27	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		03/04/20 09:36	03/05/20 12:27	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		03/04/20 09:36	03/05/20 12:27	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		03/04/20 09:36	03/05/20 12:27	1
Chrysene	ND		5.0	1.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
Decane	ND		10	1.6	ug/L		03/04/20 09:36	03/05/20 12:27	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		03/04/20 09:36	03/05/20 12:27	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		03/04/20 09:36	03/05/20 12:27	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		03/04/20 09:36	03/05/20 12:27	1
Diethyl phthalate	ND		5.0	1.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		03/04/20 09:36	03/05/20 12:27	1
Fluoranthene	ND		5.0	1.6	ug/L		03/04/20 09:36	03/05/20 12:27	1
Fluorene	ND		5.0	1.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
Hexachloroethane	ND		5.0	0.60	ug/L		03/04/20 09:36	03/05/20 12:27	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		03/04/20 09:36	03/05/20 12:27	1
Isophorone	ND		5.0	0.74	ug/L		03/04/20 09:36	03/05/20 12:27	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		03/04/20 09:36	03/05/20 12:27	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		03/04/20 09:36	03/05/20 12:27	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		03/04/20 09:36	03/05/20 12:27	1
Naphthalene	ND		5.0	0.86	ug/L		03/04/20 09:36	03/05/20 12:27	1
Nitrobenzene	ND		5.0	0.81	ug/L		03/04/20 09:36	03/05/20 12:27	1
Pentachlorophenol	ND		10	1.6	ug/L		03/04/20 09:36	03/05/20 12:27	1
Phenanthrene	ND		5.0	1.2	ug/L		03/04/20 09:36	03/05/20 12:27	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-519982/1-A
Matrix: Water
Analysis Batch: 520157

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 519982

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		03/04/20 09:36	03/05/20 12:27	1
Pyrene	ND		5.0	1.4	ug/L		03/04/20 09:36	03/05/20 12:27	1
n-Octadecane	ND		10	1.2	ug/L		03/04/20 09:36	03/05/20 12:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*89*		*52 - 151*	*03/04/20 09:36*	*03/05/20 12:27*	*1*
2-Fluorobiphenyl	*94*		*44 - 120*	*03/04/20 09:36*	*03/05/20 12:27*	*1*
2-Fluorophenol	*53*		*17 - 120*	*03/04/20 09:36*	*03/05/20 12:27*	*1*
Nitrobenzene-d5	*92*		*15 - 314*	*03/04/20 09:36*	*03/05/20 12:27*	*1*
p-Terphenyl-d14	*102*		*22 - 125*	*03/04/20 09:36*	*03/05/20 12:27*	*1*
Phenol-d5	*34*		*8 - 424*	*03/04/20 09:36*	*03/05/20 12:27*	*1*

Lab Sample ID: LCS 480-519982/2-A
Matrix: Water
Analysis Batch: 520157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 519982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	37.2		ug/L		74	44 - 142
1,2-Dichlorobenzene	50.0	35.9		ug/L		72	32 - 129
1,3-Dichlorobenzene	50.0	34.3		ug/L		69	1 - 172
1,4-Dichlorobenzene	50.0	33.7		ug/L		67	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	40.7		ug/L		81	36 - 166
2,4,6-Trichlorophenol	50.0	48.8		ug/L		98	37 - 144
2,4-Dichlorophenol	50.0	46.1		ug/L		92	39 - 135
2,4-Dimethylphenol	50.0	45.5		ug/L		91	32 - 120
2,4-Dinitrophenol	100	103		ug/L		103	1 - 191
2,4-Dinitrotoluene	50.0	50.6		ug/L		101	39 - 139
2,6-Dinitrotoluene	50.0	49.3		ug/L		99	50 - 158
2-Chloronaphthalene	50.0	45.3		ug/L		91	60 - 120
2-Chlorophenol	50.0	41.0		ug/L		82	23 - 134
2-Nitrophenol	50.0	43.5		ug/L		87	29 - 182
3,3'-Dichlorobenzidine	100	94.7		ug/L		95	1 - 262
4,6-Dinitro-2-methylphenol	100	97.4		ug/L		97	1 - 181
4-Bromophenyl phenyl ether	50.0	48.1		ug/L		96	53 - 127
4-Chloro-3-methylphenol	50.0	47.6		ug/L		95	22 - 147
4-Chlorophenyl phenyl ether	50.0	48.8		ug/L		98	25 - 158
4-Nitrophenol	100	52.4		ug/L		52	1 - 132
Acenaphthene	50.0	49.0		ug/L		98	47 - 145
Acenaphthylene	50.0	48.9		ug/L		98	33 - 145
Anthracene	50.0	48.9		ug/L		98	27 - 133
Benzidine	100	ND		ug/L		17	1 - 120
Benzo[a]anthracene	50.0	48.1		ug/L		96	33 - 143
Benzo[a]pyrene	50.0	50.6		ug/L		101	17 - 163
Benzo[b]fluoranthene	50.0	47.7		ug/L		95	24 - 159
Benzo[g,h,i]perylene	50.0	49.3		ug/L		99	1 - 219
Benzo[k]fluoranthene	50.0	54.2		ug/L		108	11 - 162
Bis(2-chloroethoxy)methane	50.0	43.2		ug/L		86	33 - 184
Bis(2-chloroethyl)ether	50.0	43.2		ug/L		86	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-519982/2-A
Matrix: Water
Analysis Batch: 520157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 519982

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	48.7		ug/L		97	8 - 158
Butyl benzyl phthalate	50.0	48.8		ug/L		98	1 - 152
Chrysene	50.0	50.9		ug/L		102	17 - 168
Di-n-butyl phthalate	50.0	50.5		ug/L		101	1 - 120
Di-n-octyl phthalate	50.0	49.3		ug/L		99	4 - 146
Dibenz(a,h)anthracene	50.0	49.9		ug/L		100	1 - 227
Diethyl phthalate	50.0	50.6		ug/L		101	1 - 120
Dimethyl phthalate	50.0	49.3		ug/L		99	1 - 120
Fluoranthene	50.0	51.0		ug/L		102	26 - 137
Fluorene	50.0	50.1		ug/L		100	59 - 121
Hexachlorobenzene	50.0	47.8		ug/L		96	1 - 152
Hexachlorocyclopentadiene	50.0	36.6		ug/L		73	5 - 120
Hexachloroethane	50.0	30.9		ug/L		62	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	48.9		ug/L		98	1 - 171
Isophorone	50.0	45.6		ug/L		91	21 - 196
N-Nitrosodi-n-propylamine	50.0	43.3		ug/L		87	1 - 230
N-Nitrosodiphenylamine	50.0	49.6		ug/L		99	54 - 125
Naphthalene	50.0	42.3		ug/L		85	21 - 133
Nitrobenzene	50.0	41.9		ug/L		84	35 - 180
Pentachlorophenol	100	95.0		ug/L		95	14 - 176
Phenanthrene	50.0	48.8		ug/L		98	54 - 120
Phenol	50.0	18.8		ug/L		38	5 - 120
Pyrene	50.0	49.4		ug/L		99	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*97*		*52 - 151*
2-Fluorobiphenyl	*94*		*44 - 120*
2-Fluorophenol	*50*		*17 - 120*
Nitrobenzene-d5	*88*		*15 - 314*
p-Terphenyl-d14	*102*		*22 - 125*
Phenol-d5	*36*		*8 - 424*

Lab Sample ID: LCSD 480-519982/3-A
Matrix: Water
Analysis Batch: 520157

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 519982

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	37.7		ug/L		75	44 - 142	1	34
1,2-Dichlorobenzene	50.0	34.8		ug/L		70	32 - 129	3	38
1,3-Dichlorobenzene	50.0	33.5		ug/L		67	1 - 172	2	37
1,4-Dichlorobenzene	50.0	33.2		ug/L		66	20 - 124	1	40
2,2'-Oxybis(1-chloropropane)	50.0	41.2		ug/L		82	36 - 166	1	36
2,4,6-Trichlorophenol	50.0	47.7		ug/L		95	37 - 144	2	20
2,4-Dichlorophenol	50.0	45.3		ug/L		91	39 - 135	2	23
2,4-Dimethylphenol	50.0	44.2		ug/L		88	32 - 120	3	18
2,4-Dinitrophenol	100	103		ug/L		103	1 - 191	0	29
2,4-Dinitrotoluene	50.0	50.9		ug/L		102	39 - 139	1	20
2,6-Dinitrotoluene	50.0	46.7		ug/L		93	50 - 158	5	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-519982/3-A
Matrix: Water
Analysis Batch: 520157

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 519982

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene	50.0	42.6		ug/L		85	60 - 120	6	30
2-Chlorophenol	50.0	39.7		ug/L		79	23 - 134	3	26
2-Nitrophenol	50.0	45.3		ug/L		91	29 - 182	4	28
3,3'-Dichlorobenzidine	100	96.8		ug/L		97	1 - 262	2	31
4,6-Dinitro-2-methylphenol	100	105		ug/L		105	1 - 181	7	30
4-Bromophenyl phenyl ether	50.0	49.8		ug/L		100	53 - 127	3	16
4-Chloro-3-methylphenol	50.0	46.8		ug/L		94	22 - 147	2	16
4-Chlorophenyl phenyl ether	50.0	49.4		ug/L		99	25 - 158	1	15
4-Nitrophenol	100	49.2		ug/L		49	1 - 132	6	24
Acenaphthene	50.0	47.1		ug/L		94	47 - 145	4	25
Acenaphthylene	50.0	47.7		ug/L		95	33 - 145	3	22
Anthracene	50.0	51.6		ug/L		103	27 - 133	5	15
Benzidine	100	ND	*	ug/L		31	1 - 120	59	50
Benzo[a]anthracene	50.0	50.0		ug/L		100	33 - 143	4	15
Benzo[a]pyrene	50.0	50.5		ug/L		101	17 - 163	0	15
Benzo[b]fluoranthene	50.0	49.9		ug/L		100	24 - 159	5	17
Benzo[g,h,i]perylene	50.0	50.1		ug/L		100	1 - 219	2	19
Benzo[k]fluoranthene	50.0	51.0		ug/L		102	11 - 162	6	19
Bis(2-chloroethoxy)methane	50.0	44.4		ug/L		89	33 - 184	3	23
Bis(2-chloroethyl)ether	50.0	41.6		ug/L		83	12 - 158	4	33
Bis(2-ethylhexyl) phthalate	50.0	52.2		ug/L		104	8 - 158	7	15
Butyl benzyl phthalate	50.0	51.5		ug/L		103	1 - 152	5	15
Chrysene	50.0	50.6		ug/L		101	17 - 168	0	15
Di-n-butyl phthalate	50.0	52.4		ug/L		105	1 - 120	4	15
Di-n-octyl phthalate	50.0	51.6		ug/L		103	4 - 146	5	15
Dibenz(a,h)anthracene	50.0	50.5		ug/L		101	1 - 227	1	18
Diethyl phthalate	50.0	50.0		ug/L		100	1 - 120	1	15
Dimethyl phthalate	50.0	51.1		ug/L		102	1 - 120	3	15
Fluoranthene	50.0	51.5		ug/L		103	26 - 137	1	15
Fluorene	50.0	49.0		ug/L		98	59 - 121	2	18
Hexachlorobenzene	50.0	45.0		ug/L		90	1 - 152	6	15
Hexachlorocyclopentadiene	50.0	34.0		ug/L		68	5 - 120	8	50
Hexachloroethane	50.0	31.4		ug/L		63	40 - 120	1	43
Indeno[1,2,3-cd]pyrene	50.0	50.3		ug/L		101	1 - 171	3	17
Isophorone	50.0	45.0		ug/L		90	21 - 196	1	21
N-Nitrosodi-n-propylamine	50.0	42.8		ug/L		86	1 - 230	1	23
N-Nitrosodiphenylamine	50.0	50.2		ug/L		100	54 - 125	1	15
Naphthalene	50.0	40.4		ug/L		81	21 - 133	5	31
Nitrobenzene	50.0	43.9		ug/L		88	35 - 180	5	27
Pentachlorophenol	100	98.4		ug/L		98	14 - 176	4	21
Phenanthrene	50.0	50.0		ug/L		100	54 - 120	2	16
Phenol	50.0	17.8		ug/L		36	5 - 120	6	36
Pyrene	50.0	53.1		ug/L		106	52 - 120	7	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*103*		*52 - 151*
2-Fluorobiphenyl	*90*		*44 - 120*
2-Fluorophenol	*49*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-519982/3-A
Matrix: Water
Analysis Batch: 520157

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 519982

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	86		15 - 314
p-Terphenyl-d14	108		22 - 125
Phenol-d5	36		8 - 424

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-520074/1-A
Matrix: Water
Analysis Batch: 520322

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 520074

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	0.00212	J	0.010	0.0015	mg/L		03/05/20 10:57	03/05/20 18:56	1

Lab Sample ID: LCS 480-520074/2-A
Matrix: Water
Analysis Batch: 520322

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 520074

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.199		mg/L		99	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-520187/1-A
Matrix: Water
Analysis Batch: 520231

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 520187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/05/20 11:51	03/05/20 14:24	1

Lab Sample ID: LCS 480-520187/2-A
Matrix: Water
Analysis Batch: 520231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 520187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00705		mg/L		106	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-520051/1-A
Matrix: Water
Analysis Batch: 520069

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 520051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		03/04/20 14:15	03/04/20 16:10	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-520051/2-A
Matrix: Water
Analysis Batch: 520069

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 520051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.232		mg/L		93	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-520262/45
Matrix: Water
Analysis Batch: 520262

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.1		SU		101	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166933-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 519942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-5	TRIP BLANK	Total/NA	Water	624.1	
480-166933-6	001 COMP 1-4	Total/NA	Water	624.1	
MB 480-519942/7	Method Blank	Total/NA	Water	624.1	
LCS 480-519942/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 519982

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	625	
MB 480-519982/1-A	Method Blank	Total/NA	Water	625	
LCS 480-519982/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-519982/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 520157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	625.1	519982
MB 480-519982/1-A	Method Blank	Total/NA	Water	625.1	519982
LCS 480-519982/2-A	Lab Control Sample	Total/NA	Water	625.1	519982
LCSD 480-519982/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	519982

Metals

Prep Batch: 520074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	200.7	
MB 480-520074/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-520074/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 520187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	245.1	
MB 480-520187/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-520187/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 520231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	245.1	520187
MB 480-520187/1-A	Method Blank	Total/NA	Water	245.1	520187
LCS 480-520187/2-A	Lab Control Sample	Total/NA	Water	245.1	520187

Analysis Batch: 520322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	200.7 Rev 4.4	520074
MB 480-520074/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	520074
LCS 480-520074/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	520074

General Chemistry

Prep Batch: 520051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	Distill/CN	

Client: ARCADIS U.S. Inc
Job ID: 480-166933-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry (Continued)

Prep Batch: 520051 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-520051/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-520051/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 520069

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	335.4	520051
MB 480-520051/1-A	Method Blank	Total/NA	Water	335.4	520051
LCS 480-520051/2-A	Lab Control Sample	Total/NA	Water	335.4	520051

Analysis Batch: 520262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166933-6	001 COMP 1-4	Total/NA	Water	SM 4500 H+ B	
LCS 480-520262/45	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-166933-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-166933-5
Date Collected: 03/03/20 00:00
Matrix: Water
Date Received: 03/03/20 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	519942	03/04/20 12:54	WJD	TAL BUF

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-166933-6
Date Collected: 03/03/20 13:35
Matrix: Water
Date Received: 03/03/20 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	519942	03/04/20 13:18	WJD	TAL BUF
Total/NA	Prep	625			519982	03/04/20 09:36	JMP	TAL BUF
Total/NA	Analysis	625.1		1	520157	03/05/20 15:18	JMM	TAL BUF
Total/NA	Prep	200.7			520074	03/05/20 10:57	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	520322	03/05/20 19:38	AMH	TAL BUF
Total/NA	Prep	245.1			520187	03/05/20 11:51	BMB	TAL BUF
Total/NA	Analysis	245.1		1	520231	03/05/20 14:41	BMB	TAL BUF
Total/NA	Prep	Distill/CN			520051	03/04/20 14:15	JRF	TAL BUF
Total/NA	Analysis	335.4		1	520069	03/04/20 16:30	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	520262	03/05/20 19:56	BEF	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166933-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166933-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-166933-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-166933-5	TRIP BLANK	Water	03/03/20 00:00	03/03/20 13:55	
480-166933-6	001 COMP 1-4	Water	03/03/20 13:35	03/03/20 13:55	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

480-166933 Chain of Custody

5940.1

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L
Client Contact: Jason Gutkowski	Phone: 315 436 3605	E-Mail: judy.stone@testamericainc.com
Company: ARCADIS U.S., Inc.		Anal
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	
City: Syracuse	TAT Requested (days): Standard Turn	
State, Zip: NY, 13202		
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed	
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001	
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056	
Site:	SSOW#:	

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	3/3/20	0735	G	Water			X	X	X	X	X		Lab To
001-2	↓	0935	↓	↓			X	X	X	X	X		Composite
001-3		1135					X	X	X	X	X		Samples
001-4		1335					X	X	X	X	X		
Trip Blank	—	—	—	↓							X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	3/3/20 / 1355	Arcadis		3/3/20 1355	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.0 #1

Ver: 01/16/2019

3/10/2020

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-166933-1

Login Number: 166933

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Stopa, Erik S

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	ARCADIS
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	

ARCADIS Design & Consultancy for natural and built assets

Ms. Leslie Sedita
Industrial Waste Section
Buffalo Sewer Authority Treatment Plant
90 West Ferry Street
Buffalo, NY 14213-1799

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017
www.arcadis.com

ENVIRONMENT

Subject:
Discharge Monitoring Report – Second Quarter 2020
Bristol-Myers Squibb Company, Inc.
Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
100 Forest Avenue, Buffalo, NY 14213
BSA Discharge Permit # 18-07-BU174

Date:
June 29, 2020

Contact:
Vincent S. Maresco

Phone:
315 671 9256

Email:
Vin.Maresco@arcadis.com

Our ref:
30049063

Dear Ms. Sedita:

On behalf of Bristol-Myers Squibb Company, Arcadis of New York, Inc. (Arcadis) is pleased to submit this second quarter 2020 Discharge Monitoring Report (DMR) for the above-referenced site which covers the period April 1 through June 30, 2020. The monthly discharge sampling and DMR preparation were completed in accordance with the Buffalo Sewer Authority (BSA) Sampling Measurement and Analytical Guidelines Sheet. A total of 226,080 gallons of water were discharged during the reporting period (i.e., flow meter totalizer readings from 3/30/2020 to 6/29/2020). Laboratory analytical results indicate that the remedial system operated within BSA permit requirements during the second quarter 2020.

The sampling protocol and calculated discharges are based on the following: (1) Total flows are a daily average taken over approximately seven days; and (2) Monthly composite samples are collected over an eight-hour period where grab samples are collected every two hours. A total of four grab samples are collected throughout the eight-hour period. The discharge sample point location, following carbon treatment, is labeled as “C001 Sample Location” on the Process Flow Diagram (**Attachment A**). The Sample Collection and Log Sheets for the April, May, and June 2020 monthly sampling events are provided in **Attachment B**.

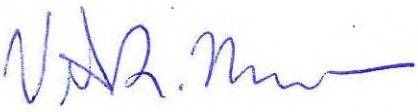
The monthly grab samples were submitted to Eurofins TestAmerica in Amherst, New York, where samples are composited and analyzed for pH via Method 4500 H+B, Total Mercury via EPA Method 245.1, Total Zinc via EPA Method 200.7, Total Cyanide via EPA Method 335.4, Volatile Organic Compounds via EPA Method 624.1, and Semi-Volatile Organic Compounds via EPA Method 625.1.

Laboratory analytical results and average daily flows are provided in the Quarterly Analytical Data Table (**Attachment C**). No exceedances of Daily Maximum or Maximum Allowable Instantaneous Discharge Limitations were observed during the reporting period. BSA Permit Specific Conditions require reporting of any compounds analyzed by EPA Methods 624 and 625 that are detected at a concentration above a threshold of 0.01 milligrams per liter (mg/L). In April, May, and June 2020, there were no detections. The laboratory analytical data packages are provided in **Attachment D**.

If you have any questions or would like to discuss further, please feel free to contact the undersigned.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation.

Signed on behalf of Bristol-Myers Squibb Company and submitted by:



Vincent S. Maresco
Arcadis of New York, Inc.
Project Manager

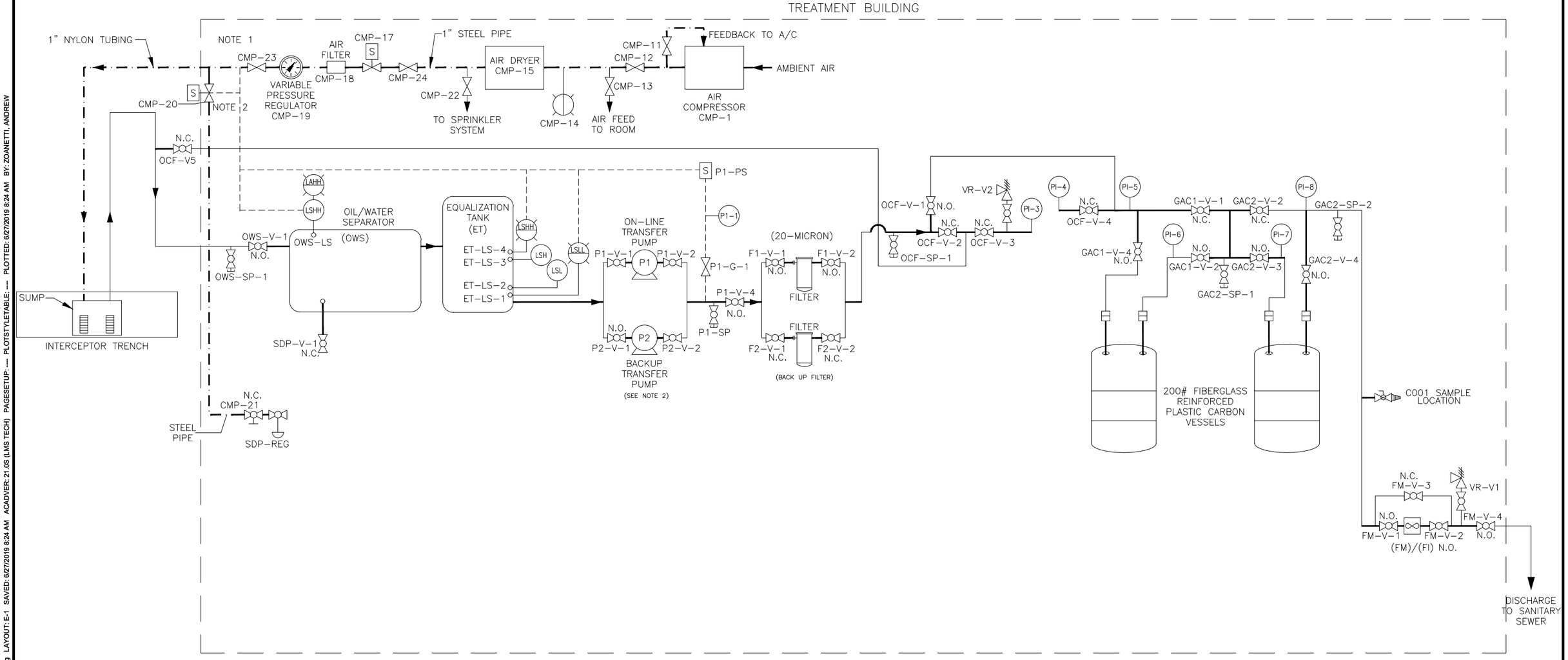
Copies:
Traserra Adams, BSA
Richard Mator, BMS
John Alonzo, de maximis, inc.
Dan Darragh, Cohen & Grigsby, PC
Katie Hoelscher, NFG

Attachments:

A Process Flow Diagram
B Sample Collection and Log Sheets for Monthly Sampling Events
C Quarterly Analytical Data Table
D Laboratory Analytical Data Package

ATTACHMENT A

Process Flow Diagram



NOTES:

1. SOLENOID VALVE IS ACTIVATED TO THE OFF-POSITION UNDER ANY OF THE FOLLOWING CONDITIONS:
   a) LSHH AT THE OIL-WATER SEPARATOR;
   b) LSHH AT THE EQUILIZATION TANK IS ACTIVATED;
   c) P1-PS HIGH PUMP DISCHARGE PRESSURE SWISWITCH IS ACTIVATED.

2. USE OF TRANSFER PUMPS IS ALTERED ON A QUARTERLY BASIS.

CITY: SYRACUSE, NY DIV/GROUP: DB: PM: TM: LYR:ON=*;OFF=*REF*
C:\Users\AZoianetti\Documents\Bristol-Myers Squibb\BMS Buffalo, NY\ATTACHMENT A.dwg LAYOUT: E-1 SAVED: 6/27/2019 8:24 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 6/27/2019 8:24 AM BY: ZOIANETTI, ANDREW
XREFS:
TITLE

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name

Professional Engineer's No.

State	Date Signed	Project Mgr.
Designed by	Drawn by	Checked by

ARCADIS Design & Consultancy for natural and built assets
ARCADIS OF NEW YORK, INC.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

BRISTOL-MYERS SQUIBB • 100 FOREST AVE., BUFFALO, NY

PROCESS FLOW DIAGRAM

ARCADIS Project No.
B0087370.0000.00001

Date
SEPTEMBER 2017

ARCADIS
ARCADIS OF NEW YORK, INC.
110 W. FAYETTE ST., STE 300
SYRACUSE, NY 13202
TEL. 315.446.9120

PFD

ATTACHMENT B

Sample Collection and Log Sheets for Monthly Sampling Events

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroquois Gas/Westwood Pharm **Permit #:** 12-05-8U174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	4/9/20	→	→	→	JTG
Sample Time	0710	0910	1110	1310	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	45°F Rain	35°F Snow	39°F Overcast	42°F overcast	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski
Sample Technician

4/9/20
Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroquois Gas/Westwood Pharm Permit #: 12-05-BU174

Sample Location: 001 Sample Type: Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Preservative: One 1L-amber unpreserved glass bottle and two 40ml. clear vials every two hours.

Sample Date	5/3/20	→	→	→	JTG
Sample Time	0705	0905	1105	1305	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	44°F Cloudy	45°F Cloudy	Rain 45°F Cloudy	46°F Cloudy	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as amended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski 5/3/20

Sample Technician Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	6/3/20	→	→	→	JTG
Sample Time	0700	0900	1100	1300	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	60 Heavy Rain	61 Rain	58 Rain	58 overcast	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

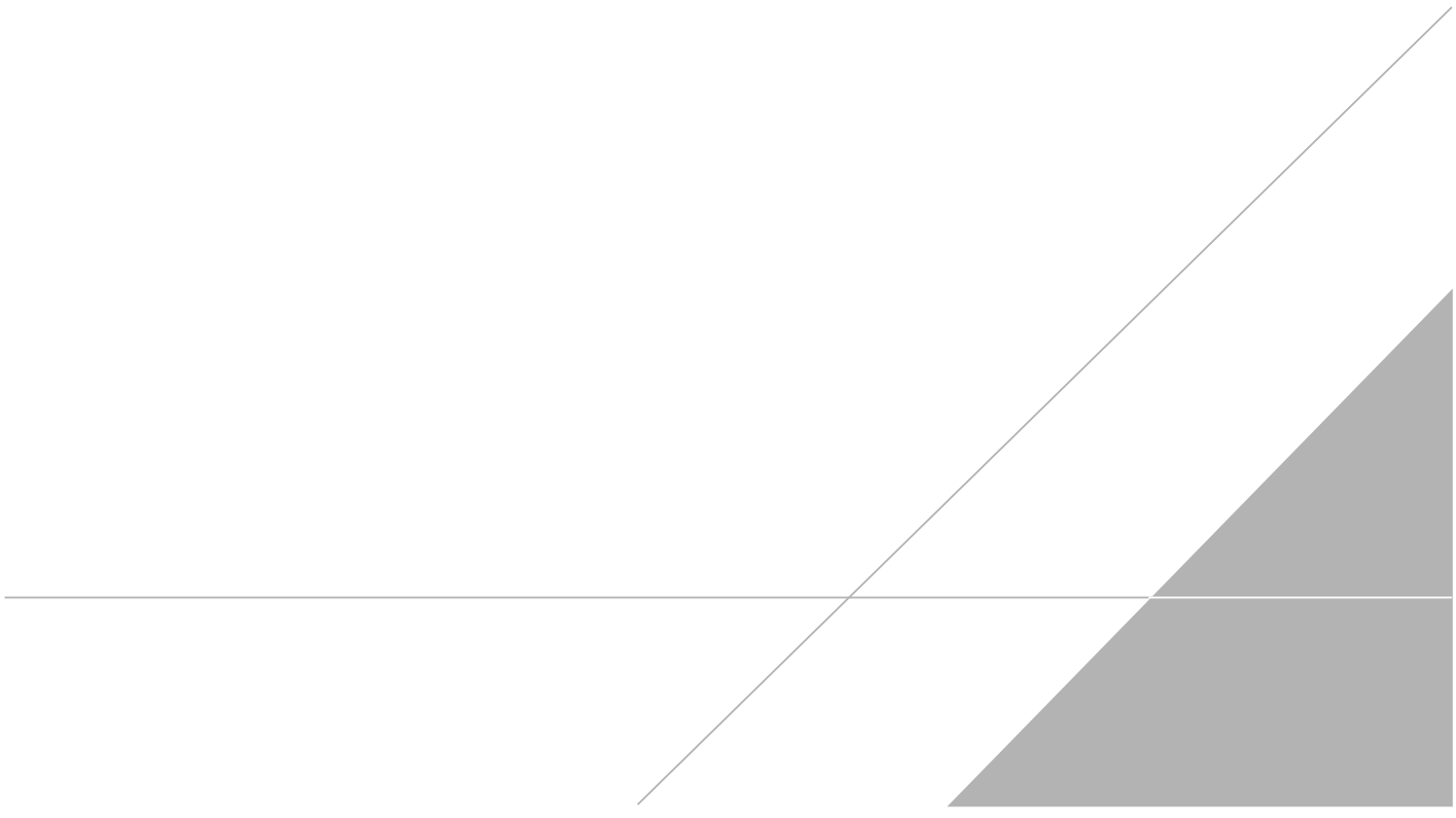
**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski — Sample Technician

6/3/20 — Date

ATTACHMENT C

Quarterly Analytical Data Table



Quarterly Analytical Data Table
Iroquois Gas / Westwood Pharmaceuticals Terrestrial Site
BSA Discharge Permit No. 18-07-BU174
Buffalo, NY

Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	3/30/2020	4/9/2020	4/15/2020	4/20/2020	4/27/2020	5/4/2020	5/12/2020
Totalizer	gal	NA	3,659,976	3,685,827	3,703,685	3,719,484	3,740,468	3,754,027	3,769,528
Total Mercury	lbs	0.00001**	NA	ND	NS	NS	NS	ND	NS
Total Zinc	lbs	3.0**	NA	4.31E-05 J	NS	NS	NS	6.61E-05 J	NS
Total Cyanide	lbs	7.93**	NA	2.37E-03 ^	NS	NS	NS	1.32E-03	NS
Total VOCs	mg/L	NA	NA	ND	NS	NS	NS	ND	NS
Total SVOCs	mg/L	NA	NA	ND	NS	NS	NS	ND	NS
pH	SU	5.0-12.0	NA	7.3 HF	NS	NS	NS	7.1 HF	NS
Total Daily Flow	gal	14,400	-	2,585	2,976	3,160	2,998	1,937	1,938

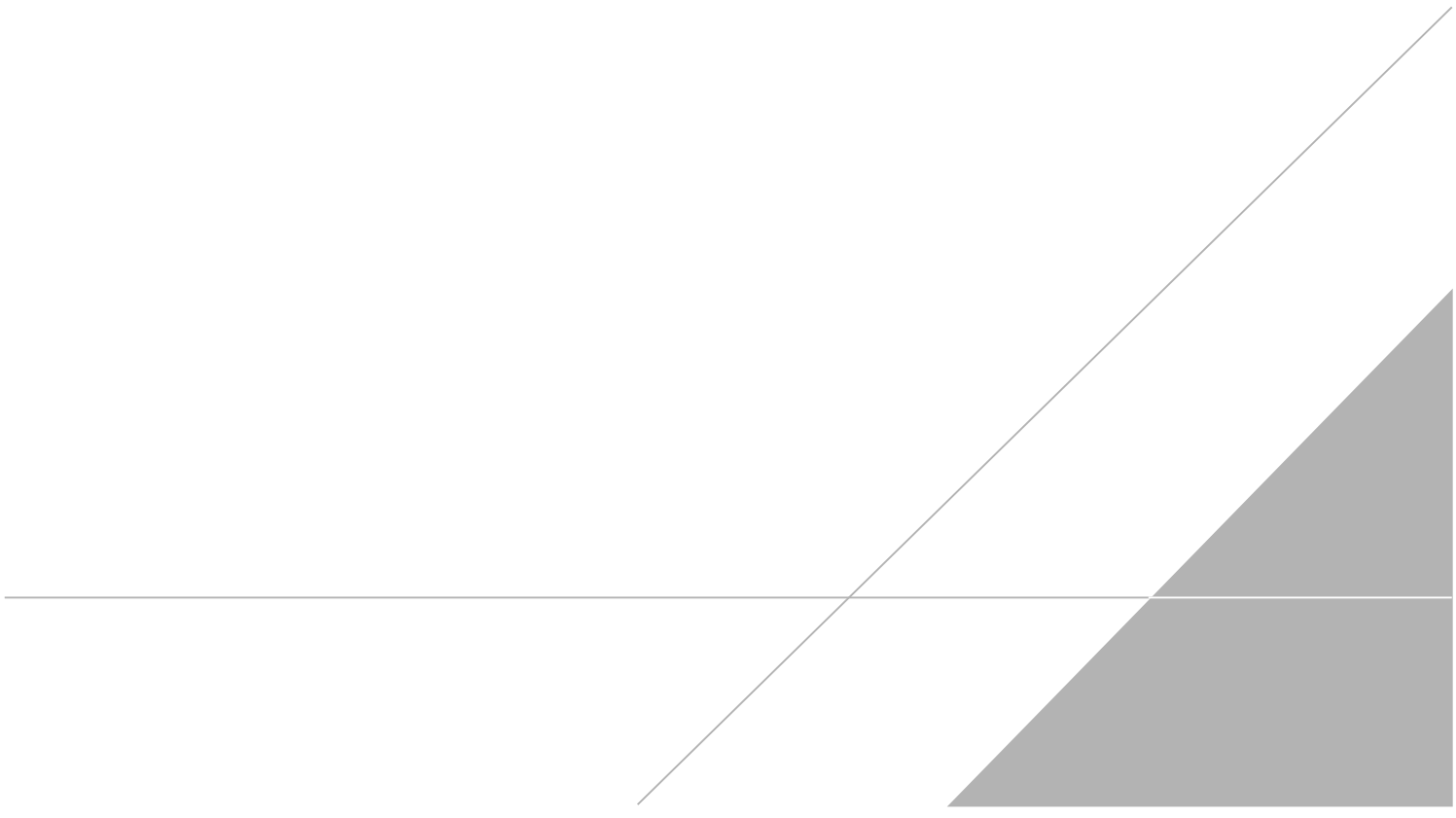
Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	5/19/2020	5/26/2020	6/3/2020	6/8/2020	6/16/2020	6/22/2020	6/29/2020
Totalizer	gal	NA	3,785,884	3,808,461	3,824,622	3,837,907	3,867,030	3,886,056	3,886,623
Total Mercury	lbs	0.00001**	NS	NS	ND	NS	NS	NS	NS
Total Zinc	lbs	3.0**	NS	NS	3.03E-05 J	NS	NS	NS	NS
Total Cyanide	lbs	7.93**	NS	NS	1.68E-03	NS	NS	NS	NS
Total VOCs	mg/L	NA	NS	NS	ND	NS	NS	NS	NS
Total SVOCs	mg/L	NA	NS	NS	ND****	NS	NS	NS	NS
pH	SU	5.0-12.0	NS	NS	7.5 HF	NS	NS	NS	NS
Total Daily Flow	gal	14,400	2,337	3,225	2,020	2,657	3,640	3,171	81

Notes:

^ - Instrument related QC is outside acceptable limits.
HF - Field parameter with a holding time of 15 minutes. Test performed by laboratory at clients request. Analytical performed as required and in compliance by BSA permit.
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
NS - Not Sampled
ND - Not Detected at the reporting limit
gal - Gallons
NA - Not Applicable
lbs - Pounds
mg/L - Milligrams per liter
SU - Standard Units
** - Maximum Allowable Instantaneous Discharge limits are also included in the permit. All analytical data for this quarter in in compliance with the Maximum Allowable Instantaneous Discharge limits. Analytical results are not presented in this table, they can be found in the attached analytical reports.
*** - The permittee must report any compound whose concentration is greater than 0.01 mg/L. The permittee is not authorized to discharge any of the parameters evaluated by this test procedure, which may cause or contribute to a violation of water quality incorporated into the permit.
**** - Slightly elevated reporting limits are provided for SVOCs due to a lab sample composition error. No J qualified results were detected for SVOCs at the slightly elevated RL.
Start of first-quarter values

ATTACHMENT D

Laboratory Analytical Data Package



eurofins | Environment Testing TestAmerica

ANALYTICAL REPORT

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

Laboratory Job ID: 480-168406-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Judy Stone

Authorized for release by:
4/16/2020 1:32:59 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 480-168406-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-168406-1

Receipt
The samples were received on 4/9/2020 1:31 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 4-10-2020 as requested by the client: 001 COMP 1-4 (480-168406-6).
Regulatory defined guidance for in-laboratory compositing of samples is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-525673 and analytical batch 480-525835 recovered outside control limits for several analytes.

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

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: 001 COMP 1-4 (480-168406-6).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-168406-5

No Detections.

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-168406-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0020	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.11	^	0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.8	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-168406-5

Date Collected: 04/09/20 00:00
Matrix: Water
Date Received: 04/09/20 15:01

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			04/10/20 13:38	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/10/20 13:38	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/10/20 13:38	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/10/20 13:38	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/10/20 13:38	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			04/10/20 13:38	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/10/20 13:38	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			04/10/20 13:38	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/10/20 13:38	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/10/20 13:38	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			04/10/20 13:38	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/10/20 13:38	1
Acrolein	ND		100	17	ug/L			04/10/20 13:38	1
Acrylonitrile	ND		50	1.9	ug/L			04/10/20 13:38	1
Benzene	ND		5.0	0.60	ug/L			04/10/20 13:38	1
Bromoform	ND		5.0	0.47	ug/L			04/10/20 13:38	1
Bromomethane	ND		5.0	1.2	ug/L			04/10/20 13:38	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			04/10/20 13:38	1
Chlorobenzene	ND		5.0	0.48	ug/L			04/10/20 13:38	1
Dibromochloromethane	ND		5.0	0.41	ug/L			04/10/20 13:38	1
Chloroethane	ND		5.0	0.87	ug/L			04/10/20 13:38	1
Chloroform	ND		5.0	0.54	ug/L			04/10/20 13:38	1
Chloromethane	ND		5.0	0.64	ug/L			04/10/20 13:38	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			04/10/20 13:38	1
Bromodichloromethane	ND		5.0	0.54	ug/L			04/10/20 13:38	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			04/10/20 13:38	1
Ethylbenzene	ND		5.0	0.46	ug/L			04/10/20 13:38	1
Methylene Chloride	ND		5.0	0.81	ug/L			04/10/20 13:38	1
Tetrachloroethene	ND		5.0	0.34	ug/L			04/10/20 13:38	1
Toluene	ND		5.0	0.45	ug/L			04/10/20 13:38	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			04/10/20 13:38	1
Trichloroethene	ND		5.0	0.60	ug/L			04/10/20 13:38	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			04/10/20 13:38	1
Vinyl chloride	ND		5.0	0.75	ug/L			04/10/20 13:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*82*		*68 - 130*		*04/10/20 13:38*	*1*
4-Bromofluorobenzene (Surr)	*107*		*76 - 123*		*04/10/20 13:38*	*1*
Toluene-d8 (Surr)	*86*		*77 - 120*		*04/10/20 13:38*	*1*
Dibromofluoromethane (Surr)	*86*		*75 - 123*		*04/10/20 13:38*	*1*

Client Sample ID: 001 COMP 1-4

Lab Sample ID: 480-168406-6

Date Collected: 04/09/20 00:00
Matrix: Water
Date Received: 04/09/20 15:01

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			04/10/20 14:02	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/10/20 14:02	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/10/20 14:02	1

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-168406-6
Date Collected: 04/09/20 00:00
Matrix: Water
Date Received: 04/09/20 15:01

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/10/20 14:02	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/10/20 14:02	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			04/10/20 14:02	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/10/20 14:02	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			04/10/20 14:02	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/10/20 14:02	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/10/20 14:02	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			04/10/20 14:02	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/10/20 14:02	1
Acrolein	ND		100	17	ug/L			04/10/20 14:02	1
Acrylonitrile	ND		50	1.9	ug/L			04/10/20 14:02	1
Benzene	ND		5.0	0.60	ug/L			04/10/20 14:02	1
Bromoform	ND		5.0	0.47	ug/L			04/10/20 14:02	1
Bromomethane	ND		5.0	1.2	ug/L			04/10/20 14:02	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			04/10/20 14:02	1
Chlorobenzene	ND		5.0	0.48	ug/L			04/10/20 14:02	1
Dibromochloromethane	ND		5.0	0.41	ug/L			04/10/20 14:02	1
Chloroethane	ND		5.0	0.87	ug/L			04/10/20 14:02	1
Chloroform	ND		5.0	0.54	ug/L			04/10/20 14:02	1
Chloromethane	ND		5.0	0.64	ug/L			04/10/20 14:02	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			04/10/20 14:02	1
Bromodichloromethane	ND		5.0	0.54	ug/L			04/10/20 14:02	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			04/10/20 14:02	1
Ethylbenzene	ND		5.0	0.46	ug/L			04/10/20 14:02	1
Methylene Chloride	ND		5.0	0.81	ug/L			04/10/20 14:02	1
Tetrachloroethene	ND		5.0	0.34	ug/L			04/10/20 14:02	1
Toluene	ND		5.0	0.45	ug/L			04/10/20 14:02	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			04/10/20 14:02	1
Trichloroethene	ND		5.0	0.60	ug/L			04/10/20 14:02	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			04/10/20 14:02	1
Vinyl chloride	ND		5.0	0.75	ug/L			04/10/20 14:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*81*		*68 - 130*		*04/10/20 14:02*	*1*
4-Bromofluorobenzene (Surr)	*106*		*76 - 123*		*04/10/20 14:02*	*1*
Toluene-d8 (Surr)	*85*		*77 - 120*		*04/10/20 14:02*	*1*
Dibromofluoromethane (Surr)	*85*		*75 - 123*		*04/10/20 14:02*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		04/13/20 15:41	04/14/20 22:33	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		04/13/20 15:41	04/14/20 22:33	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		04/13/20 15:41	04/14/20 22:33	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		04/13/20 15:41	04/14/20 22:33	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		04/13/20 15:41	04/14/20 22:33	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		04/13/20 15:41	04/14/20 22:33	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		04/13/20 15:41	04/14/20 22:33	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 22:33	1

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-168406-6
Date Collected: 04/09/20 00:00
Matrix: Water
Date Received: 04/09/20 15:01

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		04/13/20 15:41	04/14/20 22:33	1
2-Chlorophenol	ND		5.0	0.66	ug/L		04/13/20 15:41	04/14/20 22:33	1
2-Nitrophenol	ND		5.0	0.70	ug/L		04/13/20 15:41	04/14/20 22:33	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		04/13/20 15:41	04/14/20 22:33	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		04/13/20 15:41	04/14/20 22:33	1
4-Bromophenyl phenyl ether	ND	*1	5.0	1.4	ug/L		04/13/20 15:41	04/14/20 22:33	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		04/13/20 15:41	04/14/20 22:33	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		04/13/20 15:41	04/14/20 22:33	1
4-Nitrophenol	ND		15	10	ug/L		04/13/20 15:41	04/14/20 22:33	1
Acenaphthene	ND		5.0	0.81	ug/L		04/13/20 15:41	04/14/20 22:33	1
Acenaphthylene	ND		5.0	0.87	ug/L		04/13/20 15:41	04/14/20 22:33	1
Anthracene	ND		5.0	1.4	ug/L		04/13/20 15:41	04/14/20 22:33	1
Benzidine	ND	*1	80	35	ug/L		04/13/20 15:41	04/14/20 22:33	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		04/13/20 15:41	04/14/20 22:33	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		04/13/20 15:41	04/14/20 22:33	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		04/13/20 15:41	04/14/20 22:33	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		04/13/20 15:41	04/14/20 22:33	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		04/13/20 15:41	04/14/20 22:33	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		04/13/20 15:41	04/14/20 22:33	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		04/13/20 15:41	04/14/20 22:33	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		04/13/20 15:41	04/14/20 22:33	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		04/13/20 15:41	04/14/20 22:33	1
Chrysene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
Decane	ND		10	1.6	ug/L		04/13/20 15:41	04/14/20 22:33	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		04/13/20 15:41	04/14/20 22:33	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		04/13/20 15:41	04/14/20 22:33	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		04/13/20 15:41	04/14/20 22:33	1
Diethyl phthalate	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		04/13/20 15:41	04/14/20 22:33	1
Fluoranthene	ND		5.0	1.6	ug/L		04/13/20 15:41	04/14/20 22:33	1
Fluorene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
Hexachloroethane	ND		5.0	0.60	ug/L		04/13/20 15:41	04/14/20 22:33	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		04/13/20 15:41	04/14/20 22:33	1
Isophorone	ND		5.0	0.74	ug/L		04/13/20 15:41	04/14/20 22:33	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		04/13/20 15:41	04/14/20 22:33	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 22:33	1
N-Nitrosodiphenylamine	ND	*1	5.0	0.40	ug/L		04/13/20 15:41	04/14/20 22:33	1
Naphthalene	ND		5.0	0.86	ug/L		04/13/20 15:41	04/14/20 22:33	1
Nitrobenzene	ND		5.0	0.81	ug/L		04/13/20 15:41	04/14/20 22:33	1
Pentachlorophenol	ND		10	1.6	ug/L		04/13/20 15:41	04/14/20 22:33	1
Phenanthrene	ND		5.0	1.2	ug/L		04/13/20 15:41	04/14/20 22:33	1
Phenol	ND		5.0	0.35	ug/L		04/13/20 15:41	04/14/20 22:33	1
Pyrene	ND		5.0	1.4	ug/L		04/13/20 15:41	04/14/20 22:33	1
n-Octadecane	ND	*1	10	1.2	ug/L		04/13/20 15:41	04/14/20 22:33	1

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001 COMP 1-4

Lab Sample ID: 480-168406-6

Date Collected: 04/09/20 00:00

Matrix: Water

Date Received: 04/09/20 15:01

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*91*		*52 - 151*	*04/13/20 15:41*	*04/14/20 22:33*	*1*
2-Fluorobiphenyl	*92*		*44 - 120*	*04/13/20 15:41*	*04/14/20 22:33*	*1*
2-Fluorophenol	*51*		*17 - 120*	*04/13/20 15:41*	*04/14/20 22:33*	*1*
Nitrobenzene-d5	*93*		*15 - 314*	*04/13/20 15:41*	*04/14/20 22:33*	*1*
p-Terphenyl-d14	*91*		*22 - 125*	*04/13/20 15:41*	*04/14/20 22:33*	*1*
Phenol-d5	*36*		*8 - 424*	*04/13/20 15:41*	*04/14/20 22:33*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0020**	**J**	0.010	0.0015	mg/L		04/14/20 11:04	04/15/20 18:26	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		04/13/20 11:55	04/13/20 15:44	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.11**	**^**	0.010	0.0050	mg/L		04/10/20 15:22	04/10/20 18:18	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.3**	**HF**	0.1	0.1	SU			04/10/20 09:19	1
Temperature	**17.8**	**HF**	0.001	0.001	Degrees C			04/10/20 09:19	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-168406-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-168406-5	TRIP BLANK	82	107	86	86
480-168406-6	001 COMP 1-4	81	106	85	85
LCS 480-525267/5	Lab Control Sample	85	112	89	86
MB 480-525267/7	Method Blank	79	109	86	87

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-168406-6	001 COMP 1-4	91	92	51	93	91	36
LCS 480-525673/2-A	Lab Control Sample	98	87	43	84	103	32
LCSD 480-525673/3-A	Lab Control Sample Dup	108	98	48	91	114	34
MB 480-525673/1-A	Method Blank	80	91	49	92	106	35

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-525267/7
Matrix: Water
Analysis Batch: 525267

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	ND		5.0	0.39	ug/L			04/10/20 11:19	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			04/10/20 11:19	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			04/10/20 11:19	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			04/10/20 11:19	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			04/10/20 11:19	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			04/10/20 11:19	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			04/10/20 11:19	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			04/10/20 11:19	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			04/10/20 11:19	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			04/10/20 11:19	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			04/10/20 11:19	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			04/10/20 11:19	1
Acrolein	ND		100	17	ug/L			04/10/20 11:19	1
Acrylonitrile	ND		50	1.9	ug/L			04/10/20 11:19	1
Benzene	ND		5.0	0.60	ug/L			04/10/20 11:19	1
Bromoform	ND		5.0	0.47	ug/L			04/10/20 11:19	1
Bromomethane	ND		5.0	1.2	ug/L			04/10/20 11:19	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			04/10/20 11:19	1
Chlorobenzene	ND		5.0	0.48	ug/L			04/10/20 11:19	1
Dibromochloromethane	ND		5.0	0.41	ug/L			04/10/20 11:19	1
Chloroethane	ND		5.0	0.87	ug/L			04/10/20 11:19	1
Chloroform	ND		5.0	0.54	ug/L			04/10/20 11:19	1
Chloromethane	ND		5.0	0.64	ug/L			04/10/20 11:19	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			04/10/20 11:19	1
Bromodichloromethane	ND		5.0	0.54	ug/L			04/10/20 11:19	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			04/10/20 11:19	1
Ethylbenzene	ND		5.0	0.46	ug/L			04/10/20 11:19	1
Methylene Chloride	ND		5.0	0.81	ug/L			04/10/20 11:19	1
Tetrachloroethene	ND		5.0	0.34	ug/L			04/10/20 11:19	1
Toluene	ND		5.0	0.45	ug/L			04/10/20 11:19	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			04/10/20 11:19	1
Trichloroethene	ND		5.0	0.60	ug/L			04/10/20 11:19	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			04/10/20 11:19	1
Vinyl chloride	ND		5.0	0.75	ug/L			04/10/20 11:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*79*		*68 - 130*		*04/10/20 11:19*	*1*
4-Bromofluorobenzene (Surr)	*109*		*76 - 123*		*04/10/20 11:19*	*1*
Toluene-d8 (Surr)	*86*		*77 - 120*		*04/10/20 11:19*	*1*
Dibromofluoromethane (Surr)	*87*		*75 - 123*		*04/10/20 11:19*	*1*

Lab Sample ID: LCS 480-525267/5
Matrix: Water
Analysis Batch: 525267

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	20.0	18.9		ug/L		94	52 - 162
1,1,2,2-Tetrachloroethane	20.0	19.7		ug/L		99	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-525267/5
Matrix: Water
Analysis Batch: 525267

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	19.3		ug/L		96	52 - 150
1,1-Dichloroethane	20.0	20.6		ug/L		103	59 - 155
1,1-Dichloroethene	20.0	21.1		ug/L		106	1 - 234
1,2-Dichlorobenzene	20.0	19.6		ug/L		98	18 - 190
1,2-Dichloroethane	20.0	20.0		ug/L		100	49 - 155
1,2-Dichloropropane	20.0	20.2		ug/L		101	1 - 210
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	59 - 156
1,4-Dichlorobenzene	20.0	19.3		ug/L		96	18 - 190
2-Chloroethyl vinyl ether	20.0	19.4	J	ug/L		97	1 - 305
Benzene	20.0	20.1		ug/L		100	37 - 151
Bromoform	20.0	16.1		ug/L		80	45 - 169
Bromomethane	20.0	20.1		ug/L		101	1 - 242
Carbon tetrachloride	20.0	18.2		ug/L		91	70 - 140
Chlorobenzene	20.0	19.8		ug/L		99	37 - 160
Dibromochloromethane	20.0	17.3		ug/L		87	53 - 149
Chloroethane	20.0	21.0		ug/L		105	14 - 230
Chloroform	20.0	20.2		ug/L		101	51 - 138
Chloromethane	20.0	16.2		ug/L		81	1 - 273
cis-1,3-Dichloropropene	20.0	18.7		ug/L		94	1 - 227
Bromodichloromethane	20.0	19.0		ug/L		95	35 - 155
Ethylbenzene	20.0	19.8		ug/L		99	37 - 162
Methylene Chloride	20.0	19.4		ug/L		97	1 - 221
Tetrachloroethene	20.0	19.2		ug/L		96	64 - 148
Toluene	20.0	19.3		ug/L		97	47 - 150
trans-1,3-Dichloropropene	20.0	17.5		ug/L		88	17 - 183
Trichloroethene	20.0	19.8		ug/L		99	71 - 157
Trichlorofluoromethane	20.0	19.4		ug/L		97	17 - 181
Vinyl chloride	20.0	18.7		ug/L		94	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*85*		*68 - 130*
4-Bromofluorobenzene (Surr)	*112*		*76 - 123*
Toluene-d8 (Surr)	*89*		*77 - 120*
Dibromofluoromethane (Surr)	*86*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-525673/1-A
Matrix: Water
Analysis Batch: 525835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		04/13/20 15:41	04/14/20 20:53	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		04/13/20 15:41	04/14/20 20:53	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		04/13/20 15:41	04/14/20 20:53	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		04/13/20 15:41	04/14/20 20:53	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		04/13/20 15:41	04/14/20 20:53	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 20:53	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-525673/1-A
Matrix: Water
Analysis Batch: 525835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		04/13/20 15:41	04/14/20 20:53	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		04/13/20 15:41	04/14/20 20:53	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		04/13/20 15:41	04/14/20 20:53	1
2-Chlorophenol	ND		5.0	0.66	ug/L		04/13/20 15:41	04/14/20 20:53	1
2-Nitrophenol	ND		5.0	0.70	ug/L		04/13/20 15:41	04/14/20 20:53	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		04/13/20 15:41	04/14/20 20:53	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		04/13/20 15:41	04/14/20 20:53	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		04/13/20 15:41	04/14/20 20:53	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		04/13/20 15:41	04/14/20 20:53	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		04/13/20 15:41	04/14/20 20:53	1
4-Nitrophenol	ND		15	10	ug/L		04/13/20 15:41	04/14/20 20:53	1
Acenaphthene	ND		5.0	0.81	ug/L		04/13/20 15:41	04/14/20 20:53	1
Acenaphthylene	ND		5.0	0.87	ug/L		04/13/20 15:41	04/14/20 20:53	1
Anthracene	ND		5.0	1.4	ug/L		04/13/20 15:41	04/14/20 20:53	1
Benzidine	ND		80	35	ug/L		04/13/20 15:41	04/14/20 20:53	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		04/13/20 15:41	04/14/20 20:53	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		04/13/20 15:41	04/14/20 20:53	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		04/13/20 15:41	04/14/20 20:53	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		04/13/20 15:41	04/14/20 20:53	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		04/13/20 15:41	04/14/20 20:53	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		04/13/20 15:41	04/14/20 20:53	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		04/13/20 15:41	04/14/20 20:53	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		04/13/20 15:41	04/14/20 20:53	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		04/13/20 15:41	04/14/20 20:53	1
Chrysene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
Decane	ND		10	1.6	ug/L		04/13/20 15:41	04/14/20 20:53	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		04/13/20 15:41	04/14/20 20:53	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		04/13/20 15:41	04/14/20 20:53	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		04/13/20 15:41	04/14/20 20:53	1
Diethyl phthalate	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		04/13/20 15:41	04/14/20 20:53	1
Fluoranthene	ND		5.0	1.6	ug/L		04/13/20 15:41	04/14/20 20:53	1
Fluorene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
Hexachloroethane	ND		5.0	0.60	ug/L		04/13/20 15:41	04/14/20 20:53	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		04/13/20 15:41	04/14/20 20:53	1
Isophorone	ND		5.0	0.74	ug/L		04/13/20 15:41	04/14/20 20:53	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		04/13/20 15:41	04/14/20 20:53	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		04/13/20 15:41	04/14/20 20:53	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		04/13/20 15:41	04/14/20 20:53	1
Naphthalene	ND		5.0	0.86	ug/L		04/13/20 15:41	04/14/20 20:53	1
Nitrobenzene	ND		5.0	0.81	ug/L		04/13/20 15:41	04/14/20 20:53	1
Pentachlorophenol	ND		10	1.6	ug/L		04/13/20 15:41	04/14/20 20:53	1
Phenanthrene	ND		5.0	1.2	ug/L		04/13/20 15:41	04/14/20 20:53	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-525673/1-A
Matrix: Water
Analysis Batch: 525835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		04/13/20 15:41	04/14/20 20:53	1
Pyrene	ND		5.0	1.4	ug/L		04/13/20 15:41	04/14/20 20:53	1
n-Octadecane	ND		10	1.2	ug/L		04/13/20 15:41	04/14/20 20:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*80*		*52 - 151*	*04/13/20 15:41*	*04/14/20 20:53*	*1*
2-Fluorobiphenyl	*91*		*44 - 120*	*04/13/20 15:41*	*04/14/20 20:53*	*1*
2-Fluorophenol	*49*		*17 - 120*	*04/13/20 15:41*	*04/14/20 20:53*	*1*
Nitrobenzene-d5	*92*		*15 - 314*	*04/13/20 15:41*	*04/14/20 20:53*	*1*
p-Terphenyl-d14	*106*		*22 - 125*	*04/13/20 15:41*	*04/14/20 20:53*	*1*
Phenol-d5	*35*		*8 - 424*	*04/13/20 15:41*	*04/14/20 20:53*	*1*

Lab Sample ID: LCS 480-525673/2-A
Matrix: Water
Analysis Batch: 525835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 525673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	37.4		ug/L		75	44 - 142
1,2-Dichlorobenzene	50.0	34.2		ug/L		68	32 - 129
1,3-Dichlorobenzene	50.0	32.8		ug/L		66	1 - 172
1,4-Dichlorobenzene	50.0	33.8		ug/L		68	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	37.6		ug/L		75	36 - 166
2,4,6-Trichlorophenol	50.0	44.8		ug/L		90	37 - 144
2,4-Dichlorophenol	50.0	41.2		ug/L		82	39 - 135
2,4-Dimethylphenol	50.0	41.8		ug/L		84	32 - 120
2,4-Dinitrophenol	100	95.6		ug/L		96	1 - 191
2,4-Dinitrotoluene	50.0	49.1		ug/L		98	39 - 139
2,6-Dinitrotoluene	50.0	47.1		ug/L		94	50 - 158
2-Chloronaphthalene	50.0	40.5		ug/L		81	60 - 120
2-Chlorophenol	50.0	34.9		ug/L		70	23 - 134
2-Nitrophenol	50.0	40.5		ug/L		81	29 - 182
3,3'-Dichlorobenzidine	100	100		ug/L		100	1 - 262
4,6-Dinitro-2-methylphenol	100	86.3		ug/L		86	1 - 181
4-Bromophenyl phenyl ether	50.0	44.9		ug/L		90	53 - 127
4-Chloro-3-methylphenol	50.0	45.4		ug/L		91	22 - 147
4-Chlorophenyl phenyl ether	50.0	47.0		ug/L		94	25 - 158
4-Nitrophenol	100	54.1		ug/L		54	1 - 132
Acenaphthene	50.0	43.7		ug/L		87	47 - 145
Acenaphthylene	50.0	44.4		ug/L		89	33 - 145
Anthracene	50.0	47.7		ug/L		95	27 - 133
Benzidine	100	ND		ug/L		28	1 - 120
Benzo[a]anthracene	50.0	48.3		ug/L		97	33 - 143
Benzo[a]pyrene	50.0	45.8		ug/L		92	17 - 163
Benzo[b]fluoranthene	50.0	50.6		ug/L		101	24 - 159
Benzo[g,h,i]perylene	50.0	42.7		ug/L		85	1 - 219
Benzo[k]fluoranthene	50.0	44.9		ug/L		90	11 - 162
Bis(2-chloroethoxy)methane	50.0	43.2		ug/L		86	33 - 184
Bis(2-chloroethyl)ether	50.0	37.7		ug/L		75	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-525673/2-A
Matrix: Water
Analysis Batch: 525835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 525673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	52.0		ug/L		104	8 - 158
Butyl benzyl phthalate	50.0	49.6		ug/L		99	1 - 152
Chrysene	50.0	47.2		ug/L		94	17 - 168
Di-n-butyl phthalate	50.0	50.5		ug/L		101	1 - 120
Di-n-octyl phthalate	50.0	52.4		ug/L		105	4 - 146
Dibenz(a,h)anthracene	50.0	45.6		ug/L		91	1 - 227
Diethyl phthalate	50.0	50.0		ug/L		100	1 - 120
Dimethyl phthalate	50.0	49.7		ug/L		99	1 - 120
Fluoranthene	50.0	48.3		ug/L		97	26 - 137
Fluorene	50.0	46.8		ug/L		94	59 - 121
Hexachlorobenzene	50.0	45.3		ug/L		91	1 - 152
Hexachlorocyclopentadiene	50.0	38.4		ug/L		77	5 - 120
Hexachloroethane	50.0	31.2		ug/L		62	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	43.9		ug/L		88	1 - 171
Isophorone	50.0	44.8		ug/L		90	21 - 196
N-Nitrosodi-n-propylamine	50.0	41.5		ug/L		83	1 - 230
N-Nitrosodiphenylamine	50.0	45.1		ug/L		90	54 - 125
Naphthalene	50.0	39.8		ug/L		80	21 - 133
Nitrobenzene	50.0	40.9		ug/L		82	35 - 180
Pentachlorophenol	100	95.7		ug/L		96	14 - 176
Phenanthrene	50.0	46.8		ug/L		94	54 - 120
Phenol	50.0	16.7		ug/L		33	5 - 120
Pyrene	50.0	46.4		ug/L		93	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*52 - 151*
2-Fluorobiphenyl	*87*		*44 - 120*
2-Fluorophenol	*43*		*17 - 120*
Nitrobenzene-d5	*84*		*15 - 314*
p-Terphenyl-d14	*103*		*22 - 125*
Phenol-d5	*32*		*8 - 424*

Lab Sample ID: LCSD 480-525673/3-A
Matrix: Water
Analysis Batch: 525835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 525673

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	41.1		ug/L		82	44 - 142	10	34
1,2-Dichlorobenzene	50.0	38.4		ug/L		77	32 - 129	12	38
1,3-Dichlorobenzene	50.0	36.9		ug/L		74	1 - 172	12	37
1,4-Dichlorobenzene	50.0	38.2		ug/L		76	20 - 124	12	40
2,2'-Oxybis(1-chloropropane)	50.0	41.3		ug/L		83	36 - 166	9	36
2,4,6-Trichlorophenol	50.0	50.2		ug/L		100	37 - 144	11	20
2,4-Dichlorophenol	50.0	44.2		ug/L		88	39 - 135	7	23
2,4-Dimethylphenol	50.0	45.5		ug/L		91	32 - 120	8	18
2,4-Dinitrophenol	100	95.3		ug/L		95	1 - 191	0	29
2,4-Dinitrotoluene	50.0	48.6		ug/L		97	39 - 139	1	20
2,6-Dinitrotoluene	50.0	50.2		ug/L		100	50 - 158	6	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-525673/3-A
Matrix: Water
Analysis Batch: 525835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 525673

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene	50.0	48.4		ug/L		97	60 - 120	18	30
2-Chlorophenol	50.0	38.8		ug/L		78	23 - 134	11	26
2-Nitrophenol	50.0	43.7		ug/L		87	29 - 182	8	28
3,3'-Dichlorobenzidine	100	109		ug/L		109	1 - 262	8	31
4,6-Dinitro-2-methylphenol	100	95.7		ug/L		96	1 - 181	10	30
4-Bromophenyl phenyl ether	50.0	54.5	*1	ug/L		109	53 - 127	19	16
4-Chloro-3-methylphenol	50.0	45.7		ug/L		91	22 - 147	1	16
4-Chlorophenyl phenyl ether	50.0	49.9		ug/L		100	25 - 158	6	15
4-Nitrophenol	100	50.1		ug/L		50	1 - 132	8	24
Acenaphthene	50.0	50.7		ug/L		101	47 - 145	15	25
Acenaphthylene	50.0	49.8		ug/L		100	33 - 145	12	22
Anthracene	50.0	52.4		ug/L		105	27 - 133	9	15
Benzidine	100	ND	*1	ug/L		9	1 - 120	106	50
Benzo[a]anthracene	50.0	51.7		ug/L		103	33 - 143	7	15
Benzo[a]pyrene	50.0	49.9		ug/L		100	17 - 163	9	15
Benzo[b]fluoranthene	50.0	56.3		ug/L		113	24 - 159	11	17
Benzo[g,h,i]perylene	50.0	50.3		ug/L		101	1 - 219	16	19
Benzo[k]fluoranthene	50.0	48.2		ug/L		96	11 - 162	7	19
Bis(2-chloroethoxy)methane	50.0	45.7		ug/L		91	33 - 184	5	23
Bis(2-chloroethyl)ether	50.0	42.2		ug/L		84	12 - 158	11	33
Bis(2-ethylhexyl) phthalate	50.0	53.9		ug/L		108	8 - 158	4	15
Butyl benzyl phthalate	50.0	53.3		ug/L		107	1 - 152	7	15
Chrysene	50.0	51.3		ug/L		103	17 - 168	8	15
Di-n-butyl phthalate	50.0	51.5		ug/L		103	1 - 120	2	15
Di-n-octyl phthalate	50.0	54.4		ug/L		109	4 - 146	4	15
Dibenz(a,h)anthracene	50.0	53.0		ug/L		106	1 - 227	15	18
Diethyl phthalate	50.0	49.8		ug/L		100	1 - 120	0	15
Dimethyl phthalate	50.0	52.1		ug/L		104	1 - 120	5	15
Fluoranthene	50.0	48.0		ug/L		96	26 - 137	1	15
Fluorene	50.0	49.6		ug/L		99	59 - 121	6	18
Hexachlorobenzene	50.0	52.4		ug/L		105	1 - 152	15	15
Hexachlorocyclopentadiene	50.0	47.1		ug/L		94	5 - 120	20	50
Hexachloroethane	50.0	37.9		ug/L		76	40 - 120	20	43
Indeno[1,2,3-cd]pyrene	50.0	52.0		ug/L		104	1 - 171	17	17
Isophorone	50.0	47.7		ug/L		95	21 - 196	6	21
N-Nitrosodi-n-propylamine	50.0	47.2		ug/L		94	1 - 230	13	23
N-Nitrosodiphenylamine	50.0	54.7	*1	ug/L		109	54 - 125	19	15
Naphthalene	50.0	44.1		ug/L		88	21 - 133	10	31
Nitrobenzene	50.0	47.1		ug/L		94	35 - 180	14	27
Pentachlorophenol	100	103		ug/L		103	14 - 176	8	21
Phenanthrene	50.0	50.2		ug/L		100	54 - 120	7	16
Phenol	50.0	18.0		ug/L		36	5 - 120	8	36
Pyrene	50.0	54.1		ug/L		108	52 - 120	15	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*108*		*52 - 151*
2-Fluorobiphenyl	*98*		*44 - 120*
2-Fluorophenol	*48*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-525673/3-A
Matrix: Water
Analysis Batch: 525835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 525673

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*91*		*15 - 314*
p-Terphenyl-d14	*114*		*22 - 125*
Phenol-d5	*34*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-525467/1-A
Matrix: Water
Analysis Batch: 526225

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525467

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		04/14/20 11:04	04/15/20 17:36	1

Lab Sample ID: LCS 480-525467/2-A
Matrix: Water
Analysis Batch: 526225

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 525467

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.213		mg/L		107	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-525599/1-A
Matrix: Water
Analysis Batch: 525693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525599

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		04/13/20 11:55	04/13/20 15:14	1

Lab Sample ID: LCS 480-525599/2-A
Matrix: Water
Analysis Batch: 525693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 525599

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00665		mg/L		100	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-525393/1-A
Matrix: Water
Analysis Batch: 525417

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 525393

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		04/10/20 15:22	04/10/20 18:14	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-525393/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 525417
Prep Batch: 525393

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.253		mg/L		101	90 - 110

Lab Sample ID: 480-168406-6 DU
Client Sample ID: 001 COMP 1-4
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 525417
Prep Batch: 525393

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.11	^	0.111	^	mg/L		3	15

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-525311/1
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 525311

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 525267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-5	TRIP BLANK	Total/NA	Water	624.1	
480-168406-6	001 COMP 1-4	Total/NA	Water	624.1	
MB 480-525267/7	Method Blank	Total/NA	Water	624.1	
LCS 480-525267/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 525673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	625	
MB 480-525673/1-A	Method Blank	Total/NA	Water	625	
LCS 480-525673/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-525673/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 525835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	625.1	525673
MB 480-525673/1-A	Method Blank	Total/NA	Water	625.1	525673
LCS 480-525673/2-A	Lab Control Sample	Total/NA	Water	625.1	525673
LCSD 480-525673/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	525673

Metals

Prep Batch: 525467

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	200.7	
MB 480-525467/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-525467/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 525599

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	245.1	
MB 480-525599/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-525599/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 525693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	245.1	525599
MB 480-525599/1-A	Method Blank	Total/NA	Water	245.1	525599
LCS 480-525599/2-A	Lab Control Sample	Total/NA	Water	245.1	525599

Analysis Batch: 526225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	200.7 Rev 4.4	525467
MB 480-525467/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	525467
LCS 480-525467/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	525467

General Chemistry

Analysis Batch: 525311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 525311 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-525311/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 525393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	Distill/CN	
MB 480-525393/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-525393/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-168406-6 DU	001 COMP 1-4	Total/NA	Water	Distill/CN	

Analysis Batch: 525417

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168406-6	001 COMP 1-4	Total/NA	Water	335.4	525393
MB 480-525393/1-A	Method Blank	Total/NA	Water	335.4	525393
LCS 480-525393/2-A	Lab Control Sample	Total/NA	Water	335.4	525393
480-168406-6 DU	001 COMP 1-4	Total/NA	Water	335.4	525393

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-168406-5
Date Collected: 04/09/20 00:00
Matrix: Water
Date Received: 04/09/20 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	525267	04/10/20 13:38	WJD	TAL BUF

Client Sample ID: 001 COMP 1-4
Lab Sample ID: 480-168406-6
Date Collected: 04/09/20 00:00
Matrix: Water
Date Received: 04/09/20 15:01

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	525267	04/10/20 14:02	WJD	TAL BUF
Total/NA	Prep	625			525673	04/13/20 15:41	JMP	TAL BUF
Total/NA	Analysis	625.1		1	525835	04/14/20 22:33	PJQ	TAL BUF
Total/NA	Prep	200.7			525467	04/14/20 11:04	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	526225	04/15/20 18:26	LMH	TAL BUF
Total/NA	Prep	245.1			525599	04/13/20 11:55	BMB	TAL BUF
Total/NA	Analysis	245.1		1	525693	04/13/20 15:44	BMB	TAL BUF
Total/NA	Prep	Distill/CN			525393	04/10/20 15:22	E1T	TAL BUF
Total/NA	Analysis	335.4		1	525417	04/10/20 18:18	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	525311	04/10/20 09:19	DLG	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-02-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-168406-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-168406-5	TRIP BLANK	Water	04/09/20 00:00	04/09/20 15:01	
480-168406-6	001 COMP 1-4	Water	04/09/20 00:00	04/09/20 15:01	

fins TestAmerica, Buffalo
elwood Drive
t, NY 14228-2298
716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

: Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-141758-15940.1
ntact: Gutkowski	Phone: 315 4363605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
y: DIS U.S., Inc.				Job #:

ncoln Center 110 West Fayette St, Suite 300	Due Date Requested:	
ise	TAT Requested (days): Standard Turn	
p: 3202	PO #: Needed	
71-9173(Tel) 315-446-8053(Fax)	WO #: 30003542-00001	
gutkowski@arcadis.com	Project #: 48011056	
Name: is Gas/Westwood Pharm. Monthly	SSOW#:	

Analysis Requested

480-168406 Chain of Custody

s:
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA

Other:

le Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
01	4/9/20	0710	G	Water			X	X	X	X	X		Lab To
02	↓	0910	↓	↓			X	X	X	X	X		Composite
03		1110					X	X	X	X	X		Samples
04		1310					X	X	X	X	X		
Trip Blank	–	–	–	↓							X		

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4/16/2020

sible Hazard Identification
] Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

iverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

pty Kit Relinquished by:	Date:	Time:	Method of Shipment:

nquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	4/9/20 / 1331	Arcadis			
nquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
nquished by:	Date/Time:	Company	Received by:	Date/Time: 4/9/20 1331	Company TAT

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 0.4 a/2

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-168406-1

Login Number: 168406

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Stopa, Erik S

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	ARCADIS
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	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-169419-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
5/20/2020 4:18:05 PM
Alexander Gilbert, Project Management Assistant I
alexander.gilbert@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-169419-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Job ID: 480-169419-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-169419-1

Comments
No additional comments.

Receipt
The samples were received on 5/4/2020 1:25 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.1° C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 05-04-2020 as requested by the client: Composite 001 1-4 (480-169419-6). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The continuing calibration verification (CCV) associated with batch 480-529989 recovered above the upper control limit for 4-Nitrophenol and Benzidine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: Composite 001 1-4 (480-169419-6).

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

Metals
Method 245.1: The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: Composite 001 1-4 (480-169419-6). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion. preserved 5/18/20 at 1115 2nd check 5/19/20 at 1139

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

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-169419-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: Trip Blank
Lab Sample ID: 480-169419-5

No Detections.

Client Sample ID: Composite 001 1-4
Lab Sample ID: 480-169419-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0041	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.082		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.1	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	18.5	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Trip Blank

Lab Sample ID: 480-169419-5

Date Collected: 05/04/20 00:00

Matrix: Water

Date Received: 05/04/20 13:25

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			05/04/20 16:10	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			05/04/20 16:10	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			05/04/20 16:10	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			05/04/20 16:10	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			05/04/20 16:10	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			05/04/20 16:10	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			05/04/20 16:10	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			05/04/20 16:10	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			05/04/20 16:10	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			05/04/20 16:10	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			05/04/20 16:10	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			05/04/20 16:10	1
Acrolein	ND		100	17	ug/L			05/04/20 16:10	1
Acrylonitrile	ND		50	1.9	ug/L			05/04/20 16:10	1
Benzene	ND		5.0	0.60	ug/L			05/04/20 16:10	1
Bromoform	ND		5.0	0.47	ug/L			05/04/20 16:10	1
Bromomethane	ND		5.0	1.2	ug/L			05/04/20 16:10	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			05/04/20 16:10	1
Chlorobenzene	ND		5.0	0.48	ug/L			05/04/20 16:10	1
Dibromochloromethane	ND		5.0	0.41	ug/L			05/04/20 16:10	1
Chloroethane	ND		5.0	0.87	ug/L			05/04/20 16:10	1
Chloroform	ND		5.0	0.54	ug/L			05/04/20 16:10	1
Chloromethane	ND		5.0	0.64	ug/L			05/04/20 16:10	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			05/04/20 16:10	1
Bromodichloromethane	ND		5.0	0.54	ug/L			05/04/20 16:10	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			05/04/20 16:10	1
Ethylbenzene	ND		5.0	0.46	ug/L			05/04/20 16:10	1
Methylene Chloride	ND		5.0	0.81	ug/L			05/04/20 16:10	1
Tetrachloroethene	ND		5.0	0.34	ug/L			05/04/20 16:10	1
Toluene	ND		5.0	0.45	ug/L			05/04/20 16:10	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			05/04/20 16:10	1
Trichloroethene	ND		5.0	0.60	ug/L			05/04/20 16:10	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			05/04/20 16:10	1
Vinyl chloride	ND		5.0	0.75	ug/L			05/04/20 16:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*68 - 130*		*05/04/20 16:10*	*1*
4-Bromofluorobenzene (Surr)	*104*		*76 - 123*		*05/04/20 16:10*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*05/04/20 16:10*	*1*
Dibromofluoromethane (Surr)	*113*		*75 - 123*		*05/04/20 16:10*	*1*

Client Sample ID: Composite 001 1-4

Lab Sample ID: 480-169419-6

Date Collected: 05/04/20 13:05

Matrix: Water

Date Received: 05/04/20 13:25

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			05/04/20 15:45	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			05/04/20 15:45	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			05/04/20 15:45	1

Client Sample ID: Composite 001 1-4
Date Collected: 05/04/20 13:05
Date Received: 05/04/20 13:25

Lab Sample ID: 480-169419-6
Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			05/04/20 15:45	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			05/04/20 15:45	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			05/04/20 15:45	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			05/04/20 15:45	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			05/04/20 15:45	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			05/04/20 15:45	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			05/04/20 15:45	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			05/04/20 15:45	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			05/04/20 15:45	1
Acrolein	ND		100	17	ug/L			05/04/20 15:45	1
Acrylonitrile	ND		50	1.9	ug/L			05/04/20 15:45	1
Benzene	ND		5.0	0.60	ug/L			05/04/20 15:45	1
Bromoform	ND		5.0	0.47	ug/L			05/04/20 15:45	1
Bromomethane	ND		5.0	1.2	ug/L			05/04/20 15:45	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			05/04/20 15:45	1
Chlorobenzene	ND		5.0	0.48	ug/L			05/04/20 15:45	1
Dibromochloromethane	ND		5.0	0.41	ug/L			05/04/20 15:45	1
Chloroethane	ND		5.0	0.87	ug/L			05/04/20 15:45	1
Chloroform	ND		5.0	0.54	ug/L			05/04/20 15:45	1
Chloromethane	ND		5.0	0.64	ug/L			05/04/20 15:45	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			05/04/20 15:45	1
Bromodichloromethane	ND		5.0	0.54	ug/L			05/04/20 15:45	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			05/04/20 15:45	1
Ethylbenzene	ND		5.0	0.46	ug/L			05/04/20 15:45	1
Methylene Chloride	ND		5.0	0.81	ug/L			05/04/20 15:45	1
Tetrachloroethene	ND		5.0	0.34	ug/L			05/04/20 15:45	1
Toluene	ND		5.0	0.45	ug/L			05/04/20 15:45	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			05/04/20 15:45	1
Trichloroethene	ND		5.0	0.60	ug/L			05/04/20 15:45	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			05/04/20 15:45	1
Vinyl chloride	ND		5.0	0.75	ug/L			05/04/20 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 130*		*05/04/20 15:45*	*1*
4-Bromofluorobenzene (Surr)	*104*		*76 - 123*		*05/04/20 15:45*	*1*
Toluene-d8 (Surr)	*98*		*77 - 120*		*05/04/20 15:45*	*1*
Dibromofluoromethane (Surr)	*113*		*75 - 123*		*05/04/20 15:45*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		05/05/20 15:38	05/06/20 18:54	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		05/05/20 15:38	05/06/20 18:54	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		05/05/20 15:38	05/06/20 18:54	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		05/05/20 15:38	05/06/20 18:54	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		05/05/20 15:38	05/06/20 18:54	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		05/05/20 15:38	05/06/20 18:54	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		05/05/20 15:38	05/06/20 18:54	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 18:54	1

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-169419-1

Client Sample ID: Composite 001 1-4
Date Collected: 05/04/20 13:05
Date Received: 05/04/20 13:25

Lab Sample ID: 480-169419-6
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		05/05/20 15:38	05/06/20 18:54	1
2-Chlorophenol	ND		5.0	0.66	ug/L		05/05/20 15:38	05/06/20 18:54	1
2-Nitrophenol	ND		5.0	0.70	ug/L		05/05/20 15:38	05/06/20 18:54	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		05/05/20 15:38	05/06/20 18:54	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		05/05/20 15:38	05/06/20 18:54	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		05/05/20 15:38	05/06/20 18:54	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		05/05/20 15:38	05/06/20 18:54	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		05/05/20 15:38	05/06/20 18:54	1
4-Nitrophenol	ND		15	10	ug/L		05/05/20 15:38	05/06/20 18:54	1
Acenaphthene	ND		5.0	0.81	ug/L		05/05/20 15:38	05/06/20 18:54	1
Acenaphthylene	ND		5.0	0.87	ug/L		05/05/20 15:38	05/06/20 18:54	1
Anthracene	ND		5.0	1.4	ug/L		05/05/20 15:38	05/06/20 18:54	1
Benzidine	ND		80	35	ug/L		05/05/20 15:38	05/06/20 18:54	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		05/05/20 15:38	05/06/20 18:54	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		05/05/20 15:38	05/06/20 18:54	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		05/05/20 15:38	05/06/20 18:54	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		05/05/20 15:38	05/06/20 18:54	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		05/05/20 15:38	05/06/20 18:54	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		05/05/20 15:38	05/06/20 18:54	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		05/05/20 15:38	05/06/20 18:54	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		05/05/20 15:38	05/06/20 18:54	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		05/05/20 15:38	05/06/20 18:54	1
Chrysene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
Decane	ND		10	1.6	ug/L		05/05/20 15:38	05/06/20 18:54	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		05/05/20 15:38	05/06/20 18:54	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		05/05/20 15:38	05/06/20 18:54	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		05/05/20 15:38	05/06/20 18:54	1
Diethyl phthalate	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		05/05/20 15:38	05/06/20 18:54	1
Fluoranthene	ND		5.0	1.6	ug/L		05/05/20 15:38	05/06/20 18:54	1
Fluorene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
Hexachloroethane	ND		5.0	0.60	ug/L		05/05/20 15:38	05/06/20 18:54	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		05/05/20 15:38	05/06/20 18:54	1
Isophorone	ND		5.0	0.74	ug/L		05/05/20 15:38	05/06/20 18:54	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		05/05/20 15:38	05/06/20 18:54	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 18:54	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		05/05/20 15:38	05/06/20 18:54	1
Naphthalene	ND		5.0	0.86	ug/L		05/05/20 15:38	05/06/20 18:54	1
Nitrobenzene	ND		5.0	0.81	ug/L		05/05/20 15:38	05/06/20 18:54	1
Pentachlorophenol	ND		10	1.6	ug/L		05/05/20 15:38	05/06/20 18:54	1
Phenanthrene	ND		5.0	1.2	ug/L		05/05/20 15:38	05/06/20 18:54	1
Phenol	ND		5.0	0.35	ug/L		05/05/20 15:38	05/06/20 18:54	1
Pyrene	ND		5.0	1.4	ug/L		05/05/20 15:38	05/06/20 18:54	1
n-Octadecane	ND		10	1.2	ug/L		05/05/20 15:38	05/06/20 18:54	1

Client Sample ID: Composite 001 1-4
Lab Sample ID: 480-169419-6

Date Collected: 05/04/20 13:05
Matrix: Water
Date Received: 05/04/20 13:25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*102*		*52 - 151*	*05/05/20 15:38*	*05/06/20 18:54*	*1*
2-Fluorobiphenyl	*94*		*44 - 120*	*05/05/20 15:38*	*05/06/20 18:54*	*1*
2-Fluorophenol	*40*		*17 - 120*	*05/05/20 15:38*	*05/06/20 18:54*	*1*
Nitrobenzene-d5	*84*		*15 - 314*	*05/05/20 15:38*	*05/06/20 18:54*	*1*
p-Terphenyl-d14	*89*		*22 - 125*	*05/05/20 15:38*	*05/06/20 18:54*	*1*
Phenol-d5	*28*		*8 - 424*	*05/05/20 15:38*	*05/06/20 18:54*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0041**	**J**	0.010	0.0015	mg/L		05/19/20 11:22	05/19/20 22:17	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		05/19/20 11:50	05/19/20 14:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.082**		0.010	0.0050	mg/L		05/08/20 11:25	05/09/20 19:05	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.1**	**HF**	0.1	0.1	SU			05/15/20 19:24	1
Temperature	**18.5**	**HF**	0.001	0.001	Degrees C			05/15/20 19:24	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-169419-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-169419-5	Trip Blank	110	104	99	113
480-169419-6	Composite 001 1-4	105	104	98	113
LCS 480-529442/5	Lab Control Sample	105	107	100	111
MB 480-529442/7	Method Blank	108	106	99	114

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-169419-6	Composite 001 1-4	102	94	40	84	89	28
LCS 480-529787/2-A	Lab Control Sample	110	90	48	87	104	31
LCSD 480-529787/3-A	Lab Control Sample Dup	115	94	40	93	108	31
MB 480-529787/1-A	Method Blank	98	95	47	95	111	33

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-169419-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-529442/7
Matrix: Water
Analysis Batch: 529442

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	ND		5.0	0.39	ug/L			05/04/20 11:55	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			05/04/20 11:55	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			05/04/20 11:55	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			05/04/20 11:55	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			05/04/20 11:55	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			05/04/20 11:55	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			05/04/20 11:55	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			05/04/20 11:55	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			05/04/20 11:55	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			05/04/20 11:55	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			05/04/20 11:55	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			05/04/20 11:55	1
Acrolein	ND		100	17	ug/L			05/04/20 11:55	1
Acrylonitrile	ND		50	1.9	ug/L			05/04/20 11:55	1
Benzene	ND		5.0	0.60	ug/L			05/04/20 11:55	1
Bromoform	ND		5.0	0.47	ug/L			05/04/20 11:55	1
Bromomethane	ND		5.0	1.2	ug/L			05/04/20 11:55	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			05/04/20 11:55	1
Chlorobenzene	ND		5.0	0.48	ug/L			05/04/20 11:55	1
Dibromochloromethane	ND		5.0	0.41	ug/L			05/04/20 11:55	1
Chloroethane	ND		5.0	0.87	ug/L			05/04/20 11:55	1
Chloroform	ND		5.0	0.54	ug/L			05/04/20 11:55	1
Chloromethane	ND		5.0	0.64	ug/L			05/04/20 11:55	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			05/04/20 11:55	1
Bromodichloromethane	ND		5.0	0.54	ug/L			05/04/20 11:55	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			05/04/20 11:55	1
Ethylbenzene	ND		5.0	0.46	ug/L			05/04/20 11:55	1
Methylene Chloride	ND		5.0	0.81	ug/L			05/04/20 11:55	1
Tetrachloroethene	ND		5.0	0.34	ug/L			05/04/20 11:55	1
Toluene	ND		5.0	0.45	ug/L			05/04/20 11:55	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			05/04/20 11:55	1
Trichloroethene	ND		5.0	0.60	ug/L			05/04/20 11:55	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			05/04/20 11:55	1
Vinyl chloride	ND		5.0	0.75	ug/L			05/04/20 11:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*68 - 130*		*05/04/20 11:55*	*1*
4-Bromofluorobenzene (Surr)	*106*		*76 - 123*		*05/04/20 11:55*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*05/04/20 11:55*	*1*
Dibromofluoromethane (Surr)	*114*		*75 - 123*		*05/04/20 11:55*	*1*

Lab Sample ID: LCS 480-529442/5
Matrix: Water
Analysis Batch: 529442

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	20.0	18.3		ug/L		91	52 - 162
1,1,2,2-Tetrachloroethane	20.0	18.2		ug/L		91	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-529442/5
Matrix: Water
Analysis Batch: 529442

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	18.0		ug/L		90	52 - 150
1,1-Dichloroethane	20.0	20.3		ug/L		102	59 - 155
1,1-Dichloroethene	20.0	19.5		ug/L		97	1 - 234
1,2-Dichlorobenzene	20.0	18.2		ug/L		91	18 - 190
1,2-Dichloroethane	20.0	19.9		ug/L		100	49 - 155
1,2-Dichloropropane	20.0	19.8		ug/L		99	1 - 210
1,3-Dichlorobenzene	20.0	17.9		ug/L		90	59 - 156
1,4-Dichlorobenzene	20.0	17.9		ug/L		90	18 - 190
2-Chloroethyl vinyl ether	20.0	19.1	J	ug/L		95	1 - 305
Benzene	20.0	19.7		ug/L		98	37 - 151
Bromoform	20.0	15.4		ug/L		77	45 - 169
Bromomethane	20.0	21.2		ug/L		106	1 - 242
Carbon tetrachloride	20.0	17.1		ug/L		85	70 - 140
Chlorobenzene	20.0	18.2		ug/L		91	37 - 160
Dibromochloromethane	20.0	16.6		ug/L		83	53 - 149
Chloroethane	20.0	21.0		ug/L		105	14 - 230
Chloroform	20.0	20.1		ug/L		100	51 - 138
Chloromethane	20.0	19.3		ug/L		97	1 - 273
cis-1,3-Dichloropropene	20.0	17.8		ug/L		89	1 - 227
Bromodichloromethane	20.0	18.9		ug/L		94	35 - 155
Ethylbenzene	20.0	18.2		ug/L		91	37 - 162
Methylene Chloride	20.0	18.8		ug/L		94	1 - 221
Tetrachloroethene	20.0	17.0		ug/L		85	64 - 148
Toluene	20.0	17.5		ug/L		87	47 - 150
trans-1,3-Dichloropropene	20.0	15.3		ug/L		77	17 - 183
Trichloroethene	20.0	18.7		ug/L		94	71 - 157
Trichlorofluoromethane	20.0	20.5		ug/L		102	17 - 181
Vinyl chloride	20.0	18.1		ug/L		90	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*68 - 130*
4-Bromofluorobenzene (Surr)	*107*		*76 - 123*
Toluene-d8 (Surr)	*100*		*77 - 120*
Dibromofluoromethane (Surr)	*111*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-529787/1-A
Matrix: Water
Analysis Batch: 529989

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 529787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		05/05/20 15:38	05/06/20 15:58	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		05/05/20 15:38	05/06/20 15:58	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		05/05/20 15:38	05/06/20 15:58	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		05/05/20 15:38	05/06/20 15:58	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		05/05/20 15:38	05/06/20 15:58	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 15:58	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-529787/1-A
Matrix: Water
Analysis Batch: 529989

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 529787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		05/05/20 15:38	05/06/20 15:58	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		05/05/20 15:38	05/06/20 15:58	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		05/05/20 15:38	05/06/20 15:58	1
2-Chlorophenol	ND		5.0	0.66	ug/L		05/05/20 15:38	05/06/20 15:58	1
2-Nitrophenol	ND		5.0	0.70	ug/L		05/05/20 15:38	05/06/20 15:58	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		05/05/20 15:38	05/06/20 15:58	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		05/05/20 15:38	05/06/20 15:58	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		05/05/20 15:38	05/06/20 15:58	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		05/05/20 15:38	05/06/20 15:58	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		05/05/20 15:38	05/06/20 15:58	1
4-Nitrophenol	ND		15	10	ug/L		05/05/20 15:38	05/06/20 15:58	1
Acenaphthene	ND		5.0	0.81	ug/L		05/05/20 15:38	05/06/20 15:58	1
Acenaphthylene	ND		5.0	0.87	ug/L		05/05/20 15:38	05/06/20 15:58	1
Anthracene	ND		5.0	1.4	ug/L		05/05/20 15:38	05/06/20 15:58	1
Benzidine	ND		80	35	ug/L		05/05/20 15:38	05/06/20 15:58	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		05/05/20 15:38	05/06/20 15:58	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		05/05/20 15:38	05/06/20 15:58	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		05/05/20 15:38	05/06/20 15:58	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		05/05/20 15:38	05/06/20 15:58	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		05/05/20 15:38	05/06/20 15:58	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		05/05/20 15:38	05/06/20 15:58	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		05/05/20 15:38	05/06/20 15:58	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		05/05/20 15:38	05/06/20 15:58	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		05/05/20 15:38	05/06/20 15:58	1
Chrysene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
Decane	ND		10	1.6	ug/L		05/05/20 15:38	05/06/20 15:58	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		05/05/20 15:38	05/06/20 15:58	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		05/05/20 15:38	05/06/20 15:58	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		05/05/20 15:38	05/06/20 15:58	1
Diethyl phthalate	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		05/05/20 15:38	05/06/20 15:58	1
Fluoranthene	ND		5.0	1.6	ug/L		05/05/20 15:38	05/06/20 15:58	1
Fluorene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
Hexachloroethane	ND		5.0	0.60	ug/L		05/05/20 15:38	05/06/20 15:58	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		05/05/20 15:38	05/06/20 15:58	1
Isophorone	ND		5.0	0.74	ug/L		05/05/20 15:38	05/06/20 15:58	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		05/05/20 15:38	05/06/20 15:58	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		05/05/20 15:38	05/06/20 15:58	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		05/05/20 15:38	05/06/20 15:58	1
Naphthalene	ND		5.0	0.86	ug/L		05/05/20 15:38	05/06/20 15:58	1
Nitrobenzene	ND		5.0	0.81	ug/L		05/05/20 15:38	05/06/20 15:58	1
Pentachlorophenol	ND		10	1.6	ug/L		05/05/20 15:38	05/06/20 15:58	1
Phenanthrene	ND		5.0	1.2	ug/L		05/05/20 15:38	05/06/20 15:58	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-529787/1-A
Matrix: Water
Analysis Batch: 529989

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 529787

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		05/05/20 15:38	05/06/20 15:58	1
Pyrene	ND		5.0	1.4	ug/L		05/05/20 15:38	05/06/20 15:58	1
n-Octadecane	ND		10	1.2	ug/L		05/05/20 15:38	05/06/20 15:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*98*		*52 - 151*	*05/05/20 15:38*	*05/06/20 15:58*	*1*
2-Fluorobiphenyl	*95*		*44 - 120*	*05/05/20 15:38*	*05/06/20 15:58*	*1*
2-Fluorophenol	*47*		*17 - 120*	*05/05/20 15:38*	*05/06/20 15:58*	*1*
Nitrobenzene-d5	*95*		*15 - 314*	*05/05/20 15:38*	*05/06/20 15:58*	*1*
p-Terphenyl-d14	*111*		*22 - 125*	*05/05/20 15:38*	*05/06/20 15:58*	*1*
Phenol-d5	*33*		*8 - 424*	*05/05/20 15:38*	*05/06/20 15:58*	*1*

Lab Sample ID: LCS 480-529787/2-A
Matrix: Water
Analysis Batch: 529989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 529787

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	40.7		ug/L		81	44 - 142
1,2-Dichlorobenzene	50.0	38.3		ug/L		77	32 - 129
1,3-Dichlorobenzene	50.0	37.7		ug/L		75	1 - 172
1,4-Dichlorobenzene	50.0	36.9		ug/L		74	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	33.4		ug/L		67	36 - 166
2,4,6-Trichlorophenol	50.0	49.4		ug/L		99	37 - 144
2,4-Dichlorophenol	50.0	44.3		ug/L		89	39 - 135
2,4-Dimethylphenol	50.0	47.4		ug/L		95	32 - 120
2,4-Dinitrophenol	100	95.0		ug/L		95	1 - 191
2,4-Dinitrotoluene	50.0	49.9		ug/L		100	39 - 139
2,6-Dinitrotoluene	50.0	49.5		ug/L		99	50 - 158
2-Chloronaphthalene	50.0	43.3		ug/L		87	60 - 120
2-Chlorophenol	50.0	40.4		ug/L		81	23 - 134
2-Nitrophenol	50.0	45.3		ug/L		91	29 - 182
3,3'-Dichlorobenzidine	100	99.1		ug/L		99	1 - 262
4,6-Dinitro-2-methylphenol	100	95.2		ug/L		95	1 - 181
4-Bromophenyl phenyl ether	50.0	49.6		ug/L		99	53 - 127
4-Chloro-3-methylphenol	50.0	47.2		ug/L		94	22 - 147
4-Chlorophenyl phenyl ether	50.0	49.8		ug/L		100	25 - 158
4-Nitrophenol	100	63.7		ug/L		64	1 - 132
Acenaphthene	50.0	47.9		ug/L		96	47 - 145
Acenaphthylene	50.0	48.6		ug/L		97	33 - 145
Anthracene	50.0	51.3		ug/L		103	27 - 133
Benzidine	100	ND		ug/L		28	1 - 120
Benzo[a]anthracene	50.0	49.1		ug/L		98	33 - 143
Benzo[a]pyrene	50.0	49.8		ug/L		100	17 - 163
Benzo[b]fluoranthene	50.0	49.4		ug/L		99	24 - 159
Benzo[g,h,i]perylene	50.0	52.1		ug/L		104	1 - 219
Benzo[k]fluoranthene	50.0	50.9		ug/L		102	11 - 162
Bis(2-chloroethoxy)methane	50.0	39.9		ug/L		80	33 - 184
Bis(2-chloroethyl)ether	50.0	36.3		ug/L		73	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-529787/2-A
Matrix: Water
Analysis Batch: 529989

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 529787

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	51.0		ug/L		102	8 - 158
Butyl benzyl phthalate	50.0	47.6		ug/L		95	1 - 152
Chrysene	50.0	49.7		ug/L		99	17 - 168
Di-n-butyl phthalate	50.0	51.1		ug/L		102	1 - 120
Di-n-octyl phthalate	50.0	49.9		ug/L		100	4 - 146
Dibenz(a,h)anthracene	50.0	53.4		ug/L		107	1 - 227
Diethyl phthalate	50.0	48.7		ug/L		97	1 - 120
Dimethyl phthalate	50.0	50.2		ug/L		100	1 - 120
Fluoranthene	50.0	51.9		ug/L		104	26 - 137
Fluorene	50.0	50.1		ug/L		100	59 - 121
Hexachlorobenzene	50.0	54.8		ug/L		110	1 - 152
Hexachlorocyclopentadiene	50.0	40.8		ug/L		82	5 - 120
Hexachloroethane	50.0	39.2		ug/L		78	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	53.7		ug/L		107	1 - 171
Isophorone	50.0	44.0		ug/L		88	21 - 196
N-Nitrosodi-n-propylamine	50.0	45.2		ug/L		90	1 - 230
N-Nitrosodiphenylamine	50.0	47.1		ug/L		94	54 - 125
Naphthalene	50.0	43.4		ug/L		87	21 - 133
Nitrobenzene	50.0	48.8		ug/L		98	35 - 180
Pentachlorophenol	100	94.5		ug/L		95	14 - 176
Phenanthrene	50.0	50.3		ug/L		101	54 - 120
Phenol	50.0	17.6		ug/L		35	5 - 120
Pyrene	50.0	48.9		ug/L		98	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*110*		*52 - 151*
2-Fluorobiphenyl	*90*		*44 - 120*
2-Fluorophenol	*48*		*17 - 120*
Nitrobenzene-d5	*87*		*15 - 314*
p-Terphenyl-d14	*104*		*22 - 125*
Phenol-d5	*31*		*8 - 424*

Lab Sample ID: LCSD 480-529787/3-A
Matrix: Water
Analysis Batch: 529989

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 529787

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	41.9		ug/L		84	44 - 142	3	34
1,2-Dichlorobenzene	50.0	36.8		ug/L		74	32 - 129	4	38
1,3-Dichlorobenzene	50.0	34.4		ug/L		69	1 - 172	9	37
1,4-Dichlorobenzene	50.0	36.8		ug/L		74	20 - 124	0	40
2,2'-Oxybis(1-chloropropane)	50.0	34.8		ug/L		70	36 - 166	4	36
2,4,6-Trichlorophenol	50.0	52.9		ug/L		106	37 - 144	7	20
2,4-Dichlorophenol	50.0	49.1		ug/L		98	39 - 135	10	23
2,4-Dimethylphenol	50.0	47.5		ug/L		95	32 - 120	0	18
2,4-Dinitrophenol	100	99.0		ug/L		99	1 - 191	4	29
2,4-Dinitrotoluene	50.0	52.0		ug/L		104	39 - 139	4	20
2,6-Dinitrotoluene	50.0	51.4		ug/L		103	50 - 158	4	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-529787/3-A
Matrix: Water
Analysis Batch: 529989

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 529787

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	45.7		ug/L		91	60 - 120	6	30
2-Chlorophenol			50.0	37.8		ug/L		76	23 - 134	6	26
2-Nitrophenol			50.0	45.1		ug/L		90	29 - 182	0	28
3,3'-Dichlorobenzidine			100	106		ug/L		106	1 - 262	6	31
4,6-Dinitro-2-methylphenol			100	100		ug/L		100	1 - 181	5	30
4-Bromophenyl phenyl ether			50.0	52.3		ug/L		105	53 - 127	5	16
4-Chloro-3-methylphenol			50.0	45.1		ug/L		90	22 - 147	5	16
4-Chlorophenyl phenyl ether			50.0	51.5		ug/L		103	25 - 158	3	15
4-Nitrophenol			100	71.6		ug/L		72	1 - 132	12	24
Acenaphthene			50.0	48.9		ug/L		98	47 - 145	2	25
Acenaphthylene			50.0	48.3		ug/L		97	33 - 145	1	22
Anthracene			50.0	54.3		ug/L		109	27 - 133	6	15
Benzidine			100	ND		ug/L		22	1 - 120	24	50
Benzo[a]anthracene			50.0	52.1		ug/L		104	33 - 143	6	15
Benzo[a]pyrene			50.0	51.8		ug/L		104	17 - 163	4	15
Benzo[b]fluoranthene			50.0	52.4		ug/L		105	24 - 159	6	17
Benzo[g,h,i]perylene			50.0	55.9		ug/L		112	1 - 219	7	19
Benzo[k]fluoranthene			50.0	54.3		ug/L		109	11 - 162	6	19
Bis(2-chloroethoxy)methane			50.0	42.1		ug/L		84	33 - 184	6	23
Bis(2-chloroethyl)ether			50.0	36.5		ug/L		73	12 - 158	1	33
Bis(2-ethylhexyl) phthalate			50.0	52.5		ug/L		105	8 - 158	3	15
Butyl benzyl phthalate			50.0	51.7		ug/L		103	1 - 152	8	15
Chrysene			50.0	51.8		ug/L		104	17 - 168	4	15
Di-n-butyl phthalate			50.0	53.5		ug/L		107	1 - 120	5	15
Di-n-octyl phthalate			50.0	51.5		ug/L		103	4 - 146	3	15
Dibenz(a,h)anthracene			50.0	58.1		ug/L		116	1 - 227	9	18
Diethyl phthalate			50.0	55.7		ug/L		111	1 - 120	13	15
Dimethyl phthalate			50.0	52.6		ug/L		105	1 - 120	5	15
Fluoranthene			50.0	53.7		ug/L		107	26 - 137	3	15
Fluorene			50.0	51.0		ug/L		102	59 - 121	2	18
Hexachlorobenzene			50.0	56.2		ug/L		112	1 - 152	2	15
Hexachlorocyclopentadiene			50.0	44.7		ug/L		89	5 - 120	9	50
Hexachloroethane			50.0	36.2		ug/L		72	40 - 120	8	43
Indeno[1,2,3-cd]pyrene			50.0	56.3		ug/L		113	1 - 171	5	17
Isophorone			50.0	44.3		ug/L		89	21 - 196	1	21
N-Nitrosodi-n-propylamine			50.0	42.0		ug/L		84	1 - 230	7	23
N-Nitrosodiphenylamine			50.0	51.5		ug/L		103	54 - 125	9	15
Naphthalene			50.0	42.4		ug/L		85	21 - 133	2	31
Nitrobenzene			50.0	46.2		ug/L		92	35 - 180	6	27
Pentachlorophenol			100	102		ug/L		102	14 - 176	8	21
Phenanthrene			50.0	51.0		ug/L		102	54 - 120	1	16
Phenol			50.0	16.5		ug/L		33	5 - 120	7	36
Pyrene			50.0	52.8		ug/L		106	52 - 120	8	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*115*		*52 - 151*
2-Fluorobiphenyl	*94*		*44 - 120*
2-Fluorophenol	*40*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-529787/3-A
Matrix: Water
Analysis Batch: 529989

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 529787

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*93*		*15 - 314*
p-Terphenyl-d14	*108*		*22 - 125*
Phenol-d5	*31*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-532335/1-A
Matrix: Water
Analysis Batch: 532622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 532335

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		05/19/20 11:22	05/19/20 22:09	1

Lab Sample ID: LCS 480-532335/2-A
Matrix: Water
Analysis Batch: 532622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 532335

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.211		mg/L		105	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-532460/1-A
Matrix: Water
Analysis Batch: 532505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 532460

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		05/19/20 11:50	05/19/20 14:20	1

Lab Sample ID: LCS 480-532460/2-A
Matrix: Water
Analysis Batch: 532505

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 532460

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00715		mg/L		107	85 - 115

Lab Sample ID: 480-169419-6 MS
Matrix: Water
Analysis Batch: 532505

Client Sample ID: Composite 001 1-4
Prep Type: Total/NA
Prep Batch: 532460

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	ND		0.00667	0.00698		mg/L		105	70 - 130

Lab Sample ID: 480-169419-6 MSD
Matrix: Water
Analysis Batch: 532505

Client Sample ID: Composite 001 1-4
Prep Type: Total/NA
Prep Batch: 532460

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	ND		0.00667	0.00707		mg/L		106	70 - 130	1	20

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-530513/1-A
Matrix: Water
Analysis Batch: 530776

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 530513

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		05/08/20 11:25	05/09/20 18:46	1

Lab Sample ID: LCS 480-530513/2-A
Matrix: Water
Analysis Batch: 530776

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 530513

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.235		mg/L		94	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-532050/1
Matrix: Water
Analysis Batch: 532050

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-169419-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 529442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-5	Trip Blank	Total/NA	Water	624.1	
480-169419-6	Composite 001 1-4	Total/NA	Water	624.1	
MB 480-529442/7	Method Blank	Total/NA	Water	624.1	
LCS 480-529442/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 529787

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	625	
MB 480-529787/1-A	Method Blank	Total/NA	Water	625	
LCS 480-529787/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-529787/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 529989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	625.1	529787
MB 480-529787/1-A	Method Blank	Total/NA	Water	625.1	529787
LCS 480-529787/2-A	Lab Control Sample	Total/NA	Water	625.1	529787
LCSD 480-529787/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	529787

Metals

Prep Batch: 532335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	200.7	
MB 480-532335/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-532335/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 532460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	245.1	
MB 480-532460/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-532460/2-A	Lab Control Sample	Total/NA	Water	245.1	
480-169419-6 MS	Composite 001 1-4	Total/NA	Water	245.1	
480-169419-6 MSD	Composite 001 1-4	Total/NA	Water	245.1	

Analysis Batch: 532505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	245.1	532460
MB 480-532460/1-A	Method Blank	Total/NA	Water	245.1	532460
LCS 480-532460/2-A	Lab Control Sample	Total/NA	Water	245.1	532460
480-169419-6 MS	Composite 001 1-4	Total/NA	Water	245.1	532460
480-169419-6 MSD	Composite 001 1-4	Total/NA	Water	245.1	532460

Analysis Batch: 532622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	200.7 Rev 4.4	532335
MB 480-532335/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	532335
LCS 480-532335/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	532335

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-169419-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Prep Batch: 530513

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	Distill/CN	
MB 480-530513/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-530513/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 530776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	335.4	530513
MB 480-530513/1-A	Method Blank	Total/NA	Water	335.4	530513
LCS 480-530513/2-A	Lab Control Sample	Total/NA	Water	335.4	530513

Analysis Batch: 532050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-169419-6	Composite 001 1-4	Total/NA	Water	SM 4500 H+ B	
LCS 480-532050/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-169419-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: Trip Blank
Lab Sample ID: 480-169419-5
Date Collected: 05/04/20 00:00
Matrix: Water
Date Received: 05/04/20 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	529442	05/04/20 16:10	WJD	TAL BUF

Client Sample ID: Composite 001 1-4
Lab Sample ID: 480-169419-6
Date Collected: 05/04/20 13:05
Matrix: Water
Date Received: 05/04/20 13:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	529442	05/04/20 15:45	WJD	TAL BUF
Total/NA	Prep	625			529787	05/05/20 15:38	ATG	TAL BUF
Total/NA	Analysis	625.1		1	529989	05/06/20 18:54	PJQ	TAL BUF
Total/NA	Prep	200.7			532335	05/19/20 11:22	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	532622	05/19/20 22:17	LMH	TAL BUF
Total/NA	Prep	245.1			532460	05/19/20 11:50	BMB	TAL BUF
Total/NA	Analysis	245.1		1	532505	05/19/20 14:22	BMB	TAL BUF
Total/NA	Prep	Distill/CN			530513	05/08/20 11:25	JRF	TAL BUF
Total/NA	Analysis	335.4		1	530776	05/09/20 19:05	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	532050	05/15/20 19:24	ALT	TAL BUF

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-169419-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-02-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-169419-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-169419-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-169419-5	Trip Blank	Water	05/04/20 00:00	05/04/20 13:25	
480-169419-6	Composite 001 1-4	Water	05/04/20 13:05	05/04/20 13:25	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-127649-15940.1
Client Contact: Jason Gutkowski	Phone: 315 4363605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:
City: Syracuse	TAT Requested (days): Standard Turn
State, Zip: NY, 13202	
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed 30049063
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056
Site:	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	5/4/20	0705	G	Water			X	X	X	X	X		Lab To
001-2		0905					X	X	X	X	X		Composite
001-3		1105					X	X	X	X	X		Samples
001-4		1305					X	X	X	X	X		
Trip Blank	—	—	—								X		

480-169419 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	5/4/20 / 1325	Arcadis			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 5/4/20 1325	Company TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.1 #1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-169419-1

Login Number: 169419
List Number: 1
Creator: Sabuda, Brendan D

List Source: Eurofins TestAmerica, 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	4.1 #1 ICE
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.	False	Lab to composite samples 1-4
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 480-170714-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
6/9/2020 4:34:53 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-170714-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-170714-1

Receipt
The samples were received on 6/3/2020 1:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 10.6º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 06-04-2020 as requested by the client: COMP 001 1-4 (480-170714-5). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

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

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP 001 1-4 (480-170714-5).

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

Organic Prep
Method 625: Elevated reporting limits are provided for the following sample due to the composited volumes each containing ~850ml of sample. When sample control made the composite sample, they divided the volume equally among 4 1-liter amber bottles but there was not 4 liters of composite for this method. The prep analyst did not see the other volumes and extracted only one volume of ~850 ml: COMP 001 1-4 (480-170714-5).

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-170714-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0018	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.10		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.5	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-170714-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-170714-1

Client Sample ID: COMP 001 1-4

Date Collected: 06/03/20 13:00
Date Received: 06/03/20 13:20

Lab Sample ID: 480-170714-5

Matrix: Water

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			06/04/20 14:34	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			06/04/20 14:34	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			06/04/20 14:34	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			06/04/20 14:34	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			06/04/20 14:34	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			06/04/20 14:34	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			06/04/20 14:34	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			06/04/20 14:34	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			06/04/20 14:34	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			06/04/20 14:34	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			06/04/20 14:34	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			06/04/20 14:34	1
Acrolein	ND		100	17	ug/L			06/04/20 14:34	1
Acrylonitrile	ND		50	1.9	ug/L			06/04/20 14:34	1
Benzene	ND		5.0	0.60	ug/L			06/04/20 14:34	1
Bromoform	ND		5.0	0.47	ug/L			06/04/20 14:34	1
Bromomethane	ND		5.0	1.2	ug/L			06/04/20 14:34	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			06/04/20 14:34	1
Chlorobenzene	ND		5.0	0.48	ug/L			06/04/20 14:34	1
Dibromochloromethane	ND		5.0	0.41	ug/L			06/04/20 14:34	1
Chloroethane	ND		5.0	0.87	ug/L			06/04/20 14:34	1
Chloroform	ND		5.0	0.54	ug/L			06/04/20 14:34	1
Chloromethane	ND		5.0	0.64	ug/L			06/04/20 14:34	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			06/04/20 14:34	1
Bromodichloromethane	ND		5.0	0.54	ug/L			06/04/20 14:34	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			06/04/20 14:34	1
Ethylbenzene	ND		5.0	0.46	ug/L			06/04/20 14:34	1
Methylene Chloride	ND		5.0	0.81	ug/L			06/04/20 14:34	1
Tetrachloroethene	ND		5.0	0.34	ug/L			06/04/20 14:34	1
Toluene	ND		5.0	0.45	ug/L			06/04/20 14:34	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			06/04/20 14:34	1
Trichloroethene	ND		5.0	0.60	ug/L			06/04/20 14:34	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			06/04/20 14:34	1
Vinyl chloride	ND		5.0	0.75	ug/L			06/04/20 14:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*68 - 130*		*06/04/20 14:34*	*1*
4-Bromofluorobenzene (Surr)	*114*		*76 - 123*		*06/04/20 14:34*	*1*
Toluene-d8 (Surr)	*92*		*77 - 120*		*06/04/20 14:34*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*06/04/20 14:34*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		12	0.98	ug/L		06/04/20 08:43	06/06/20 22:10	1
1,2-Dichlorobenzene	ND		12	6.0	ug/L		06/04/20 08:43	06/06/20 22:10	1
1,2-Diphenylhydrazine	ND		12	0.93	ug/L		06/04/20 08:43	06/06/20 22:10	1
1,3-Dichlorobenzene	ND		12	0.82	ug/L		06/04/20 08:43	06/06/20 22:10	1
1,4-Dichlorobenzene	ND		12	6.7	ug/L		06/04/20 08:43	06/06/20 22:10	1
2,2'-Oxybis(1-chloropropane)	ND		6.0	1.0	ug/L		06/04/20 08:43	06/06/20 22:10	1
2,4,6-Trichlorophenol	ND		6.0	1.2	ug/L		06/04/20 08:43	06/06/20 22:10	1

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-170714-1

Client Sample ID: COMP 001 1-4
Date Collected: 06/03/20 13:00
Date Received: 06/03/20 13:20

Lab Sample ID: 480-170714-5
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		6.0	0.92	ug/L		06/04/20 08:43	06/06/20 22:10	1
2,4-Dimethylphenol	ND		6.0	1.7	ug/L		06/04/20 08:43	06/06/20 22:10	1
2,4-Dinitrophenol	ND		12	6.0	ug/L		06/04/20 08:43	06/06/20 22:10	1
2,4-Dinitrotoluene	ND		12	6.0	ug/L		06/04/20 08:43	06/06/20 22:10	1
2,6-Dinitrotoluene	ND		6.0	1.2	ug/L		06/04/20 08:43	06/06/20 22:10	1
2-Chloronaphthalene	ND		6.0	1.1	ug/L		06/04/20 08:43	06/06/20 22:10	1
2-Chlorophenol	ND		6.0	0.79	ug/L		06/04/20 08:43	06/06/20 22:10	1
2-Nitrophenol	ND		6.0	0.83	ug/L		06/04/20 08:43	06/06/20 22:10	1
3,3'-Dichlorobenzidine	ND		6.0	0.98	ug/L		06/04/20 08:43	06/06/20 22:10	1
4,6-Dinitro-2-methylphenol	ND		12	0.79	ug/L		06/04/20 08:43	06/06/20 22:10	1
4-Bromophenyl phenyl ether	ND		6.0	1.7	ug/L		06/04/20 08:43	06/06/20 22:10	1
4-Chloro-3-methylphenol	ND		6.0	1.3	ug/L		06/04/20 08:43	06/06/20 22:10	1
4-Chlorophenyl phenyl ether	ND		6.0	1.5	ug/L		06/04/20 08:43	06/06/20 22:10	1
4-Nitrophenol	ND		18	12	ug/L		06/04/20 08:43	06/06/20 22:10	1
Acenaphthene	ND		6.0	0.96	ug/L		06/04/20 08:43	06/06/20 22:10	1
Acenaphthylene	ND		6.0	1.0	ug/L		06/04/20 08:43	06/06/20 22:10	1
Anthracene	ND		6.0	1.7	ug/L		06/04/20 08:43	06/06/20 22:10	1
Benzidine	ND		95	42	ug/L		06/04/20 08:43	06/06/20 22:10	1
Benzo[a]anthracene	ND		6.0	1.3	ug/L		06/04/20 08:43	06/06/20 22:10	1
Benzo[a]pyrene	ND		6.0	1.5	ug/L		06/04/20 08:43	06/06/20 22:10	1
Benzo[b]fluoranthene	ND		6.0	1.4	ug/L		06/04/20 08:43	06/06/20 22:10	1
Benzo[g,h,i]perylene	ND		6.0	1.8	ug/L		06/04/20 08:43	06/06/20 22:10	1
Benzo[k]fluoranthene	ND		6.0	1.5	ug/L		06/04/20 08:43	06/06/20 22:10	1
Bis(2-chloroethoxy)methane	ND		6.0	0.89	ug/L		06/04/20 08:43	06/06/20 22:10	1
Bis(2-chloroethyl)ether	ND		6.0	1.1	ug/L		06/04/20 08:43	06/06/20 22:10	1
Bis(2-ethylhexyl) phthalate	ND		12	1.4	ug/L		06/04/20 08:43	06/06/20 22:10	1
Butyl benzyl phthalate	ND		6.0	1.3	ug/L		06/04/20 08:43	06/06/20 22:10	1
Chrysene	ND		6.0	1.2	ug/L		06/04/20 08:43	06/06/20 22:10	1
Decane	ND		12	1.9	ug/L		06/04/20 08:43	06/06/20 22:10	1
Di-n-butyl phthalate	ND		6.0	1.9	ug/L		06/04/20 08:43	06/06/20 22:10	1
Di-n-octyl phthalate	ND		6.0	1.4	ug/L		06/04/20 08:43	06/06/20 22:10	1
Dibenz(a,h)anthracene	ND		6.0	1.8	ug/L		06/04/20 08:43	06/06/20 22:10	1
Diethyl phthalate	ND		6.0	1.2	ug/L		06/04/20 08:43	06/06/20 22:10	1
Dimethyl phthalate	ND		6.0	1.1	ug/L		06/04/20 08:43	06/06/20 22:10	1
Fluoranthene	ND		6.0	1.9	ug/L		06/04/20 08:43	06/06/20 22:10	1
Fluorene	ND		6.0	1.2	ug/L		06/04/20 08:43	06/06/20 22:10	1
Hexachlorobenzene	ND		6.0	1.2	ug/L		06/04/20 08:43	06/06/20 22:10	1
Hexachlorobutadiene	ND		6.0	1.2	ug/L		06/04/20 08:43	06/06/20 22:10	1
Hexachlorocyclopentadiene	ND		12	6.0	ug/L		06/04/20 08:43	06/06/20 22:10	1
Hexachloroethane	ND		6.0	0.71	ug/L		06/04/20 08:43	06/06/20 22:10	1
Indeno[1,2,3-cd]pyrene	ND		6.0	1.8	ug/L		06/04/20 08:43	06/06/20 22:10	1
Isophorone	ND		6.0	0.88	ug/L		06/04/20 08:43	06/06/20 22:10	1
N-Nitrosodi-n-propylamine	ND		6.0	1.1	ug/L		06/04/20 08:43	06/06/20 22:10	1
N-Nitrosodimethylamine	ND		12	6.0	ug/L		06/04/20 08:43	06/06/20 22:10	1
N-Nitrosodiphenylamine	ND		6.0	0.47	ug/L		06/04/20 08:43	06/06/20 22:10	1
Naphthalene	ND		6.0	1.0	ug/L		06/04/20 08:43	06/06/20 22:10	1
Nitrobenzene	ND		6.0	0.96	ug/L		06/04/20 08:43	06/06/20 22:10	1
Pentachlorophenol	ND		12	1.9	ug/L		06/04/20 08:43	06/06/20 22:10	1
Phenanthrene	ND		6.0	1.4	ug/L		06/04/20 08:43	06/06/20 22:10	1

Client Sample ID: COMP 001 1-4

Lab Sample ID: 480-170714-5
Matrix: Water
Date Collected: 06/03/20 13:00
Date Received: 06/03/20 13:20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		6.0	0.42	ug/L		06/04/20 08:43	06/06/20 22:10	1
Pyrene	ND		6.0	1.7	ug/L		06/04/20 08:43	06/06/20 22:10	1
n-Octadecane	ND		12	1.4	ug/L		06/04/20 08:43	06/06/20 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*100*		*52 - 151*	*06/04/20 08:43*	*06/06/20 22:10*	*1*
2-Fluorobiphenyl	*89*		*44 - 120*	*06/04/20 08:43*	*06/06/20 22:10*	*1*
2-Fluorophenol	*53*		*17 - 120*	*06/04/20 08:43*	*06/06/20 22:10*	*1*
Nitrobenzene-d5	*86*		*15 - 314*	*06/04/20 08:43*	*06/06/20 22:10*	*1*
p-Terphenyl-d14	*117*		*22 - 125*	*06/04/20 08:43*	*06/06/20 22:10*	*1*
Phenol-d5	*39*		*8 - 424*	*06/04/20 08:43*	*06/06/20 22:10*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0018**	**J**	0.010	0.0015	mg/L		06/04/20 11:31	06/08/20 11:50	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		06/04/20 12:50	06/04/20 17:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.10**		0.010	0.0050	mg/L		06/04/20 10:35	06/04/20 12:58	1
pH	**7.5**	**HF**	0.1	0.1	SU			06/07/20 15:30	1
Temperature	**17.5**	**HF**	0.001	0.001	Degrees C			06/07/20 15:30	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170714-6
Matrix: Water
Date Collected: 06/03/20 00:00
Date Received: 06/03/20 13:20

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			06/04/20 14:58	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			06/04/20 14:58	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			06/04/20 14:58	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			06/04/20 14:58	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			06/04/20 14:58	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			06/04/20 14:58	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			06/04/20 14:58	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			06/04/20 14:58	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			06/04/20 14:58	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			06/04/20 14:58	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			06/04/20 14:58	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			06/04/20 14:58	1
Acrolein	ND		100	17	ug/L			06/04/20 14:58	1
Acrylonitrile	ND		50	1.9	ug/L			06/04/20 14:58	1
Benzene	ND		5.0	0.60	ug/L			06/04/20 14:58	1
Bromoform	ND		5.0	0.47	ug/L			06/04/20 14:58	1
Bromomethane	ND		5.0	1.2	ug/L			06/04/20 14:58	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			06/04/20 14:58	1
Chlorobenzene	ND		5.0	0.48	ug/L			06/04/20 14:58	1

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-170714-6
Date Collected: 06/03/20 00:00
Matrix: Water
Date Received: 06/03/20 13:20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		5.0	0.41	ug/L			06/04/20 14:58	1
Chloroethane	ND		5.0	0.87	ug/L			06/04/20 14:58	1
Chloroform	ND		5.0	0.54	ug/L			06/04/20 14:58	1
Chloromethane	ND		5.0	0.64	ug/L			06/04/20 14:58	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			06/04/20 14:58	1
Bromodichloromethane	ND		5.0	0.54	ug/L			06/04/20 14:58	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			06/04/20 14:58	1
Ethylbenzene	ND		5.0	0.46	ug/L			06/04/20 14:58	1
Methylene Chloride	ND		5.0	0.81	ug/L			06/04/20 14:58	1
Tetrachloroethene	ND		5.0	0.34	ug/L			06/04/20 14:58	1
Toluene	ND		5.0	0.45	ug/L			06/04/20 14:58	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			06/04/20 14:58	1
Trichloroethene	ND		5.0	0.60	ug/L			06/04/20 14:58	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			06/04/20 14:58	1
Vinyl chloride	ND		5.0	0.75	ug/L			06/04/20 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*68 - 130*		*06/04/20 14:58*	*1*
4-Bromofluorobenzene (Surr)	*121*		*76 - 123*		*06/04/20 14:58*	*1*
Toluene-d8 (Surr)	*90*		*77 - 120*		*06/04/20 14:58*	*1*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*06/04/20 14:58*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-170714-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-170714-5	COMP 001 1-4	88	114	92	97
480-170714-6	TRIP BLANK	91	121	90	96
LCS 480-534704/5	Lab Control Sample	87	116	94	97
MB 480-534704/7	Method Blank	90	117	92	98

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-170714-5	COMP 001 1-4	100	89	53	86	117	39
LCS 480-534716/2-A	Lab Control Sample	113	89	51	86	109	35
MB 480-534716/1-A	Method Blank	93	91	49	91	118	35

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-534704/7
Matrix: Water
Analysis Batch: 534704

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	ND		5.0	0.39	ug/L			06/04/20 10:57	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			06/04/20 10:57	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			06/04/20 10:57	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			06/04/20 10:57	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			06/04/20 10:57	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			06/04/20 10:57	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			06/04/20 10:57	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			06/04/20 10:57	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			06/04/20 10:57	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			06/04/20 10:57	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			06/04/20 10:57	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			06/04/20 10:57	1
Acrolein	ND		100	17	ug/L			06/04/20 10:57	1
Acrylonitrile	ND		50	1.9	ug/L			06/04/20 10:57	1
Benzene	ND		5.0	0.60	ug/L			06/04/20 10:57	1
Bromoform	ND		5.0	0.47	ug/L			06/04/20 10:57	1
Bromomethane	ND		5.0	1.2	ug/L			06/04/20 10:57	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			06/04/20 10:57	1
Chlorobenzene	ND		5.0	0.48	ug/L			06/04/20 10:57	1
Dibromochloromethane	ND		5.0	0.41	ug/L			06/04/20 10:57	1
Chloroethane	ND		5.0	0.87	ug/L			06/04/20 10:57	1
Chloroform	ND		5.0	0.54	ug/L			06/04/20 10:57	1
Chloromethane	ND		5.0	0.64	ug/L			06/04/20 10:57	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			06/04/20 10:57	1
Bromodichloromethane	ND		5.0	0.54	ug/L			06/04/20 10:57	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			06/04/20 10:57	1
Ethylbenzene	ND		5.0	0.46	ug/L			06/04/20 10:57	1
Methylene Chloride	ND		5.0	0.81	ug/L			06/04/20 10:57	1
Tetrachloroethene	ND		5.0	0.34	ug/L			06/04/20 10:57	1
Toluene	ND		5.0	0.45	ug/L			06/04/20 10:57	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			06/04/20 10:57	1
Trichloroethene	ND		5.0	0.60	ug/L			06/04/20 10:57	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			06/04/20 10:57	1
Vinyl chloride	ND		5.0	0.75	ug/L			06/04/20 10:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*68 - 130*		*06/04/20 10:57*	*1*
4-Bromofluorobenzene (Surr)	*117*		*76 - 123*		*06/04/20 10:57*	*1*
Toluene-d8 (Surr)	*92*		*77 - 120*		*06/04/20 10:57*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*06/04/20 10:57*	*1*

Lab Sample ID: LCS 480-534704/5
Matrix: Water
Analysis Batch: 534704

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	20.0	19.5		ug/L		98	52 - 162
1,1,2,2-Tetrachloroethane	20.0	18.5		ug/L		93	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-534704/5
Matrix: Water
Analysis Batch: 534704

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	17.9		ug/L		90	52 - 150
1,1-Dichloroethane	20.0	21.0		ug/L		105	59 - 155
1,1-Dichloroethene	20.0	20.9		ug/L		104	1 - 234
1,2-Dichlorobenzene	20.0	19.0		ug/L		95	18 - 190
1,2-Dichloroethane	20.0	19.9		ug/L		100	49 - 155
1,2-Dichloropropane	20.0	20.2		ug/L		101	1 - 210
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	59 - 156
1,4-Dichlorobenzene	20.0	19.0		ug/L		95	18 - 190
2-Chloroethyl vinyl ether	20.0	18.3	J	ug/L		92	1 - 305
Benzene	20.0	20.0		ug/L		100	37 - 151
Bromoform	20.0	16.5		ug/L		83	45 - 169
Bromomethane	20.0	20.7		ug/L		104	1 - 242
Carbon tetrachloride	20.0	18.7		ug/L		94	70 - 140
Chlorobenzene	20.0	19.2		ug/L		96	37 - 160
Dibromochloromethane	20.0	17.4		ug/L		87	53 - 149
Chloroethane	20.0	21.4		ug/L		107	14 - 230
Chloroform	20.0	20.4		ug/L		102	51 - 138
Chloromethane	20.0	16.3		ug/L		82	1 - 273
cis-1,3-Dichloropropene	20.0	17.9		ug/L		89	1 - 227
Bromodichloromethane	20.0	19.1		ug/L		95	35 - 155
Ethylbenzene	20.0	19.3		ug/L		96	37 - 162
Methylene Chloride	20.0	19.4		ug/L		97	1 - 221
Tetrachloroethene	20.0	18.1		ug/L		91	64 - 148
Toluene	20.0	18.5		ug/L		92	47 - 150
trans-1,3-Dichloropropene	20.0	16.2		ug/L		81	17 - 183
Trichloroethene	20.0	20.1		ug/L		100	71 - 157
Trichlorofluoromethane	20.0	17.8		ug/L		89	17 - 181
Vinyl chloride	20.0	17.1		ug/L		85	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*87*		*68 - 130*
4-Bromofluorobenzene (Surr)	*116*		*76 - 123*
Toluene-d8 (Surr)	*94*		*77 - 120*
Dibromofluoromethane (Surr)	*97*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-534716/1-A
Matrix: Water
Analysis Batch: 535046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 534716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		06/04/20 08:43	06/06/20 16:54	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		06/04/20 08:43	06/06/20 16:54	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		06/04/20 08:43	06/06/20 16:54	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		06/04/20 08:43	06/06/20 16:54	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		06/04/20 08:43	06/06/20 16:54	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		06/04/20 08:43	06/06/20 16:54	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-534716/1-A
Matrix: Water
Analysis Batch: 535046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 534716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		06/04/20 08:43	06/06/20 16:54	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		06/04/20 08:43	06/06/20 16:54	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		06/04/20 08:43	06/06/20 16:54	1
2-Chlorophenol	ND		5.0	0.66	ug/L		06/04/20 08:43	06/06/20 16:54	1
2-Nitrophenol	ND		5.0	0.70	ug/L		06/04/20 08:43	06/06/20 16:54	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		06/04/20 08:43	06/06/20 16:54	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		06/04/20 08:43	06/06/20 16:54	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		06/04/20 08:43	06/06/20 16:54	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		06/04/20 08:43	06/06/20 16:54	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		06/04/20 08:43	06/06/20 16:54	1
4-Nitrophenol	ND		15	10	ug/L		06/04/20 08:43	06/06/20 16:54	1
Acenaphthene	ND		5.0	0.81	ug/L		06/04/20 08:43	06/06/20 16:54	1
Acenaphthylene	ND		5.0	0.87	ug/L		06/04/20 08:43	06/06/20 16:54	1
Anthracene	ND		5.0	1.4	ug/L		06/04/20 08:43	06/06/20 16:54	1
Benzidine	ND		80	35	ug/L		06/04/20 08:43	06/06/20 16:54	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		06/04/20 08:43	06/06/20 16:54	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		06/04/20 08:43	06/06/20 16:54	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		06/04/20 08:43	06/06/20 16:54	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		06/04/20 08:43	06/06/20 16:54	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		06/04/20 08:43	06/06/20 16:54	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		06/04/20 08:43	06/06/20 16:54	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		06/04/20 08:43	06/06/20 16:54	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		06/04/20 08:43	06/06/20 16:54	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		06/04/20 08:43	06/06/20 16:54	1
Chrysene	ND		5.0	1.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
Decane	ND		10	1.6	ug/L		06/04/20 08:43	06/06/20 16:54	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		06/04/20 08:43	06/06/20 16:54	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		06/04/20 08:43	06/06/20 16:54	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		06/04/20 08:43	06/06/20 16:54	1
Diethyl phthalate	ND		5.0	1.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		06/04/20 08:43	06/06/20 16:54	1
Fluoranthene	ND		5.0	1.6	ug/L		06/04/20 08:43	06/06/20 16:54	1
Fluorene	ND		5.0	1.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
Hexachloroethane	ND		5.0	0.60	ug/L		06/04/20 08:43	06/06/20 16:54	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		06/04/20 08:43	06/06/20 16:54	1
Isophorone	ND		5.0	0.74	ug/L		06/04/20 08:43	06/06/20 16:54	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		06/04/20 08:43	06/06/20 16:54	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		06/04/20 08:43	06/06/20 16:54	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		06/04/20 08:43	06/06/20 16:54	1
Naphthalene	ND		5.0	0.86	ug/L		06/04/20 08:43	06/06/20 16:54	1
Nitrobenzene	ND		5.0	0.81	ug/L		06/04/20 08:43	06/06/20 16:54	1
Pentachlorophenol	ND		10	1.6	ug/L		06/04/20 08:43	06/06/20 16:54	1
Phenanthrene	ND		5.0	1.2	ug/L		06/04/20 08:43	06/06/20 16:54	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-534716/1-A
Matrix: Water
Analysis Batch: 535046

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 534716

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		06/04/20 08:43	06/06/20 16:54	1
Pyrene	ND		5.0	1.4	ug/L		06/04/20 08:43	06/06/20 16:54	1
n-Octadecane	ND		10	1.2	ug/L		06/04/20 08:43	06/06/20 16:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*93*		*52 - 151*	*06/04/20 08:43*	*06/06/20 16:54*	*1*
2-Fluorobiphenyl	*91*		*44 - 120*	*06/04/20 08:43*	*06/06/20 16:54*	*1*
2-Fluorophenol	*49*		*17 - 120*	*06/04/20 08:43*	*06/06/20 16:54*	*1*
Nitrobenzene-d5	*91*		*15 - 314*	*06/04/20 08:43*	*06/06/20 16:54*	*1*
p-Terphenyl-d14	*118*		*22 - 125*	*06/04/20 08:43*	*06/06/20 16:54*	*1*
Phenol-d5	*35*		*8 - 424*	*06/04/20 08:43*	*06/06/20 16:54*	*1*

Lab Sample ID: LCS 480-534716/2-A
Matrix: Water
Analysis Batch: 535046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 534716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	38.4		ug/L		77	44 - 142
1,2-Dichlorobenzene	50.0	35.4		ug/L		71	32 - 129
1,3-Dichlorobenzene	50.0	33.6		ug/L		67	1 - 172
1,4-Dichlorobenzene	50.0	33.8		ug/L		68	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	43.0		ug/L		86	36 - 166
2,4,6-Trichlorophenol	50.0	52.4		ug/L		105	37 - 144
2,4-Dichlorophenol	50.0	47.0		ug/L		94	39 - 135
2,4-Dimethylphenol	50.0	45.5		ug/L		91	32 - 120
2,4-Dinitrophenol	100	118		ug/L		118	1 - 191
2,4-Dinitrotoluene	50.0	53.1		ug/L		106	39 - 139
2,6-Dinitrotoluene	50.0	52.5		ug/L		105	50 - 158
2-Chloronaphthalene	50.0	44.8		ug/L		90	60 - 120
2-Chlorophenol	50.0	40.0		ug/L		80	23 - 134
2-Nitrophenol	50.0	46.8		ug/L		94	29 - 182
3,3'-Dichlorobenzidine	100	99.5		ug/L		99	1 - 262
4,6-Dinitro-2-methylphenol	100	105		ug/L		105	1 - 181
4-Bromophenyl phenyl ether	50.0	51.5		ug/L		103	53 - 127
4-Chloro-3-methylphenol	50.0	48.7		ug/L		97	22 - 147
4-Chlorophenyl phenyl ether	50.0	49.1		ug/L		98	25 - 158
4-Nitrophenol	100	51.3		ug/L		51	1 - 132
Acenaphthene	50.0	48.4		ug/L		97	47 - 145
Acenaphthylene	50.0	48.4		ug/L		97	33 - 145
Anthracene	50.0	50.3		ug/L		101	27 - 133
Benzidine	100	ND		ug/L		32	1 - 120
Benzo[a]anthracene	50.0	52.0		ug/L		104	33 - 143
Benzo[a]pyrene	50.0	50.8		ug/L		102	17 - 163
Benzo[b]fluoranthene	50.0	51.3		ug/L		103	24 - 159
Benzo[g,h,i]perylene	50.0	51.2		ug/L		102	1 - 219
Benzo[k]fluoranthene	50.0	52.7		ug/L		105	11 - 162
Bis(2-chloroethoxy)methane	50.0	45.4		ug/L		91	33 - 184
Bis(2-chloroethyl)ether	50.0	41.5		ug/L		83	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-534716/2-A
Matrix: Water
Analysis Batch: 535046

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 534716

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	52.9		ug/L		106	8 - 158
Butyl benzyl phthalate	50.0	53.2		ug/L		106	1 - 152
Chrysene	50.0	50.0		ug/L		100	17 - 168
Di-n-butyl phthalate	50.0	52.7		ug/L		105	1 - 120
Di-n-octyl phthalate	50.0	55.2		ug/L		110	4 - 146
Dibenz(a,h)anthracene	50.0	51.7		ug/L		103	1 - 227
Diethyl phthalate	50.0	50.2		ug/L		100	1 - 120
Dimethyl phthalate	50.0	50.5		ug/L		101	1 - 120
Fluoranthene	50.0	50.5		ug/L		101	26 - 137
Fluorene	50.0	48.4		ug/L		97	59 - 121
Hexachlorobenzene	50.0	51.4		ug/L		103	1 - 152
Hexachlorocyclopentadiene	50.0	42.1		ug/L		84	5 - 120
Hexachloroethane	50.0	31.8		ug/L		64	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	51.5		ug/L		103	1 - 171
Isophorone	50.0	46.3		ug/L		93	21 - 196
N-Nitrosodi-n-propylamine	50.0	45.7		ug/L		91	1 - 230
N-Nitrosodiphenylamine	50.0	51.3		ug/L		103	54 - 125
Naphthalene	50.0	42.1		ug/L		84	21 - 133
Nitrobenzene	50.0	44.4		ug/L		89	35 - 180
Pentachlorophenol	100	113		ug/L		113	14 - 176
Phenanthrene	50.0	49.2		ug/L		98	54 - 120
Phenol	50.0	20.3		ug/L		41	5 - 120
Pyrene	50.0	50.7		ug/L		101	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*113*		*52 - 151*
2-Fluorobiphenyl	*89*		*44 - 120*
2-Fluorophenol	*51*		*17 - 120*
Nitrobenzene-d5	*86*		*15 - 314*
p-Terphenyl-d14	*109*		*22 - 125*
Phenol-d5	*35*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-534726/1-A
Matrix: Water
Analysis Batch: 534957

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 534726

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		06/04/20 11:31	06/04/20 21:51	1

Lab Sample ID: LCS 480-534726/2-A
Matrix: Water
Analysis Batch: 534957

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 534726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.203		mg/L		101	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-534797/1-A
Matrix: Water
Analysis Batch: 534869

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 534797

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		06/04/20 12:50	06/04/20 16:25	1

Lab Sample ID: LCS 480-534797/2-A
Matrix: Water
Analysis Batch: 534869

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 534797

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00685		mg/L		103	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-534781/1-A
Matrix: Water
Analysis Batch: 534812

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 534781

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		06/04/20 10:35	06/04/20 12:23	1

Lab Sample ID: LCS 480-534781/2-A
Matrix: Water
Analysis Batch: 534812

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 534781

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.255		mg/L		102	90 - 110

Lab Sample ID: 480-170714-5 MS
Matrix: Water
Analysis Batch: 534812

Client Sample ID: COMP 001 1-4
Prep Type: Total/NA
Prep Batch: 534781

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.10		0.100	0.212		mg/L		108	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-535201/23
Matrix: Water
Analysis Batch: 535201

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 534704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	624.1	
480-170714-6	TRIP BLANK	Total/NA	Water	624.1	
MB 480-534704/7	Method Blank	Total/NA	Water	624.1	
LCS 480-534704/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 534716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	625	
MB 480-534716/1-A	Method Blank	Total/NA	Water	625	
LCS 480-534716/2-A	Lab Control Sample	Total/NA	Water	625	

Analysis Batch: 535046

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	625.1	534716
MB 480-534716/1-A	Method Blank	Total/NA	Water	625.1	534716
LCS 480-534716/2-A	Lab Control Sample	Total/NA	Water	625.1	534716

Metals

Prep Batch: 534726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	200.7	
MB 480-534726/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-534726/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 534797

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	245.1	
MB 480-534797/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-534797/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 534869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	245.1	534797
MB 480-534797/1-A	Method Blank	Total/NA	Water	245.1	534797
LCS 480-534797/2-A	Lab Control Sample	Total/NA	Water	245.1	534797

Analysis Batch: 534957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-534726/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	534726
LCS 480-534726/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	534726

Analysis Batch: 535299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	200.7 Rev 4.4	534726

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Prep Batch: 534781

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	Distill/CN	
MB 480-534781/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-534781/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-170714-5 MS	COMP 001 1-4	Total/NA	Water	Distill/CN	

Analysis Batch: 534812

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	335.4	534781
MB 480-534781/1-A	Method Blank	Total/NA	Water	335.4	534781
LCS 480-534781/2-A	Lab Control Sample	Total/NA	Water	335.4	534781
480-170714-5 MS	COMP 001 1-4	Total/NA	Water	335.4	534781

Analysis Batch: 535201

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170714-5	COMP 001 1-4	Total/NA	Water	SM 4500 H+ B	
LCS 480-535201/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001 1-4
Lab Sample ID: 480-170714-5
Date Collected: 06/03/20 13:00
Matrix: Water
Date Received: 06/03/20 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	534704	06/04/20 14:34	WJD	TAL BUF
Total/NA	Prep	625			534716	06/04/20 08:43	JMP	TAL BUF
Total/NA	Analysis	625.1		1	535046	06/06/20 22:10	JMM	TAL BUF
Total/NA	Prep	200.7			534726	06/04/20 11:31	NSW	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	535299	06/08/20 11:50	LMH	TAL BUF
Total/NA	Prep	245.1			534797	06/04/20 12:50	BMB	TAL BUF
Total/NA	Analysis	245.1		1	534869	06/04/20 17:01	BMB	TAL BUF
Total/NA	Prep	Distill/CN			534781	06/04/20 10:35	JRF	TAL BUF
Total/NA	Analysis	335.4		1	534812	06/04/20 12:58	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	535201	06/07/20 15:30	BEF	TAL BUF

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-170714-6
Date Collected: 06/03/20 00:00
Matrix: Water
Date Received: 06/03/20 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	534704	06/04/20 14:58	WJD	TAL BUF

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-02-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-170714-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-170714-5	COMP 001 1-4	Water	06/03/20 13:00	06/03/20 13:20	
480-170714-6	TRIP BLANK	Water	06/03/20 00:00	06/03/20 13:20	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-141760-15940.1
Client Contact: Jason Gutkowski	Phone:	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.		Analysis Requested		Job #:

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	
City: Syracuse	TAT Requested (days): Standard Turn	
State, Zip: NY, 13202	PO #: Needed 30049063	
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	WO #: 30003542-00001	
Email: jason.gutkowski@arcadis.com	Project #: 48011056	
Project Name: Iroquois Gas/Westwood Pharm. Monthly	SSOW#:	
Site:		

Preservation Codes:
A - HCL M - Hexane
B - NaOH N - None
O - AsNaO2

480-170714 Chain of Custody

hydrate

fy)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of cont	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	6/3/20	0700	G	Water			X	X	X	X	X		Lab To
001-2		0900					X	X	X	X	X		Composite
001-3		1100					X	X	X	X	X		Samples
001-4		1300					X	X	X	X	X		
Trip Blank	—	—	—								X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Jason Gutkowski	6/3/20 / 1320	Arcadis	[signature]	6/6/20 1320	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		16.6 #1 ice

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-170714-1

Login Number: 170714
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins TestAmerica, 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.	False	lab to composite
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

ARCADIS Design & Consultancy for natural and built assets

Ms. Leslie Sedita
Industrial Waste Section
Buffalo Sewer Authority Treatment Plant
90 West Ferry Street
Buffalo, NY 14213-1799

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017
www.arcadis.com

Subject:
Discharge Monitoring Report – Third Quarter 2020
Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site No. 915141A
120 Dart Street and 40 Bradley Street, Buffalo, NY 14213
BSA Discharge Permit # 18-07-BU174

ENVIRONMENT

Date:
September 30, 2020

Contact:
Vincent S. Maresco

Phone:
315 671 9256

Email:
Vin.Maresco@arcadis.com

Our ref:
30049063

Dear Ms. Sedita:

On behalf of Bristol-Myers Squibb Company, Arcadis of New York, Inc. (Arcadis) is pleased to submit this third quarter 2020 Discharge Monitoring Report (DMR) for the above-referenced site, which covers the period July 1 through September 30, 2020. The monthly discharge sampling and DMR preparation were completed in accordance with the Buffalo Sewer Authority (BSA) Sampling Measurement and Analytical Guidelines Sheet. A total of 239,551 gallons of water were discharged during the reporting period (i.e., flow meter totalizer readings from 6/29/2020 to 9/28/2020). Laboratory analytical results indicate that the remedial system operated within BSA permit requirements during the third quarter 2020.

On August 5, 2020, the digital totalizer of the OMM system effluent was reset due to a battery failure. This totalizer receives its data from a mechanical analog inline flowmeter, which also has a visual numeric totalizer. The system design was such that the inline meter is changed out annually to ensure accurate reading under the manufacturer's warranty (i.e., once every 365 days, a new analog meter is installed with a reading of zero). The digital totalizer has kept a running total for several years based on the signal from this analog meter. With the digital meter battery replaced, the totalizer reading was reset with a total of 3 gallons at 12:00 P.M. on August 5, 2020. The digital meter readings will be verified in the field with the primary analog meter for the foreseeable future.

The sampling protocol and calculated discharges are based on the following: (1) total flows are a daily average taken over approximately 7 days; and (2) monthly composite samples are collected over an 8-hour period, where grab samples are collected every 2 hours. A total of four grab samples are collected throughout the 8-hour period. The discharge sample point location, following carbon treatment,

is labeled as “C001 Sample Location” on the Process Flow Diagram (**Attachment A**). The Sample Collection and Log Sheets for the July, August, and September 2020 monthly sampling events are provided in **Attachment B**.

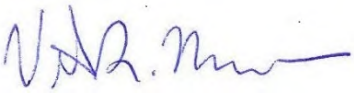
The monthly grab samples were submitted to Eurofins TestAmerica in Amherst, New York, where samples are composited and analyzed for pH via Method 4500 H+B, Total Mercury via United States Environmental Protection Agency (EPA) Method 245.1, Total Zinc via EPA Method 200.7, Total Cyanide via EPA Method 335.4, Volatile Organic Compounds via EPA Method 624.1, and Semi-Volatile Organic Compounds via EPA Method 625.1.

Laboratory analytical results and average daily flows are provided in the Quarterly Analytical Data Table (**Attachment C**). No exceedances of Daily Maximum or Maximum Allowable Instantaneous Discharge Limitations were observed during the reporting period. BSA Permit Specific Conditions require reporting of any compounds analyzed by EPA Methods 624 and 625 that are detected at a concentration above a threshold of 0.01 milligrams per liter (mg/L). In July, August, and September 2020, there were no detections above the reporting threshold. The laboratory analytical data packages are provided in **Attachment D**.

If you have any questions or would like to discuss further, please feel free to contact the undersigned.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation.

Signed on behalf of Bristol-Myers Squibb Company and submitted by:



Vincent S. Maresco
Arcadis of New York, Inc.
Project Manager

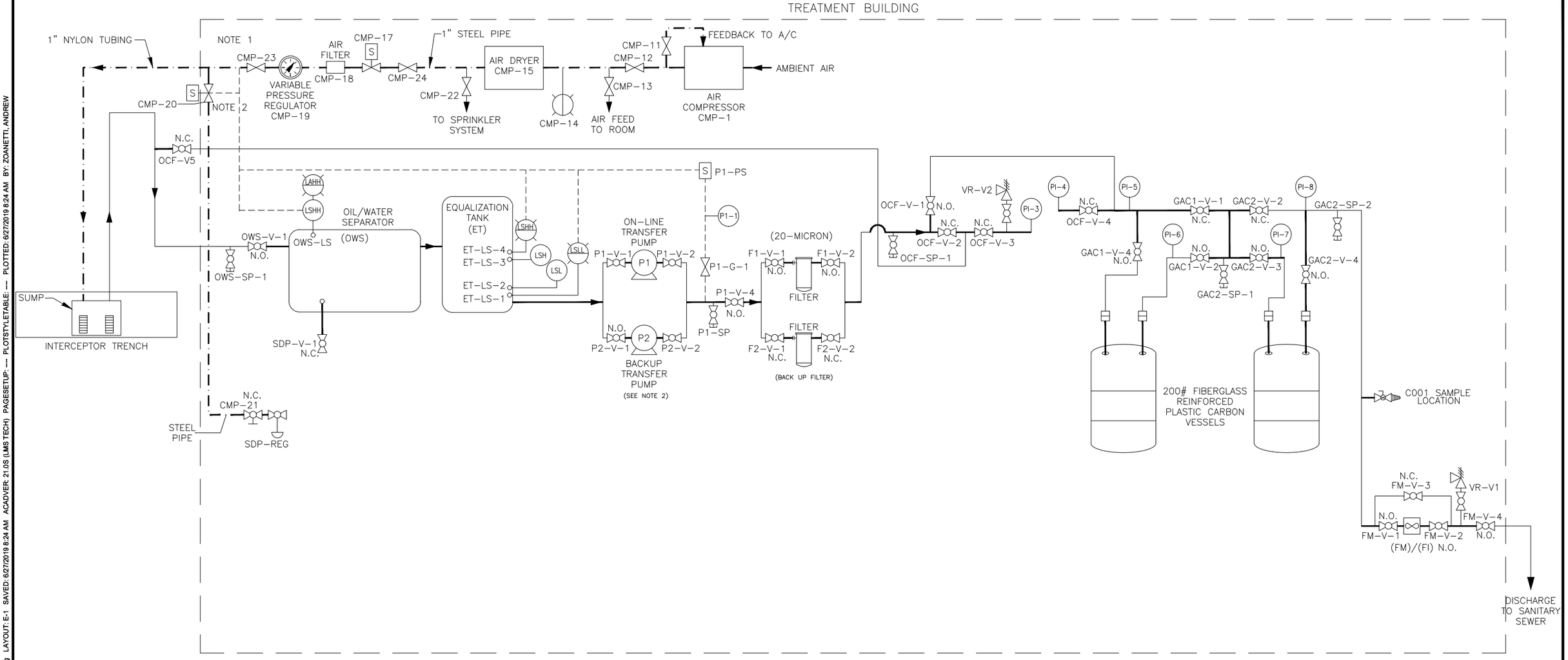
Copies:
Traserra Adams, BSA
Richard Mator, BMS
John Alonzo, de maximis, inc.
Dan Darragh, Cohen & Grigsby, PC
Katie Hoelscher, NFG

Attachments:

- A Process Flow Diagram
- B Sample Collection and Log Sheets for Monthly Sampling Events
- C Quarterly Analytical Data Table
- D Laboratory Analytical Data Package

ATTACHMENT A

Process Flow Diagram



NOTES:

1. SOLENOID VALVE IS ACTIVATED TO THE OFF-POSITION UNDER ANY OF THE FOLLOWING CONDITIONS:
   a) LSHH AT THE OIL-WATER SEPARATOR;
   b) LSHH AT THE EQUILIZATION TANK IS ACTIVATED;
   c) P1-PS HIGH PUMP DISCHARGE PRESSURE SWISWITCH IS ACTIVATED.

2. USE OF TRANSFER PUMPS IS ALTERED ON A QUARTERLY BASIS.

CITY: SYRACUSE, NY DIV/GROUP: DB: PM: TM: LYR:ON=*;OFF=*REF*
C:\Users\AZoanetti\Documents\Bristol-Myers Squibb\BMS Buffalo, NY\ATTACHMENT A.dwg LAYOUT: E-1 SAVED: 6/27/2019 8:24 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 6/27/2019 8:24 AM BY: ZOANETTI, ANDREW
XREFS:
TITLE

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name

Professional Engineer's No.

State	Date Signed	Project Mgr.
Designed by	Drawn by	Checked by

ARCADIS Design & Consultancy for natural and built assets
ARCADIS OF NEW YORK, INC.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE NO. 915141A
120 DART STREET AND 40 BRADLEY STREET, BUFFALO, NY

PROCESS FLOW DIAGRAM

ARCADIS Project No.
B0087370.0000.00001

Date
SEPTEMBER 2017

ARCADIS
ARCADIS OF NEW YORK, INC.
110 W. FAYETTE ST., STE 300
SYRACUSE, NY 13202
TEL. 315.446.9120

PFD

ATTACHMENT B

Sample Collection and Log Sheets for Monthly Sampling Events

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroquois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Preservative: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	7/6/20	→	→	→	JTG
Sample Time	0705	0905	1105	1305	JTG
Sample Observations	clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	68°F Sun/clouds	77°F Sun/clouds	84°F Sun	87°F Sun	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gorkowski 7/6/20

Sample Technician Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroquis Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	8/5/20	→	→	→	JT6
Sample Time	0655	0855	1055	1255	JT6
Sample Observations	Clear	→	→	→	JT6
pH Measurement	N/A	→	→	→	JT6
Weather	62°F Clear	64°F Sunny	68°F Sunny	69°F Sunny	JT6
Comments	None	→	→	→	JT6

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski
Sample Technician

8/5/20
Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Preq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	9/10/20	→	→	→	JTG
Sample Time	0700	0900	1100	1300	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	68°F Fog				JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

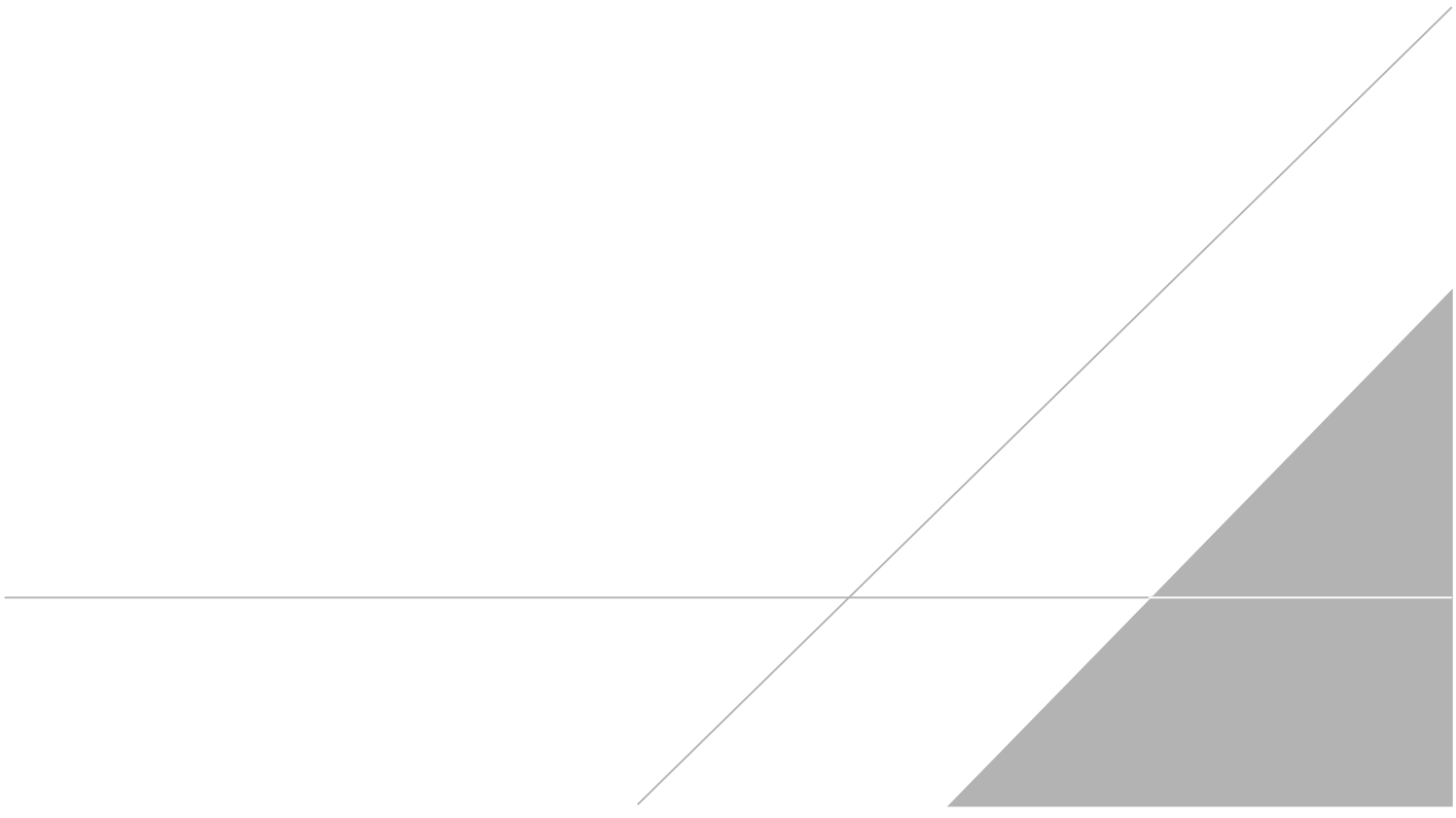
**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski
Sample Technician

9/10/20
Date

ATTACHMENT C

Quarterly Analytical Data Table



Quarterly Analytical Data Table
Iroquois Gas / Westwood Pharmaceuticals Terrestrial Site No. 915141A
BSA Discharge Permit No. 18-07-BU174
120 Dart Street and 40 Bradley Street, Buffalo, NY

ARCADIS Design & Consultancy for natural and built assets

Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	6/29/2020	7/6/2020	7/14/2020	7/24/2020	7/31/2020	8/5/2020	8/12/2020
Totalizer	gal	NA	3,886,623	3,895,732	3,914,932	3,951,620	3,978,312	3,996,757	15704****
Total Mercury	lbs	0.00001**	NA	ND	NS	NS	NS	ND	NS
Total Zinc	lbs	3.0**	NA	1.73E-05 J	NS	NS	NS	1.81E-04 J	NS
Total Cyanide	lbs	7.93**	NA	NS	NS	2.81E-03	NS	2.46E-03 F1	NS
Total VOCs	mg/L	NA	NA	0.0026 J	NS	NS	NS	0.0058 B J	NS
Total SVOCs	mg/L	NA	NA	ND	NS	NS	NS	ND	NS
pH	SU	5.0-12.0	NA	7.5 HF	NS	NS	NS	7.4 HF	NS
Total Daily Flow	gal	14,400	-	1,301	2,400	3,669	3,813	3,689	2,243

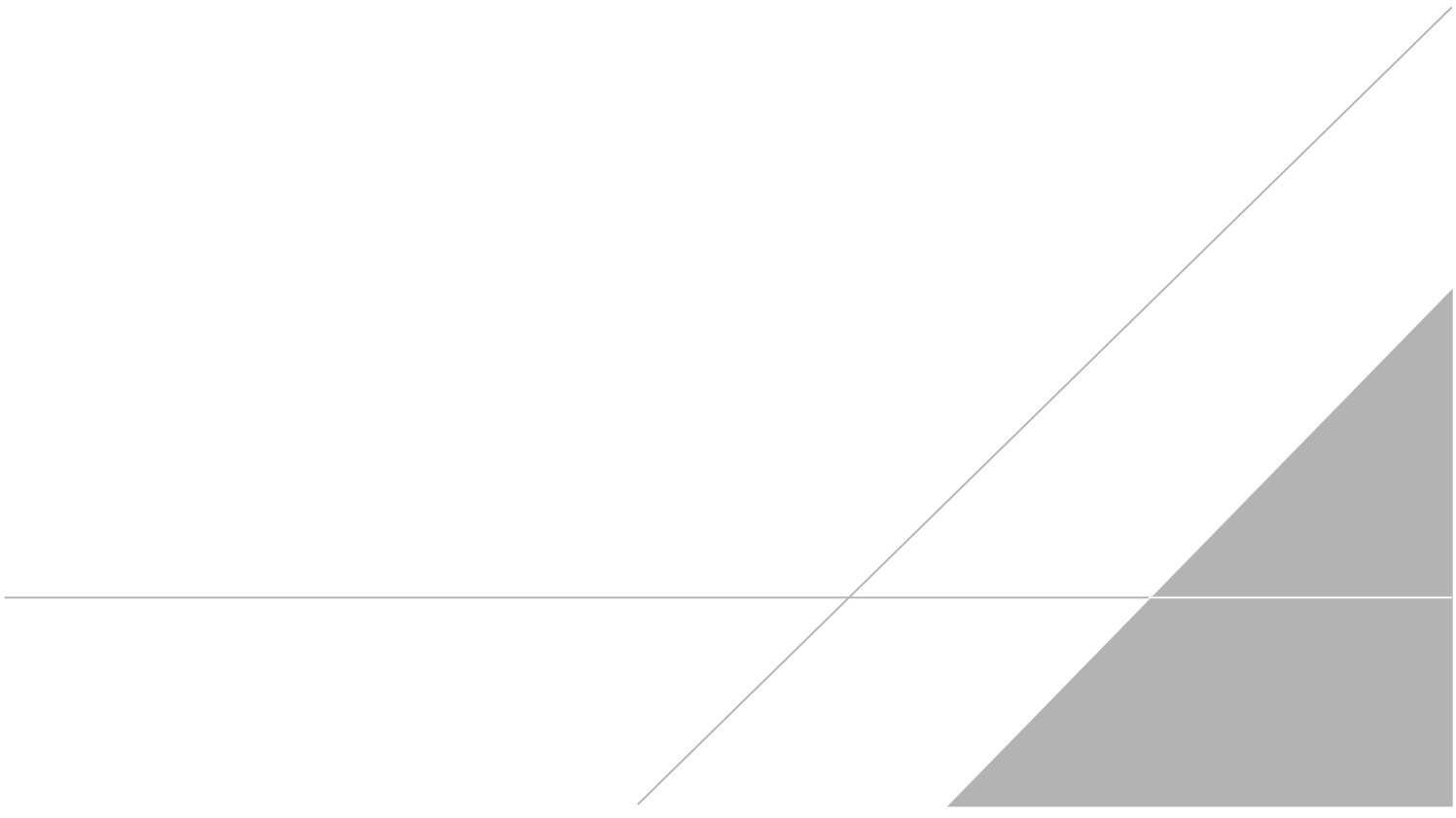
Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	8/19/2020	8/25/2020	9/1/2020	9/10/2020	9/16/2020	9/22/2020	9/28/2020
Totalizer	gal	NA	34,131	52,784	76,242	93,306	109,532	115,720	129,417
Total Mercury	lbs	0.00001**	NS	NS	NS	ND	NS	NS	NS
Total Zinc	lbs	3.0**	NS	NS	NS	ND	NS	NS	NS
Total Cyanide	lbs	7.93**	NS	NS	NS	1.26E-03 F1	NS	NS	NS
Total VOCs	mg/L	NA	NS	NS	NS	ND	NS	NS	NS
Total SVOCs	mg/L	NA	NS	NS	NS	ND	NS	NS	NS
pH	SU	5.0-12.0	NS	NS	NS	7.2 HF	NS	NS	NS
Total Daily Flow	gal	14,400	2,632	3,109	3,351	1,896	2,704	1,031	2,283

Notes:

B - Compound was found in the blank and the sample.
F1 - MS and/or MSD Recovery is outside acceptance limits.
HF - Field parameter with a holding time of 15 minutes. Test performed by laboratory at clients request. Analytical performed as required and in compliance by BSA permit.
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
NS - Not Sampled
ND - Not Detected at the reporting limit
gal - Gallons
NA - Not Applicable
lbs - Pounds
mg/L - Milligrams per liter
SU - Standard Units
** - Maximum Allowable Instantaneous Discharge limits are also included in the permit. All analytical data for this quarter in in compliance with the Maximum Allowable Instantaneous Discharge limits. Analytical results are not presented in this table, they can be found in the attached analytical reports.
*** - The permittee must report any compound whose concentration is greater than 0.01 mg/L. The permittee is not authorized to discharge any of the parameters evaluated by this test procedure, which may cause or contribute to a violation of water quality incorporated into the permit.
**** - The digital flow meter was reset due to a battery replacement.
Start of first-quarter values

ATTACHMENT D

Laboratory Analytical Data Package



eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-172099-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
7/21/2020 3:21:16 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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www.eurofinsus.com/Env

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-172099-1

Job ID: 480-172099-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-172099-1

Receipt
The samples were received on 7/7/2020 8:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

Receipt Exceptions
The following sample was canceled for cyanide analysis by the client on 7/20/20: COMP 001-1 to 001-4 (480-172099-6). The sample went out of hold on 7/20/20 but was not located or shipped out in time to meet hold. The client will resample.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 07-09-2020 as requested by the client: COMP 001-1 to 001-4 (480-172099-6). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

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

Metals
Method 245.1: The following sample for metals was received unpreserved and was preserved upon receipt at the laboratory: COMP 001-1 to 001-4 (480-172099-6). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion. The sample was preserved 7/16/20 at 1205 and the second pH check was done 7/17/20 at 1205.

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP 001-1 to 001-4 (480-172099-6).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-172099-5

No Detections.

Client Sample ID: COMP 001-1 to 001-4
Lab Sample ID: 480-172099-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	2.6	J	5.0	0.81	ug/L	1		624.1	Total/NA
Zinc	0.0016	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
pH	7.5	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.7	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-172099-5

Date Collected: 07/06/20 00:00

Matrix: Water

Date Received: 07/07/20 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			07/09/20 12:21	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			07/09/20 12:21	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			07/09/20 12:21	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			07/09/20 12:21	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			07/09/20 12:21	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			07/09/20 12:21	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			07/09/20 12:21	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			07/09/20 12:21	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			07/09/20 12:21	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			07/09/20 12:21	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			07/09/20 12:21	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			07/09/20 12:21	1
Acrolein	ND		100	17	ug/L			07/09/20 12:21	1
Acrylonitrile	ND		50	1.9	ug/L			07/09/20 12:21	1
Benzene	ND		5.0	0.60	ug/L			07/09/20 12:21	1
Bromoform	ND		5.0	0.47	ug/L			07/09/20 12:21	1
Bromomethane	ND		5.0	1.2	ug/L			07/09/20 12:21	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			07/09/20 12:21	1
Chlorobenzene	ND		5.0	0.48	ug/L			07/09/20 12:21	1
Dibromochloromethane	ND		5.0	0.41	ug/L			07/09/20 12:21	1
Chloroethane	ND		5.0	0.87	ug/L			07/09/20 12:21	1
Chloroform	ND		5.0	0.54	ug/L			07/09/20 12:21	1
Chloromethane	ND		5.0	0.64	ug/L			07/09/20 12:21	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			07/09/20 12:21	1
Bromodichloromethane	ND		5.0	0.54	ug/L			07/09/20 12:21	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			07/09/20 12:21	1
Ethylbenzene	ND		5.0	0.46	ug/L			07/09/20 12:21	1
Methylene Chloride	ND		5.0	0.81	ug/L			07/09/20 12:21	1
Tetrachloroethene	ND		5.0	0.34	ug/L			07/09/20 12:21	1
Toluene	ND		5.0	0.45	ug/L			07/09/20 12:21	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			07/09/20 12:21	1
Trichloroethene	ND		5.0	0.60	ug/L			07/09/20 12:21	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			07/09/20 12:21	1
Vinyl chloride	ND		5.0	0.75	ug/L			07/09/20 12:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 130*		*07/09/20 12:21*	*1*
4-Bromofluorobenzene (Surr)	*115*		*76 - 123*		*07/09/20 12:21*	*1*
Toluene-d8 (Surr)	*108*		*77 - 120*		*07/09/20 12:21*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*07/09/20 12:21*	*1*

Client Sample ID: COMP 001-1 to 001-4

Lab Sample ID: 480-172099-6

Date Collected: 07/06/20 13:05

Matrix: Water

Date Received: 07/07/20 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			07/09/20 12:45	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			07/09/20 12:45	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			07/09/20 12:45	1

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-1 to 001-4
Lab Sample ID: 480-172099-6
Date Collected: 07/06/20 13:05
Matrix: Water
Date Received: 07/07/20 08:00

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			07/09/20 12:45	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			07/09/20 12:45	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			07/09/20 12:45	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			07/09/20 12:45	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			07/09/20 12:45	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			07/09/20 12:45	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			07/09/20 12:45	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			07/09/20 12:45	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			07/09/20 12:45	1
Acrolein	ND		100	17	ug/L			07/09/20 12:45	1
Acrylonitrile	ND		50	1.9	ug/L			07/09/20 12:45	1
Benzene	ND		5.0	0.60	ug/L			07/09/20 12:45	1
Bromoform	ND		5.0	0.47	ug/L			07/09/20 12:45	1
Bromomethane	ND		5.0	1.2	ug/L			07/09/20 12:45	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			07/09/20 12:45	1
Chlorobenzene	ND		5.0	0.48	ug/L			07/09/20 12:45	1
Dibromochloromethane	ND		5.0	0.41	ug/L			07/09/20 12:45	1
Chloroethane	ND		5.0	0.87	ug/L			07/09/20 12:45	1
Chloroform	ND		5.0	0.54	ug/L			07/09/20 12:45	1
Chloromethane	ND		5.0	0.64	ug/L			07/09/20 12:45	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			07/09/20 12:45	1
Bromodichloromethane	ND		5.0	0.54	ug/L			07/09/20 12:45	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			07/09/20 12:45	1
Ethylbenzene	ND		5.0	0.46	ug/L			07/09/20 12:45	1
Methylene Chloride	**2.6**	**J**	5.0	0.81	ug/L			07/09/20 12:45	1
Tetrachloroethene	ND		5.0	0.34	ug/L			07/09/20 12:45	1
Toluene	ND		5.0	0.45	ug/L			07/09/20 12:45	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			07/09/20 12:45	1
Trichloroethene	ND		5.0	0.60	ug/L			07/09/20 12:45	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			07/09/20 12:45	1
Vinyl chloride	ND		5.0	0.75	ug/L			07/09/20 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 130*		*07/09/20 12:45*	*1*
4-Bromofluorobenzene (Surr)	*113*		*76 - 123*		*07/09/20 12:45*	*1*
Toluene-d8 (Surr)	*106*		*77 - 120*		*07/09/20 12:45*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*07/09/20 12:45*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		07/10/20 14:57	07/13/20 13:37	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		07/10/20 14:57	07/13/20 13:37	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		07/10/20 14:57	07/13/20 13:37	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		07/10/20 14:57	07/13/20 13:37	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		07/10/20 14:57	07/13/20 13:37	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		07/10/20 14:57	07/13/20 13:37	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		07/10/20 14:57	07/13/20 13:37	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 13:37	1

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-1 to 001-4
Lab Sample ID: 480-172099-6
Date Collected: 07/06/20 13:05
Matrix: Water
Date Received: 07/07/20 08:00

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		07/10/20 14:57	07/13/20 13:37	1
2-Chlorophenol	ND		5.0	0.66	ug/L		07/10/20 14:57	07/13/20 13:37	1
2-Nitrophenol	ND		5.0	0.70	ug/L		07/10/20 14:57	07/13/20 13:37	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		07/10/20 14:57	07/13/20 13:37	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		07/10/20 14:57	07/13/20 13:37	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		07/10/20 14:57	07/13/20 13:37	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		07/10/20 14:57	07/13/20 13:37	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		07/10/20 14:57	07/13/20 13:37	1
4-Nitrophenol	ND		15	10	ug/L		07/10/20 14:57	07/13/20 13:37	1
Acenaphthene	ND		5.0	0.81	ug/L		07/10/20 14:57	07/13/20 13:37	1
Acenaphthylene	ND		5.0	0.87	ug/L		07/10/20 14:57	07/13/20 13:37	1
Anthracene	ND		5.0	1.4	ug/L		07/10/20 14:57	07/13/20 13:37	1
Benzidine	ND		80	35	ug/L		07/10/20 14:57	07/13/20 13:37	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		07/10/20 14:57	07/13/20 13:37	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		07/10/20 14:57	07/13/20 13:37	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		07/10/20 14:57	07/13/20 13:37	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		07/10/20 14:57	07/13/20 13:37	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		07/10/20 14:57	07/13/20 13:37	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		07/10/20 14:57	07/13/20 13:37	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		07/10/20 14:57	07/13/20 13:37	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		07/10/20 14:57	07/13/20 13:37	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		07/10/20 14:57	07/13/20 13:37	1
Chrysene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
Decane	ND		10	1.6	ug/L		07/10/20 14:57	07/13/20 13:37	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		07/10/20 14:57	07/13/20 13:37	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		07/10/20 14:57	07/13/20 13:37	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		07/10/20 14:57	07/13/20 13:37	1
Diethyl phthalate	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		07/10/20 14:57	07/13/20 13:37	1
Fluoranthene	ND		5.0	1.6	ug/L		07/10/20 14:57	07/13/20 13:37	1
Fluorene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
Hexachloroethane	ND		5.0	0.60	ug/L		07/10/20 14:57	07/13/20 13:37	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		07/10/20 14:57	07/13/20 13:37	1
Isophorone	ND		5.0	0.74	ug/L		07/10/20 14:57	07/13/20 13:37	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		07/10/20 14:57	07/13/20 13:37	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 13:37	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		07/10/20 14:57	07/13/20 13:37	1
Naphthalene	ND		5.0	0.86	ug/L		07/10/20 14:57	07/13/20 13:37	1
Nitrobenzene	ND		5.0	0.81	ug/L		07/10/20 14:57	07/13/20 13:37	1
Pentachlorophenol	ND		10	1.6	ug/L		07/10/20 14:57	07/13/20 13:37	1
Phenanthrene	ND		5.0	1.2	ug/L		07/10/20 14:57	07/13/20 13:37	1
Phenol	ND		5.0	0.35	ug/L		07/10/20 14:57	07/13/20 13:37	1
Pyrene	ND		5.0	1.4	ug/L		07/10/20 14:57	07/13/20 13:37	1
n-Octadecane	ND		10	1.2	ug/L		07/10/20 14:57	07/13/20 13:37	1

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-1 to 001-4
Lab Sample ID: 480-172099-6
Date Collected: 07/06/20 13:05
Matrix: Water
Date Received: 07/07/20 08:00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*98*		*52 - 151*	*07/10/20 14:57*	*07/13/20 13:37*	*1*
2-Fluorobiphenyl	*90*		*44 - 120*	*07/10/20 14:57*	*07/13/20 13:37*	*1*
2-Fluorophenol	*46*		*17 - 120*	*07/10/20 14:57*	*07/13/20 13:37*	*1*
Nitrobenzene-d5	*89*		*15 - 314*	*07/10/20 14:57*	*07/13/20 13:37*	*1*
p-Terphenyl-d14	*73*		*22 - 125*	*07/10/20 14:57*	*07/13/20 13:37*	*1*
Phenol-d5	*30*		*8 - 424*	*07/10/20 14:57*	*07/13/20 13:37*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0016**	**J**	0.010	0.0015	mg/L		07/17/20 12:12	07/20/20 18:49	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 17:05	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.5**	**HF**	0.1	0.1	SU			07/16/20 11:32	1
Temperature	**15.7**	**HF**	0.001	0.001	Degrees C			07/16/20 11:32	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-172099-5	TRIP BLANK	102	115	108	106
480-172099-6	COMP 001-1 to 001-4	102	113	106	107
LCS 480-539759/6	Lab Control Sample	104	115	108	105
MB 480-539759/8	Method Blank	102	116	107	105

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-172099-6	COMP 001-1 to 001-4	98	90	46	89	73	30
LCS 480-540037/2-A	Lab Control Sample	121	90	50	91	108	35
LCSD 480-540037/3-A	Lab Control Sample Dup	107	88	45	87	105	34
MB 480-540037/1-A	Method Blank	91	86	48	89	105	33

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-539759/8
Matrix: Water
Analysis Batch: 539759

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	ND		5.0	0.39	ug/L			07/09/20 11:29	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			07/09/20 11:29	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			07/09/20 11:29	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			07/09/20 11:29	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			07/09/20 11:29	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			07/09/20 11:29	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			07/09/20 11:29	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			07/09/20 11:29	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			07/09/20 11:29	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			07/09/20 11:29	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			07/09/20 11:29	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			07/09/20 11:29	1
Acrolein	ND		100	17	ug/L			07/09/20 11:29	1
Acrylonitrile	ND		50	1.9	ug/L			07/09/20 11:29	1
Benzene	ND		5.0	0.60	ug/L			07/09/20 11:29	1
Bromoform	ND		5.0	0.47	ug/L			07/09/20 11:29	1
Bromomethane	ND		5.0	1.2	ug/L			07/09/20 11:29	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			07/09/20 11:29	1
Chlorobenzene	ND		5.0	0.48	ug/L			07/09/20 11:29	1
Dibromochloromethane	ND		5.0	0.41	ug/L			07/09/20 11:29	1
Chloroethane	ND		5.0	0.87	ug/L			07/09/20 11:29	1
Chloroform	ND		5.0	0.54	ug/L			07/09/20 11:29	1
Chloromethane	ND		5.0	0.64	ug/L			07/09/20 11:29	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			07/09/20 11:29	1
Bromodichloromethane	ND		5.0	0.54	ug/L			07/09/20 11:29	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			07/09/20 11:29	1
Ethylbenzene	ND		5.0	0.46	ug/L			07/09/20 11:29	1
Methylene Chloride	ND		5.0	0.81	ug/L			07/09/20 11:29	1
Tetrachloroethene	ND		5.0	0.34	ug/L			07/09/20 11:29	1
Toluene	ND		5.0	0.45	ug/L			07/09/20 11:29	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			07/09/20 11:29	1
Trichloroethene	ND		5.0	0.60	ug/L			07/09/20 11:29	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			07/09/20 11:29	1
Vinyl chloride	ND		5.0	0.75	ug/L			07/09/20 11:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*68 - 130*		*07/09/20 11:29*	*1*
4-Bromofluorobenzene (Surr)	*116*		*76 - 123*		*07/09/20 11:29*	*1*
Toluene-d8 (Surr)	*107*		*77 - 120*		*07/09/20 11:29*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*07/09/20 11:29*	*1*

Lab Sample ID: LCS 480-539759/6
Matrix: Water
Analysis Batch: 539759

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	20.0	19.2		ug/L		96	52 - 162
1,1,2,2-Tetrachloroethane	20.0	19.9		ug/L		100	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-539759/6
Matrix: Water
Analysis Batch: 539759

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	19.9		ug/L		100	52 - 150
1,1-Dichloroethane	20.0	19.8		ug/L		99	59 - 155
1,1-Dichloroethene	20.0	20.0		ug/L		100	1 - 234
1,2-Dichlorobenzene	20.0	19.2		ug/L		96	18 - 190
1,2-Dichloroethane	20.0	18.6		ug/L		93	49 - 155
1,2-Dichloropropane	20.0	20.2		ug/L		101	1 - 210
1,3-Dichlorobenzene	20.0	18.8		ug/L		94	59 - 156
1,4-Dichlorobenzene	20.0	18.9		ug/L		95	18 - 190
2-Chloroethyl vinyl ether	20.0	20.0	J	ug/L		100	1 - 305
Benzene	20.0	20.0		ug/L		100	37 - 151
Bromoform	20.0	19.2		ug/L		96	45 - 169
Bromomethane	20.0	20.2		ug/L		101	1 - 242
Carbon tetrachloride	20.0	19.3		ug/L		97	70 - 140
Chlorobenzene	20.0	19.1		ug/L		96	37 - 160
Dibromochloromethane	20.0	19.3		ug/L		97	53 - 149
Chloroethane	20.0	21.6		ug/L		108	14 - 230
Chloroform	20.0	19.6		ug/L		98	51 - 138
Chloromethane	20.0	21.1		ug/L		106	1 - 273
cis-1,3-Dichloropropene	20.0	19.5		ug/L		97	1 - 227
Bromodichloromethane	20.0	19.2		ug/L		96	35 - 155
Ethylbenzene	20.0	19.6		ug/L		98	37 - 162
Methylene Chloride	20.0	18.5		ug/L		93	1 - 221
Tetrachloroethene	20.0	19.3		ug/L		96	64 - 148
Toluene	20.0	19.6		ug/L		98	47 - 150
trans-1,3-Dichloropropene	20.0	19.2		ug/L		96	17 - 183
Trichloroethene	20.0	19.3		ug/L		96	71 - 157
Trichlorofluoromethane	20.0	19.7		ug/L		98	17 - 181
Vinyl chloride	20.0	21.0		ug/L		105	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*68 - 130*
4-Bromofluorobenzene (Surr)	*115*		*76 - 123*
Toluene-d8 (Surr)	*108*		*77 - 120*
Dibromofluoromethane (Surr)	*105*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-540037/1-A
Matrix: Water
Analysis Batch: 540173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540037

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		07/10/20 14:57	07/13/20 11:12	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		07/10/20 14:57	07/13/20 11:12	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		07/10/20 14:57	07/13/20 11:12	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		07/10/20 14:57	07/13/20 11:12	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		07/10/20 14:57	07/13/20 11:12	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 11:12	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-540037/1-A
Matrix: Water
Analysis Batch: 540173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540037

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		07/10/20 14:57	07/13/20 11:12	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		07/10/20 14:57	07/13/20 11:12	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		07/10/20 14:57	07/13/20 11:12	1
2-Chlorophenol	ND		5.0	0.66	ug/L		07/10/20 14:57	07/13/20 11:12	1
2-Nitrophenol	ND		5.0	0.70	ug/L		07/10/20 14:57	07/13/20 11:12	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		07/10/20 14:57	07/13/20 11:12	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		07/10/20 14:57	07/13/20 11:12	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		07/10/20 14:57	07/13/20 11:12	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		07/10/20 14:57	07/13/20 11:12	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		07/10/20 14:57	07/13/20 11:12	1
4-Nitrophenol	ND		15	10	ug/L		07/10/20 14:57	07/13/20 11:12	1
Acenaphthene	ND		5.0	0.81	ug/L		07/10/20 14:57	07/13/20 11:12	1
Acenaphthylene	ND		5.0	0.87	ug/L		07/10/20 14:57	07/13/20 11:12	1
Anthracene	ND		5.0	1.4	ug/L		07/10/20 14:57	07/13/20 11:12	1
Benzidine	ND		80	35	ug/L		07/10/20 14:57	07/13/20 11:12	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		07/10/20 14:57	07/13/20 11:12	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		07/10/20 14:57	07/13/20 11:12	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		07/10/20 14:57	07/13/20 11:12	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		07/10/20 14:57	07/13/20 11:12	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		07/10/20 14:57	07/13/20 11:12	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		07/10/20 14:57	07/13/20 11:12	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		07/10/20 14:57	07/13/20 11:12	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		07/10/20 14:57	07/13/20 11:12	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		07/10/20 14:57	07/13/20 11:12	1
Chrysene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
Decane	ND		10	1.6	ug/L		07/10/20 14:57	07/13/20 11:12	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		07/10/20 14:57	07/13/20 11:12	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		07/10/20 14:57	07/13/20 11:12	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		07/10/20 14:57	07/13/20 11:12	1
Diethyl phthalate	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		07/10/20 14:57	07/13/20 11:12	1
Fluoranthene	ND		5.0	1.6	ug/L		07/10/20 14:57	07/13/20 11:12	1
Fluorene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
Hexachloroethane	ND		5.0	0.60	ug/L		07/10/20 14:57	07/13/20 11:12	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		07/10/20 14:57	07/13/20 11:12	1
Isophorone	ND		5.0	0.74	ug/L		07/10/20 14:57	07/13/20 11:12	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		07/10/20 14:57	07/13/20 11:12	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		07/10/20 14:57	07/13/20 11:12	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		07/10/20 14:57	07/13/20 11:12	1
Naphthalene	ND		5.0	0.86	ug/L		07/10/20 14:57	07/13/20 11:12	1
Nitrobenzene	ND		5.0	0.81	ug/L		07/10/20 14:57	07/13/20 11:12	1
Pentachlorophenol	ND		10	1.6	ug/L		07/10/20 14:57	07/13/20 11:12	1
Phenanthrene	ND		5.0	1.2	ug/L		07/10/20 14:57	07/13/20 11:12	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-540037/1-A
Matrix: Water
Analysis Batch: 540173

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540037

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		07/10/20 14:57	07/13/20 11:12	1
Pyrene	ND		5.0	1.4	ug/L		07/10/20 14:57	07/13/20 11:12	1
n-Octadecane	ND		10	1.2	ug/L		07/10/20 14:57	07/13/20 11:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*91*		*52 - 151*	*07/10/20 14:57*	*07/13/20 11:12*	*1*
2-Fluorobiphenyl	*86*		*44 - 120*	*07/10/20 14:57*	*07/13/20 11:12*	*1*
2-Fluorophenol	*48*		*17 - 120*	*07/10/20 14:57*	*07/13/20 11:12*	*1*
Nitrobenzene-d5	*89*		*15 - 314*	*07/10/20 14:57*	*07/13/20 11:12*	*1*
p-Terphenyl-d14	*105*		*22 - 125*	*07/10/20 14:57*	*07/13/20 11:12*	*1*
Phenol-d5	*33*		*8 - 424*	*07/10/20 14:57*	*07/13/20 11:12*	*1*

Lab Sample ID: LCS 480-540037/2-A
Matrix: Water
Analysis Batch: 540173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	39.8		ug/L		80	44 - 142
1,2-Dichlorobenzene	50.0	35.7		ug/L		71	32 - 129
1,3-Dichlorobenzene	50.0	34.3		ug/L		69	1 - 172
1,4-Dichlorobenzene	50.0	35.0		ug/L		70	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	43.6		ug/L		87	36 - 166
2,4,6-Trichlorophenol	50.0	56.9		ug/L		114	37 - 144
2,4-Dichlorophenol	50.0	48.5		ug/L		97	39 - 135
2,4-Dimethylphenol	50.0	48.6		ug/L		97	32 - 120
2,4-Dinitrophenol	100	130		ug/L		130	1 - 191
2,4-Dinitrotoluene	50.0	58.4		ug/L		117	39 - 139
2,6-Dinitrotoluene	50.0	55.2		ug/L		110	50 - 158
2-Chloronaphthalene	50.0	48.0		ug/L		96	60 - 120
2-Chlorophenol	50.0	41.3		ug/L		83	23 - 134
2-Nitrophenol	50.0	49.8		ug/L		100	29 - 182
3,3'-Dichlorobenzidine	100	108		ug/L		108	1 - 262
4,6-Dinitro-2-methylphenol	100	114		ug/L		114	1 - 181
4-Bromophenyl phenyl ether	50.0	52.3		ug/L		105	53 - 127
4-Chloro-3-methylphenol	50.0	52.4		ug/L		105	22 - 147
4-Chlorophenyl phenyl ether	50.0	52.7		ug/L		105	25 - 158
4-Nitrophenol	100	55.2		ug/L		55	1 - 132
Acenaphthene	50.0	51.0		ug/L		102	47 - 145
Acenaphthylene	50.0	50.8		ug/L		102	33 - 145
Anthracene	50.0	52.0		ug/L		104	27 - 133
Benzidine	100	ND		ug/L		23	1 - 120
Benzo[a]anthracene	50.0	51.0		ug/L		102	33 - 143
Benzo[a]pyrene	50.0	51.4		ug/L		103	17 - 163
Benzo[b]fluoranthene	50.0	53.1		ug/L		106	24 - 159
Benzo[g,h,i]perylene	50.0	52.8		ug/L		106	1 - 219
Benzo[k]fluoranthene	50.0	52.3		ug/L		105	11 - 162
Bis(2-chloroethoxy)methane	50.0	45.6		ug/L		91	33 - 184
Bis(2-chloroethyl)ether	50.0	41.6		ug/L		83	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-540037/2-A
Matrix: Water
Analysis Batch: 540173

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540037

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	54.8		ug/L		110	8 - 158
Butyl benzyl phthalate	50.0	54.1		ug/L		108	1 - 152
Chrysene	50.0	49.8		ug/L		100	17 - 168
Di-n-butyl phthalate	50.0	56.9		ug/L		114	1 - 120
Di-n-octyl phthalate	50.0	54.8		ug/L		110	4 - 146
Dibenz(a,h)anthracene	50.0	54.0		ug/L		108	1 - 227
Diethyl phthalate	50.0	54.0		ug/L		108	1 - 120
Dimethyl phthalate	50.0	51.8		ug/L		104	1 - 120
Fluoranthene	50.0	54.4		ug/L		109	26 - 137
Fluorene	50.0	51.3		ug/L		103	59 - 121
Hexachlorobenzene	50.0	52.5		ug/L		105	1 - 152
Hexachlorocyclopentadiene	50.0	47.0		ug/L		94	5 - 120
Hexachloroethane	50.0	34.7		ug/L		69	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	53.7		ug/L		107	1 - 171
Isophorone	50.0	48.6		ug/L		97	21 - 196
N-Nitrosodi-n-propylamine	50.0	46.9		ug/L		94	1 - 230
N-Nitrosodiphenylamine	50.0	52.4		ug/L		105	54 - 125
Naphthalene	50.0	41.8		ug/L		84	21 - 133
Nitrobenzene	50.0	46.1		ug/L		92	35 - 180
Pentachlorophenol	100	110		ug/L		110	14 - 176
Phenanthrene	50.0	52.4		ug/L		105	54 - 120
Phenol	50.0	19.9		ug/L		40	5 - 120
Pyrene	50.0	51.4		ug/L		103	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*121*		*52 - 151*
2-Fluorobiphenyl	*90*		*44 - 120*
2-Fluorophenol	*50*		*17 - 120*
Nitrobenzene-d5	*91*		*15 - 314*
p-Terphenyl-d14	*108*		*22 - 125*
Phenol-d5	*35*		*8 - 424*

Lab Sample ID: LCSD 480-540037/3-A
Matrix: Water
Analysis Batch: 540173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 540037

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	39.0		ug/L		78	44 - 142	2	34
1,2-Dichlorobenzene	50.0	34.3		ug/L		69	32 - 129	4	38
1,3-Dichlorobenzene	50.0	32.9		ug/L		66	1 - 172	4	37
1,4-Dichlorobenzene	50.0	32.9		ug/L		66	20 - 124	6	40
2,2'-Oxybis(1-chloropropane)	50.0	40.8		ug/L		82	36 - 166	7	36
2,4,6-Trichlorophenol	50.0	53.9		ug/L		108	37 - 144	5	20
2,4-Dichlorophenol	50.0	47.6		ug/L		95	39 - 135	2	23
2,4-Dimethylphenol	50.0	47.5		ug/L		95	32 - 120	2	18
2,4-Dinitrophenol	100	123		ug/L		123	1 - 191	6	29
2,4-Dinitrotoluene	50.0	54.0		ug/L		108	39 - 139	8	20
2,6-Dinitrotoluene	50.0	51.5		ug/L		103	50 - 158	7	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-540037/3-A
Matrix: Water
Analysis Batch: 540173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 540037

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	44.6		ug/L		89	60 - 120	7	30
2-Chlorophenol			50.0	38.8		ug/L		78	23 - 134	6	26
2-Nitrophenol			50.0	49.5		ug/L		99	29 - 182	1	28
3,3'-Dichlorobenzidine			100	104		ug/L		104	1 - 262	3	31
4,6-Dinitro-2-methylphenol			100	110		ug/L		110	1 - 181	3	30
4-Bromophenyl phenyl ether			50.0	50.5		ug/L		101	53 - 127	4	16
4-Chloro-3-methylphenol			50.0	49.6		ug/L		99	22 - 147	6	16
4-Chlorophenyl phenyl ether			50.0	47.4		ug/L		95	25 - 158	11	15
4-Nitrophenol			100	54.2		ug/L		54	1 - 132	2	24
Acenaphthene			50.0	47.4		ug/L		95	47 - 145	7	25
Acenaphthylene			50.0	48.0		ug/L		96	33 - 145	6	22
Anthracene			50.0	49.2		ug/L		98	27 - 133	6	15
Benzidine			100	39.2	J	ug/L		39	1 - 120	50	50
Benzo[a]anthracene			50.0	48.6		ug/L		97	33 - 143	5	15
Benzo[a]pyrene			50.0	48.5		ug/L		97	17 - 163	6	15
Benzo[b]fluoranthene			50.0	48.5		ug/L		97	24 - 159	9	17
Benzo[g,h,i]perylene			50.0	50.2		ug/L		100	1 - 219	5	19
Benzo[k]fluoranthene			50.0	51.8		ug/L		104	11 - 162	1	19
Bis(2-chloroethoxy)methane			50.0	44.5		ug/L		89	33 - 184	3	23
Bis(2-chloroethyl)ether			50.0	38.9		ug/L		78	12 - 158	7	33
Bis(2-ethylhexyl) phthalate			50.0	51.7		ug/L		103	8 - 158	6	15
Butyl benzyl phthalate			50.0	51.8		ug/L		104	1 - 152	4	15
Chrysene			50.0	48.3		ug/L		97	17 - 168	3	15
Di-n-butyl phthalate			50.0	53.2		ug/L		106	1 - 120	7	15
Di-n-octyl phthalate			50.0	52.8		ug/L		106	4 - 146	4	15
Dibenz(a,h)anthracene			50.0	50.8		ug/L		102	1 - 227	6	18
Diethyl phthalate			50.0	50.9		ug/L		102	1 - 120	6	15
Dimethyl phthalate			50.0	49.8		ug/L		100	1 - 120	4	15
Fluoranthene			50.0	50.9		ug/L		102	26 - 137	7	15
Fluorene			50.0	47.1		ug/L		94	59 - 121	8	18
Hexachlorobenzene			50.0	49.9		ug/L		100	1 - 152	5	15
Hexachlorocyclopentadiene			50.0	43.3		ug/L		87	5 - 120	8	50
Hexachloroethane			50.0	32.7		ug/L		65	40 - 120	6	43
Indeno[1,2,3-cd]pyrene			50.0	51.0		ug/L		102	1 - 171	5	17
Isophorone			50.0	46.7		ug/L		93	21 - 196	4	21
N-Nitrosodi-n-propylamine			50.0	43.6		ug/L		87	1 - 230	7	23
N-Nitrosodiphenylamine			50.0	49.1		ug/L		98	54 - 125	6	15
Naphthalene			50.0	39.9		ug/L		80	21 - 133	5	31
Nitrobenzene			50.0	44.5		ug/L		89	35 - 180	4	27
Pentachlorophenol			100	104		ug/L		104	14 - 176	5	21
Phenanthrene			50.0	48.4		ug/L		97	54 - 120	8	16
Phenol			50.0	19.1		ug/L		38	5 - 120	4	36
Pyrene			50.0	48.7		ug/L		97	52 - 120	5	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*107*		*52 - 151*
2-Fluorobiphenyl	*88*		*44 - 120*
2-Fluorophenol	*45*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-540037/3-A
Matrix: Water
Analysis Batch: 540173

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 540037

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	87		15 - 314
p-Terphenyl-d14	105		22 - 125
Phenol-d5	34		8 - 424

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-540756/1-A
Matrix: Water
Analysis Batch: 541324

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540756

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		07/17/20 12:12	07/20/20 18:23	1

Lab Sample ID: LCS 480-540756/2-A
Matrix: Water
Analysis Batch: 541324

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540756

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.223		mg/L		112	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-540922/1-A
Matrix: Water
Analysis Batch: 540981

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		07/17/20 12:33	07/17/20 16:17	1

Lab Sample ID: LCS 480-540922/2-A
Matrix: Water
Analysis Batch: 540981

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00707		mg/L		106	85 - 115

Lab Sample ID: LCSD 480-540922/3-A
Matrix: Water
Analysis Batch: 540981

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 540922

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.00667	0.00693		mg/L		104	85 - 115	2	20

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-172099-1

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-540736/1
Matrix: Water
Analysis Batch: 540736

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100	99 - 101		

Lab Sample ID: 480-172099-6 DU
Matrix: Water
Analysis Batch: 540736

Client Sample ID: COMP 001-1 to 001-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
pH	7.5	HF		7.5		SU				0.4	5
Temperature	15.7	HF		15.6		Degrees C				1	10

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 539759

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172099-5	TRIP BLANK	Total/NA	Water	624.1	
480-172099-6	COMP 001-1 to 001-4	Total/NA	Water	624.1	
MB 480-539759/8	Method Blank	Total/NA	Water	624.1	
LCS 480-539759/6	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 540037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172099-6	COMP 001-1 to 001-4	Total/NA	Water	625	
MB 480-540037/1-A	Method Blank	Total/NA	Water	625	
LCS 480-540037/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-540037/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 540173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172099-6	COMP 001-1 to 001-4	Total/NA	Water	625.1	540037
MB 480-540037/1-A	Method Blank	Total/NA	Water	625.1	540037
LCS 480-540037/2-A	Lab Control Sample	Total/NA	Water	625.1	540037
LCSD 480-540037/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	540037

Metals

Prep Batch: 540756

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172099-6	COMP 001-1 to 001-4	Total/NA	Water	200.7	
MB 480-540756/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-540756/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 540922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172099-6	COMP 001-1 to 001-4	Total/NA	Water	245.1	
MB 480-540922/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-540922/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 480-540922/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	

Analysis Batch: 540981

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172099-6	COMP 001-1 to 001-4	Total/NA	Water	245.1	540922
MB 480-540922/1-A	Method Blank	Total/NA	Water	245.1	540922
LCS 480-540922/2-A	Lab Control Sample	Total/NA	Water	245.1	540922
LCSD 480-540922/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	540922

Analysis Batch: 541324

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172099-6	COMP 001-1 to 001-4	Total/NA	Water	200.7 Rev 4.4	540756
MB 480-540756/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	540756
LCS 480-540756/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	540756

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Analysis Batch: 540736

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172099-6	COMP 001-1 to 001-4	Total/NA	Water	SM 4500 H+ B	
LCS 480-540736/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
480-172099-6 DU	COMP 001-1 to 001-4	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-172099-5
Date Collected: 07/06/20 00:00
Matrix: Water
Date Received: 07/07/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	539759	07/09/20 12:21	WJD	TAL BUF

Client Sample ID: COMP 001-1 to 001-4
Lab Sample ID: 480-172099-6
Date Collected: 07/06/20 13:05
Matrix: Water
Date Received: 07/07/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	539759	07/09/20 12:45	WJD	TAL BUF
Total/NA	Prep	625			540037	07/10/20 14:57	ATG	TAL BUF
Total/NA	Analysis	625.1		1	540173	07/13/20 13:37	JMM	TAL BUF
Total/NA	Prep	200.7			540756	07/17/20 12:12	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	541324	07/20/20 18:49	LMH	TAL BUF
Total/NA	Prep	245.1			540922	07/17/20 12:33	BMB	TAL BUF
Total/NA	Analysis	245.1		1	540981	07/17/20 17:05	BMB	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	540736	07/16/20 11:32	JRF	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-02-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172099-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-172099-5	TRIP BLANK	Water	07/06/20 00:00	07/07/20 08:00	
480-172099-6	COMP 001-1 to 001-4	Water	07/06/20 13:05	07/07/20 08:00	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-141761-15940.1
Client Contact: Jason Gutkowski	Phone: 3154363605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:
City: Syracuse	TAT Requested (days): Standard Turn
State, Zip: NY, 13202	
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed 30049063
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056
Site:	SSOW#:

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	7/6/20	0705	G	Water			X	X	X	X	X		Lab To
001-2		0905					X	X	X	X	X		Composite
001-3		1105					X	X	X	X	X		Samples
001-4		1305					X	X	X	X	X		
Trip Blank	—	—	—								X		

480-172099 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	7/6/20 1320	Arcadis		7/6/20 1320	TAB Buffalo
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				7/7/20 0800	TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		3.1 #1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-172099-1

Login Number: 172099

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

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	3.1 #1 ICE
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.	False	Lab to composite samples
Sampling Company provided.	True	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 480-172919-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
7/31/2020 12:33:02 PM
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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Visit us at: www.eurofinsus.com/Env

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-172919-1
Project/Site: Iroquois Gas/Westwood Pharm.

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: 480-172919-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-172919-1

Comments
No additional comments.

Receipt
The samples were received on 7/24/2020 1:14 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9º C.

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172919-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 COMPOSITE
Lab Sample ID: 480-172919-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.092		0.010	0.0050	mg/L	1		335.4	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: ARCADIS U.S. Inc
Job ID: 480-172919-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 COMPOSITE
Lab Sample ID: 480-172919-5
Date Collected: 07/24/20 12:50
Matrix: Water
Date Received: 07/24/20 13:14

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	0.092		0.010	0.0050	mg/L		07/29/20 18:00	07/29/20 19:14	1

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-172919-1

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-542808/1-A
Matrix: Water
Analysis Batch: 542815

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 542808

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		07/29/20 18:00	07/29/20 18:40	1

Lab Sample ID: LCS 480-542808/2-A
Matrix: Water
Analysis Batch: 542815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 542808

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.382		mg/L		96	90 - 110

Lab Sample ID: LCS 480-542808/3-A
Matrix: Water
Analysis Batch: 542815

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 542808

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.232		mg/L		93	90 - 110

Lab Sample ID: 480-172919-5 MS
Matrix: Water
Analysis Batch: 542815

Client Sample ID: 001-1-4 COMPOSITE
Prep Type: Total/NA
Prep Batch: 542808

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.092		0.100	0.185		mg/L		93	90 - 110

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172919-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Prep Batch: 542808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172919-5	001-1-4 COMPOSITE	Total/NA	Water	Distill/CN	
MB 480-542808/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-542808/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-542808/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-172919-5 MS	001-1-4 COMPOSITE	Total/NA	Water	Distill/CN	

Analysis Batch: 542815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-172919-5	001-1-4 COMPOSITE	Total/NA	Water	335.4	542808
MB 480-542808/1-A	Method Blank	Total/NA	Water	335.4	542808
LCS 480-542808/2-A	Lab Control Sample	Total/NA	Water	335.4	542808
LCS 480-542808/3-A	Lab Control Sample	Total/NA	Water	335.4	542808
480-172919-5 MS	001-1-4 COMPOSITE	Total/NA	Water	335.4	542808

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-172919-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 COMPOSITE
Lab Sample ID: 480-172919-5

Date Collected: 07/24/20 12:50
Matrix: Water
Date Received: 07/24/20 13:14

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Distill/CN			542808	07/29/20 18:00	CRK	TAL BUF
Total/NA	Analysis	335.4		1	542815	07/29/20 19:14	CRK	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172919-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-02-21

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172919-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
335.4	Cyanide, Total	MCAWW	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-172919-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-172919-5	001-1-4 COMPOSITE	Water	07/24/20 12:50	07/24/20 13:14	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-141761-15940.1
Client Contact: Jason Gutkowski	Phone: 315 4363605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.		Analysis Requested		Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			Preservation Codes:
City: Syracuse	TAT Requested (days): Standard Turn			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: NY, 13202				
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed 30049063			Other:
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	7/24/20	0650	G	Water				X					Lab TO
001-2	↓	0850	↓	↓				X					Composite
001-3		1050						X					Samples
001-4		1250						X					

480-172919 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	7/24/20 / 1314	Arcadis	[signature]	07/24/20 1314	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.9 #1 ICE

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-172919-1

Login Number: 172919

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

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	3.9 #1 ICE
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.	False	Lab to composite
Sampling Company provided.	True	Arcidas
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 480-173387-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Joseph V. Giacomazza

Authorized for release by:
8/19/2020 10:57:41 AM
Joe Giacomazza, Project Manager I
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

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

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

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

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Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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: 480-173387-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-173387-1

Comments
No additional comments.

Receipt
The samples were received on 8/5/2020 1:15 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.9º C.

GC/MS VOA
Method 624.1: The laboratory control sample (LCS) analyzed in batch 240-446200 was below the recovery control criteria for acrolein. This variance only affects results measured above the reporting limit. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. This demonstrates the analyte reporting limit is valid, and it is acceptable to report ND results (non-detects). The samples associated with the LCS were non-detects for the affected analytes; therefore, the results were reported. The following samples are impacted: Trip Blank (480-173387-6) and (LCS 240-446200/5).

Method 624.1: Batch analytical batch 240-446200 is reported without a matrix spike/matrix spike duplicate (MS/MSD). The batch MS/MSD was canceled, due to an instrument error. The associated laboratory control sample (LCS) met acceptance criteria and provides long-term precision and accuracy for this batch.

Method 624.1: Due to a laboratory error, the composite sample was not made correctly. A total of eight voa vials were received at the Buffalo lab. Buffalo's sample receiving department only sent five of the vials to the Canton lab for analysis, and the three remaining vials were sent elsewhere. The Canton lab composited the five vials, and analyzed the prepared composite sample. One week later the remaining three vials were received at the Canton lab. The client, and project manager confered, and instructed the Canton lab to add the three remaining vials to the original composite sample, and analyze the newly prepared composite sample. The original analysis consumed one of the voa vials, so the final composite was made with only 7 voa vials.

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

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

Metals
Method 200.7: The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: 001-1-4 COMPOSITE (480-173387-5). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.
Preserved 8/17/20 at 1140. Second pH check 8/18/20 at 1140.

Method 245.1: The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: 001-1-4 COMPOSITE (480-173387-5). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion. preserved 8/17/20 at 1130 2nd check 8/18/20 at 1145

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: 001-1-4 COMPOSITE (480-173387-5).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 COMPOSITE
Lab Sample ID: 480-173387-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0059	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.080	F1	0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	11.1	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: Trip Blank
Lab Sample ID: 480-173387-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	4.5	J B	25	1.3	ug/L	1		624.1	Total/NA

Client Sample ID: 001-1-4 Composite for VOAs
Lab Sample ID: 480-173387-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	5.8	J	25	1.3	ug/L	1		624.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 COMPOSITE
Lab Sample ID: 480-173387-5
Date Collected: 08/05/20 12:55
Matrix: Water
Date Received: 08/05/20 13:15

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		08/07/20 15:11	08/11/20 21:01	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		08/07/20 15:11	08/11/20 21:01	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		08/07/20 15:11	08/11/20 21:01	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		08/07/20 15:11	08/11/20 21:01	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		08/07/20 15:11	08/11/20 21:01	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		08/07/20 15:11	08/11/20 21:01	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		08/07/20 15:11	08/11/20 21:01	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		08/07/20 15:11	08/11/20 21:01	1
2-Chlorophenol	ND		5.0	0.66	ug/L		08/07/20 15:11	08/11/20 21:01	1
2-Nitrophenol	ND		5.0	0.70	ug/L		08/07/20 15:11	08/11/20 21:01	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		08/07/20 15:11	08/11/20 21:01	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		08/07/20 15:11	08/11/20 21:01	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		08/07/20 15:11	08/11/20 21:01	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		08/07/20 15:11	08/11/20 21:01	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		08/07/20 15:11	08/11/20 21:01	1
4-Nitrophenol	ND		15	10	ug/L		08/07/20 15:11	08/11/20 21:01	1
Acenaphthene	ND		5.0	0.81	ug/L		08/07/20 15:11	08/11/20 21:01	1
Acenaphthylene	ND		5.0	0.87	ug/L		08/07/20 15:11	08/11/20 21:01	1
Anthracene	ND		5.0	1.4	ug/L		08/07/20 15:11	08/11/20 21:01	1
Benzidine	ND		80	35	ug/L		08/07/20 15:11	08/11/20 21:01	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		08/07/20 15:11	08/11/20 21:01	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		08/07/20 15:11	08/11/20 21:01	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		08/07/20 15:11	08/11/20 21:01	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		08/07/20 15:11	08/11/20 21:01	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		08/07/20 15:11	08/11/20 21:01	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		08/07/20 15:11	08/11/20 21:01	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		08/07/20 15:11	08/11/20 21:01	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		08/07/20 15:11	08/11/20 21:01	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		08/07/20 15:11	08/11/20 21:01	1
Chrysene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
Decane	ND		10	1.6	ug/L		08/07/20 15:11	08/11/20 21:01	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		08/07/20 15:11	08/11/20 21:01	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		08/07/20 15:11	08/11/20 21:01	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		08/07/20 15:11	08/11/20 21:01	1
Diethyl phthalate	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		08/07/20 15:11	08/11/20 21:01	1
Fluoranthene	ND		5.0	1.6	ug/L		08/07/20 15:11	08/11/20 21:01	1
Fluorene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
Hexachloroethane	ND		5.0	0.60	ug/L		08/07/20 15:11	08/11/20 21:01	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		08/07/20 15:11	08/11/20 21:01	1
Isophorone	ND		5.0	0.74	ug/L		08/07/20 15:11	08/11/20 21:01	1

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 COMPOSITE
Lab Sample ID: 480-173387-5
Date Collected: 08/05/20 12:55
Matrix: Water
Date Received: 08/05/20 13:15

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		08/07/20 15:11	08/11/20 21:01	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 21:01	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		08/07/20 15:11	08/11/20 21:01	1
Naphthalene	ND		5.0	0.86	ug/L		08/07/20 15:11	08/11/20 21:01	1
Nitrobenzene	ND		5.0	0.81	ug/L		08/07/20 15:11	08/11/20 21:01	1
Pentachlorophenol	ND		10	1.6	ug/L		08/07/20 15:11	08/11/20 21:01	1
Phenanthrene	ND		5.0	1.2	ug/L		08/07/20 15:11	08/11/20 21:01	1
Phenol	ND		5.0	0.35	ug/L		08/07/20 15:11	08/11/20 21:01	1
Pyrene	ND		5.0	1.4	ug/L		08/07/20 15:11	08/11/20 21:01	1
n-Octadecane	ND		10	1.2	ug/L		08/07/20 15:11	08/11/20 21:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*103*		*52 - 151*	*08/07/20 15:11*	*08/11/20 21:01*	*1*
2-Fluorobiphenyl	*85*		*44 - 120*	*08/07/20 15:11*	*08/11/20 21:01*	*1*
2-Fluorophenol	*43*		*17 - 120*	*08/07/20 15:11*	*08/11/20 21:01*	*1*
Nitrobenzene-d5	*89*		*15 - 314*	*08/07/20 15:11*	*08/11/20 21:01*	*1*
p-Terphenyl-d14	*81*		*22 - 125*	*08/07/20 15:11*	*08/11/20 21:01*	*1*
Phenol-d5	*29*		*8 - 424*	*08/07/20 15:11*	*08/11/20 21:01*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0059**	**J**	0.010	0.0015	mg/L		08/18/20 11:43	08/19/20 05:53	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		08/18/20 13:27	08/18/20 18:41	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.080**	**F1**	0.010	0.0050	mg/L		08/06/20 21:20	08/07/20 14:54	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.4**	**HF**	0.1	0.1	SU			08/10/20 15:32	1
Temperature	**11.1**	**HF**	0.001	0.001	Degrees C			08/10/20 15:32	1

Client Sample ID: Trip Blank
Lab Sample ID: 480-173387-6
Date Collected: 08/05/20 00:00
Matrix: Water
Date Received: 08/05/20 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.24	ug/L			08/07/20 18:30	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.56	ug/L			08/07/20 18:30	1
1,1,2-Trichloroethane	ND		5.0	0.39	ug/L			08/07/20 18:30	1
1,1-Dichloroethane	ND		5.0	0.41	ug/L			08/07/20 18:30	1
1,1-Dichloroethene	ND		5.0	0.46	ug/L			08/07/20 18:30	1
1,2-Dichlorobenzene	ND		5.0	0.43	ug/L			08/07/20 18:30	1
1,2-Dichloroethane	ND		5.0	0.43	ug/L			08/07/20 18:30	1
1,2-Dichloroethene, Total	ND		5.0	0.33	ug/L			08/07/20 18:30	1
1,2-Dichloropropane	ND		5.0	0.37	ug/L			08/07/20 18:30	1
1,3-Dichlorobenzene	ND		5.0	0.40	ug/L			08/07/20 18:30	1
1,4-Dichlorobenzene	ND		5.0	0.37	ug/L			08/07/20 18:30	1

Client Sample ID: Trip Blank
Lab Sample ID: 480-173387-6

Date Collected: 08/05/20 00:00
Matrix: Water
Date Received: 08/05/20 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		50	1.1	ug/L			08/07/20 18:30	1
Acrolein	ND	*	100	2.1	ug/L			08/07/20 18:30	1
Acrylonitrile	ND		100	6.5	ug/L			08/07/20 18:30	1
Benzene	ND		5.0	0.38	ug/L			08/07/20 18:30	1
Bromoform	ND		5.0	0.76	ug/L			08/07/20 18:30	1
Bromomethane	ND		5.0	0.42	ug/L			08/07/20 18:30	1
Carbon tetrachloride	ND		5.0	0.26	ug/L			08/07/20 18:30	1
Chlorobenzene	ND		5.0	0.32	ug/L			08/07/20 18:30	1
Dibromochloromethane	ND		5.0	0.39	ug/L			08/07/20 18:30	1
Chloroethane	ND		5.0	0.83	ug/L			08/07/20 18:30	1
Chloroform	ND		5.0	0.40	ug/L			08/07/20 18:30	1
Chloromethane	ND		5.0	0.64	ug/L			08/07/20 18:30	1
cis-1,3-Dichloropropene	ND		5.0	0.61	ug/L			08/07/20 18:30	1
Bromodichloromethane	ND		5.0	0.35	ug/L			08/07/20 18:30	1
Ethyl methacrylate	ND		5.0	0.28	ug/L			08/07/20 18:30	1
Ethylbenzene	ND		5.0	0.39	ug/L			08/07/20 18:30	1
Methylene Chloride	**4.5**	**J B**	25	1.3	ug/L			08/07/20 18:30	1
Tetrachloroethene	ND		5.0	0.33	ug/L			08/07/20 18:30	1
Toluene	ND		5.0	0.35	ug/L			08/07/20 18:30	1
trans-1,3-Dichloropropene	ND		5.0	0.67	ug/L			08/07/20 18:30	1
Trichloroethene	ND		5.0	0.36	ug/L			08/07/20 18:30	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			08/07/20 18:30	1
Vinyl chloride	ND		5.0	0.50	ug/L			08/07/20 18:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*75 - 130*		*08/07/20 18:30*	*1*
4-Bromofluorobenzene (Surr)	*109*		*47 - 134*		*08/07/20 18:30*	*1*
Toluene-d8 (Surr)	*104*		*69 - 122*		*08/07/20 18:30*	*1*

Client Sample ID: 001-1-4 Composite for VOAs
Lab Sample ID: 480-173387-7

Date Collected: 08/05/20 12:55
Matrix: Water
Date Received: 08/05/20 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.24	ug/L			08/12/20 00:36	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.56	ug/L			08/12/20 00:36	1
1,1,2-Trichloroethane	ND		5.0	0.39	ug/L			08/12/20 00:36	1
1,1-Dichloroethane	ND		5.0	0.41	ug/L			08/12/20 00:36	1
1,1-Dichloroethene	ND		5.0	0.46	ug/L			08/12/20 00:36	1
1,2-Dichlorobenzene	ND		5.0	0.43	ug/L			08/12/20 00:36	1
1,2-Dichloroethane	ND		5.0	0.43	ug/L			08/12/20 00:36	1
1,2-Dichloroethene, Total	ND		5.0	0.33	ug/L			08/12/20 00:36	1
1,2-Dichloropropane	ND		5.0	0.37	ug/L			08/12/20 00:36	1
1,3-Dichlorobenzene	ND		5.0	0.40	ug/L			08/12/20 00:36	1
1,4-Dichlorobenzene	ND		5.0	0.37	ug/L			08/12/20 00:36	1
2-Chloroethyl vinyl ether	ND		50	1.1	ug/L			08/12/20 00:36	1
Acrolein	ND		100	2.1	ug/L			08/12/20 00:36	1
Acrylonitrile	ND		100	6.5	ug/L			08/12/20 00:36	1
Benzene	ND		5.0	0.38	ug/L			08/12/20 00:36	1

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 Composite for VOAs
Lab Sample ID: 480-173387-7
Date Collected: 08/05/20 12:55
Matrix: Water
Date Received: 08/05/20 13:15

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		5.0	0.76	ug/L			08/12/20 00:36	1
Bromomethane	ND		5.0	0.42	ug/L			08/12/20 00:36	1
Carbon tetrachloride	ND		5.0	0.26	ug/L			08/12/20 00:36	1
Chlorobenzene	ND		5.0	0.32	ug/L			08/12/20 00:36	1
Dibromochloromethane	ND		5.0	0.39	ug/L			08/12/20 00:36	1
Chloroethane	ND		5.0	0.83	ug/L			08/12/20 00:36	1
Chloroform	ND		5.0	0.40	ug/L			08/12/20 00:36	1
Chloromethane	ND		5.0	0.64	ug/L			08/12/20 00:36	1
cis-1,3-Dichloropropene	ND		5.0	0.61	ug/L			08/12/20 00:36	1
Bromodichloromethane	ND		5.0	0.35	ug/L			08/12/20 00:36	1
Ethyl methacrylate	ND		5.0	0.28	ug/L			08/12/20 00:36	1
Ethylbenzene	ND		5.0	0.39	ug/L			08/12/20 00:36	1
Methylene Chloride	**5.8**	**J**	25	1.3	ug/L			08/12/20 00:36	1
Tetrachloroethene	ND		5.0	0.33	ug/L			08/12/20 00:36	1
Toluene	ND		5.0	0.35	ug/L			08/12/20 00:36	1
trans-1,3-Dichloropropene	ND		5.0	0.67	ug/L			08/12/20 00:36	1
Trichloroethene	ND		5.0	0.36	ug/L			08/12/20 00:36	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			08/12/20 00:36	1
Vinyl chloride	ND		5.0	0.50	ug/L			08/12/20 00:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*75 - 130*		*08/12/20 00:36*	*1*
4-Bromofluorobenzene (Surr)	*113*		*47 - 134*		*08/12/20 00:36*	*1*
Toluene-d8 (Surr)	*106*		*69 - 122*		*08/12/20 00:36*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-173387-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)		
		DCA	BFB	TOL
Lab Sample ID	Client Sample ID	(75-130)	(47-134)	(69-122)
480-173387-6	Trip Blank	92	109	104
480-173387-7	001-1-4 Composite for VOAs	95	113	106
LCS 240-446200/5	Lab Control Sample	90	106	103
LCS 240-446629/5	Lab Control Sample	91	108	102
MB 240-446200/8	Method Blank	93	113	106
MB 240-446629/8	Method Blank	93	112	105

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-173387-5	001-1-4 COMPOSITE	103	85	43	89	81	29
LCS 480-544191/2-A	Lab Control Sample	130	95	49	94	109	33
LCSD 480-544191/3-A	Lab Control Sample Dup	109	83	46	91	105	33
MB 480-544191/1-A	Method Blank	104	83	49	95	104	33

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 240-446200/8
Matrix: Water
Analysis Batch: 446200

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	ND		1.0	0.048	ug/L			08/07/20 17:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.11	ug/L			08/07/20 17:45	1
1,1,2-Trichloroethane	ND		1.0	0.078	ug/L			08/07/20 17:45	1
1,1-Dichloroethane	ND		1.0	0.081	ug/L			08/07/20 17:45	1
1,1-Dichloroethene	ND		1.0	0.092	ug/L			08/07/20 17:45	1
1,2-Dichlorobenzene	ND		1.0	0.086	ug/L			08/07/20 17:45	1
1,2-Dichloroethane	ND		1.0	0.085	ug/L			08/07/20 17:45	1
1,2-Dichloroethene, Total	ND		1.0	0.066	ug/L			08/07/20 17:45	1
1,2-Dichloropropane	ND		1.0	0.074	ug/L			08/07/20 17:45	1
1,3-Dichlorobenzene	ND		1.0	0.081	ug/L			08/07/20 17:45	1
1,4-Dichlorobenzene	ND		1.0	0.075	ug/L			08/07/20 17:45	1
2-Chloroethyl vinyl ether	ND		10	0.22	ug/L			08/07/20 17:45	1
Acrolein	ND		20	0.41	ug/L			08/07/20 17:45	1
Acrylonitrile	ND		20	1.3	ug/L			08/07/20 17:45	1
Benzene	ND		1.0	0.077	ug/L			08/07/20 17:45	1
Bromoform	ND		1.0	0.15	ug/L			08/07/20 17:45	1
Bromomethane	ND		1.0	0.084	ug/L			08/07/20 17:45	1
Carbon tetrachloride	ND		1.0	0.052	ug/L			08/07/20 17:45	1
Chlorobenzene	ND		1.0	0.064	ug/L			08/07/20 17:45	1
Dibromochloromethane	ND		1.0	0.078	ug/L			08/07/20 17:45	1
Chloroethane	ND		1.0	0.17	ug/L			08/07/20 17:45	1
Chloroform	ND		1.0	0.081	ug/L			08/07/20 17:45	1
Chloromethane	ND		1.0	0.13	ug/L			08/07/20 17:45	1
cis-1,3-Dichloropropene	ND		1.0	0.12	ug/L			08/07/20 17:45	1
Bromodichloromethane	ND		1.0	0.070	ug/L			08/07/20 17:45	1
Ethyl methacrylate	ND		1.0	0.056	ug/L			08/07/20 17:45	1
Ethylbenzene	ND		1.0	0.078	ug/L			08/07/20 17:45	1
Methylene Chloride	0.552	J	5.0	0.26	ug/L			08/07/20 17:45	1
Tetrachloroethene	ND		1.0	0.065	ug/L			08/07/20 17:45	1
Toluene	ND		1.0	0.069	ug/L			08/07/20 17:45	1
trans-1,3-Dichloropropene	ND		1.0	0.13	ug/L			08/07/20 17:45	1
Trichloroethene	ND		1.0	0.072	ug/L			08/07/20 17:45	1
Trichlorofluoromethane	ND		1.0	0.090	ug/L			08/07/20 17:45	1
Vinyl chloride	ND		1.0	0.099	ug/L			08/07/20 17:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 130*		*08/07/20 17:45*	*1*
4-Bromofluorobenzene (Surr)	*113*		*47 - 134*		*08/07/20 17:45*	*1*
Toluene-d8 (Surr)	*106*		*69 - 122*		*08/07/20 17:45*	*1*

Lab Sample ID: LCS 240-446200/5
Matrix: Water
Analysis Batch: 446200

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	20.0	20.5		ug/L		103	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.8		ug/L		109	60 - 140
1,1,2-Trichloroethane	20.0	20.3		ug/L		102	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-446200/5
Matrix: Water
Analysis Batch: 446200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	21.2		ug/L		106	70 - 130
1,1-Dichloroethene	20.0	23.1		ug/L		116	50 - 150
1,2-Dichlorobenzene	20.0	21.1		ug/L		106	65 - 135
1,2-Dichloroethane	20.0	18.5		ug/L		93	70 - 130
1,2-Dichloropropane	20.0	22.0		ug/L		110	35 - 165
1,3-Dichlorobenzene	20.0	21.7		ug/L		109	70 - 130
1,4-Dichlorobenzene	20.0	21.2		ug/L		106	65 - 135
2-Chloroethyl vinyl ether	20.0	22.2		ug/L		111	0 - 225
Benzene	20.0	20.0		ug/L		100	65 - 135
Bromoform	20.0	22.4		ug/L		112	70 - 130
Bromomethane	20.0	17.8		ug/L		89	15 - 185
Carbon tetrachloride	20.0	20.8		ug/L		104	70 - 130
Chlorobenzene	20.0	21.7		ug/L		108	65 - 135
Dibromochloromethane	20.0	21.3		ug/L		107	70 - 135
Chloroethane	20.0	19.1		ug/L		96	40 - 160
Chloroform	20.0	18.8		ug/L		94	70 - 135
Chloromethane	20.0	22.1		ug/L		110	0 - 205
cis-1,3-Dichloropropene	20.0	21.4		ug/L		107	25 - 175
Bromodichloromethane	20.0	21.2		ug/L		106	65 - 135
Ethylbenzene	20.0	22.6		ug/L		113	60 - 140
Methylene Chloride	20.0	22.7		ug/L		114	60 - 140
Tetrachloroethene	20.0	21.4		ug/L		107	70 - 130
Toluene	20.0	20.7		ug/L		104	70 - 130
trans-1,3-Dichloropropene	20.0	21.0		ug/L		105	50 - 150
Trichloroethene	20.0	21.3		ug/L		107	65 - 135
Trichlorofluoromethane	20.0	18.2		ug/L		91	50 - 150
Vinyl chloride	20.0	20.8		ug/L		104	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*90*		*75 - 130*
4-Bromofluorobenzene (Surr)	*106*		*47 - 134*
Toluene-d8 (Surr)	*103*		*69 - 122*

Lab Sample ID: MB 240-446629/8
Matrix: Water
Analysis Batch: 446629

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	ND		1.0	0.048	ug/L			08/11/20 18:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.11	ug/L			08/11/20 18:36	1
1,1,2-Trichloroethane	ND		1.0	0.078	ug/L			08/11/20 18:36	1
1,1-Dichloroethane	ND		1.0	0.081	ug/L			08/11/20 18:36	1
1,1-Dichloroethene	ND		1.0	0.092	ug/L			08/11/20 18:36	1
1,2-Dichlorobenzene	ND		1.0	0.086	ug/L			08/11/20 18:36	1
1,2-Dichloroethane	ND		1.0	0.085	ug/L			08/11/20 18:36	1
1,2-Dichloroethene, Total	ND		1.0	0.066	ug/L			08/11/20 18:36	1
1,2-Dichloropropane	ND		1.0	0.074	ug/L			08/11/20 18:36	1
1,3-Dichlorobenzene	ND		1.0	0.081	ug/L			08/11/20 18:36	1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 240-446629/8
Matrix: Water
Analysis Batch: 446629

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		1.0	0.075	ug/L			08/11/20 18:36	1
2-Chloroethyl vinyl ether	ND		10	0.22	ug/L			08/11/20 18:36	1
Acrolein	ND		20	0.41	ug/L			08/11/20 18:36	1
Acrylonitrile	ND		20	1.3	ug/L			08/11/20 18:36	1
Benzene	ND		1.0	0.077	ug/L			08/11/20 18:36	1
Bromoform	ND		1.0	0.15	ug/L			08/11/20 18:36	1
Bromomethane	ND		1.0	0.084	ug/L			08/11/20 18:36	1
Carbon tetrachloride	ND		1.0	0.052	ug/L			08/11/20 18:36	1
Chlorobenzene	ND		1.0	0.064	ug/L			08/11/20 18:36	1
Dibromochloromethane	ND		1.0	0.078	ug/L			08/11/20 18:36	1
Chloroethane	ND		1.0	0.17	ug/L			08/11/20 18:36	1
Chloroform	ND		1.0	0.081	ug/L			08/11/20 18:36	1
Chloromethane	ND		1.0	0.13	ug/L			08/11/20 18:36	1
cis-1,3-Dichloropropene	ND		1.0	0.12	ug/L			08/11/20 18:36	1
Bromodichloromethane	ND		1.0	0.070	ug/L			08/11/20 18:36	1
Ethyl methacrylate	ND		1.0	0.056	ug/L			08/11/20 18:36	1
Ethylbenzene	ND		1.0	0.078	ug/L			08/11/20 18:36	1
Methylene Chloride	ND		5.0	0.26	ug/L			08/11/20 18:36	1
Tetrachloroethene	ND		1.0	0.065	ug/L			08/11/20 18:36	1
Toluene	ND		1.0	0.069	ug/L			08/11/20 18:36	1
trans-1,3-Dichloropropene	ND		1.0	0.13	ug/L			08/11/20 18:36	1
Trichloroethene	ND		1.0	0.072	ug/L			08/11/20 18:36	1
Trichlorofluoromethane	ND		1.0	0.090	ug/L			08/11/20 18:36	1
Vinyl chloride	ND		1.0	0.099	ug/L			08/11/20 18:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*75 - 130*		*08/11/20 18:36*	*1*
4-Bromofluorobenzene (Surr)	*112*		*47 - 134*		*08/11/20 18:36*	*1*
Toluene-d8 (Surr)	*105*		*69 - 122*		*08/11/20 18:36*	*1*

Lab Sample ID: LCS 240-446629/5
Matrix: Water
Analysis Batch: 446629

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	20.0	19.8		ug/L		99	70 - 130
1,1,2,2-Tetrachloroethane	20.0	21.3		ug/L		106	60 - 140
1,1,2-Trichloroethane	20.0	20.5		ug/L		103	70 - 130
1,1-Dichloroethane	20.0	21.7		ug/L		108	70 - 130
1,1-Dichloroethene	20.0	23.3		ug/L		117	50 - 150
1,2-Dichlorobenzene	20.0	20.8		ug/L		104	65 - 135
1,2-Dichloroethane	20.0	19.1		ug/L		95	70 - 130
1,2-Dichloropropane	20.0	22.1		ug/L		110	35 - 165
1,3-Dichlorobenzene	20.0	21.1		ug/L		105	70 - 130
1,4-Dichlorobenzene	20.0	21.1		ug/L		105	65 - 135
2-Chloroethyl vinyl ether	20.0	21.3		ug/L		106	0 - 225
Benzene	20.0	20.2		ug/L		101	65 - 135
Bromoform	20.0	22.4		ug/L		112	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 240-446629/5
Matrix: Water
Analysis Batch: 446629

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.0	18.8		ug/L		94	15 - 185
Carbon tetrachloride	20.0	21.1		ug/L		106	70 - 130
Chlorobenzene	20.0	21.6		ug/L		108	65 - 135
Dibromochloromethane	20.0	21.1		ug/L		106	70 - 135
Chloroethane	20.0	19.5		ug/L		98	40 - 160
Chloroform	20.0	19.1		ug/L		95	70 - 135
Chloromethane	20.0	23.2		ug/L		116	0 - 205
cis-1,3-Dichloropropene	20.0	21.7		ug/L		108	25 - 175
Bromodichloromethane	20.0	21.4		ug/L		107	65 - 135
Ethylbenzene	20.0	22.4		ug/L		112	60 - 140
Methylene Chloride	20.0	22.9		ug/L		115	60 - 140
Tetrachloroethene	20.0	21.3		ug/L		107	70 - 130
Toluene	20.0	20.7		ug/L		104	70 - 130
trans-1,3-Dichloropropene	20.0	20.5		ug/L		103	50 - 150
Trichloroethene	20.0	21.2		ug/L		106	65 - 135
Trichlorofluoromethane	20.0	18.9		ug/L		95	50 - 150
Vinyl chloride	20.0	22.4		ug/L		112	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*75 - 130*
4-Bromofluorobenzene (Surr)	*108*		*47 - 134*
Toluene-d8 (Surr)	*102*		*69 - 122*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-544191/1-A
Matrix: Water
Analysis Batch: 544539

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 544191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		08/07/20 15:11	08/11/20 18:35	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		08/07/20 15:11	08/11/20 18:35	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		08/07/20 15:11	08/11/20 18:35	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		08/07/20 15:11	08/11/20 18:35	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		08/07/20 15:11	08/11/20 18:35	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		08/07/20 15:11	08/11/20 18:35	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		08/07/20 15:11	08/11/20 18:35	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		08/07/20 15:11	08/11/20 18:35	1
2-Chlorophenol	ND		5.0	0.66	ug/L		08/07/20 15:11	08/11/20 18:35	1
2-Nitrophenol	ND		5.0	0.70	ug/L		08/07/20 15:11	08/11/20 18:35	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		08/07/20 15:11	08/11/20 18:35	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		08/07/20 15:11	08/11/20 18:35	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		08/07/20 15:11	08/11/20 18:35	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		08/07/20 15:11	08/11/20 18:35	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-544191/1-A
Matrix: Water
Analysis Batch: 544539

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 544191

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		08/07/20 15:11	08/11/20 18:35	1
4-Nitrophenol	ND		15	10	ug/L		08/07/20 15:11	08/11/20 18:35	1
Acenaphthene	ND		5.0	0.81	ug/L		08/07/20 15:11	08/11/20 18:35	1
Acenaphthylene	ND		5.0	0.87	ug/L		08/07/20 15:11	08/11/20 18:35	1
Anthracene	ND		5.0	1.4	ug/L		08/07/20 15:11	08/11/20 18:35	1
Benzidine	ND		80	35	ug/L		08/07/20 15:11	08/11/20 18:35	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		08/07/20 15:11	08/11/20 18:35	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		08/07/20 15:11	08/11/20 18:35	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		08/07/20 15:11	08/11/20 18:35	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		08/07/20 15:11	08/11/20 18:35	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		08/07/20 15:11	08/11/20 18:35	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		08/07/20 15:11	08/11/20 18:35	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		08/07/20 15:11	08/11/20 18:35	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		08/07/20 15:11	08/11/20 18:35	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		08/07/20 15:11	08/11/20 18:35	1
Chrysene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
Decane	ND		10	1.6	ug/L		08/07/20 15:11	08/11/20 18:35	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		08/07/20 15:11	08/11/20 18:35	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		08/07/20 15:11	08/11/20 18:35	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		08/07/20 15:11	08/11/20 18:35	1
Diethyl phthalate	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		08/07/20 15:11	08/11/20 18:35	1
Fluoranthene	ND		5.0	1.6	ug/L		08/07/20 15:11	08/11/20 18:35	1
Fluorene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
Hexachloroethane	ND		5.0	0.60	ug/L		08/07/20 15:11	08/11/20 18:35	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		08/07/20 15:11	08/11/20 18:35	1
Isophorone	ND		5.0	0.74	ug/L		08/07/20 15:11	08/11/20 18:35	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		08/07/20 15:11	08/11/20 18:35	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		08/07/20 15:11	08/11/20 18:35	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		08/07/20 15:11	08/11/20 18:35	1
Naphthalene	ND		5.0	0.86	ug/L		08/07/20 15:11	08/11/20 18:35	1
Nitrobenzene	ND		5.0	0.81	ug/L		08/07/20 15:11	08/11/20 18:35	1
Pentachlorophenol	ND		10	1.6	ug/L		08/07/20 15:11	08/11/20 18:35	1
Phenanthrene	ND		5.0	1.2	ug/L		08/07/20 15:11	08/11/20 18:35	1
Phenol	ND		5.0	0.35	ug/L		08/07/20 15:11	08/11/20 18:35	1
Pyrene	ND		5.0	1.4	ug/L		08/07/20 15:11	08/11/20 18:35	1
n-Octadecane	ND		10	1.2	ug/L		08/07/20 15:11	08/11/20 18:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*104*		*52 - 151*	*08/07/20 15:11*	*08/11/20 18:35*	*1*
2-Fluorobiphenyl	*83*		*44 - 120*	*08/07/20 15:11*	*08/11/20 18:35*	*1*
2-Fluorophenol	*49*		*17 - 120*	*08/07/20 15:11*	*08/11/20 18:35*	*1*
Nitrobenzene-d5	*95*		*15 - 314*	*08/07/20 15:11*	*08/11/20 18:35*	*1*
p-Terphenyl-d14	*104*		*22 - 125*	*08/07/20 15:11*	*08/11/20 18:35*	*1*
Phenol-d5	*33*		*8 - 424*	*08/07/20 15:11*	*08/11/20 18:35*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-544191/2-A
Matrix: Water
Analysis Batch: 544539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 544191

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	39.7		ug/L		79	44 - 142
1,2-Dichlorobenzene	50.0	36.9		ug/L		74	32 - 129
1,3-Dichlorobenzene	50.0	35.1		ug/L		70	1 - 172
1,4-Dichlorobenzene	50.0	34.8		ug/L		70	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	42.5		ug/L		85	36 - 166
2,4,6-Trichlorophenol	50.0	55.4		ug/L		111	37 - 144
2,4-Dichlorophenol	50.0	47.8		ug/L		96	39 - 135
2,4-Dimethylphenol	50.0	49.4		ug/L		99	32 - 120
2,4-Dinitrophenol	100	104		ug/L		104	1 - 191
2,4-Dinitrotoluene	50.0	50.3		ug/L		101	39 - 139
2,6-Dinitrotoluene	50.0	53.5		ug/L		107	50 - 158
2-Chloronaphthalene	50.0	46.6		ug/L		93	60 - 120
2-Chlorophenol	50.0	39.4		ug/L		79	23 - 134
2-Nitrophenol	50.0	50.9		ug/L		102	29 - 182
3,3'-Dichlorobenzidine	100	111		ug/L		111	1 - 262
4,6-Dinitro-2-methylphenol	100	111		ug/L		111	1 - 181
4-Bromophenyl phenyl ether	50.0	56.7		ug/L		113	53 - 127
4-Chloro-3-methylphenol	50.0	46.8		ug/L		94	22 - 147
4-Chlorophenyl phenyl ether	50.0	47.6		ug/L		95	25 - 158
4-Nitrophenol	100	60.7		ug/L		61	1 - 132
Acenaphthene	50.0	48.4		ug/L		97	47 - 145
Acenaphthylene	50.0	48.2		ug/L		96	33 - 145
Anthracene	50.0	51.2		ug/L		102	27 - 133
Benzidine	100	47.0	J	ug/L		47	1 - 120
Benzo[a]anthracene	50.0	50.8		ug/L		102	33 - 143
Benzo[a]pyrene	50.0	50.7		ug/L		101	17 - 163
Benzo[b]fluoranthene	50.0	50.5		ug/L		101	24 - 159
Benzo[g,h,i]perylene	50.0	59.8		ug/L		120	1 - 219
Benzo[k]fluoranthene	50.0	49.6		ug/L		99	11 - 162
Bis(2-chloroethoxy)methane	50.0	46.4		ug/L		93	33 - 184
Bis(2-chloroethyl)ether	50.0	42.0		ug/L		84	12 - 158
Bis(2-ethylhexyl) phthalate	50.0	54.7		ug/L		109	8 - 158
Butyl benzyl phthalate	50.0	53.2		ug/L		106	1 - 152
Chrysene	50.0	49.4		ug/L		99	17 - 168
Di-n-butyl phthalate	50.0	57.5		ug/L		115	1 - 120
Di-n-octyl phthalate	50.0	56.0		ug/L		112	4 - 146
Dibenz(a,h)anthracene	50.0	60.0		ug/L		120	1 - 227
Diethyl phthalate	50.0	52.8		ug/L		106	1 - 120
Dimethyl phthalate	50.0	52.9		ug/L		106	1 - 120
Fluoranthene	50.0	54.0		ug/L		108	26 - 137
Fluorene	50.0	46.8		ug/L		94	59 - 121
Hexachlorobenzene	50.0	54.9		ug/L		110	1 - 152
Hexachlorocyclopentadiene	50.0	22.3		ug/L		45	5 - 120
Hexachloroethane	50.0	33.8		ug/L		68	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	59.9		ug/L		120	1 - 171
Isophorone	50.0	49.3		ug/L		99	21 - 196
N-Nitrosodi-n-propylamine	50.0	45.1		ug/L		90	1 - 230
N-Nitrosodiphenylamine	50.0	54.4		ug/L		109	54 - 125

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-544191/2-A
Matrix: Water
Analysis Batch: 544539

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 544191

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Naphthalene			50.0	42.0		ug/L		84	21 - 133		
Nitrobenzene			50.0	47.6		ug/L		95	35 - 180		
Pentachlorophenol			100	110		ug/L		110	14 - 176		
Phenanthrene			50.0	51.0		ug/L		102	54 - 120		
Phenol			50.0	15.8		ug/L		32	5 - 120		
Pyrene			50.0	47.8		ug/L		96	52 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*130*		*52 - 151*
2-Fluorobiphenyl	*95*		*44 - 120*
2-Fluorophenol	*49*		*17 - 120*
Nitrobenzene-d5	*94*		*15 - 314*
p-Terphenyl-d14	*109*		*22 - 125*
Phenol-d5	*33*		*8 - 424*

Lab Sample ID: LCSD 480-544191/3-A
Matrix: Water
Analysis Batch: 544539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 544191

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			50.0	38.8		ug/L		78	44 - 142	2	34
1,2-Dichlorobenzene			50.0	34.7		ug/L		69	32 - 129	6	38
1,3-Dichlorobenzene			50.0	32.8		ug/L		66	1 - 172	7	37
1,4-Dichlorobenzene			50.0	33.3		ug/L		67	20 - 124	5	40
2,2'-Oxybis(1-chloropropane)			50.0	41.0		ug/L		82	36 - 166	4	36
2,4,6-Trichlorophenol			50.0	52.8		ug/L		106	37 - 144	5	20
2,4-Dichlorophenol			50.0	47.4		ug/L		95	39 - 135	1	23
2,4-Dimethylphenol			50.0	49.1		ug/L		98	32 - 120	1	18
2,4-Dinitrophenol			100	109		ug/L		109	1 - 191	4	29
2,4-Dinitrotoluene			50.0	51.5		ug/L		103	39 - 139	2	20
2,6-Dinitrotoluene			50.0	50.0		ug/L		100	50 - 158	7	17
2-Chloronaphthalene			50.0	42.0		ug/L		84	60 - 120	10	30
2-Chlorophenol			50.0	39.5		ug/L		79	23 - 134	0	26
2-Nitrophenol			50.0	49.5		ug/L		99	29 - 182	3	28
3,3'-Dichlorobenzidine			100	103		ug/L		103	1 - 262	8	31
4,6-Dinitro-2-methylphenol			100	106		ug/L		106	1 - 181	4	30
4-Bromophenyl phenyl ether			50.0	50.0		ug/L		100	53 - 127	13	16
4-Chloro-3-methylphenol			50.0	50.7		ug/L		101	22 - 147	8	16
4-Chlorophenyl phenyl ether			50.0	47.1		ug/L		94	25 - 158	1	15
4-Nitrophenol			100	63.8		ug/L		64	1 - 132	5	24
Acenaphthene			50.0	44.8		ug/L		90	47 - 145	8	25
Acenaphthylene			50.0	44.1		ug/L		88	33 - 145	9	22
Anthracene			50.0	48.7		ug/L		97	27 - 133	5	15
Benzidine			100	ND		ug/L		31	1 - 120	40	50
Benzo[a]anthracene			50.0	48.1		ug/L		96	33 - 143	5	15
Benzo[a]pyrene			50.0	46.2		ug/L		92	17 - 163	9	15
Benzo[b]fluoranthene			50.0	45.7		ug/L		91	24 - 159	10	17
Benzo[g,h,i]perylene			50.0	53.8		ug/L		108	1 - 219	11	19

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-544191/3-A
Matrix: Water
Analysis Batch: 544539

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 544191

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[k]fluoranthene	50.0	47.2		ug/L		94	11 - 162	5	19
Bis(2-chloroethoxy)methane	50.0	44.0		ug/L		88	33 - 184	5	23
Bis(2-chloroethyl)ether	50.0	38.9		ug/L		78	12 - 158	8	33
Bis(2-ethylhexyl) phthalate	50.0	52.1		ug/L		104	8 - 158	5	15
Butyl benzyl phthalate	50.0	51.8		ug/L		104	1 - 152	3	15
Chrysene	50.0	47.8		ug/L		96	17 - 168	3	15
Di-n-butyl phthalate	50.0	54.6		ug/L		109	1 - 120	5	15
Di-n-octyl phthalate	50.0	54.7		ug/L		109	4 - 146	2	15
Dibenz(a,h)anthracene	50.0	53.5		ug/L		107	1 - 227	12	18
Diethyl phthalate	50.0	51.0		ug/L		102	1 - 120	3	15
Dimethyl phthalate	50.0	50.2		ug/L		100	1 - 120	5	15
Fluoranthene	50.0	50.3		ug/L		101	26 - 137	7	15
Fluorene	50.0	45.9		ug/L		92	59 - 121	2	18
Hexachlorobenzene	50.0	51.5		ug/L		103	1 - 152	6	15
Hexachlorocyclopentadiene	50.0	20.3		ug/L		41	5 - 120	9	50
Hexachloroethane	50.0	31.1		ug/L		62	40 - 120	8	43
Indeno[1,2,3-cd]pyrene	50.0	53.5		ug/L		107	1 - 171	11	17
Isophorone	50.0	46.8		ug/L		94	21 - 196	5	21
N-Nitrosodi-n-propylamine	50.0	44.6		ug/L		89	1 - 230	1	23
N-Nitrosodiphenylamine	50.0	48.9		ug/L		98	54 - 125	11	15
Naphthalene	50.0	40.4		ug/L		81	21 - 133	4	31
Nitrobenzene	50.0	45.0		ug/L		90	35 - 180	6	27
Pentachlorophenol	100	106		ug/L		106	14 - 176	4	21
Phenanthrene	50.0	46.8		ug/L		94	54 - 120	9	16
Phenol	50.0	15.8		ug/L		32	5 - 120	0	36
Pyrene	50.0	46.3		ug/L		93	52 - 120	3	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*109*		*52 - 151*
2-Fluorobiphenyl	*83*		*44 - 120*
2-Fluorophenol	*46*		*17 - 120*
Nitrobenzene-d5	*91*		*15 - 314*
p-Terphenyl-d14	*105*		*22 - 125*
Phenol-d5	*33*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-545579/1-A
Matrix: Water
Analysis Batch: 545780

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 545579

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		08/18/20 11:43	08/19/20 05:16	1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-545579/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 545780
Prep Batch: 545579

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Zinc			0.200	0.205		mg/L		103	85 - 115		

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-545649/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 545713
Prep Batch: 545649

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		08/18/20 13:27	08/18/20 18:09	1

Lab Sample ID: LCS 480-545649/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 545713
Prep Batch: 545649

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00663		mg/L		99	85 - 115		

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-544067/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 544192
Prep Batch: 544067

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		08/06/20 21:20	08/07/20 14:24	1

Lab Sample ID: LCS 480-544067/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 544192
Prep Batch: 544067

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.400	0.383		mg/L		96	90 - 110		

Lab Sample ID: LCS 480-544067/3-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 544192
Prep Batch: 544067

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.250	0.254		mg/L		102	90 - 110		

Lab Sample ID: 480-173387-5 MS
Client Sample ID: 001-1-4 COMPOSITE
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 544192
Prep Batch: 544067

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	0.080	F1	0.100	0.164	F1	mg/L		84	90 - 110		

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-544445/1
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 544445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

GC/MS VOA

Analysis Batch: 446200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-6	Trip Blank	Total/NA	Water	624.1	
MB 240-446200/8	Method Blank	Total/NA	Water	624.1	
LCS 240-446200/5	Lab Control Sample	Total/NA	Water	624.1	

Analysis Batch: 446629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-7	001-1-4 Composite for VOAs	Total/NA	Water	624.1	
MB 240-446629/8	Method Blank	Total/NA	Water	624.1	
LCS 240-446629/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 544191

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	625	
MB 480-544191/1-A	Method Blank	Total/NA	Water	625	
LCS 480-544191/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-544191/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 544539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	625.1	544191
MB 480-544191/1-A	Method Blank	Total/NA	Water	625.1	544191
LCS 480-544191/2-A	Lab Control Sample	Total/NA	Water	625.1	544191
LCSD 480-544191/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	544191

Metals

Prep Batch: 545579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	200.7	
MB 480-545579/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-545579/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 545649

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	245.1	
MB 480-545649/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-545649/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 545713

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	245.1	545649
MB 480-545649/1-A	Method Blank	Total/NA	Water	245.1	545649
LCS 480-545649/2-A	Lab Control Sample	Total/NA	Water	245.1	545649

Analysis Batch: 545780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	200.7 Rev 4.4	545579
MB 480-545579/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	545579
LCS 480-545579/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	545579

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Prep Batch: 544067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	Distill/CN	
MB 480-544067/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-544067/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-544067/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-173387-5 MS	001-1-4 COMPOSITE	Total/NA	Water	Distill/CN	

Analysis Batch: 544192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	335.4	544067
MB 480-544067/1-A	Method Blank	Total/NA	Water	335.4	544067
LCS 480-544067/2-A	Lab Control Sample	Total/NA	Water	335.4	544067
LCS 480-544067/3-A	Lab Control Sample	Total/NA	Water	335.4	544067
480-173387-5 MS	001-1-4 COMPOSITE	Total/NA	Water	335.4	544067

Analysis Batch: 544445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-173387-5	001-1-4 COMPOSITE	Total/NA	Water	SM 4500 H+ B	
LCS 480-544445/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: 001-1-4 COMPOSITE
Lab Sample ID: 480-173387-5
Date Collected: 08/05/20 12:55
Matrix: Water
Date Received: 08/05/20 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			544191	08/07/20 15:11	ATG	TAL BUF
Total/NA	Analysis	625.1		1	544539	08/11/20 21:01	JMM	TAL BUF
Total/NA	Prep	200.7			545579	08/18/20 11:43	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	545780	08/19/20 05:53	AMH	TAL BUF
Total/NA	Prep	245.1			545649	08/18/20 13:27	BMB	TAL BUF
Total/NA	Analysis	245.1		1	545713	08/18/20 18:41	BMB	TAL BUF
Total/NA	Prep	Distill/CN			544067	08/06/20 21:20	CRK	TAL BUF
Total/NA	Analysis	335.4		1	544192	08/07/20 14:54	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	544445	08/10/20 15:32	BEF	TAL BUF

Client Sample ID: Trip Blank
Lab Sample ID: 480-173387-6
Date Collected: 08/05/20 00:00
Matrix: Water
Date Received: 08/05/20 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	446200	08/07/20 18:30	TJL1	TAL CAN

Client Sample ID: 001-1-4 Composite for VOAs
Lab Sample ID: 480-173387-7
Date Collected: 08/05/20 12:55
Matrix: Water
Date Received: 08/05/20 13:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	446629	08/12/20 00:36	TJL1	TAL CAN

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-02-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Laboratory: Eurofins TestAmerica, Canton

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
California	State	2927	02-23-21
Connecticut	State	PH-0590	12-31-21
Florida	NELAP	E87225	06-30-21
Georgia	State	4062	02-23-21
Illinois	NELAP	004498	07-31-20 *
Iowa	State	421	06-01-21
Kansas	NELAP	E-10336	04-30-21
Kentucky (UST)	State	112225	02-23-21
Kentucky (WW)	State	KY98016	12-31-20
Minnesota	NELAP	OH00048	12-31-20
Minnesota (Petrofund)	State	3506	08-01-21
New Jersey	NELAP	OH001	06-30-21
New York	NELAP	10975	03-31-21
Ohio VAP	State	CL0024	06-05-21
Oregon	NELAP	4062	02-24-21
Pennsylvania	NELAP	68-00340	08-31-20
Texas	NELAP	T104704517-18-10	08-31-20
USDA	US Federal Programs	P330-18-00281	09-17-21
Virginia	NELAP	010101	09-14-20
Washington	State	C971	01-12-21
West Virginia DEP	State	210	12-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL CAN
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL CAN = Eurofins TestAmerica, Canton, 4101 Shuffel Street NW, North Canton, OH 44720, TEL (330)497-9396

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-173387-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-173387-5	001-1-4 COMPOSITE	Water	08/05/20 12:55	08/05/20 13:15	
480-173387-6	Trip Blank	Water	08/05/20 00:00	08/05/20 13:15	
480-173387-7	001-1-4 Composite for VOAs	Water	08/05/20 12:55	08/05/20 13:15	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-141762-15940.1
Client Contact: Jason Gutkowski	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): Standard Turn			
State, Zip: NY, 13202	PO #: Needed 30049063			
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	WO #: 30003542-00001			
Email: jason.gutkowski@arcadis.com	Project #: 48011056			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	SSOW#:			
Site:				

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1		0655	G	Water			X	X	X	X	X		Lab To
001-2		0855					X	X	X	X	X		Composite
001-3		1055					X	X	X	X	X		Samples
001-4		1255					X	X	X	X	X		
TripBlank	—	—	—								X		

480-173387 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Jason Gutkowski	8/5/20 1315	Arcadis	[signature]	8/5/20 1315	TA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.9 #1 ICE

Ver: 01/16/2019

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information (Sub Contract Lab)	Sampler:	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-57621.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Judy.Stone@Eurofinset.com	State of Origin: New York	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - New York		Job #: 480-173387-1
Address: 4101 Shuffel Street NW,	Due Date Requested: 8/18/2020			
City: North Canton	TAT Requested (days):			
State, Zip: OH, 44720				
Phone: 330-497-9396(Tel) 330-497-0772(Fax)	PO #:			
Email:	WO #:			
Project Name: Iroquois Gas/Westwood Pharm.	Project #: 48011056			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC/624_Prep_7D (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:						MS
Trip Blank (480-173387-6)	8/5/20	Eastern		Water			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	8/6/20 17:00		[signature]	8-7-20 1020	ETA
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # :** _____
Canton Facility

Client ET Site Name _____ Cooler unpacked by: Jamy Rouge

Cooler Received on 8-7-20 Opened on 8-7-20

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # 1A Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-10 (CF **+0.7** °C) Observed Cooler Temp._____ °C Corrected Cooler Temp._____ °C
   IR GUN #IR-11 (CF **+0.9**°C) Observed Cooler Temp._____ °C Corrected Cooler Temp._____ °C

2.	Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1	Yes	No
	-Were the seals on the outside of the cooler(s) signed & dated?	Yes	No NA
	-Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)?	Yes	No
	-Were tamper/custody seals intact and uncompromised?	Yes	No NA
3.	Shippers' packing slip attached to the cooler(s)?	Yes	No
4.	Did custody papers accompany the sample(s)?	Yes	No
5.	Were the custody papers relinquished & signed in the appropriate place?	Yes	No
6.	Was/were the person(s) who collected the samples clearly identified on the COC?	Yes	No
7.	Did all bottles arrive in good condition (Unbroken)?	Yes	No
8.	Could all bottle labels be reconciled with the COC?	Yes	No
9.	Were correct bottle(s) used for the test(s) indicated?	Yes	No
10.	Sufficient quantity received to perform indicated analyses?	Yes	No
11.	Are these work share samples?	Yes	No
	If yes, Questions 12-16 have been checked at the originating laboratory.		
12.	Were all preserved sample(s) at the correct pH upon receipt?	Yes	No NA pH Strip Lot# HC911298
13.	Were VOAs on the COC?	Yes	No
14.	Were air bubbles >6 mm in any VOA vials? ● ← Larger than this.	Yes	No NA
15.	Was a VOA trip blank present in the cooler(s)? Trip Blank Lot #_____	Yes	No
16.	Was a LL Hg or Me Hg trip blank present? _____	Yes	No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

3-3142

eurofins Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-141762-15940.1
Client Contact: Jason Gutkowski	Phone:	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.		Analysis Requested		Job #:

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	
City: Syracuse	TAT Requested (days): Standard Turn	
State, Zip: NY, 13202	PO #: Needed 30049063	
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	WO #: 30003542-00001	
Email: jason.gutkowski@arcadis.com	Project #: 48011056	
Project Name: Iroquois Gas/Westwood Pharm. Monthly	SSOW#:	
Site:		

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7_245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1		0655	G	Water			X	X	X	X	X	1	Lab To
001-2		0855					X	X	X	X	X	2	Composite
001-3		1055					X	X	X	X	X		Samples
001-4		1255					X	X	X	X	X		
Trip Blank	—	-	-								X		

480-173387 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Jason Gutkowski	8/5/20 1315	Arcadis	[illegible]	8/5/20 1315	TA
2	[illegible]	08-10-20 1621	Saw	[illegible]	8-11-20 1030	ETA
3						

Custody Seals Intact: ∧ Yes ∧ No	Custody Seal No:	Cooler Temperature(s) °C and Other Remarks: 3.9 # ICE

Ver: 01/16/2019

Eurofins TestAmerica Canton Sample Receipt Form/Narrative **Login # :** _____
Canton Facility

Client ARCADIS Site Name _____ Cooler unpacked by: Danny Rayer

Cooler Received on 8-11-20 Opened on 8-11-20

FedEx: 1st Grd Exp UPS FAS Clipper Client Drop Off TestAmerica Courier Other _____

Receipt After-hours: Drop-off Date/Time _____ Storage Location _____

TestAmerica Cooler # TA Foam Box Client Cooler Box Other _____

Packing material used: Bubble Wrap Foam Plastic Bag None Other _____

COOLANT: Wet Ice Blue Ice Dry Ice Water None

1. Cooler temperature upon receipt ☐ See Multiple Cooler Form
   IR GUN# IR-10 (CF +0.7 °C) Observed Cooler Temp. _____ °C Corrected Cooler Temp. _____ °C
   IR GUN #IR-11 (CF +0.9°C) Observed Cooler Temp 3.3 °C Corrected Cooler Temp. 4.2 °C
2. Were tamper/custody seals on the outside of the cooler(s)? If Yes Quantity 1 Yes No
   -Were the seals on the outside of the cooler(s) signed & dated? Yes No NA
   -Were tamper/custody seals on the bottle(s) or bottle kits (LLHg/MeHg)? Yes No
   -Were tamper/custody seals intact and uncompromised? Yes No NA
3. Shippers' packing slip attached to the cooler(s)? Yes No
4. Did custody papers accompany the sample(s)? Yes No
5. Were the custody papers relinquished & signed in the appropriate place? Yes No
6. Was/were the person(s) who collected the samples clearly identified on the COC? Yes No
7. Did all bottles arrive in good condition (Unbroken)? Yes No
8. Could all bottle labels be reconciled with the COC? Yes No
9. Were correct bottle(s) used for the test(s) indicated? Yes No
10. Sufficient quantity received to perform indicated analyses? Yes No
11. Are these work share samples? Yes No
    If yes, Questions 12-16 have been checked at the originating laboratory.
12. Were all preserved sample(s) at the correct pH upon receipt? Yes No NA pH Strip Lot# HC911298
13. Were VOAs on the COC? Yes No
14. Were air bubbles >6 mm in any VOA vials? ● ⬅ Larger than this. Yes No NA
15. Was a VOA trip blank present in the cooler(s)? Trip Blank Lot # _____ Yes No
16. Was a LL Hg or Me Hg trip blank present? _____ Yes No

Tests that are not checked for pH by Receiving:
VOAs
Oil and Grease
TOC

Contacted PM _____ Date _____ by _____ via Verbal Voice Mail Other

Concerning _____

17. CHAIN OF CUSTODY & SAMPLE DISCREPANCIES Samples processed by:

18. SAMPLE CONDITION

Sample(s) _____ were received after the recommended holding time had expired.
Sample(s) _____ were received in a broken container.
Sample(s) _____ were received with bubble >6 mm in diameter. (Notify PM)

19. SAMPLE PRESERVATION

Sample(s) _____ were further preserved in the laboratory.
Time preserved: _____ Preservative(s) added/Lot number(s): _____

VOA Sample Preservation - Date/Time VOAs Frozen: _____

WI-NC-099

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-173387-1

Login Number: 173387

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

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	3.9 #1 ICE
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	Arcadis
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

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

Laboratory Job ID: 480-174932-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
9/16/2020 8:05:54 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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Have a Question? Ask The Expert

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-174932-1

Job ID: 480-174932-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-174932-1

Receipt
The samples were received on 9/10/2020 1:30 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 09-10-2020 as requested by the client: COMP 1-4 (480-174932-5).
Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-549337 and analytical batch 480-549426 recovered outside control limits for the following analyte: 4-Bromophenyl phenyl ether.

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

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

General Chemistry
Methods 9040B, 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP 1-4 (480-174932-5).

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

Organic Prep
Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-549337.

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 1-4
Lab Sample ID: 480-174932-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.080	F1	0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	17.3	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-174932-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 1-4
Lab Sample ID: 480-174932-5
Date Collected: 09/10/20 00:00
Matrix: Water
Date Received: 09/10/20 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			09/10/20 23:41	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			09/10/20 23:41	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			09/10/20 23:41	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			09/10/20 23:41	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			09/10/20 23:41	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			09/10/20 23:41	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			09/10/20 23:41	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			09/10/20 23:41	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			09/10/20 23:41	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			09/10/20 23:41	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			09/10/20 23:41	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			09/10/20 23:41	1
Acrolein	ND		100	17	ug/L			09/10/20 23:41	1
Acrylonitrile	ND		50	1.9	ug/L			09/10/20 23:41	1
Benzene	ND		5.0	0.60	ug/L			09/10/20 23:41	1
Bromoform	ND		5.0	0.47	ug/L			09/10/20 23:41	1
Bromomethane	ND		5.0	1.2	ug/L			09/10/20 23:41	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			09/10/20 23:41	1
Chlorobenzene	ND		5.0	0.48	ug/L			09/10/20 23:41	1
Dibromochloromethane	ND		5.0	0.41	ug/L			09/10/20 23:41	1
Chloroethane	ND		5.0	0.87	ug/L			09/10/20 23:41	1
Chloroform	ND		5.0	0.54	ug/L			09/10/20 23:41	1
Chloromethane	ND		5.0	0.64	ug/L			09/10/20 23:41	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			09/10/20 23:41	1
Bromodichloromethane	ND		5.0	0.54	ug/L			09/10/20 23:41	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			09/10/20 23:41	1
Ethylbenzene	ND		5.0	0.46	ug/L			09/10/20 23:41	1
Methylene Chloride	ND		5.0	0.81	ug/L			09/10/20 23:41	1
Tetrachloroethene	ND		5.0	0.34	ug/L			09/10/20 23:41	1
Toluene	ND		5.0	0.45	ug/L			09/10/20 23:41	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			09/10/20 23:41	1
Trichloroethene	ND		5.0	0.60	ug/L			09/10/20 23:41	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			09/10/20 23:41	1
Vinyl chloride	ND		5.0	0.75	ug/L			09/10/20 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*		*09/10/20 23:41*	*1*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*		*09/10/20 23:41*	*1*
Toluene-d8 (Surr)	*100*		*77 - 120*		*09/10/20 23:41*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*09/10/20 23:41*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.5	0.78	ug/L		09/14/20 08:47	09/14/20 22:34	1
1,2-Dichlorobenzene	ND		9.5	4.8	ug/L		09/14/20 08:47	09/14/20 22:34	1
1,2-Diphenylhydrazine	ND		9.5	0.74	ug/L		09/14/20 08:47	09/14/20 22:34	1
1,3-Dichlorobenzene	ND		9.5	0.66	ug/L		09/14/20 08:47	09/14/20 22:34	1
1,4-Dichlorobenzene	ND		9.5	5.4	ug/L		09/14/20 08:47	09/14/20 22:34	1
2,2'-Oxybis(1-chloropropane)	ND		4.8	0.80	ug/L		09/14/20 08:47	09/14/20 22:34	1
2,4,6-Trichlorophenol	ND		4.8	0.95	ug/L		09/14/20 08:47	09/14/20 22:34	1

Client Sample ID: COMP 1-4
Lab Sample ID: 480-174932-5
Date Collected: 09/10/20 00:00
Matrix: Water
Date Received: 09/10/20 13:30

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		4.8	0.73	ug/L		09/14/20 08:47	09/14/20 22:34	1
2,4-Dimethylphenol	ND		4.8	1.3	ug/L		09/14/20 08:47	09/14/20 22:34	1
2,4-Dinitrophenol	ND		9.5	4.8	ug/L		09/14/20 08:47	09/14/20 22:34	1
2,4-Dinitrotoluene	ND		9.5	4.8	ug/L		09/14/20 08:47	09/14/20 22:34	1
2,6-Dinitrotoluene	ND		4.8	0.95	ug/L		09/14/20 08:47	09/14/20 22:34	1
2-Chloronaphthalene	ND		4.8	0.87	ug/L		09/14/20 08:47	09/14/20 22:34	1
2-Chlorophenol	ND		4.8	0.63	ug/L		09/14/20 08:47	09/14/20 22:34	1
2-Nitrophenol	ND		4.8	0.67	ug/L		09/14/20 08:47	09/14/20 22:34	1
3,3'-Dichlorobenzidine	ND		4.8	0.78	ug/L		09/14/20 08:47	09/14/20 22:34	1
4,6-Dinitro-2-methylphenol	ND		9.5	0.63	ug/L		09/14/20 08:47	09/14/20 22:34	1
4-Bromophenyl phenyl ether	ND	*1	4.8	1.3	ug/L		09/14/20 08:47	09/14/20 22:34	1
4-Chloro-3-methylphenol	ND		4.8	1.0	ug/L		09/14/20 08:47	09/14/20 22:34	1
4-Chlorophenyl phenyl ether	ND		4.8	1.2	ug/L		09/14/20 08:47	09/14/20 22:34	1
4-Nitrophenol	ND		14	9.5	ug/L		09/14/20 08:47	09/14/20 22:34	1
Acenaphthene	ND		4.8	0.77	ug/L		09/14/20 08:47	09/14/20 22:34	1
Acenaphthylene	ND		4.8	0.83	ug/L		09/14/20 08:47	09/14/20 22:34	1
Anthracene	ND		4.8	1.3	ug/L		09/14/20 08:47	09/14/20 22:34	1
Benzidine	ND		76	33	ug/L		09/14/20 08:47	09/14/20 22:34	1
Benzo[a]anthracene	ND		4.8	1.0	ug/L		09/14/20 08:47	09/14/20 22:34	1
Benzo[a]pyrene	ND		4.8	1.2	ug/L		09/14/20 08:47	09/14/20 22:34	1
Benzo[b]fluoranthene	ND		4.8	1.1	ug/L		09/14/20 08:47	09/14/20 22:34	1
Benzo[g,h,i]perylene	ND		4.8	1.4	ug/L		09/14/20 08:47	09/14/20 22:34	1
Benzo[k]fluoranthene	ND		4.8	1.2	ug/L		09/14/20 08:47	09/14/20 22:34	1
Bis(2-chloroethoxy)methane	ND		4.8	0.71	ug/L		09/14/20 08:47	09/14/20 22:34	1
Bis(2-chloroethyl)ether	ND		4.8	0.89	ug/L		09/14/20 08:47	09/14/20 22:34	1
Bis(2-ethylhexyl) phthalate	ND		9.5	1.1	ug/L		09/14/20 08:47	09/14/20 22:34	1
Butyl benzyl phthalate	ND		4.8	1.0	ug/L		09/14/20 08:47	09/14/20 22:34	1
Chrysene	ND		4.8	0.95	ug/L		09/14/20 08:47	09/14/20 22:34	1
Decane	ND		9.5	1.5	ug/L		09/14/20 08:47	09/14/20 22:34	1
Di-n-butyl phthalate	ND		4.8	1.5	ug/L		09/14/20 08:47	09/14/20 22:34	1
Di-n-octyl phthalate	ND		4.8	1.1	ug/L		09/14/20 08:47	09/14/20 22:34	1
Dibenz(a,h)anthracene	ND		4.8	1.4	ug/L		09/14/20 08:47	09/14/20 22:34	1
Diethyl phthalate	ND		4.8	0.95	ug/L		09/14/20 08:47	09/14/20 22:34	1
Dimethyl phthalate	ND		4.8	0.87	ug/L		09/14/20 08:47	09/14/20 22:34	1
Fluoranthene	ND		4.8	1.5	ug/L		09/14/20 08:47	09/14/20 22:34	1
Fluorene	ND		4.8	0.95	ug/L		09/14/20 08:47	09/14/20 22:34	1
Hexachlorobenzene	ND		4.8	0.95	ug/L		09/14/20 08:47	09/14/20 22:34	1
Hexachlorobutadiene	ND		4.8	0.95	ug/L		09/14/20 08:47	09/14/20 22:34	1
Hexachlorocyclopentadiene	ND		9.5	4.8	ug/L		09/14/20 08:47	09/14/20 22:34	1
Hexachloroethane	ND		4.8	0.57	ug/L		09/14/20 08:47	09/14/20 22:34	1
Indeno[1,2,3-cd]pyrene	ND		4.8	1.4	ug/L		09/14/20 08:47	09/14/20 22:34	1
Isophorone	ND		4.8	0.70	ug/L		09/14/20 08:47	09/14/20 22:34	1
N-Nitrosodi-n-propylamine	ND		4.8	0.85	ug/L		09/14/20 08:47	09/14/20 22:34	1
N-Nitrosodimethylamine	ND		9.5	4.8	ug/L		09/14/20 08:47	09/14/20 22:34	1
N-Nitrosodiphenylamine	ND		4.8	0.38	ug/L		09/14/20 08:47	09/14/20 22:34	1
Naphthalene	ND		4.8	0.82	ug/L		09/14/20 08:47	09/14/20 22:34	1
Nitrobenzene	ND		4.8	0.77	ug/L		09/14/20 08:47	09/14/20 22:34	1
Pentachlorophenol	ND		9.5	1.5	ug/L		09/14/20 08:47	09/14/20 22:34	1
Phenanthrene	ND		4.8	1.1	ug/L		09/14/20 08:47	09/14/20 22:34	1

Client Sample ID: COMP 1-4
Lab Sample ID: 480-174932-5

Date Collected: 09/10/20 00:00
Matrix: Water
Date Received: 09/10/20 13:30

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		4.8	0.33	ug/L		09/14/20 08:47	09/14/20 22:34	1
Pyrene	ND		4.8	1.3	ug/L		09/14/20 08:47	09/14/20 22:34	1
n-Octadecane	ND		9.5	1.1	ug/L		09/14/20 08:47	09/14/20 22:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*84*		*52 - 151*	*09/14/20 08:47*	*09/14/20 22:34*	*1*
2-Fluorobiphenyl	*91*		*44 - 120*	*09/14/20 08:47*	*09/14/20 22:34*	*1*
2-Fluorophenol	*46*		*17 - 120*	*09/14/20 08:47*	*09/14/20 22:34*	*1*
Nitrobenzene-d5	*84*		*15 - 314*	*09/14/20 08:47*	*09/14/20 22:34*	*1*
p-Terphenyl-d14	*95*		*22 - 125*	*09/14/20 08:47*	*09/14/20 22:34*	*1*
Phenol-d5	*31*		*8 - 424*	*09/14/20 08:47*	*09/14/20 22:34*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		09/14/20 10:03	09/15/20 15:03	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/15/20 12:19	09/15/20 15:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.080**	**F1**	0.010	0.0050	mg/L		09/12/20 17:28	09/15/20 12:02	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.2**	**HF**	0.1	0.1	SU			09/16/20 14:38	1
Temperature	**17.3**	**HF**	0.001	0.001	Degrees C			09/16/20 14:38	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-174932-6

Date Collected: 09/10/20 00:00
Matrix: Water
Date Received: 09/10/20 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			09/11/20 00:04	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			09/11/20 00:04	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			09/11/20 00:04	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			09/11/20 00:04	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			09/11/20 00:04	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			09/11/20 00:04	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			09/11/20 00:04	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			09/11/20 00:04	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			09/11/20 00:04	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			09/11/20 00:04	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			09/11/20 00:04	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			09/11/20 00:04	1
Acrolein	ND		100	17	ug/L			09/11/20 00:04	1
Acrylonitrile	ND		50	1.9	ug/L			09/11/20 00:04	1
Benzene	ND		5.0	0.60	ug/L			09/11/20 00:04	1
Bromoform	ND		5.0	0.47	ug/L			09/11/20 00:04	1
Bromomethane	ND		5.0	1.2	ug/L			09/11/20 00:04	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			09/11/20 00:04	1

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-174932-6
Date Collected: 09/10/20 00:00
Matrix: Water
Date Received: 09/10/20 13:30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		5.0	0.48	ug/L			09/11/20 00:04	1
Dibromochloromethane	ND		5.0	0.41	ug/L			09/11/20 00:04	1
Chloroethane	ND		5.0	0.87	ug/L			09/11/20 00:04	1
Chloroform	ND		5.0	0.54	ug/L			09/11/20 00:04	1
Chloromethane	ND		5.0	0.64	ug/L			09/11/20 00:04	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			09/11/20 00:04	1
Bromodichloromethane	ND		5.0	0.54	ug/L			09/11/20 00:04	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			09/11/20 00:04	1
Ethylbenzene	ND		5.0	0.46	ug/L			09/11/20 00:04	1
Methylene Chloride	ND		5.0	0.81	ug/L			09/11/20 00:04	1
Tetrachloroethene	ND		5.0	0.34	ug/L			09/11/20 00:04	1
Toluene	ND		5.0	0.45	ug/L			09/11/20 00:04	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			09/11/20 00:04	1
Trichloroethene	ND		5.0	0.60	ug/L			09/11/20 00:04	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			09/11/20 00:04	1
Vinyl chloride	ND		5.0	0.75	ug/L			09/11/20 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 130*		*09/11/20 00:04*	*1*
4-Bromofluorobenzene (Surr)	*103*		*76 - 123*		*09/11/20 00:04*	*1*
Toluene-d8 (Surr)	*100*		*77 - 120*		*09/11/20 00:04*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*09/11/20 00:04*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-174932-5	COMP 1-4	99	101	100	103
480-174932-6	TRIP BLANK	98	103	100	103
LCS 480-549030/5	Lab Control Sample	98	102	100	102
MB 480-549030/7	Method Blank	103	102	100	101

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-174932-5	COMP 1-4	84	91	46	84	95	31
LCS 480-549337/2-A	Lab Control Sample	103	105	53	93	106	40
LCSD 480-549337/3-A	Lab Control Sample Dup	90	89	50	85	105	36
MB 480-549337/1-A	Method Blank	73	92	51	87	106	35

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-549030/7
Matrix: Water
Analysis Batch: 549030

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	ND		5.0	0.39	ug/L			09/10/20 21:38	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			09/10/20 21:38	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			09/10/20 21:38	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			09/10/20 21:38	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			09/10/20 21:38	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			09/10/20 21:38	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			09/10/20 21:38	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			09/10/20 21:38	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			09/10/20 21:38	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			09/10/20 21:38	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			09/10/20 21:38	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			09/10/20 21:38	1
Acrolein	ND		100	17	ug/L			09/10/20 21:38	1
Acrylonitrile	ND		50	1.9	ug/L			09/10/20 21:38	1
Benzene	ND		5.0	0.60	ug/L			09/10/20 21:38	1
Bromoform	ND		5.0	0.47	ug/L			09/10/20 21:38	1
Bromomethane	ND		5.0	1.2	ug/L			09/10/20 21:38	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			09/10/20 21:38	1
Chlorobenzene	ND		5.0	0.48	ug/L			09/10/20 21:38	1
Dibromochloromethane	ND		5.0	0.41	ug/L			09/10/20 21:38	1
Chloroethane	ND		5.0	0.87	ug/L			09/10/20 21:38	1
Chloroform	ND		5.0	0.54	ug/L			09/10/20 21:38	1
Chloromethane	ND		5.0	0.64	ug/L			09/10/20 21:38	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			09/10/20 21:38	1
Bromodichloromethane	ND		5.0	0.54	ug/L			09/10/20 21:38	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			09/10/20 21:38	1
Ethylbenzene	ND		5.0	0.46	ug/L			09/10/20 21:38	1
Methylene Chloride	ND		5.0	0.81	ug/L			09/10/20 21:38	1
Tetrachloroethene	ND		5.0	0.34	ug/L			09/10/20 21:38	1
Toluene	ND		5.0	0.45	ug/L			09/10/20 21:38	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			09/10/20 21:38	1
Trichloroethene	ND		5.0	0.60	ug/L			09/10/20 21:38	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			09/10/20 21:38	1
Vinyl chloride	ND		5.0	0.75	ug/L			09/10/20 21:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*09/10/20 21:38*	*1*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*		*09/10/20 21:38*	*1*
Toluene-d8 (Surr)	*100*		*77 - 120*		*09/10/20 21:38*	*1*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*09/10/20 21:38*	*1*

Lab Sample ID: LCS 480-549030/5
Matrix: Water
Analysis Batch: 549030

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	20.0	20.4		ug/L		102	52 - 162
1,1,2,2-Tetrachloroethane	20.0	19.0		ug/L		95	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-549030/5
Matrix: Water
Analysis Batch: 549030

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	19.5		ug/L		97	52 - 150
1,1-Dichloroethane	20.0	19.3		ug/L		97	59 - 155
1,1-Dichloroethene	20.0	20.4		ug/L		102	1 - 234
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	18 - 190
1,2-Dichloroethane	20.0	20.0		ug/L		100	49 - 155
1,2-Dichloropropane	20.0	19.3		ug/L		96	1 - 210
1,3-Dichlorobenzene	20.0	19.2		ug/L		96	59 - 156
1,4-Dichlorobenzene	20.0	19.7		ug/L		99	18 - 190
2-Chloroethyl vinyl ether	20.0	19.0	J	ug/L		95	1 - 305
Benzene	20.0	19.6		ug/L		98	37 - 151
Bromoform	20.0	20.9		ug/L		105	45 - 169
Bromomethane	20.0	22.2		ug/L		111	1 - 242
Carbon tetrachloride	20.0	20.7		ug/L		103	70 - 140
Chlorobenzene	20.0	19.6		ug/L		98	37 - 160
Dibromochloromethane	20.0	20.0		ug/L		100	53 - 149
Chloroethane	20.0	21.5		ug/L		108	14 - 230
Chloroform	20.0	19.3		ug/L		97	51 - 138
Chloromethane	20.0	22.0		ug/L		110	1 - 273
cis-1,3-Dichloropropene	20.0	19.2		ug/L		96	1 - 227
Bromodichloromethane	20.0	19.4		ug/L		97	35 - 155
Ethylbenzene	20.0	20.1		ug/L		100	37 - 162
Methylene Chloride	20.0	20.0		ug/L		100	1 - 221
Tetrachloroethene	20.0	21.3		ug/L		107	64 - 148
Toluene	20.0	19.7		ug/L		98	47 - 150
trans-1,3-Dichloropropene	20.0	19.6		ug/L		98	17 - 183
Trichloroethene	20.0	19.7		ug/L		99	71 - 157
Trichlorofluoromethane	20.0	25.4		ug/L		127	17 - 181
Vinyl chloride	20.0	22.8		ug/L		114	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 130*
4-Bromofluorobenzene (Surr)	*102*		*76 - 123*
Toluene-d8 (Surr)	*100*		*77 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-549337/1-A
Matrix: Water
Analysis Batch: 549426

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 549337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		09/14/20 08:47	09/14/20 19:46	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		09/14/20 08:47	09/14/20 19:46	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		09/14/20 08:47	09/14/20 19:46	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		09/14/20 08:47	09/14/20 19:46	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		09/14/20 08:47	09/14/20 19:46	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		09/14/20 08:47	09/14/20 19:46	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-549337/1-A
Matrix: Water
Analysis Batch: 549426

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 549337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		09/14/20 08:47	09/14/20 19:46	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		09/14/20 08:47	09/14/20 19:46	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		09/14/20 08:47	09/14/20 19:46	1
2-Chlorophenol	ND		5.0	0.66	ug/L		09/14/20 08:47	09/14/20 19:46	1
2-Nitrophenol	ND		5.0	0.70	ug/L		09/14/20 08:47	09/14/20 19:46	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		09/14/20 08:47	09/14/20 19:46	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		09/14/20 08:47	09/14/20 19:46	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		09/14/20 08:47	09/14/20 19:46	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		09/14/20 08:47	09/14/20 19:46	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		09/14/20 08:47	09/14/20 19:46	1
4-Nitrophenol	ND		15	10	ug/L		09/14/20 08:47	09/14/20 19:46	1
Acenaphthene	ND		5.0	0.81	ug/L		09/14/20 08:47	09/14/20 19:46	1
Acenaphthylene	ND		5.0	0.87	ug/L		09/14/20 08:47	09/14/20 19:46	1
Anthracene	ND		5.0	1.4	ug/L		09/14/20 08:47	09/14/20 19:46	1
Benzidine	ND		80	35	ug/L		09/14/20 08:47	09/14/20 19:46	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		09/14/20 08:47	09/14/20 19:46	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		09/14/20 08:47	09/14/20 19:46	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		09/14/20 08:47	09/14/20 19:46	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		09/14/20 08:47	09/14/20 19:46	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		09/14/20 08:47	09/14/20 19:46	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		09/14/20 08:47	09/14/20 19:46	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		09/14/20 08:47	09/14/20 19:46	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		09/14/20 08:47	09/14/20 19:46	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		09/14/20 08:47	09/14/20 19:46	1
Chrysene	ND		5.0	1.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
Decane	ND		10	1.6	ug/L		09/14/20 08:47	09/14/20 19:46	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		09/14/20 08:47	09/14/20 19:46	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		09/14/20 08:47	09/14/20 19:46	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		09/14/20 08:47	09/14/20 19:46	1
Diethyl phthalate	ND		5.0	1.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		09/14/20 08:47	09/14/20 19:46	1
Fluoranthene	ND		5.0	1.6	ug/L		09/14/20 08:47	09/14/20 19:46	1
Fluorene	ND		5.0	1.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
Hexachloroethane	ND		5.0	0.60	ug/L		09/14/20 08:47	09/14/20 19:46	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		09/14/20 08:47	09/14/20 19:46	1
Isophorone	ND		5.0	0.74	ug/L		09/14/20 08:47	09/14/20 19:46	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		09/14/20 08:47	09/14/20 19:46	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		09/14/20 08:47	09/14/20 19:46	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		09/14/20 08:47	09/14/20 19:46	1
Naphthalene	ND		5.0	0.86	ug/L		09/14/20 08:47	09/14/20 19:46	1
Nitrobenzene	ND		5.0	0.81	ug/L		09/14/20 08:47	09/14/20 19:46	1
Pentachlorophenol	ND		10	1.6	ug/L		09/14/20 08:47	09/14/20 19:46	1
Phenanthrene	ND		5.0	1.2	ug/L		09/14/20 08:47	09/14/20 19:46	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-549337/1-A
Matrix: Water
Analysis Batch: 549426

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 549337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		09/14/20 08:47	09/14/20 19:46	1
Pyrene	ND		5.0	1.4	ug/L		09/14/20 08:47	09/14/20 19:46	1
n-Octadecane	ND		10	1.2	ug/L		09/14/20 08:47	09/14/20 19:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*73*		*52 - 151*	*09/14/20 08:47*	*09/14/20 19:46*	*1*
2-Fluorobiphenyl	*92*		*44 - 120*	*09/14/20 08:47*	*09/14/20 19:46*	*1*
2-Fluorophenol	*51*		*17 - 120*	*09/14/20 08:47*	*09/14/20 19:46*	*1*
Nitrobenzene-d5	*87*		*15 - 314*	*09/14/20 08:47*	*09/14/20 19:46*	*1*
p-Terphenyl-d14	*106*		*22 - 125*	*09/14/20 08:47*	*09/14/20 19:46*	*1*
Phenol-d5	*35*		*8 - 424*	*09/14/20 08:47*	*09/14/20 19:46*	*1*

Lab Sample ID: LCS 480-549337/2-A
Matrix: Water
Analysis Batch: 549426

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 549337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	35.9		ug/L		72	44 - 142
1,2-Dichlorobenzene	50.0	30.7		ug/L		61	32 - 129
1,3-Dichlorobenzene	50.0	28.4		ug/L		57	1 - 172
1,4-Dichlorobenzene	50.0	29.9		ug/L		60	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	43.6		ug/L		87	36 - 166
2,4,6-Trichlorophenol	50.0	49.1		ug/L		98	37 - 144
2,4-Dichlorophenol	50.0	49.2		ug/L		98	39 - 135
2,4-Dimethylphenol	50.0	50.2		ug/L		100	32 - 120
2,4-Dinitrophenol	100	112		ug/L		112	1 - 191
2,4-Dinitrotoluene	50.0	52.4		ug/L		105	39 - 139
2,6-Dinitrotoluene	50.0	53.1		ug/L		106	50 - 158
2-Chloronaphthalene	50.0	45.8		ug/L		92	60 - 120
2-Chlorophenol	50.0	41.3		ug/L		83	23 - 134
2-Nitrophenol	50.0	46.5		ug/L		93	29 - 182
3,3'-Dichlorobenzidine	100	107		ug/L		107	1 - 262
4,6-Dinitro-2-methylphenol	100	108		ug/L		108	1 - 181
4-Bromophenyl phenyl ether	50.0	54.2		ug/L		108	53 - 127
4-Chloro-3-methylphenol	50.0	53.2		ug/L		106	22 - 147
4-Chlorophenyl phenyl ether	50.0	52.1		ug/L		104	25 - 158
4-Nitrophenol	100	52.2		ug/L		52	1 - 132
Acenaphthene	50.0	49.5		ug/L		99	47 - 145
Acenaphthylene	50.0	50.2		ug/L		100	33 - 145
Anthracene	50.0	54.3		ug/L		109	27 - 133
Benzidine	100	ND		ug/L		13	1 - 120
Benzo[a]anthracene	50.0	52.7		ug/L		105	33 - 143
Benzo[a]pyrene	50.0	55.3		ug/L		111	17 - 163
Benzo[b]fluoranthene	50.0	52.4		ug/L		105	24 - 159
Benzo[g,h,i]perylene	50.0	52.6		ug/L		105	1 - 219
Benzo[k]fluoranthene	50.0	58.2		ug/L		116	11 - 162
Bis(2-chloroethoxy)methane	50.0	48.2		ug/L		96	33 - 184
Bis(2-chloroethyl)ether	50.0	45.9		ug/L		92	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-549337/2-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 549426
Prep Batch: 549337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	57.2		ug/L		114	8 - 158
Butyl benzyl phthalate	50.0	58.8		ug/L		118	1 - 152
Chrysene	50.0	52.7		ug/L		105	17 - 168
Di-n-butyl phthalate	50.0	59.0		ug/L		118	1 - 120
Di-n-octyl phthalate	50.0	58.5		ug/L		117	4 - 146
Dibenz(a,h)anthracene	50.0	52.3		ug/L		105	1 - 227
Diethyl phthalate	50.0	56.7		ug/L		113	1 - 120
Dimethyl phthalate	50.0	54.7		ug/L		109	1 - 120
Fluoranthene	50.0	56.8		ug/L		114	26 - 137
Fluorene	50.0	51.0		ug/L		102	59 - 121
Hexachlorobenzene	50.0	51.6		ug/L		103	1 - 152
Hexachlorocyclopentadiene	50.0	31.3		ug/L		63	5 - 120
Hexachloroethane	50.0	24.8		ug/L		50	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	53.7		ug/L		107	1 - 171
Isophorone	50.0	53.4		ug/L		107	21 - 196
N-Nitrosodi-n-propylamine	50.0	49.6		ug/L		99	1 - 230
N-Nitrosodiphenylamine	50.0	55.6		ug/L		111	54 - 125
Naphthalene	50.0	41.5		ug/L		83	21 - 133
Nitrobenzene	50.0	45.6		ug/L		91	35 - 180
Pentachlorophenol	100	108		ug/L		108	14 - 176
Phenanthrene	50.0	55.3		ug/L		111	54 - 120
Phenol	50.0	21.8		ug/L		44	5 - 120
Pyrene	50.0	54.8		ug/L		110	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*103*		*52 - 151*
2-Fluorobiphenyl	*105*		*44 - 120*
2-Fluorophenol	*53*		*17 - 120*
Nitrobenzene-d5	*93*		*15 - 314*
p-Terphenyl-d14	*106*		*22 - 125*
Phenol-d5	*40*		*8 - 424*

Lab Sample ID: LCSD 480-549337/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 549426
Prep Batch: 549337

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	30.6		ug/L		61	44 - 142	16	34
1,2-Dichlorobenzene	50.0	27.7		ug/L		55	32 - 129	10	38
1,3-Dichlorobenzene	50.0	24.7		ug/L		49	1 - 172	14	37
1,4-Dichlorobenzene	50.0	25.7		ug/L		51	20 - 124	15	40
2,2'-Oxybis(1-chloropropane)	50.0	39.4		ug/L		79	36 - 166	10	36
2,4,6-Trichlorophenol	50.0	47.0		ug/L		94	37 - 144	4	20
2,4-Dichlorophenol	50.0	45.3		ug/L		91	39 - 135	8	23
2,4-Dimethylphenol	50.0	44.4		ug/L		89	32 - 120	12	18
2,4-Dinitrophenol	100	101		ug/L		101	1 - 191	10	29
2,4-Dinitrotoluene	50.0	48.1		ug/L		96	39 - 139	9	20
2,6-Dinitrotoluene	50.0	47.5		ug/L		95	50 - 158	11	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-549337/3-A
Matrix: Water
Analysis Batch: 549426

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 549337

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	40.2		ug/L		80	60 - 120	13	30
2-Chlorophenol			50.0	38.9		ug/L		78	23 - 134	6	26
2-Nitrophenol			50.0	43.7		ug/L		87	29 - 182	6	28
3,3'-Dichlorobenzidine			100	102		ug/L		102	1 - 262	4	31
4,6-Dinitro-2-methylphenol			100	94.8		ug/L		95	1 - 181	13	30
4-Bromophenyl phenyl ether			50.0	45.6	*1	ug/L		91	53 - 127	17	16
4-Chloro-3-methylphenol			50.0	49.7		ug/L		99	22 - 147	7	16
4-Chlorophenyl phenyl ether			50.0	45.9		ug/L		92	25 - 158	13	15
4-Nitrophenol			100	46.7		ug/L		47	1 - 132	11	24
Acenaphthene			50.0	44.1		ug/L		88	47 - 145	12	25
Acenaphthylene			50.0	45.7		ug/L		91	33 - 145	9	22
Anthracene			50.0	47.2		ug/L		94	27 - 133	14	15
Benzidine			100	ND		ug/L		13	1 - 120	2	50
Benzo[a]anthracene			50.0	48.1		ug/L		96	33 - 143	9	15
Benzo[a]pyrene			50.0	52.0		ug/L		104	17 - 163	6	15
Benzo[b]fluoranthene			50.0	48.9		ug/L		98	24 - 159	7	17
Benzo[g,h,i]perylene			50.0	48.2		ug/L		96	1 - 219	9	19
Benzo[k]fluoranthene			50.0	54.0		ug/L		108	11 - 162	7	19
Bis(2-chloroethoxy)methane			50.0	43.2		ug/L		86	33 - 184	11	23
Bis(2-chloroethyl)ether			50.0	41.4		ug/L		83	12 - 158	10	33
Bis(2-ethylhexyl) phthalate			50.0	54.3		ug/L		109	8 - 158	5	15
Butyl benzyl phthalate			50.0	54.9		ug/L		110	1 - 152	7	15
Chrysene			50.0	49.4		ug/L		99	17 - 168	6	15
Di-n-butyl phthalate			50.0	51.1		ug/L		102	1 - 120	14	15
Di-n-octyl phthalate			50.0	55.5		ug/L		111	4 - 146	5	15
Dibenz(a,h)anthracene			50.0	48.2		ug/L		96	1 - 227	8	18
Diethyl phthalate			50.0	51.5		ug/L		103	1 - 120	10	15
Dimethyl phthalate			50.0	48.8		ug/L		98	1 - 120	11	15
Fluoranthene			50.0	48.8		ug/L		98	26 - 137	15	15
Fluorene			50.0	46.1		ug/L		92	59 - 121	10	18
Hexachlorobenzene			50.0	46.4		ug/L		93	1 - 152	11	15
Hexachlorocyclopentadiene			50.0	26.1		ug/L		52	5 - 120	18	50
Hexachloroethane			50.0	20.3		ug/L		41	40 - 120	20	43
Indeno[1,2,3-cd]pyrene			50.0	49.3		ug/L		99	1 - 171	9	17
Isophorone			50.0	47.7		ug/L		95	21 - 196	11	21
N-Nitrosodi-n-propylamine			50.0	45.4		ug/L		91	1 - 230	9	23
N-Nitrosodiphenylamine			50.0	48.5		ug/L		97	54 - 125	14	15
Naphthalene			50.0	37.2		ug/L		74	21 - 133	11	31
Nitrobenzene			50.0	41.2		ug/L		82	35 - 180	10	27
Pentachlorophenol			100	94.3		ug/L		94	14 - 176	13	21
Phenanthrene			50.0	49.0		ug/L		98	54 - 120	12	16
Phenol			50.0	20.5		ug/L		41	5 - 120	6	36
Pyrene			50.0	51.4		ug/L		103	52 - 120	6	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*90*		*52 - 151*
2-Fluorobiphenyl	*89*		*44 - 120*
2-Fluorophenol	*50*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-549337/3-A
Matrix: Water
Analysis Batch: 549426

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 549337

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*85*		*15 - 314*
p-Terphenyl-d14	*105*		*22 - 125*
Phenol-d5	*36*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-549268/1-A
Matrix: Water
Analysis Batch: 549733

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 549268

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		09/14/20 10:03	09/15/20 14:44	1

Lab Sample ID: LCS 480-549268/2-A
Matrix: Water
Analysis Batch: 549733

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 549268

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.208		mg/L		104	85 - 115

Lab Sample ID: 480-174932-5 MS
Matrix: Water
Analysis Batch: 549733

Client Sample ID: COMP 1-4
Prep Type: Total/NA
Prep Batch: 549268

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	ND		0.200	0.203		mg/L		102	70 - 130

Lab Sample ID: 480-174932-5 MSD
Matrix: Water
Analysis Batch: 549733

Client Sample ID: COMP 1-4
Prep Type: Total/NA
Prep Batch: 549268

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	ND		0.200	0.202		mg/L		101	70 - 130	1	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-549436/1-A
Matrix: Water
Analysis Batch: 549605

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 549436

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		09/15/20 12:19	09/15/20 15:08	1

Lab Sample ID: LCS 480-549436/2-A
Matrix: Water
Analysis Batch: 549605

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 549436

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00728		mg/L		109	85 - 115

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-174932-1

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-549284/1-A
Matrix: Water
Analysis Batch: 549562

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 549284

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		09/12/20 17:28	09/15/20 11:58	1

Lab Sample ID: LCS 480-549284/2-A
Matrix: Water
Analysis Batch: 549562

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 549284

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.250	0.239		mg/L		96	90 - 110		

Lab Sample ID: 480-174932-5 MS
Matrix: Water
Analysis Batch: 549562

Client Sample ID: COMP 1-4
Prep Type: Total/NA
Prep Batch: 549284

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	0.080	F1	0.100	0.157	F1	mg/L		77	90 - 110		

Lab Sample ID: 480-174932-5 DU
Matrix: Water
Analysis Batch: 549562

Client Sample ID: COMP 1-4
Prep Type: Total/NA
Prep Batch: 549284

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cyanide, Total	0.080	F1		0.0838		mg/L				4	15

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-549815/1
Matrix: Water
Analysis Batch: 549815

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100	99 - 101		

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 549030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	624.1	
480-174932-6	TRIP BLANK	Total/NA	Water	624.1	
MB 480-549030/7	Method Blank	Total/NA	Water	624.1	
LCS 480-549030/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 549337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	625	
MB 480-549337/1-A	Method Blank	Total/NA	Water	625	
LCS 480-549337/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-549337/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 549426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	625.1	549337
MB 480-549337/1-A	Method Blank	Total/NA	Water	625.1	549337
LCS 480-549337/2-A	Lab Control Sample	Total/NA	Water	625.1	549337
LCSD 480-549337/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	549337

Metals

Prep Batch: 549268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	200.7	
MB 480-549268/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-549268/2-A	Lab Control Sample	Total/NA	Water	200.7	
480-174932-5 MS	COMP 1-4	Total/NA	Water	200.7	
480-174932-5 MSD	COMP 1-4	Total/NA	Water	200.7	

Prep Batch: 549436

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	245.1	
MB 480-549436/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-549436/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 549605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	245.1	549436
MB 480-549436/1-A	Method Blank	Total/NA	Water	245.1	549436
LCS 480-549436/2-A	Lab Control Sample	Total/NA	Water	245.1	549436

Analysis Batch: 549733

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	200.7 Rev 4.4	549268
MB 480-549268/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	549268
LCS 480-549268/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	549268
480-174932-5 MS	COMP 1-4	Total/NA	Water	200.7 Rev 4.4	549268
480-174932-5 MSD	COMP 1-4	Total/NA	Water	200.7 Rev 4.4	549268

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Prep Batch: 549284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	Distill/CN	
MB 480-549284/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-549284/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-174932-5 MS	COMP 1-4	Total/NA	Water	Distill/CN	
480-174932-5 DU	COMP 1-4	Total/NA	Water	Distill/CN	

Analysis Batch: 549562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	335.4	549284
MB 480-549284/1-A	Method Blank	Total/NA	Water	335.4	549284
LCS 480-549284/2-A	Lab Control Sample	Total/NA	Water	335.4	549284
480-174932-5 MS	COMP 1-4	Total/NA	Water	335.4	549284
480-174932-5 DU	COMP 1-4	Total/NA	Water	335.4	549284

Analysis Batch: 549815

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-174932-5	COMP 1-4	Total/NA	Water	SM 4500 H+ B	
LCS 480-549815/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 1-4
Lab Sample ID: 480-174932-5

Date Collected: 09/10/20 00:00
Matrix: Water
Date Received: 09/10/20 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	549030	09/10/20 23:41	WJD	TAL BUF
Total/NA	Prep	625			549337	09/14/20 08:47	JMP	TAL BUF
Total/NA	Analysis	625.1		1	549426	09/14/20 22:34	JMM	TAL BUF
Total/NA	Prep	200.7			549268	09/14/20 10:03	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	549733	09/15/20 15:03	LMH	TAL BUF
Total/NA	Prep	245.1			549436	09/15/20 12:19	BMB	TAL BUF
Total/NA	Analysis	245.1		1	549605	09/15/20 15:13	BMB	TAL BUF
Total/NA	Prep	Distill/CN			549284	09/12/20 17:28	CRK	TAL BUF
Total/NA	Analysis	335.4		1	549562	09/15/20 12:02	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	549815	09/16/20 14:38	BEF	TAL BUF

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-174932-6

Date Collected: 09/10/20 00:00
Matrix: Water
Date Received: 09/10/20 13:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	549030	09/11/20 00:04	WJD	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
335.4	Distill/CN	Water	Cyanide, Total
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-174932-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-174932-5	COMP 1-4	Water	09/10/20 00:00	09/10/20 13:30	
480-174932-6	TRIP BLANK	Water	09/10/20 00:00	09/10/20 13:30	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-141759-15940.1
Client Contact: Jason Gutkowski	Phone: 315 4363605	E-Mail: judy.stone@testamericainc.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.		Analysis Requested		Job #:

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:
City: Syracuse	TAT Requested (days): Standard Turn
State, Zip: NY, 13202	
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed 30049063
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056
Site:	SSOW#:

Preservation Codes:
A - HCL M - Hexane
B - NaOH N - None
C - Zn Acetate O - AsNaO2
D - Nitric

480-174932 Chain of Custody

ahydrate

:y)

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	9/10/20	0700	G	Water			X	X	X	X	X		Lab To
001-2		0900					X	X	X	X	X		Composite
001-3		1100					X	X	X	X	X		Samples
001-4		1300					X	X	X	X	X		
Trip Blank	—	—	—								X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	9/10/11 1320	Arcadis		9-10-20 13:30	TAB
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.3

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-174932-1

Login Number: 174932

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Wallace, Cameron

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	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Ms. Leslie Sedita
Industrial Waste Section
Buffalo Sewer Authority Treatment Plant
90 West Ferry Street
Buffalo, NY 14213-1799

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017
www.arcadis.com

ENVIRONMENT

Subject:
Discharge Monitoring Report – Fourth Quarter 2020
Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site No. 915141A
120 Dart Street and 40 Bradley Street, Buffalo, NY 14213
BSA Discharge Permit # 18-07-BU174

Date:
December 30, 2020

Contact:
Vincent S. Maresco

Phone:
315 671 9256

Email:
Vin.Maresco@arcadis.com

Our ref:
30049063

Dear Ms. Sedita:

On behalf of Bristol-Myers Squibb Company, Arcadis of New York, Inc. (Arcadis) is pleased to submit this fourth quarter 2020 Discharge Monitoring Report (DMR) for the above-referenced site, which covers the period October 1 through December 31, 2020. The monthly discharge sampling and DMR preparation were completed in accordance with the Buffalo Sewer Authority (BSA) Sampling Measurement and Analytical Guidelines Sheet. A total of 141,331 gallons of water were discharged during the reporting period (i.e., flow meter totalizer readings from 9/28/2020 to 12/28/2020). Laboratory analytical results indicate that the remedial system operated within BSA permit requirements during the third quarter 2020.

The sampling protocol and calculated discharges are based on the following: (1) total flows are a daily average taken over approximately 7 days; and (2) monthly composite samples are collected over an 8-hour period, where grab samples are collected every 2 hours. A total of four grab samples are collected throughout the 8-hour period. The discharge sample point location, following carbon treatment, is labeled as “C001 Sample Location” on the Process Flow Diagram (**Attachment A**). The Sample Collection and Log Sheets for the October, November, and December monthly sampling events are provided in **Attachment B**.

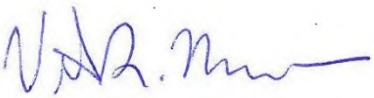
The monthly grab samples were submitted to Eurofins TestAmerica in Amherst, New York, where samples are composited and analyzed for pH via Method 4500 H+B, Total Mercury via United States Environmental Protection Agency (EPA) Method 245.1, Total Zinc via EPA Method 200.7, Total Cyanide via EPA Method 335.4, Volatile Organic Compounds via EPA Method 624.1, and Semi-Volatile Organic Compounds via EPA Method 625.1.

Laboratory analytical results and average daily flows are provided in the Quarterly Analytical Data Table (**Attachment C**). No exceedances of Daily Maximum or Maximum Allowable Instantaneous Discharge Limitations were observed during the reporting period. BSA Permit Specific Conditions require reporting of any compounds analyzed by EPA Methods 624 and 625 that are detected at a concentration above a threshold of 0.01 milligrams per liter (mg/L). In October, November, and December 2020 there were no detections above the reporting threshold. The laboratory analytical data packages are provided in **Attachment D**.

If you have any questions or would like to discuss further, please feel free to contact the undersigned.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation.

Signed on behalf of Bristol-Myers Squibb Company and submitted by:



Vincent S. Maresco
Arcadis of New York, Inc.
Project Manager

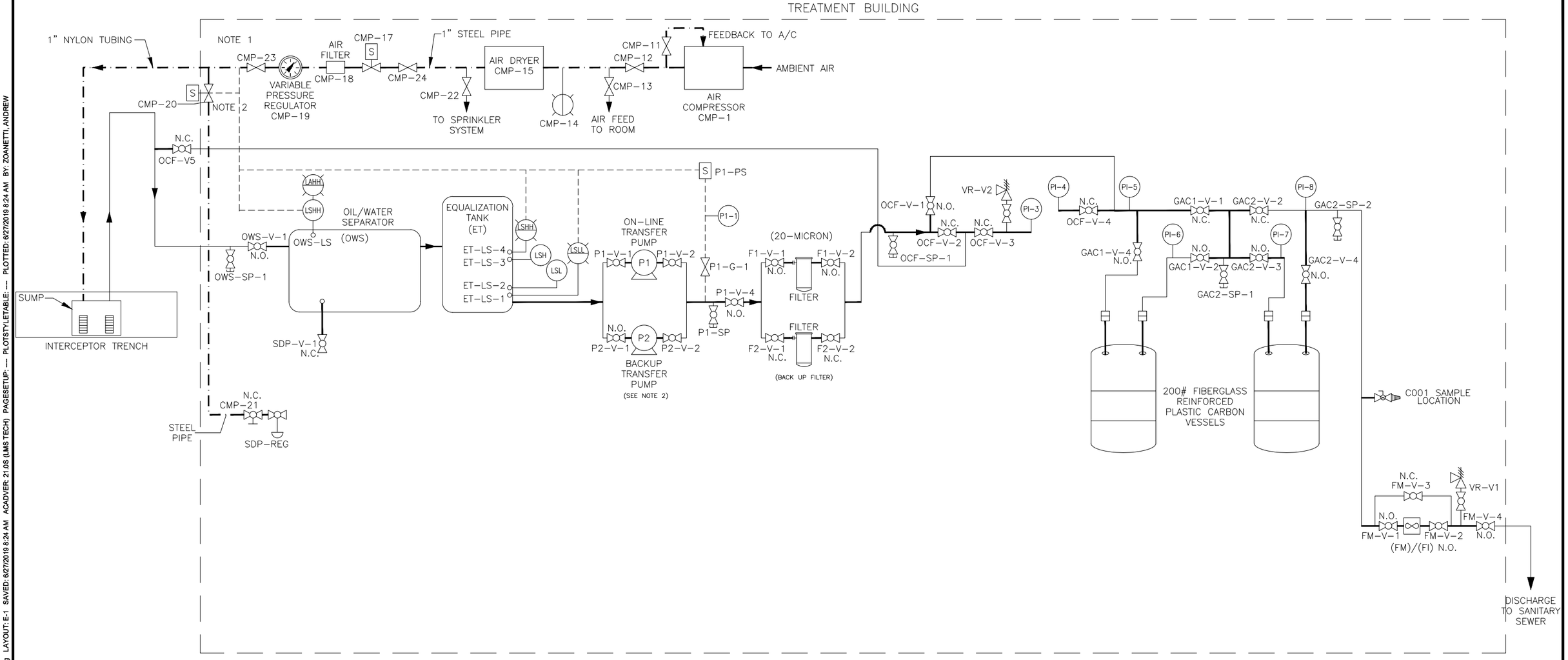
Copies:
Traserra Adams, BSA
Richard Mator, BMS
John Alonzo, de maximis, inc.
Dan Darragh, Cohen & Grigsby, PC
Katie Hoelscher, NFG

Attachments:

- A Process Flow Diagram
- B Sample Collection and Log Sheets for Monthly Sampling Events
- C Quarterly Analytical Data Table
- D Laboratory Analytical Data Package

ATTACHMENT A

Process Flow Diagram



NOTES:

1. SOLENOID VALVE IS ACTIVATED TO THE OFF-POSITION UNDER ANY OF THE FOLLOWING CONDITIONS:
   a) LSHH AT THE OIL-WATER SEPARATOR;
   b) LSHH AT THE EQUILIZATION TANK IS ACTIVATED;
   c) P1-PS HIGH PUMP DISCHARGE PRESSURE SWISWITCH IS ACTIVATED.

2. USE OF TRANSFER PUMPS IS ALTERED ON A QUARTERLY BASIS.

CITY: SYRACUSE, NY DIV/GROUP: DB: PM: TM: LYR:ON=*;OFF=*REF*
C:\Users\AZoanetti\Documents\Bristol-Myers Squibb\BMS Buffalo, NY\ATTACHMENT A.dwg LAYOUT: E-1 SAVED: 6/27/2019 8:24 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 6/27/2019 8:24 AM BY: ZOANETTI, ANDREW
XREFS:
TITLE

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name

Professional Engineer's No.

State	Date Signed	Project Mgr.
Designed by	Drawn by	Checked by

ARCADIS Design & Consultancy for natural and built assets
ARCADIS OF NEW YORK, INC.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE NO. 915141A
120 DART STREET AND 40 BRADLEY STREET, BUFFALO, NY

PROCESS FLOW DIAGRAM

ARCADIS Project No.
B0087370.0000.00001

Date
SEPTEMBER 2017

ARCADIS
ARCADIS OF NEW YORK, INC.
110 W. FAYETTE ST., STE 300
SYRACUSE, NY 13202
TEL. 315.446.9120

PFD

ATTACHMENT B

Sample Collection and Log Sheets for Monthly Sampling Events

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	10/8/20	→	→	→	JTG
Sample Time	0725	0925	1125	1325	JTG
Sample Observations	None	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	43°F Cloudy	Cloudy 46°F	52°F Sun/Clouds	57°F Clady	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski — Sample Technician

10/8/20 — Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40ml. clear vials every two hours.

Sample Date	11/4/20	→	→	→	JT6
Sample Time	0705	0905	1105	1305	JT6
Sample Observations	Clear	→	→	→	JT6
pH Measurement	N/A	→	→	→	JT6
Weather	52°F Sunny	54°F Sunny	58°F Sunny	63°F Sunny	JT6
Comments	None	→	→	→	JT6

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski — Sample Technician

11/4/20 — Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm Permit #: 12-05-BU174

Sample Location: 001 Sample Type: Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	11/19/20	→	→	→	JTG
Sample Time	0655	0855	1055	1255	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	42°F Cloudy	46°F Cloudy	52°F Partly Sunny	56°F Partly Sunny	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

**pH will be analyzed at the lab once grab samples are composited.

Jason Guthowski
Sample Technician

11/19/20
Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroqois Gas/Westwood Pharm **Permit #:** 12-05-BU174

Sample Location: 001 **Sample Type:** Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Freq: One 1L-amber unpreserved glass bottle and two 40mL clear vials every two hours.

Sample Date	12/8/20	→	→	→	JTG
Sample Time	0645	0845	1045	1245	JTG
Sample Observations	Clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	26°F Partly Cloudy	26°F Partly Cloudy	27°F Cloudy	30°F Partly Cloudy	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as ammended.

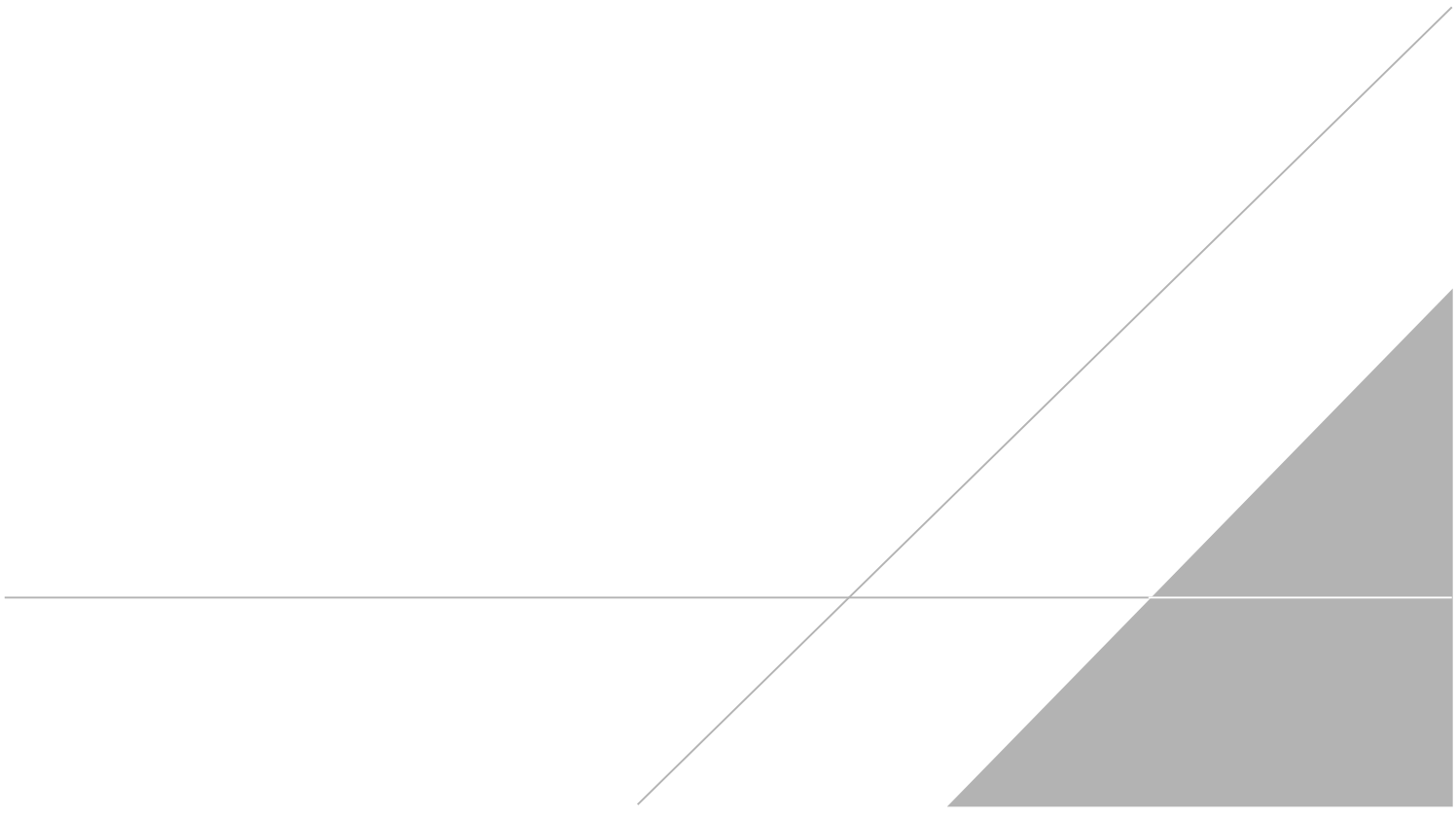
**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski — 12/8/20

Sample Technician — Date

ATTACHMENT C

Quarterly Analytical Data Table



Quarterly Analytical Data Table
Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site No. 915141A
120 Dart Street and 40 Bradley Street, Buffalo, NY
BSA Discharge Permit No. 18-07-BU174

ARCADIS Design & Consultancy for natural and built assets

Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	9/28/2020	10/8/2020	10/14/2020	10/21/2020	10/29/2020	11/4/2020	11/13/2020
Totalizer	gal	NA	129,417	147,274	158,499	168,628	182,642	192,675	206,667
Total Mercury	lbs	0.00001**	NA	ND	NS	NS	NS	ND	NS
Total Zinc	lbs	3.0**	NA	ND	NS	NS	NS	2.23E-05 J	NS
Total Cyanide	lbs	7.93**	NA	2.53E-04 F1	NS	NS	NS	1.67E-03	NS
Total VOCs	mg/L	NA	NA	ND	NS	NS	NS	NM	NS
Total SVOCs	mg/L	NA	NA	ND	NS	NS	NS	ND	NS
pH	SU	5.0-12.0	NA	7.4 HF	NS	NS	NS	7.2 HF	NS
Total Daily Flow	gal	14,400	-	1,786	1,871	1,447	1,752	1,672	1,555

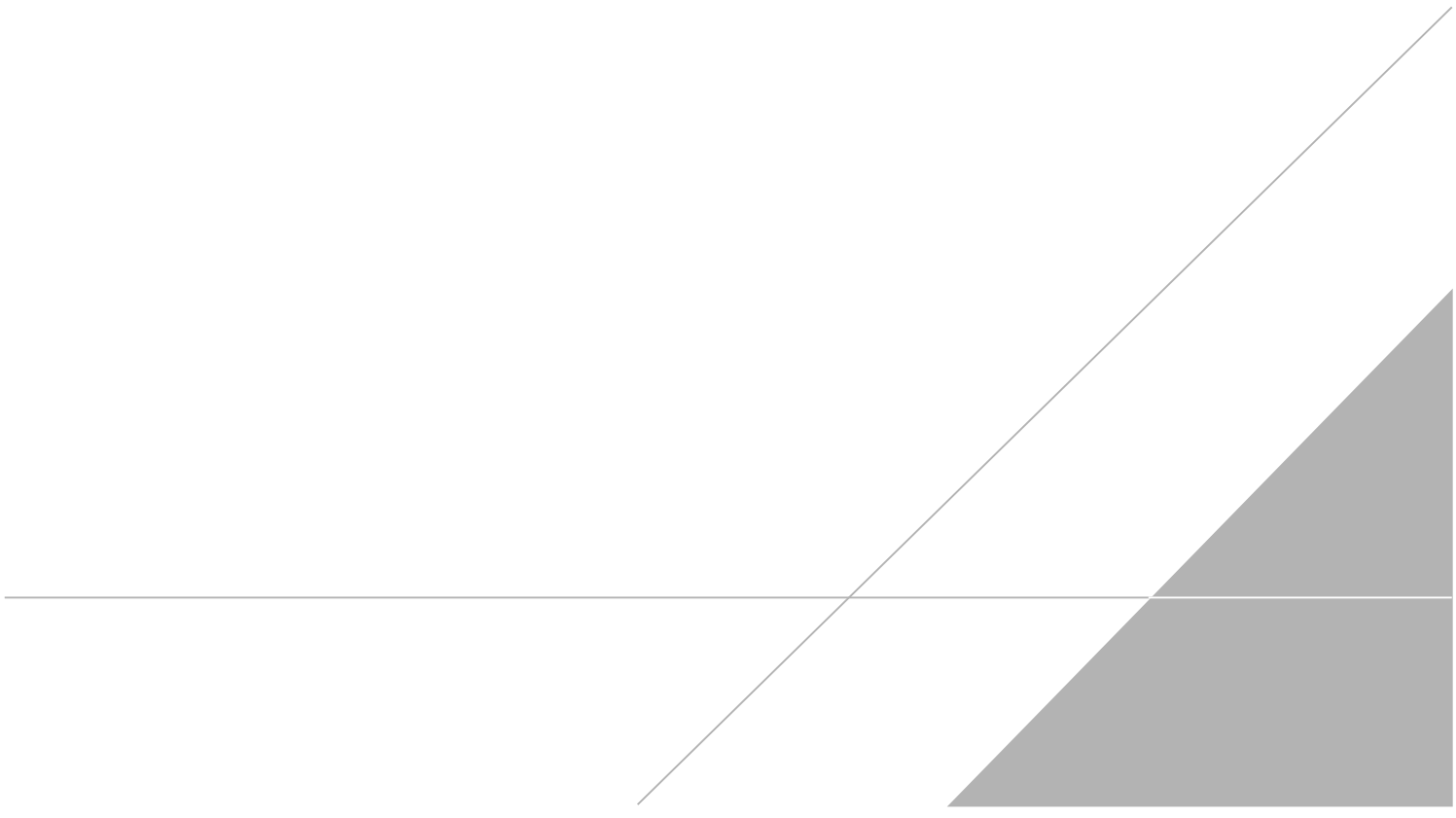
Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	11/19/2020	11/25/2020	12/3/2020	12/8/2020	12/17/2020	12/21/2020	12/28/2020
Totalizer	gal	NA	214,574	223,539	233,541	241,101	254,501	260,519	270,748
Total Mercury	lbs	0.00001**	NS	NS	NS	ND	NS	NS	NS
Total Zinc	lbs	3.0**	NS	NS	NS	3.40E-05 J	NS	NS	NS
Total Cyanide	lbs	7.93**	NS	NS	NS	2.39E-03	NS	NS	NS
Total VOCs	mg/L	NA	9.8E-04 J	NS	NS	ND	NS	NS	NS
Total SVOCs	mg/L	NA	NS	NS	NS	ND	NS	NS	NS
pH	SU	5.0-12.0	NS	NS	NS	7.7	NS	NS	NS
Total Daily Flow	gal	14,400	1,318	1,494	1,250	1,512	1,489	1,505	1,423

Notes:

B - Compound was found in the blank and the sample.
F1 - MS and/or MSD Recovery is outside acceptance limits.
HF - Field parameter with a holding time of 15 minutes. Test performed by laboratory at clients request. Analytical performed as required and in compliance by BSA permit.
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
NS - Not Sampled
ND - Not Detected at the reporting limit
NM - Not Measured
gal - Gallons
NA - Not Applicable
lbs - Pounds
mg/L - Milligrams per liter
SU - Standard Units
** - Maximum Allowable Instantaneous Discharge limits are also included in the permit. All analytical data for this quarter in in compliance with the Maximum Allowable Instantaneous Discharge limits. Analytical results are not presented in this table, they can be found in the attached analytical reports.
*** - The permittee must report any compound whose concentration is greater than 0.01 mg/L. The permittee is not authorized to discharge any of the parameters evaluated by this test procedure, which may cause or contribute to a violation of water quality incorporated into the permit.
Start of quarter values

ATTACHMENT D

Laboratory Analytical Data Package



eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-176258-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Judy Stone

Authorized for release by:
10/16/2020 4:54:20 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-176258-1

Job ID: 480-176258-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-176258-1

Receipt
The samples were received on 10/8/2020 1:55 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.5º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 10-9-20 as requested by the client: COMP 001-004 (480-176258-5). Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

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

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

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-004
Lab Sample ID: 480-176258-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.017	F1	0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.4	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	15.9	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-176258-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-004
Lab Sample ID: 480-176258-5
Date Collected: 10/08/20 13:25
Matrix: Water
Date Received: 10/08/20 13:55

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/09/20 15:49	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/09/20 15:49	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/09/20 15:49	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/09/20 15:49	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/09/20 15:49	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/09/20 15:49	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/09/20 15:49	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/09/20 15:49	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/09/20 15:49	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/09/20 15:49	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/09/20 15:49	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/09/20 15:49	1
Acrolein	ND		100	17	ug/L			10/09/20 15:49	1
Acrylonitrile	ND		50	1.9	ug/L			10/09/20 15:49	1
Benzene	ND		5.0	0.60	ug/L			10/09/20 15:49	1
Bromoform	ND		5.0	0.47	ug/L			10/09/20 15:49	1
Bromomethane	ND		5.0	1.2	ug/L			10/09/20 15:49	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/09/20 15:49	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/09/20 15:49	1
Dibromochloromethane	ND		5.0	0.41	ug/L			10/09/20 15:49	1
Chloroethane	ND		5.0	0.87	ug/L			10/09/20 15:49	1
Chloroform	ND		5.0	0.54	ug/L			10/09/20 15:49	1
Chloromethane	ND		5.0	0.64	ug/L			10/09/20 15:49	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/09/20 15:49	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/09/20 15:49	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/09/20 15:49	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/09/20 15:49	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/09/20 15:49	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/09/20 15:49	1
Toluene	ND		5.0	0.45	ug/L			10/09/20 15:49	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/09/20 15:49	1
Trichloroethene	ND		5.0	0.60	ug/L			10/09/20 15:49	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/09/20 15:49	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/09/20 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*10/09/20 15:49*	*1*
4-Bromofluorobenzene (Surr)	*99*		*76 - 123*		*10/09/20 15:49*	*1*
Toluene-d8 (Surr)	*100*		*77 - 120*		*10/09/20 15:49*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*10/09/20 15:49*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		10/12/20 15:09	10/13/20 19:25	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		10/12/20 15:09	10/13/20 19:25	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		10/12/20 15:09	10/13/20 19:25	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		10/12/20 15:09	10/13/20 19:25	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		10/12/20 15:09	10/13/20 19:25	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 19:25	1

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-004
Lab Sample ID: 480-176258-5
Date Collected: 10/08/20 13:25
Matrix: Water
Date Received: 10/08/20 13:55

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		10/12/20 15:09	10/13/20 19:25	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		10/12/20 15:09	10/13/20 19:25	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		10/12/20 15:09	10/13/20 19:25	1
2-Chlorophenol	ND		5.0	0.66	ug/L		10/12/20 15:09	10/13/20 19:25	1
2-Nitrophenol	ND		5.0	0.70	ug/L		10/12/20 15:09	10/13/20 19:25	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		10/12/20 15:09	10/13/20 19:25	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		10/12/20 15:09	10/13/20 19:25	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		10/12/20 15:09	10/13/20 19:25	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		10/12/20 15:09	10/13/20 19:25	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		10/12/20 15:09	10/13/20 19:25	1
4-Nitrophenol	ND		15	10	ug/L		10/12/20 15:09	10/13/20 19:25	1
Acenaphthene	ND		5.0	0.81	ug/L		10/12/20 15:09	10/13/20 19:25	1
Acenaphthylene	ND		5.0	0.87	ug/L		10/12/20 15:09	10/13/20 19:25	1
Anthracene	ND		5.0	1.4	ug/L		10/12/20 15:09	10/13/20 19:25	1
Benzidine	ND		80	35	ug/L		10/12/20 15:09	10/13/20 19:25	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		10/12/20 15:09	10/13/20 19:25	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		10/12/20 15:09	10/13/20 19:25	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		10/12/20 15:09	10/13/20 19:25	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		10/12/20 15:09	10/13/20 19:25	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		10/12/20 15:09	10/13/20 19:25	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		10/12/20 15:09	10/13/20 19:25	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		10/12/20 15:09	10/13/20 19:25	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		10/12/20 15:09	10/13/20 19:25	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		10/12/20 15:09	10/13/20 19:25	1
Chrysene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
Decane	ND		10	1.6	ug/L		10/12/20 15:09	10/13/20 19:25	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		10/12/20 15:09	10/13/20 19:25	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		10/12/20 15:09	10/13/20 19:25	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		10/12/20 15:09	10/13/20 19:25	1
Diethyl phthalate	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		10/12/20 15:09	10/13/20 19:25	1
Fluoranthene	ND		5.0	1.6	ug/L		10/12/20 15:09	10/13/20 19:25	1
Fluorene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
Hexachloroethane	ND		5.0	0.60	ug/L		10/12/20 15:09	10/13/20 19:25	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		10/12/20 15:09	10/13/20 19:25	1
Isophorone	ND		5.0	0.74	ug/L		10/12/20 15:09	10/13/20 19:25	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		10/12/20 15:09	10/13/20 19:25	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 19:25	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		10/12/20 15:09	10/13/20 19:25	1
Naphthalene	ND		5.0	0.86	ug/L		10/12/20 15:09	10/13/20 19:25	1
Nitrobenzene	ND		5.0	0.81	ug/L		10/12/20 15:09	10/13/20 19:25	1
Pentachlorophenol	ND		10	1.6	ug/L		10/12/20 15:09	10/13/20 19:25	1
Phenanthrene	ND		5.0	1.2	ug/L		10/12/20 15:09	10/13/20 19:25	1

Client Sample ID: COMP 001-004
Lab Sample ID: 480-176258-5

Date Collected: 10/08/20 13:25
Matrix: Water
Date Received: 10/08/20 13:55

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		10/12/20 15:09	10/13/20 19:25	1
Pyrene	ND		5.0	1.4	ug/L		10/12/20 15:09	10/13/20 19:25	1
n-Octadecane	ND		10	1.2	ug/L		10/12/20 15:09	10/13/20 19:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*57*		*52 - 151*	*10/12/20 15:09*	*10/13/20 19:25*	*1*
2-Fluorobiphenyl	*82*		*44 - 120*	*10/12/20 15:09*	*10/13/20 19:25*	*1*
2-Fluorophenol	*39*		*17 - 120*	*10/12/20 15:09*	*10/13/20 19:25*	*1*
Nitrobenzene-d5	*67*		*15 - 314*	*10/12/20 15:09*	*10/13/20 19:25*	*1*
p-Terphenyl-d14	*87*		*22 - 125*	*10/12/20 15:09*	*10/13/20 19:25*	*1*
Phenol-d5	*27*		*8 - 424*	*10/12/20 15:09*	*10/13/20 19:25*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		10/15/20 10:39	10/15/20 22:23	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		10/15/20 12:40	10/15/20 17:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.017**	**F1**	0.010	0.0050	mg/L		10/12/20 18:27	10/13/20 12:34	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.4**	**HF**	0.1	0.1	SU			10/12/20 15:44	1
Temperature	**15.9**	**HF**	0.001	0.001	Degrees C			10/12/20 15:44	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-176258-6

Date Collected: 10/08/20 00:00
Matrix: Water
Date Received: 10/08/20 13:55

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			10/09/20 16:12	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/09/20 16:12	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/09/20 16:12	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/09/20 16:12	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/09/20 16:12	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/09/20 16:12	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/09/20 16:12	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/09/20 16:12	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/09/20 16:12	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/09/20 16:12	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/09/20 16:12	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/09/20 16:12	1
Acrolein	ND		100	17	ug/L			10/09/20 16:12	1
Acrylonitrile	ND		50	1.9	ug/L			10/09/20 16:12	1
Benzene	ND		5.0	0.60	ug/L			10/09/20 16:12	1
Bromoform	ND		5.0	0.47	ug/L			10/09/20 16:12	1
Bromomethane	ND		5.0	1.2	ug/L			10/09/20 16:12	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/09/20 16:12	1

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-176258-6
Date Collected: 10/08/20 00:00
Matrix: Water
Date Received: 10/08/20 13:55

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		5.0	0.48	ug/L			10/09/20 16:12	1
Dibromochloromethane	ND		5.0	0.41	ug/L			10/09/20 16:12	1
Chloroethane	ND		5.0	0.87	ug/L			10/09/20 16:12	1
Chloroform	ND		5.0	0.54	ug/L			10/09/20 16:12	1
Chloromethane	ND		5.0	0.64	ug/L			10/09/20 16:12	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/09/20 16:12	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/09/20 16:12	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/09/20 16:12	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/09/20 16:12	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/09/20 16:12	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/09/20 16:12	1
Toluene	ND		5.0	0.45	ug/L			10/09/20 16:12	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/09/20 16:12	1
Trichloroethene	ND		5.0	0.60	ug/L			10/09/20 16:12	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/09/20 16:12	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/09/20 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*68 - 130*		*10/09/20 16:12*	*1*
4-Bromofluorobenzene (Surr)	*98*		*76 - 123*		*10/09/20 16:12*	*1*
Toluene-d8 (Surr)	*98*		*77 - 120*		*10/09/20 16:12*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*10/09/20 16:12*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-176258-5	COMP 001-004	100	99	100	105
480-176258-6	TRIP BLANK	97	98	98	106
LCS 480-553209/6	Lab Control Sample	95	99	99	100
MB 480-553209/8	Method Blank	100	100	101	104

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-176258-5	COMP 001-004	57	82	39	67	87	27
LCS 480-553550/2-A	Lab Control Sample	90	92	47	79	101	35
LCSD 480-553550/3-A	Lab Control Sample Dup	85	95	45	80	101	33
MB 480-553550/1-A	Method Blank	73	93	46	80	101	33

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-553209/8
Matrix: Water
Analysis Batch: 553209

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	ND		5.0	0.39	ug/L			10/09/20 11:35	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			10/09/20 11:35	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			10/09/20 11:35	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			10/09/20 11:35	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			10/09/20 11:35	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			10/09/20 11:35	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			10/09/20 11:35	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			10/09/20 11:35	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			10/09/20 11:35	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			10/09/20 11:35	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			10/09/20 11:35	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			10/09/20 11:35	1
Acrolein	ND		100	17	ug/L			10/09/20 11:35	1
Acrylonitrile	ND		50	1.9	ug/L			10/09/20 11:35	1
Benzene	ND		5.0	0.60	ug/L			10/09/20 11:35	1
Bromoform	ND		5.0	0.47	ug/L			10/09/20 11:35	1
Bromomethane	ND		5.0	1.2	ug/L			10/09/20 11:35	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			10/09/20 11:35	1
Chlorobenzene	ND		5.0	0.48	ug/L			10/09/20 11:35	1
Dibromochloromethane	ND		5.0	0.41	ug/L			10/09/20 11:35	1
Chloroethane	ND		5.0	0.87	ug/L			10/09/20 11:35	1
Chloroform	ND		5.0	0.54	ug/L			10/09/20 11:35	1
Chloromethane	ND		5.0	0.64	ug/L			10/09/20 11:35	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			10/09/20 11:35	1
Bromodichloromethane	ND		5.0	0.54	ug/L			10/09/20 11:35	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			10/09/20 11:35	1
Ethylbenzene	ND		5.0	0.46	ug/L			10/09/20 11:35	1
Methylene Chloride	ND		5.0	0.81	ug/L			10/09/20 11:35	1
Tetrachloroethene	ND		5.0	0.34	ug/L			10/09/20 11:35	1
Toluene	ND		5.0	0.45	ug/L			10/09/20 11:35	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			10/09/20 11:35	1
Trichloroethene	ND		5.0	0.60	ug/L			10/09/20 11:35	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			10/09/20 11:35	1
Vinyl chloride	ND		5.0	0.75	ug/L			10/09/20 11:35	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*10/09/20 11:35*	*1*
4-Bromofluorobenzene (Surr)	*100*		*76 - 123*		*10/09/20 11:35*	*1*
Toluene-d8 (Surr)	*101*		*77 - 120*		*10/09/20 11:35*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*10/09/20 11:35*	*1*

Lab Sample ID: LCS 480-553209/6
Matrix: Water
Analysis Batch: 553209

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	20.0	19.2		ug/L		96	52 - 162
1,1,2,2-Tetrachloroethane	20.0	18.0		ug/L		90	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-553209/6
Matrix: Water
Analysis Batch: 553209

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	19.1		ug/L		95	52 - 150
1,1-Dichloroethane	20.0	19.2		ug/L		96	59 - 155
1,1-Dichloroethene	20.0	19.7		ug/L		99	1 - 234
1,2-Dichlorobenzene	20.0	18.7		ug/L		94	18 - 190
1,2-Dichloroethane	20.0	18.7		ug/L		94	49 - 155
1,2-Dichloropropane	20.0	19.2		ug/L		96	1 - 210
1,3-Dichlorobenzene	20.0	18.8		ug/L		94	59 - 156
1,4-Dichlorobenzene	20.0	19.0		ug/L		95	18 - 190
2-Chloroethyl vinyl ether	20.0	19.2	J	ug/L		96	1 - 305
Benzene	20.0	19.5		ug/L		97	37 - 151
Bromoform	20.0	19.1		ug/L		95	45 - 169
Bromomethane	20.0	21.3		ug/L		106	1 - 242
Carbon tetrachloride	20.0	19.4		ug/L		97	70 - 140
Chlorobenzene	20.0	19.4		ug/L		97	37 - 160
Dibromochloromethane	20.0	18.7		ug/L		94	53 - 149
Chloroethane	20.0	21.3		ug/L		106	14 - 230
Chloroform	20.0	19.0		ug/L		95	51 - 138
Chloromethane	20.0	21.6		ug/L		108	1 - 273
cis-1,3-Dichloropropene	20.0	19.0		ug/L		95	1 - 227
Bromodichloromethane	20.0	18.9		ug/L		94	35 - 155
Ethylbenzene	20.0	19.4		ug/L		97	37 - 162
Methylene Chloride	20.0	19.2		ug/L		96	1 - 221
Tetrachloroethene	20.0	20.8		ug/L		104	64 - 148
Toluene	20.0	19.4		ug/L		97	47 - 150
trans-1,3-Dichloropropene	20.0	18.7		ug/L		93	17 - 183
Trichloroethene	20.0	19.0		ug/L		95	71 - 157
Trichlorofluoromethane	20.0	23.4		ug/L		117	17 - 181
Vinyl chloride	20.0	21.0		ug/L		105	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*68 - 130*
4-Bromofluorobenzene (Surr)	*99*		*76 - 123*
Toluene-d8 (Surr)	*99*		*77 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-553550/1-A
Matrix: Water
Analysis Batch: 553659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 553550

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		10/12/20 15:09	10/13/20 14:32	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		10/12/20 15:09	10/13/20 14:32	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		10/12/20 15:09	10/13/20 14:32	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		10/12/20 15:09	10/13/20 14:32	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		10/12/20 15:09	10/13/20 14:32	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 14:32	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-553550/1-A
Matrix: Water
Analysis Batch: 553659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 553550

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		10/12/20 15:09	10/13/20 14:32	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		10/12/20 15:09	10/13/20 14:32	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		10/12/20 15:09	10/13/20 14:32	1
2-Chlorophenol	ND		5.0	0.66	ug/L		10/12/20 15:09	10/13/20 14:32	1
2-Nitrophenol	ND		5.0	0.70	ug/L		10/12/20 15:09	10/13/20 14:32	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		10/12/20 15:09	10/13/20 14:32	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		10/12/20 15:09	10/13/20 14:32	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		10/12/20 15:09	10/13/20 14:32	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		10/12/20 15:09	10/13/20 14:32	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		10/12/20 15:09	10/13/20 14:32	1
4-Nitrophenol	ND		15	10	ug/L		10/12/20 15:09	10/13/20 14:32	1
Acenaphthene	ND		5.0	0.81	ug/L		10/12/20 15:09	10/13/20 14:32	1
Acenaphthylene	ND		5.0	0.87	ug/L		10/12/20 15:09	10/13/20 14:32	1
Anthracene	ND		5.0	1.4	ug/L		10/12/20 15:09	10/13/20 14:32	1
Benzidine	ND		80	35	ug/L		10/12/20 15:09	10/13/20 14:32	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		10/12/20 15:09	10/13/20 14:32	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		10/12/20 15:09	10/13/20 14:32	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		10/12/20 15:09	10/13/20 14:32	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		10/12/20 15:09	10/13/20 14:32	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		10/12/20 15:09	10/13/20 14:32	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		10/12/20 15:09	10/13/20 14:32	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		10/12/20 15:09	10/13/20 14:32	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		10/12/20 15:09	10/13/20 14:32	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		10/12/20 15:09	10/13/20 14:32	1
Chrysene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
Decane	ND		10	1.6	ug/L		10/12/20 15:09	10/13/20 14:32	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		10/12/20 15:09	10/13/20 14:32	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		10/12/20 15:09	10/13/20 14:32	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		10/12/20 15:09	10/13/20 14:32	1
Diethyl phthalate	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		10/12/20 15:09	10/13/20 14:32	1
Fluoranthene	ND		5.0	1.6	ug/L		10/12/20 15:09	10/13/20 14:32	1
Fluorene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
Hexachloroethane	ND		5.0	0.60	ug/L		10/12/20 15:09	10/13/20 14:32	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		10/12/20 15:09	10/13/20 14:32	1
Isophorone	ND		5.0	0.74	ug/L		10/12/20 15:09	10/13/20 14:32	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		10/12/20 15:09	10/13/20 14:32	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		10/12/20 15:09	10/13/20 14:32	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		10/12/20 15:09	10/13/20 14:32	1
Naphthalene	ND		5.0	0.86	ug/L		10/12/20 15:09	10/13/20 14:32	1
Nitrobenzene	ND		5.0	0.81	ug/L		10/12/20 15:09	10/13/20 14:32	1
Pentachlorophenol	ND		10	1.6	ug/L		10/12/20 15:09	10/13/20 14:32	1
Phenanthrene	ND		5.0	1.2	ug/L		10/12/20 15:09	10/13/20 14:32	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-553550/1-A
Matrix: Water
Analysis Batch: 553659

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 553550

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		10/12/20 15:09	10/13/20 14:32	1
Pyrene	ND		5.0	1.4	ug/L		10/12/20 15:09	10/13/20 14:32	1
n-Octadecane	ND		10	1.2	ug/L		10/12/20 15:09	10/13/20 14:32	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*73*		*52 - 151*	*10/12/20 15:09*	*10/13/20 14:32*	*1*
2-Fluorobiphenyl	*93*		*44 - 120*	*10/12/20 15:09*	*10/13/20 14:32*	*1*
2-Fluorophenol	*46*		*17 - 120*	*10/12/20 15:09*	*10/13/20 14:32*	*1*
Nitrobenzene-d5	*80*		*15 - 314*	*10/12/20 15:09*	*10/13/20 14:32*	*1*
p-Terphenyl-d14	*101*		*22 - 125*	*10/12/20 15:09*	*10/13/20 14:32*	*1*
Phenol-d5	*33*		*8 - 424*	*10/12/20 15:09*	*10/13/20 14:32*	*1*

Lab Sample ID: LCS 480-553550/2-A
Matrix: Water
Analysis Batch: 553659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 553550

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	40.6		ug/L		81	44 - 142
1,2-Dichlorobenzene	50.0	34.2		ug/L		68	32 - 129
1,3-Dichlorobenzene	50.0	33.7		ug/L		67	1 - 172
1,4-Dichlorobenzene	50.0	33.7		ug/L		67	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	37.4		ug/L		75	36 - 166
2,4,6-Trichlorophenol	50.0	47.1		ug/L		94	37 - 144
2,4-Dichlorophenol	50.0	45.2		ug/L		90	39 - 135
2,4-Dimethylphenol	50.0	43.0		ug/L		86	32 - 120
2,4-Dinitrophenol	100	106		ug/L		106	1 - 191
2,4-Dinitrotoluene	50.0	51.0		ug/L		102	39 - 139
2,6-Dinitrotoluene	50.0	49.2		ug/L		98	50 - 158
2-Chloronaphthalene	50.0	43.6		ug/L		87	60 - 120
2-Chlorophenol	50.0	38.5		ug/L		77	23 - 134
2-Nitrophenol	50.0	47.0		ug/L		94	29 - 182
3,3'-Dichlorobenzidine	100	101		ug/L		101	1 - 262
4,6-Dinitro-2-methylphenol	100	105		ug/L		105	1 - 181
4-Bromophenyl phenyl ether	50.0	51.7		ug/L		103	53 - 127
4-Chloro-3-methylphenol	50.0	46.6		ug/L		93	22 - 147
4-Chlorophenyl phenyl ether	50.0	51.2		ug/L		102	25 - 158
4-Nitrophenol	100	35.7		ug/L		36	1 - 132
Acenaphthene	50.0	45.5		ug/L		91	47 - 145
Acenaphthylene	50.0	46.1		ug/L		92	33 - 145
Anthracene	50.0	49.5		ug/L		99	27 - 133
Benzidine	100	ND		ug/L		23	1 - 120
Benzo[a]anthracene	50.0	47.7		ug/L		95	33 - 143
Benzo[a]pyrene	50.0	54.9		ug/L		110	17 - 163
Benzo[b]fluoranthene	50.0	54.8		ug/L		110	24 - 159
Benzo[g,h,i]perylene	50.0	55.3		ug/L		111	1 - 219
Benzo[k]fluoranthene	50.0	51.0		ug/L		102	11 - 162
Bis(2-chloroethoxy)methane	50.0	43.0		ug/L		86	33 - 184
Bis(2-chloroethyl)ether	50.0	40.5		ug/L		81	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-553550/2-A
Matrix: Water
Analysis Batch: 553659

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 553550

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	44.7		ug/L		89	8 - 158
Butyl benzyl phthalate	50.0	45.0		ug/L		90	1 - 152
Chrysene	50.0	48.1		ug/L		96	17 - 168
Di-n-butyl phthalate	50.0	46.4		ug/L		93	1 - 120
Di-n-octyl phthalate	50.0	45.8		ug/L		92	4 - 146
Dibenz(a,h)anthracene	50.0	56.3		ug/L		113	1 - 227
Diethyl phthalate	50.0	48.5		ug/L		97	1 - 120
Dimethyl phthalate	50.0	48.8		ug/L		98	1 - 120
Fluoranthene	50.0	50.8		ug/L		102	26 - 137
Fluorene	50.0	48.7		ug/L		97	59 - 121
Hexachlorobenzene	50.0	44.6		ug/L		89	1 - 152
Hexachlorocyclopentadiene	50.0	31.7		ug/L		63	5 - 120
Hexachloroethane	50.0	30.5		ug/L		61	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	56.6		ug/L		113	1 - 171
Isophorone	50.0	46.9		ug/L		94	21 - 196
N-Nitrosodi-n-propylamine	50.0	42.2		ug/L		84	1 - 230
N-Nitrosodiphenylamine	50.0	49.4		ug/L		99	54 - 125
Naphthalene	50.0	40.9		ug/L		82	21 - 133
Nitrobenzene	50.0	39.1		ug/L		78	35 - 180
Pentachlorophenol	100	94.0		ug/L		94	14 - 176
Phenanthrene	50.0	49.9		ug/L		100	54 - 120
Phenol	50.0	19.2		ug/L		38	5 - 120
Pyrene	50.0	48.1		ug/L		96	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*90*		*52 - 151*
2-Fluorobiphenyl	*92*		*44 - 120*
2-Fluorophenol	*47*		*17 - 120*
Nitrobenzene-d5	*79*		*15 - 314*
p-Terphenyl-d14	*101*		*22 - 125*
Phenol-d5	*35*		*8 - 424*

Lab Sample ID: LCSD 480-553550/3-A
Matrix: Water
Analysis Batch: 553659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 553550

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	40.4		ug/L		81	44 - 142	1	34
1,2-Dichlorobenzene	50.0	33.8		ug/L		68	32 - 129	1	38
1,3-Dichlorobenzene	50.0	32.2		ug/L		64	1 - 172	5	37
1,4-Dichlorobenzene	50.0	33.0		ug/L		66	20 - 124	2	40
2,2'-Oxybis(1-chloropropane)	50.0	35.4		ug/L		71	36 - 166	5	36
2,4,6-Trichlorophenol	50.0	48.8		ug/L		98	37 - 144	4	20
2,4-Dichlorophenol	50.0	46.4		ug/L		93	39 - 135	3	23
2,4-Dimethylphenol	50.0	42.3		ug/L		85	32 - 120	2	18
2,4-Dinitrophenol	100	110		ug/L		110	1 - 191	3	29
2,4-Dinitrotoluene	50.0	51.7		ug/L		103	39 - 139	1	20
2,6-Dinitrotoluene	50.0	48.8		ug/L		98	50 - 158	1	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-553550/3-A
Matrix: Water
Analysis Batch: 553659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 553550

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	42.7		ug/L		85	60 - 120	2	30
2-Chlorophenol			50.0	36.8		ug/L		74	23 - 134	5	26
2-Nitrophenol			50.0	47.8		ug/L		96	29 - 182	2	28
3,3'-Dichlorobenzidine			100	100		ug/L		100	1 - 262	0	31
4,6-Dinitro-2-methylphenol			100	107		ug/L		107	1 - 181	1	30
4-Bromophenyl phenyl ether			50.0	49.4		ug/L		99	53 - 127	4	16
4-Chloro-3-methylphenol			50.0	46.1		ug/L		92	22 - 147	1	16
4-Chlorophenyl phenyl ether			50.0	51.1		ug/L		102	25 - 158	0	15
4-Nitrophenol			100	36.6		ug/L		37	1 - 132	2	24
Acenaphthene			50.0	45.5		ug/L		91	47 - 145	0	25
Acenaphthylene			50.0	46.5		ug/L		93	33 - 145	1	22
Anthracene			50.0	47.9		ug/L		96	27 - 133	3	15
Benzidine			100	ND		ug/L		28	1 - 120	18	50
Benzo[a]anthracene			50.0	47.2		ug/L		94	33 - 143	1	15
Benzo[a]pyrene			50.0	55.2		ug/L		110	17 - 163	1	15
Benzo[b]fluoranthene			50.0	59.6		ug/L		119	24 - 159	8	17
Benzo[g,h,i]perylene			50.0	54.8		ug/L		110	1 - 219	1	19
Benzo[k]fluoranthene			50.0	50.1		ug/L		100	11 - 162	2	19
Bis(2-chloroethoxy)methane			50.0	42.7		ug/L		85	33 - 184	1	23
Bis(2-chloroethyl)ether			50.0	38.7		ug/L		77	12 - 158	5	33
Bis(2-ethylhexyl) phthalate			50.0	44.6		ug/L		89	8 - 158	0	15
Butyl benzyl phthalate			50.0	44.0		ug/L		88	1 - 152	2	15
Chrysene			50.0	47.5		ug/L		95	17 - 168	1	15
Di-n-butyl phthalate			50.0	47.9		ug/L		96	1 - 120	3	15
Di-n-octyl phthalate			50.0	46.6		ug/L		93	4 - 146	2	15
Dibenz(a,h)anthracene			50.0	56.0		ug/L		112	1 - 227	1	18
Diethyl phthalate			50.0	47.9		ug/L		96	1 - 120	1	15
Dimethyl phthalate			50.0	48.8		ug/L		98	1 - 120	0	15
Fluoranthene			50.0	50.7		ug/L		101	26 - 137	0	15
Fluorene			50.0	47.5		ug/L		95	59 - 121	2	18
Hexachlorobenzene			50.0	43.2		ug/L		86	1 - 152	3	15
Hexachlorocyclopentadiene			50.0	33.0		ug/L		66	5 - 120	4	50
Hexachloroethane			50.0	30.9		ug/L		62	40 - 120	2	43
Indeno[1,2,3-cd]pyrene			50.0	56.8		ug/L		114	1 - 171	0	17
Isophorone			50.0	46.5		ug/L		93	21 - 196	1	21
N-Nitrosodi-n-propylamine			50.0	41.0		ug/L		82	1 - 230	3	23
N-Nitrosodiphenylamine			50.0	48.1		ug/L		96	54 - 125	3	15
Naphthalene			50.0	41.3		ug/L		83	21 - 133	1	31
Nitrobenzene			50.0	39.0		ug/L		78	35 - 180	0	27
Pentachlorophenol			100	95.2		ug/L		95	14 - 176	1	21
Phenanthrene			50.0	49.2		ug/L		98	54 - 120	2	16
Phenol			50.0	18.2		ug/L		36	5 - 120	6	36
Pyrene			50.0	47.0		ug/L		94	52 - 120	2	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*85*		*52 - 151*
2-Fluorobiphenyl	*95*		*44 - 120*
2-Fluorophenol	*45*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-553550/3-A
Matrix: Water
Analysis Batch: 553659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 553550

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*80*		*15 - 314*
p-Terphenyl-d14	*101*		*22 - 125*
Phenol-d5	*33*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-554019/1-A
Matrix: Water
Analysis Batch: 554238

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554019

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		10/15/20 10:39	10/15/20 22:08	1

Lab Sample ID: LCS 480-554019/2-A
Matrix: Water
Analysis Batch: 554238

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 554019

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.218		mg/L		109	85 - 115

Lab Sample ID: 480-176258-5 MS
Matrix: Water
Analysis Batch: 554238

Client Sample ID: COMP 001-004
Prep Type: Total/NA
Prep Batch: 554019

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	ND		0.200	0.216		mg/L		108	70 - 130

Lab Sample ID: 480-176258-5 MSD
Matrix: Water
Analysis Batch: 554238

Client Sample ID: COMP 001-004
Prep Type: Total/NA
Prep Batch: 554019

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	ND		0.200	0.217		mg/L		108	70 - 130	0	20

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-554081/1-A
Matrix: Water
Analysis Batch: 554184

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 554081

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		10/15/20 12:40	10/15/20 16:57	1

Lab Sample ID: LCS 480-554081/2-A
Matrix: Water
Analysis Batch: 554184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 554081

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00678		mg/L		102	85 - 115

Method: 245.1 - Mercury (CVAA) (Continued)

Lab Sample ID: LCSD 480-554081/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 554184 — **Prep Batch: 554081**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.00667	0.00680		mg/L		102	85 - 115	0	20

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-553576/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 553691 — **Prep Batch: 553576**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		10/12/20 18:27	10/13/20 11:59	1

Lab Sample ID: LCS 480-553576/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 553691 — **Prep Batch: 553576**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.400	0.417		mg/L		104	90 - 110		

Lab Sample ID: LCS 480-553576/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 553691 — **Prep Batch: 553576**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.250	0.253		mg/L		101	90 - 110		

Lab Sample ID: LCSD 480-553576/4-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 553691 — **Prep Batch: 553576**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total			0.250	0.247		mg/L		99	90 - 110	2	15

Lab Sample ID: 480-176258-5 MS — **Client Sample ID: COMP 001-004**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 553691 — **Prep Batch: 553576**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total	0.017	F1	0.100	0.0895	F1	mg/L		73	90 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-553564/23 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 553564

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.1		SU		101	99 - 101		

GC/MS VOA

Analysis Batch: 553209

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	624.1	
480-176258-6	TRIP BLANK	Total/NA	Water	624.1	
MB 480-553209/8	Method Blank	Total/NA	Water	624.1	
LCS 480-553209/6	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 553550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	625	
MB 480-553550/1-A	Method Blank	Total/NA	Water	625	
LCS 480-553550/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-553550/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 553659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	625.1	553550
MB 480-553550/1-A	Method Blank	Total/NA	Water	625.1	553550
LCS 480-553550/2-A	Lab Control Sample	Total/NA	Water	625.1	553550
LCSD 480-553550/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	553550

Metals

Prep Batch: 554019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	200.7	
MB 480-554019/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-554019/2-A	Lab Control Sample	Total/NA	Water	200.7	
480-176258-5 MS	COMP 001-004	Total/NA	Water	200.7	
480-176258-5 MSD	COMP 001-004	Total/NA	Water	200.7	

Prep Batch: 554081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	245.1	
MB 480-554081/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-554081/2-A	Lab Control Sample	Total/NA	Water	245.1	
LCSD 480-554081/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	

Analysis Batch: 554184

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	245.1	554081
MB 480-554081/1-A	Method Blank	Total/NA	Water	245.1	554081
LCS 480-554081/2-A	Lab Control Sample	Total/NA	Water	245.1	554081
LCSD 480-554081/3-A	Lab Control Sample Dup	Total/NA	Water	245.1	554081

Analysis Batch: 554238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	200.7 Rev 4.4	554019
MB 480-554019/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	554019
LCS 480-554019/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	554019
480-176258-5 MS	COMP 001-004	Total/NA	Water	200.7 Rev 4.4	554019
480-176258-5 MSD	COMP 001-004	Total/NA	Water	200.7 Rev 4.4	554019

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Analysis Batch: 553564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	SM 4500 H+ B	
LCS 480-553564/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 553576

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	Distill/CN	
MB 480-553576/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-553576/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-553576/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCSD 480-553576/4-A	Lab Control Sample Dup	Total/NA	Water	Distill/CN	
480-176258-5 MS	COMP 001-004	Total/NA	Water	Distill/CN	

Analysis Batch: 553691

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-176258-5	COMP 001-004	Total/NA	Water	335.4	553576
MB 480-553576/1-A	Method Blank	Total/NA	Water	335.4	553576
LCS 480-553576/2-A	Lab Control Sample	Total/NA	Water	335.4	553576
LCS 480-553576/3-A	Lab Control Sample	Total/NA	Water	335.4	553576
LCSD 480-553576/4-A	Lab Control Sample Dup	Total/NA	Water	335.4	553576
480-176258-5 MS	COMP 001-004	Total/NA	Water	335.4	553576

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-004
Lab Sample ID: 480-176258-5

Date Collected: 10/08/20 13:25
Matrix: Water
Date Received: 10/08/20 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	553209	10/09/20 15:49	WJD	TAL BUF
Total/NA	Prep	625			553550	10/12/20 15:09	ATG	TAL BUF
Total/NA	Analysis	625.1		1	553659	10/13/20 19:25	JMM	TAL BUF
Total/NA	Prep	200.7			554019	10/15/20 10:39	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	554238	10/15/20 22:23	LMH	TAL BUF
Total/NA	Prep	245.1			554081	10/15/20 12:40	BMB	TAL BUF
Total/NA	Analysis	245.1		1	554184	10/15/20 17:16	BMB	TAL BUF
Total/NA	Prep	Distill/CN			553576	10/12/20 18:27	ALT	TAL BUF
Total/NA	Analysis	335.4		1	553691	10/13/20 12:34	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	553564	10/12/20 15:44	BEF	TAL BUF

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-176258-6

Date Collected: 10/08/20 00:00
Matrix: Water
Date Received: 10/08/20 13:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	553209	10/09/20 16:12	WJD	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-176258-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-176258-5	COMP 001-004	Water	10/08/20 13:25	10/08/20 13:55	
480-176258-6	TRIP BLANK	Water	10/08/20 00:00	10/08/20 13:55	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-151769-15940.1
Client Contact: Jason Gutkowski	Phone: 315 436 3605	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Syracuse	TAT Requested (days): Standard Turn		A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Z - other (specify); Other:
State, Zip: NY, 13202			
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed 30049063		
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001		
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	10/8/20	0725	G	Water			X	X	X	X	X		Lab To
001-2		0926					X	X	X	X	X		Composite
001-3		1125					X	X	X	X	X		Sample
001-4		1325					X	X	X	X	X		
Trip Blank	—	—	—								X		

480-176258 Chain of Custody

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Jason Gutkowski	10/8/20 1355	Arcadis			
Relinquished by	Date/Time	Company	Received by	Date/Time: CW 10/08/20	Company
Relinquished by	Date/Time	Company	Received by: BDS	Date/Time: 10/9/20 1355	Company: TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 4.5 #1

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-176258-1

Login Number: 176258

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

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	4.5 #1 ICE
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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	False	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-177677-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
11/18/2020 11:52:34 AM
Wyatt Watson, Project Management Assistant I
Wyatt.Watson@Eurofinset.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Case Narrative

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-177677-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-177677-1

Comments
No additional comments.

Receipt
The samples were received on 11/4/2020 1:35 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.6º C.

Receipt Exceptions
The following samples were canceled for 624.1 VOAs by the client on 11/11/20 since they went out of hold before being analyzed: COMP 001-1 to 001-4 (480-177677-5) and TRIP BLANK (480-177677-6).

GC/MS Semi VOA
Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-557880 and analytical batch 480-558100 recovered outside control limits for the following analytes: Benzidine.

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

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

General Chemistry
Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMP 001-1 to 001-4 (480-177677-5).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-1 to 001-4
Lab Sample ID: 480-177677-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0016	J	0.010	0.0015	mg/L	1		200.7 Rev 4.4	Total/NA
Cyanide, Total	0.12		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	22.0	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-177677-1

Client Sample ID: COMP 001-1 to 001-4
Date Collected: 11/04/20 13:05
Date Received: 11/04/20 13:35

Lab Sample ID: 480-177677-5
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		11/06/20 15:05	11/09/20 14:18	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		11/06/20 15:05	11/09/20 14:18	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		11/06/20 15:05	11/09/20 14:18	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		11/06/20 15:05	11/09/20 14:18	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		11/06/20 15:05	11/09/20 14:18	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		11/06/20 15:05	11/09/20 14:18	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		11/06/20 15:05	11/09/20 14:18	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		11/06/20 15:05	11/09/20 14:18	1
2-Chlorophenol	ND		5.0	0.66	ug/L		11/06/20 15:05	11/09/20 14:18	1
2-Nitrophenol	ND		5.0	0.70	ug/L		11/06/20 15:05	11/09/20 14:18	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		11/06/20 15:05	11/09/20 14:18	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		11/06/20 15:05	11/09/20 14:18	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		11/06/20 15:05	11/09/20 14:18	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		11/06/20 15:05	11/09/20 14:18	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		11/06/20 15:05	11/09/20 14:18	1
4-Nitrophenol	ND		15	10	ug/L		11/06/20 15:05	11/09/20 14:18	1
Acenaphthene	ND		5.0	0.81	ug/L		11/06/20 15:05	11/09/20 14:18	1
Acenaphthylene	ND		5.0	0.87	ug/L		11/06/20 15:05	11/09/20 14:18	1
Anthracene	ND		5.0	1.4	ug/L		11/06/20 15:05	11/09/20 14:18	1
Benzidine	ND	*1	80	35	ug/L		11/06/20 15:05	11/09/20 14:18	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		11/06/20 15:05	11/09/20 14:18	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		11/06/20 15:05	11/09/20 14:18	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		11/06/20 15:05	11/09/20 14:18	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		11/06/20 15:05	11/09/20 14:18	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		11/06/20 15:05	11/09/20 14:18	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		11/06/20 15:05	11/09/20 14:18	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		11/06/20 15:05	11/09/20 14:18	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		11/06/20 15:05	11/09/20 14:18	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		11/06/20 15:05	11/09/20 14:18	1
Chrysene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
Decane	ND		10	1.6	ug/L		11/06/20 15:05	11/09/20 14:18	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		11/06/20 15:05	11/09/20 14:18	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		11/06/20 15:05	11/09/20 14:18	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		11/06/20 15:05	11/09/20 14:18	1
Diethyl phthalate	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		11/06/20 15:05	11/09/20 14:18	1
Fluoranthene	ND		5.0	1.6	ug/L		11/06/20 15:05	11/09/20 14:18	1
Fluorene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
Hexachloroethane	ND		5.0	0.60	ug/L		11/06/20 15:05	11/09/20 14:18	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		11/06/20 15:05	11/09/20 14:18	1
Isophorone	ND		5.0	0.74	ug/L		11/06/20 15:05	11/09/20 14:18	1

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-1 to 001-4
Lab Sample ID: 480-177677-5
Date Collected: 11/04/20 13:05
Matrix: Water
Date Received: 11/04/20 13:35

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		11/06/20 15:05	11/09/20 14:18	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 14:18	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		11/06/20 15:05	11/09/20 14:18	1
Naphthalene	ND		5.0	0.86	ug/L		11/06/20 15:05	11/09/20 14:18	1
Nitrobenzene	ND		5.0	0.81	ug/L		11/06/20 15:05	11/09/20 14:18	1
Pentachlorophenol	ND		10	1.6	ug/L		11/06/20 15:05	11/09/20 14:18	1
Phenanthrene	ND		5.0	1.2	ug/L		11/06/20 15:05	11/09/20 14:18	1
Phenol	ND		5.0	0.35	ug/L		11/06/20 15:05	11/09/20 14:18	1
Pyrene	ND		5.0	1.4	ug/L		11/06/20 15:05	11/09/20 14:18	1
n-Octadecane	ND		10	1.2	ug/L		11/06/20 15:05	11/09/20 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*84*		*52 - 151*	*11/06/20 15:05*	*11/09/20 14:18*	*1*
2-Fluorobiphenyl	*95*		*44 - 120*	*11/06/20 15:05*	*11/09/20 14:18*	*1*
2-Fluorophenol	*52*		*17 - 120*	*11/06/20 15:05*	*11/09/20 14:18*	*1*
Nitrobenzene-d5	*80*		*15 - 314*	*11/06/20 15:05*	*11/09/20 14:18*	*1*
p-Terphenyl-d14	*99*		*22 - 125*	*11/06/20 15:05*	*11/09/20 14:18*	*1*
Phenol-d5	*34*		*8 - 424*	*11/06/20 15:05*	*11/09/20 14:18*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0016**	**J**	0.010	0.0015	mg/L		11/10/20 17:40	11/11/20 19:27	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/10/20 13:55	11/10/20 17:04	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.12**		0.010	0.0050	mg/L		11/06/20 19:22	11/07/20 12:16	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.2**	**HF**	0.1	0.1	SU			11/17/20 10:23	1
Temperature	**22.0**	**HF**	0.001	0.001	Degrees C			11/17/20 10:23	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-177677-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TBP (52-151)	FBP (44-120)	2FP (17-120)	NBZ (15-314)	TPHd14 (22-125)	PHL (8-424)		
480-177677-5	COMP 001-1 to 001-4	84	95	52	80	99	34		
LCS 480-557880/2-A	Lab Control Sample	102	94	48	82	93	33		
LCSD 480-557880/3-A	Lab Control Sample Dup	103	98	50	85	98	33		
MB 480-557880/1-A	Method Blank	77	94	46	79	104	31		

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-557880/1-A
Matrix: Water
Analysis Batch: 558100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 557880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		11/06/20 15:05	11/09/20 11:48	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		11/06/20 15:05	11/09/20 11:48	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		11/06/20 15:05	11/09/20 11:48	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		11/06/20 15:05	11/09/20 11:48	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		11/06/20 15:05	11/09/20 11:48	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		11/06/20 15:05	11/09/20 11:48	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		11/06/20 15:05	11/09/20 11:48	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		11/06/20 15:05	11/09/20 11:48	1
2-Chlorophenol	ND		5.0	0.66	ug/L		11/06/20 15:05	11/09/20 11:48	1
2-Nitrophenol	ND		5.0	0.70	ug/L		11/06/20 15:05	11/09/20 11:48	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		11/06/20 15:05	11/09/20 11:48	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		11/06/20 15:05	11/09/20 11:48	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		11/06/20 15:05	11/09/20 11:48	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		11/06/20 15:05	11/09/20 11:48	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		11/06/20 15:05	11/09/20 11:48	1
4-Nitrophenol	ND		15	10	ug/L		11/06/20 15:05	11/09/20 11:48	1
Acenaphthene	ND		5.0	0.81	ug/L		11/06/20 15:05	11/09/20 11:48	1
Acenaphthylene	ND		5.0	0.87	ug/L		11/06/20 15:05	11/09/20 11:48	1
Anthracene	ND		5.0	1.4	ug/L		11/06/20 15:05	11/09/20 11:48	1
Benzidine	ND		80	35	ug/L		11/06/20 15:05	11/09/20 11:48	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		11/06/20 15:05	11/09/20 11:48	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		11/06/20 15:05	11/09/20 11:48	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		11/06/20 15:05	11/09/20 11:48	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		11/06/20 15:05	11/09/20 11:48	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		11/06/20 15:05	11/09/20 11:48	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		11/06/20 15:05	11/09/20 11:48	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		11/06/20 15:05	11/09/20 11:48	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		11/06/20 15:05	11/09/20 11:48	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		11/06/20 15:05	11/09/20 11:48	1
Chrysene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
Decane	ND		10	1.6	ug/L		11/06/20 15:05	11/09/20 11:48	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		11/06/20 15:05	11/09/20 11:48	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		11/06/20 15:05	11/09/20 11:48	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		11/06/20 15:05	11/09/20 11:48	1
Diethyl phthalate	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		11/06/20 15:05	11/09/20 11:48	1
Fluoranthene	ND		5.0	1.6	ug/L		11/06/20 15:05	11/09/20 11:48	1
Fluorene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
Hexachloroethane	ND		5.0	0.60	ug/L		11/06/20 15:05	11/09/20 11:48	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		11/06/20 15:05	11/09/20 11:48	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-557880/1-A
Matrix: Water
Analysis Batch: 558100

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 557880

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		5.0	0.74	ug/L		11/06/20 15:05	11/09/20 11:48	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		11/06/20 15:05	11/09/20 11:48	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		11/06/20 15:05	11/09/20 11:48	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		11/06/20 15:05	11/09/20 11:48	1
Naphthalene	ND		5.0	0.86	ug/L		11/06/20 15:05	11/09/20 11:48	1
Nitrobenzene	ND		5.0	0.81	ug/L		11/06/20 15:05	11/09/20 11:48	1
Pentachlorophenol	ND		10	1.6	ug/L		11/06/20 15:05	11/09/20 11:48	1
Phenanthrene	ND		5.0	1.2	ug/L		11/06/20 15:05	11/09/20 11:48	1
Phenol	ND		5.0	0.35	ug/L		11/06/20 15:05	11/09/20 11:48	1
Pyrene	ND		5.0	1.4	ug/L		11/06/20 15:05	11/09/20 11:48	1
n-Octadecane	ND		10	1.2	ug/L		11/06/20 15:05	11/09/20 11:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*77*		*52 - 151*	*11/06/20 15:05*	*11/09/20 11:48*	*1*
2-Fluorobiphenyl	*94*		*44 - 120*	*11/06/20 15:05*	*11/09/20 11:48*	*1*
2-Fluorophenol	*46*		*17 - 120*	*11/06/20 15:05*	*11/09/20 11:48*	*1*
Nitrobenzene-d5	*79*		*15 - 314*	*11/06/20 15:05*	*11/09/20 11:48*	*1*
p-Terphenyl-d14	*104*		*22 - 125*	*11/06/20 15:05*	*11/09/20 11:48*	*1*
Phenol-d5	*31*		*8 - 424*	*11/06/20 15:05*	*11/09/20 11:48*	*1*

Lab Sample ID: LCS 480-557880/2-A
Matrix: Water
Analysis Batch: 558100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 557880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	34.1		ug/L		68	44 - 142
1,2-Dichlorobenzene	50.0	30.4		ug/L		61	32 - 129
1,3-Dichlorobenzene	50.0	27.2		ug/L		54	1 - 172
1,4-Dichlorobenzene	50.0	28.5		ug/L		57	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	29.9		ug/L		60	36 - 166
2,4,6-Trichlorophenol	50.0	44.5		ug/L		89	37 - 144
2,4-Dichlorophenol	50.0	43.7		ug/L		87	39 - 135
2,4-Dimethylphenol	50.0	37.3		ug/L		75	32 - 120
2,4-Dinitrophenol	100	80.6		ug/L		81	1 - 191
2,4-Dinitrotoluene	50.0	44.0		ug/L		88	39 - 139
2,6-Dinitrotoluene	50.0	45.4		ug/L		91	50 - 158
2-Chloronaphthalene	50.0	41.3		ug/L		83	60 - 120
2-Chlorophenol	50.0	35.5		ug/L		71	23 - 134
2-Nitrophenol	50.0	46.4		ug/L		93	29 - 182
3,3'-Dichlorobenzidine	100	99.5		ug/L		99	1 - 262
4,6-Dinitro-2-methylphenol	100	94.0		ug/L		94	1 - 181
4-Bromophenyl phenyl ether	50.0	45.5		ug/L		91	53 - 127
4-Chloro-3-methylphenol	50.0	40.2		ug/L		80	22 - 147
4-Chlorophenyl phenyl ether	50.0	42.3		ug/L		85	25 - 158
4-Nitrophenol	100	29.6		ug/L		30	1 - 132
Acenaphthene	50.0	43.3		ug/L		87	47 - 145
Acenaphthylene	50.0	42.5		ug/L		85	33 - 145
Anthracene	50.0	44.4		ug/L		89	27 - 133

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-557880/2-A
Matrix: Water
Analysis Batch: 558100

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 557880

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzidine	100	ND		ug/L		22	1 - 120
Benzo[a]anthracene	50.0	43.1		ug/L		86	33 - 143
Benzo[a]pyrene	50.0	48.3		ug/L		97	17 - 163
Benzo[b]fluoranthene	50.0	49.6		ug/L		99	24 - 159
Benzo[g,h,i]perylene	50.0	47.1		ug/L		94	1 - 219
Benzo[k]fluoranthene	50.0	46.7		ug/L		93	11 - 162
Bis(2-chloroethoxy)methane	50.0	40.1		ug/L		80	33 - 184
Bis(2-chloroethyl)ether	50.0	37.2		ug/L		74	12 - 158
Bis(2-ethylhexyl) phthalate	50.0	38.5		ug/L		77	8 - 158
Butyl benzyl phthalate	50.0	37.9		ug/L		76	1 - 152
Chrysene	50.0	42.5		ug/L		85	17 - 168
Di-n-butyl phthalate	50.0	39.4		ug/L		79	1 - 120
Di-n-octyl phthalate	50.0	37.2		ug/L		74	4 - 146
Dibenz(a,h)anthracene	50.0	49.3		ug/L		99	1 - 227
Diethyl phthalate	50.0	39.5		ug/L		79	1 - 120
Dimethyl phthalate	50.0	44.0		ug/L		88	1 - 120
Fluoranthene	50.0	44.0		ug/L		88	26 - 137
Fluorene	50.0	41.6		ug/L		83	59 - 121
Hexachlorobenzene	50.0	44.0		ug/L		88	1 - 152
Hexachlorocyclopentadiene	50.0	25.8		ug/L		52	5 - 120
Hexachloroethane	50.0	23.7		ug/L		47	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	47.5		ug/L		95	1 - 171
Isophorone	50.0	40.2		ug/L		80	21 - 196
N-Nitrosodi-n-propylamine	50.0	34.6		ug/L		69	1 - 230
N-Nitrosodiphenylamine	50.0	45.1		ug/L		90	54 - 125
Naphthalene	50.0	37.4		ug/L		75	21 - 133
Nitrobenzene	50.0	36.9		ug/L		74	35 - 180
Pentachlorophenol	100	73.4		ug/L		73	14 - 176
Phenanthrene	50.0	44.5		ug/L		89	54 - 120
Phenol	50.0	16.7		ug/L		33	5 - 120
Pyrene	50.0	41.2		ug/L		82	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*102*		*52 - 151*
2-Fluorobiphenyl	*94*		*44 - 120*
2-Fluorophenol	*48*		*17 - 120*
Nitrobenzene-d5	*82*		*15 - 314*
p-Terphenyl-d14	*93*		*22 - 125*
Phenol-d5	*33*		*8 - 424*

Lab Sample ID: LCSD 480-557880/3-A
Matrix: Water
Analysis Batch: 558100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 557880

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	34.5		ug/L		69	44 - 142	1	34
1,2-Dichlorobenzene	50.0	30.7		ug/L		61	32 - 129	1	38
1,3-Dichlorobenzene	50.0	27.3		ug/L		55	1 - 172	0	37

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-557880/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 558100
Prep Batch: 557880

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dichlorobenzene	50.0	28.9		ug/L		58	20 - 124	1	40
2,2'-Oxybis(1-chloropropane)	50.0	30.3		ug/L		61	36 - 166	1	36
2,4,6-Trichlorophenol	50.0	46.4		ug/L		93	37 - 144	4	20
2,4-Dichlorophenol	50.0	45.6		ug/L		91	39 - 135	4	23
2,4-Dimethylphenol	50.0	38.8		ug/L		78	32 - 120	4	18
2,4-Dinitrophenol	100	85.5		ug/L		86	1 - 191	6	29
2,4-Dinitrotoluene	50.0	45.5		ug/L		91	39 - 139	3	20
2,6-Dinitrotoluene	50.0	46.4		ug/L		93	50 - 158	2	17
2-Chloronaphthalene	50.0	42.1		ug/L		84	60 - 120	2	30
2-Chlorophenol	50.0	37.3		ug/L		75	23 - 134	5	26
2-Nitrophenol	50.0	47.7		ug/L		95	29 - 182	3	28
3,3'-Dichlorobenzidine	100	105		ug/L		105	1 - 262	5	31
4,6-Dinitro-2-methylphenol	100	100		ug/L		100	1 - 181	6	30
4-Bromophenyl phenyl ether	50.0	45.9		ug/L		92	53 - 127	1	16
4-Chloro-3-methylphenol	50.0	40.1		ug/L		80	22 - 147	0	16
4-Chlorophenyl phenyl ether	50.0	42.9		ug/L		86	25 - 158	1	15
4-Nitrophenol	100	29.2		ug/L		29	1 - 132	1	24
Acenaphthene	50.0	44.6		ug/L		89	47 - 145	3	25
Acenaphthylene	50.0	43.3		ug/L		87	33 - 145	2	22
Anthracene	50.0	45.8		ug/L		92	27 - 133	3	15
Benzidine	100	41.3	J *1	ug/L		41	1 - 120	61	50
Benzo[a]anthracene	50.0	45.4		ug/L		91	33 - 143	5	15
Benzo[a]pyrene	50.0	49.7		ug/L		99	17 - 163	3	15
Benzo[b]fluoranthene	50.0	50.6		ug/L		101	24 - 159	2	17
Benzo[g,h,i]perylene	50.0	48.2		ug/L		96	1 - 219	2	19
Benzo[k]fluoranthene	50.0	47.1		ug/L		94	11 - 162	1	19
Bis(2-chloroethoxy)methane	50.0	41.6		ug/L		83	33 - 184	4	23
Bis(2-chloroethyl)ether	50.0	39.0		ug/L		78	12 - 158	5	33
Bis(2-ethylhexyl) phthalate	50.0	40.5		ug/L		81	8 - 158	5	15
Butyl benzyl phthalate	50.0	41.1		ug/L		82	1 - 152	8	15
Chrysene	50.0	44.5		ug/L		89	17 - 168	5	15
Di-n-butyl phthalate	50.0	41.6		ug/L		83	1 - 120	5	15
Di-n-octyl phthalate	50.0	38.9		ug/L		78	4 - 146	5	15
Dibenz(a,h)anthracene	50.0	50.2		ug/L		100	1 - 227	2	18
Diethyl phthalate	50.0	40.6		ug/L		81	1 - 120	3	15
Dimethyl phthalate	50.0	45.2		ug/L		90	1 - 120	3	15
Fluoranthene	50.0	45.7		ug/L		91	26 - 137	4	15
Fluorene	50.0	42.7		ug/L		85	59 - 121	3	18
Hexachlorobenzene	50.0	46.7		ug/L		93	1 - 152	6	15
Hexachlorocyclopentadiene	50.0	26.5		ug/L		53	5 - 120	2	50
Hexachloroethane	50.0	24.0		ug/L		48	40 - 120	1	43
Indeno[1,2,3-cd]pyrene	50.0	48.1		ug/L		96	1 - 171	1	17
Isophorone	50.0	40.6		ug/L		81	21 - 196	1	21
N-Nitrosodi-n-propylamine	50.0	36.4		ug/L		73	1 - 230	5	23
N-Nitrosodiphenylamine	50.0	46.0		ug/L		92	54 - 125	2	15
Naphthalene	50.0	38.0		ug/L		76	21 - 133	2	31
Nitrobenzene	50.0	38.7		ug/L		77	35 - 180	5	27
Pentachlorophenol	100	77.0		ug/L		77	14 - 176	5	21
Phenanthrene	50.0	45.9		ug/L		92	54 - 120	3	16

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-557880/3-A
Matrix: Water
Analysis Batch: 558100

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 557880

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenol			50.0	16.7		ug/L		33	5 - 120	0	36
Pyrene			50.0	43.2		ug/L		86	52 - 120	5	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*103*		*52 - 151*
2-Fluorobiphenyl	*98*		*44 - 120*
2-Fluorophenol	*50*		*17 - 120*
Nitrobenzene-d5	*85*		*15 - 314*
p-Terphenyl-d14	*98*		*22 - 125*
Phenol-d5	*33*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-558380/1-A
Matrix: Water
Analysis Batch: 558739

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 558380

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		11/10/20 17:40	11/11/20 18:09	1

Lab Sample ID: LCS 480-558380/2-A
Matrix: Water
Analysis Batch: 558739

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 558380

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Zinc			0.200	0.205		mg/L		102	85 - 115		

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-558315/1-A
Matrix: Water
Analysis Batch: 558416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 558315

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		11/10/20 13:55	11/10/20 17:00	1

Lab Sample ID: LCS 480-558315/2-A
Matrix: Water
Analysis Batch: 558416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 558315

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.00667	0.00725		mg/L		109	85 - 115		

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-557919/1-A
Client Sample ID: Method Blank
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 557962
Prep Batch: 557919

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		11/06/20 19:22	11/07/20 11:48	1

Lab Sample ID: LCS 480-557919/3-A
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 557962
Prep Batch: 557919

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Total			0.250	0.254		mg/L		102	90 - 110		

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-559473/1
Client Sample ID: Lab Control Sample
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 559473

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
pH			7.00	7.0		SU		100	99 - 101		

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS Semi VOA

Prep Batch: 557880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	625	
MB 480-557880/1-A	Method Blank	Total/NA	Water	625	
LCS 480-557880/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-557880/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 558100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	625.1	557880
MB 480-557880/1-A	Method Blank	Total/NA	Water	625.1	557880
LCS 480-557880/2-A	Lab Control Sample	Total/NA	Water	625.1	557880
LCSD 480-557880/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	557880

Metals

Prep Batch: 558315

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	245.1	
MB 480-558315/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-558315/2-A	Lab Control Sample	Total/NA	Water	245.1	

Prep Batch: 558380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	200.7	
MB 480-558380/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-558380/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 558416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	245.1	558315
MB 480-558315/1-A	Method Blank	Total/NA	Water	245.1	558315
LCS 480-558315/2-A	Lab Control Sample	Total/NA	Water	245.1	558315

Analysis Batch: 558739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	200.7 Rev 4.4	558380
MB 480-558380/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	558380
LCS 480-558380/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	558380

General Chemistry

Prep Batch: 557919

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	Distill/CN	
MB 480-557919/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-557919/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 557962

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	335.4	557919
MB 480-557919/1-A	Method Blank	Total/NA	Water	335.4	557919
LCS 480-557919/3-A	Lab Control Sample	Total/NA	Water	335.4	557919

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

General Chemistry

Analysis Batch: 559473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-177677-5	COMP 001-1 to 001-4	Total/NA	Water	SM 4500 H+ B	
LCS 480-559473/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMP 001-1 to 001-4
Lab Sample ID: 480-177677-5

Date Collected: 11/04/20 13:05
Matrix: Water
Date Received: 11/04/20 13:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	625			557880	11/06/20 15:05	ATG	TAL BUF
Total/NA	Analysis	625.1		1	558100	11/09/20 14:18	JMM	TAL BUF
Total/NA	Prep	200.7			558380	11/10/20 17:40	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	558739	11/11/20 19:27	LMH	TAL BUF
Total/NA	Prep	245.1			558315	11/10/20 13:55	BMB	TAL BUF
Total/NA	Analysis	245.1		1	558416	11/10/20 17:04	BMB	TAL BUF
Total/NA	Prep	Distill/CN			557919	11/06/20 19:22	ALT	TAL BUF
Total/NA	Analysis	335.4		1	557962	11/07/20 12:16	CRK	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	559473	11/17/20 10:23	BEF	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-177677-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.
EPA = US Environmental Protection Agency
MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.
None = None
SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-177677-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-177677-5	COMP 001-1 to 001-4	Water	11/04/20 13:05	11/04/20 13:35	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-152835-15940.1
Client Contact: Jason Gutkowski	Phone: 315 436 3605	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: ARCADIS U.S., Inc.				Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			Preservation Codes:
City: Syracuse	TAT Requested (days): Standard Turn			
State, Zip: NY, 13202				
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed 30049063			
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056			
Site:	SSOW#:			

480-177677 Chain of Custody

Analysis Requested

F - MeOH
G - Amchlor
H - Ascorbic Acid
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2S2O3
S - H2SO4
T - TSP Dodecahydrate
U - Acetone
V - MCAA
W - pH 4-5
Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	11/4/20	0705	G	Water			X	X	X	X	X		Lab To
001-2		0905					X	X	X	X	X		Composite
001-3		1105					X	X	X	X	X		Samples
001-4		1305					X	X	X	X	X		
Trip Blank	—	—	—								X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Dan Gutteli	11/4/20 / 1335	Arcadis	[illegible]	11/04/20 1335	TA
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.6 #1 ICE

Ver: 01/16/2019

11/18/2020

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-177677-1

Login Number: 177677
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins TestAmerica, 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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	False	

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ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-223251-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Judy Stone

Authorized for release by:
11/23/2020 5:32:20 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 460-223251-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Case Narrative

Client: ARCADIS U.S. Inc
Job ID: 460-223251-1
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 460-223251-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative
460-223251-1

Receipt
The samples were received on 11/20/2020 7:30 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 460-223251-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: Trip Blank
Lab Sample ID: 460-223251-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.2		1.0	0.33	ug/L	1		624.1	Total/NA
Methylene Chloride	0.34	J	1.0	0.32	ug/L	1		624.1	Total/NA

Client Sample ID: 001_COMPOSITE
Lab Sample ID: 460-223251-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.98	J	1.0	0.32	ug/L	1		624.1	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Trip Blank
Lab Sample ID: 460-223251-5

Date Collected: 11/19/20 12:55
Matrix: Water
Date Received: 11/20/20 19:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.24	ug/L			11/21/20 13:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			11/21/20 13:25	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			11/21/20 13:25	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			11/21/20 13:25	1
1,1-Dichloroethene	ND		1.0	0.12	ug/L			11/21/20 13:25	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/21/20 13:25	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			11/21/20 13:25	1
1,2-Dichloroethene, Total	ND		2.0	0.44	ug/L			11/21/20 13:25	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			11/21/20 13:25	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			11/21/20 13:25	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			11/21/20 13:25	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			11/21/20 13:25	1
Acrolein	ND		4.0	1.1	ug/L			11/21/20 13:25	1
Acrylonitrile	ND		2.0	0.77	ug/L			11/21/20 13:25	1
Benzene	ND		1.0	0.43	ug/L			11/21/20 13:25	1
Bromoform	ND		1.0	0.54	ug/L			11/21/20 13:25	1
Bromomethane	ND		1.0	0.45	ug/L			11/21/20 13:25	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			11/21/20 13:25	1
Chlorobenzene	ND		1.0	0.38	ug/L			11/21/20 13:25	1
Dibromochloromethane	ND		1.0	0.13	ug/L			11/21/20 13:25	1
Chloroethane	ND		1.0	0.32	ug/L			11/21/20 13:25	1
Chloroform	**1.2**		1.0	0.33	ug/L			11/21/20 13:25	1
Chloromethane	ND		1.0	0.43	ug/L			11/21/20 13:25	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			11/21/20 13:25	1
Bromodichloromethane	ND		1.0	0.34	ug/L			11/21/20 13:25	1
Ethylbenzene	ND		1.0	0.30	ug/L			11/21/20 13:25	1
Methylene Chloride	**0.34**	**J**	1.0	0.32	ug/L			11/21/20 13:25	1
Tetrachloroethene	ND		1.0	0.25	ug/L			11/21/20 13:25	1
Toluene	ND		1.0	0.38	ug/L			11/21/20 13:25	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			11/21/20 13:25	1
Trichloroethene	ND		1.0	0.31	ug/L			11/21/20 13:25	1
Trichlorofluoromethane	ND		1.0	0.14	ug/L			11/21/20 13:25	1
Vinyl chloride	ND		1.0	0.34	ug/L			11/21/20 13:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*60 - 140*		*11/21/20 13:25*	*1*
4-Bromofluorobenzene	*99*		*60 - 140*		*11/21/20 13:25*	*1*
Toluene-d8 (Surr)	*97*		*60 - 140*		*11/21/20 13:25*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*11/21/20 13:25*	*1*

Client Sample ID: 001_COMPOSITE
Lab Sample ID: 460-223251-6

Date Collected: 11/19/20 06:55
Matrix: Water
Date Received: 11/20/20 19:30

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.24	ug/L			11/21/20 13:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			11/21/20 13:48	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			11/21/20 13:48	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			11/21/20 13:48	1

Client Sample ID: 001_COMPOSITE
Lab Sample ID: 460-223251-6

Date Collected: 11/19/20 06:55
Matrix: Water
Date Received: 11/20/20 19:30

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.12	ug/L			11/21/20 13:48	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/21/20 13:48	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			11/21/20 13:48	1
1,2-Dichloroethene, Total	ND		2.0	0.44	ug/L			11/21/20 13:48	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			11/21/20 13:48	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			11/21/20 13:48	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			11/21/20 13:48	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			11/21/20 13:48	1
Acrolein	ND		4.0	1.1	ug/L			11/21/20 13:48	1
Acrylonitrile	ND		2.0	0.77	ug/L			11/21/20 13:48	1
Benzene	ND		1.0	0.43	ug/L			11/21/20 13:48	1
Bromoform	ND		1.0	0.54	ug/L			11/21/20 13:48	1
Bromomethane	ND		1.0	0.45	ug/L			11/21/20 13:48	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			11/21/20 13:48	1
Chlorobenzene	ND		1.0	0.38	ug/L			11/21/20 13:48	1
Dibromochloromethane	ND		1.0	0.13	ug/L			11/21/20 13:48	1
Chloroethane	ND		1.0	0.32	ug/L			11/21/20 13:48	1
Chloroform	ND		1.0	0.33	ug/L			11/21/20 13:48	1
Chloromethane	ND		1.0	0.43	ug/L			11/21/20 13:48	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			11/21/20 13:48	1
Bromodichloromethane	ND		1.0	0.34	ug/L			11/21/20 13:48	1
Ethylbenzene	ND		1.0	0.30	ug/L			11/21/20 13:48	1
Methylene Chloride	**0.98**	**J**	1.0	0.32	ug/L			11/21/20 13:48	1
Tetrachloroethene	ND		1.0	0.25	ug/L			11/21/20 13:48	1
Toluene	ND		1.0	0.38	ug/L			11/21/20 13:48	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			11/21/20 13:48	1
Trichloroethene	ND		1.0	0.31	ug/L			11/21/20 13:48	1
Trichlorofluoromethane	ND		1.0	0.14	ug/L			11/21/20 13:48	1
Vinyl chloride	ND		1.0	0.34	ug/L			11/21/20 13:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*		*11/21/20 13:48*	*1*
4-Bromofluorobenzene	*102*		*60 - 140*		*11/21/20 13:48*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*11/21/20 13:48*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*		*11/21/20 13:48*	*1*

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 460-223251-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
460-223251-5	Trip Blank	99	99	97	99
460-223251-6	001_COMPOSITE	102	102	102	99
LCS 460-741635/4	Lab Control Sample	101	100	100	102
LCSD 460-741635/5	Lab Control Sample Dup	102	105	104	100
MB 460-741635/9	Method Blank	103	105	105	102

Surrogate Legend

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

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 460-223251-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-741635/9
Matrix: Water
Analysis Batch: 741635

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	ND		1.0	0.24	ug/L			11/21/20 11:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			11/21/20 11:10	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			11/21/20 11:10	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			11/21/20 11:10	1
1,1-Dichloroethene	ND		1.0	0.12	ug/L			11/21/20 11:10	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			11/21/20 11:10	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			11/21/20 11:10	1
1,2-Dichloroethene, Total	ND		2.0	0.44	ug/L			11/21/20 11:10	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			11/21/20 11:10	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			11/21/20 11:10	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			11/21/20 11:10	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			11/21/20 11:10	1
Acrolein	ND		4.0	1.1	ug/L			11/21/20 11:10	1
Acrylonitrile	ND		2.0	0.77	ug/L			11/21/20 11:10	1
Benzene	ND		1.0	0.43	ug/L			11/21/20 11:10	1
Bromoform	ND		1.0	0.54	ug/L			11/21/20 11:10	1
Bromomethane	ND		1.0	0.45	ug/L			11/21/20 11:10	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			11/21/20 11:10	1
Chlorobenzene	ND		1.0	0.38	ug/L			11/21/20 11:10	1
Dibromochloromethane	ND		1.0	0.13	ug/L			11/21/20 11:10	1
Chloroethane	ND		1.0	0.32	ug/L			11/21/20 11:10	1
Chloroform	ND		1.0	0.33	ug/L			11/21/20 11:10	1
Chloromethane	ND		1.0	0.43	ug/L			11/21/20 11:10	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			11/21/20 11:10	1
Bromodichloromethane	ND		1.0	0.34	ug/L			11/21/20 11:10	1
Ethylbenzene	ND		1.0	0.30	ug/L			11/21/20 11:10	1
Methylene Chloride	ND		1.0	0.32	ug/L			11/21/20 11:10	1
Tetrachloroethene	ND		1.0	0.25	ug/L			11/21/20 11:10	1
Toluene	ND		1.0	0.38	ug/L			11/21/20 11:10	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			11/21/20 11:10	1
Trichloroethene	ND		1.0	0.31	ug/L			11/21/20 11:10	1
Trichlorofluoromethane	ND		1.0	0.14	ug/L			11/21/20 11:10	1
Vinyl chloride	ND		1.0	0.34	ug/L			11/21/20 11:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*60 - 140*		*11/21/20 11:10*	*1*
4-Bromofluorobenzene	*105*		*60 - 140*		*11/21/20 11:10*	*1*
Toluene-d8 (Surr)	*105*		*60 - 140*		*11/21/20 11:10*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*		*11/21/20 11:10*	*1*

Lab Sample ID: LCS 460-741635/4
Matrix: Water
Analysis Batch: 741635

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	20.0	19.0		ug/L		95	70 - 130
1,1,2,2-Tetrachloroethane	20.0	19.8		ug/L		99	60 - 140
1,1,2-Trichloroethane	20.0	19.1		ug/L		95	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-741635/4
Matrix: Water
Analysis Batch: 741635

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	18.7		ug/L		94	70 - 130
1,1-Dichloroethene	20.0	17.9		ug/L		90	50 - 150
1,2-Dichlorobenzene	20.0	17.9		ug/L		90	65 - 135
1,2-Dichloroethane	20.0	19.2		ug/L		96	70 - 130
1,2-Dichloropropane	20.0	19.2		ug/L		96	35 - 165
1,3-Dichlorobenzene	20.0	17.8		ug/L		89	70 - 130
1,4-Dichlorobenzene	20.0	18.5		ug/L		92	65 - 135
2-Chloroethyl vinyl ether	20.0	19.5		ug/L		97	0.1 - 225
Benzene	20.0	19.2		ug/L		96	65 - 135
Bromoform	20.0	18.1		ug/L		90	70 - 130
Bromomethane	20.0	19.0		ug/L		95	15 - 185
Carbon tetrachloride	20.0	18.1		ug/L		90	70 - 130
Chlorobenzene	20.0	18.6		ug/L		93	65 - 135
Dibromochloromethane	20.0	18.6		ug/L		93	70 - 135
Chloroethane	20.0	17.8		ug/L		89	40 - 160
Chloroform	20.0	18.8		ug/L		94	70 - 135
Chloromethane	20.0	17.3		ug/L		86	0.1 - 205
cis-1,3-Dichloropropene	20.0	19.4		ug/L		97	25 - 175
Bromodichloromethane	20.0	18.6		ug/L		93	65 - 135
Ethylbenzene	20.0	18.4		ug/L		92	60 - 140
Methylene Chloride	20.0	18.5		ug/L		92	60 - 140
Tetrachloroethene	20.0	17.2		ug/L		86	70 - 130
Toluene	20.0	18.1		ug/L		91	70 - 130
trans-1,3-Dichloropropene	20.0	19.7		ug/L		98	50 - 150
Trichloroethene	20.0	17.6		ug/L		88	65 - 135
Trichlorofluoromethane	20.0	18.9		ug/L		94	50 - 150
Vinyl chloride	20.0	18.1		ug/L		90	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*60 - 140*
4-Bromofluorobenzene	*100*		*60 - 140*
Toluene-d8 (Surr)	*100*		*60 - 140*
Dibromofluoromethane (Surr)	*102*		*60 - 140*

Lab Sample ID: LCSD 460-741635/5
Matrix: Water
Analysis Batch: 741635

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	20.0	19.8		ug/L		99	70 - 130	5	36
1,1,2,2-Tetrachloroethane	20.0	20.4		ug/L		102	60 - 140	3	61
1,1,2-Trichloroethane	20.0	19.7		ug/L		99	70 - 130	3	45
1,1-Dichloroethane	20.0	19.3		ug/L		97	70 - 130	3	40
1,1-Dichloroethene	20.0	18.7		ug/L		94	50 - 150	4	32
1,2-Dichlorobenzene	20.0	18.9		ug/L		94	65 - 135	5	57
1,2-Dichloroethane	20.0	20.1		ug/L		100	70 - 130	5	49
1,2-Dichloropropane	20.0	20.0		ug/L		100	35 - 165	4	55
1,3-Dichlorobenzene	20.0	19.5		ug/L		97	70 - 130	9	43

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-741635/5
Matrix: Water
Analysis Batch: 741635

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
1,4-Dichlorobenzene			20.0	19.4		ug/L		97	65 - 135	5	57
2-Chloroethyl vinyl ether			20.0	19.0		ug/L		95	0.1 - 225	3	71
Benzene			20.0	19.6		ug/L		98	65 - 135	2	61
Bromoform			20.0	19.1		ug/L		96	70 - 130	6	42
Bromomethane			20.0	19.5		ug/L		98	15 - 185	3	61
Carbon tetrachloride			20.0	19.2		ug/L		96	70 - 130	6	41
Chlorobenzene			20.0	19.6		ug/L		98	65 - 135	5	53
Dibromochloromethane			20.0	19.7		ug/L		99	70 - 135	6	50
Chloroethane			20.0	19.6		ug/L		98	40 - 160	10	78
Chloroform			20.0	19.8		ug/L		99	70 - 135	5	54
Chloromethane			20.0	18.5		ug/L		92	0.1 - 205	7	60
cis-1,3-Dichloropropene			20.0	20.2		ug/L		101	25 - 175	4	58
Bromodichloromethane			20.0	18.3		ug/L		91	65 - 135	2	56
Ethylbenzene			20.0	19.6		ug/L		98	60 - 140	6	63
Methylene Chloride			20.0	19.0		ug/L		95	60 - 140	3	28
Tetrachloroethene			20.0	18.4		ug/L		92	70 - 130	7	39
Toluene			20.0	19.4		ug/L		97	70 - 130	7	41
trans-1,3-Dichloropropene			20.0	20.8		ug/L		104	50 - 150	5	86
Trichloroethene			20.0	18.2		ug/L		91	65 - 135	4	48
Trichlorofluoromethane			20.0	19.4		ug/L		97	50 - 150	3	84
Vinyl chloride			20.0	18.0		ug/L		90	5 - 195	0	66

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*
4-Bromofluorobenzene	*105*		*60 - 140*
Toluene-d8 (Surr)	*104*		*60 - 140*
Dibromofluoromethane (Surr)	*100*		*60 - 140*

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 460-223251-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 741635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-223251-5	Trip Blank	Total/NA	Water	624.1	
460-223251-6	001_COMPOSITE	Total/NA	Water	624.1	
MB 460-741635/9	Method Blank	Total/NA	Water	624.1	
LCS 460-741635/4	Lab Control Sample	Total/NA	Water	624.1	
LCSD 460-741635/5	Lab Control Sample Dup	Total/NA	Water	624.1	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 460-223251-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: Trip Blank
Lab Sample ID: 460-223251-5
Date Collected: 11/19/20 12:55
Matrix: Water
Date Received: 11/20/20 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	741635	11/21/20 13:25	MZS	TAL EDI

Client Sample ID: 001_COMPOSITE
Lab Sample ID: 460-223251-6
Date Collected: 11/19/20 06:55
Matrix: Water
Date Received: 11/20/20 19:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	741635	11/21/20 13:48	MZS	TAL EDI

Laboratory References:
TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 460-223251-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 460-223251-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 460-223251-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-223251-5	Trip Blank	Water	11/19/20 12:55	11/20/20 19:30	
460-223251-6	001_COMPOSITE	Water	11/19/20 06:55	11/20/20 19:30	

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Phone: 732-549-3900 Fax: 732-549-3679

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-153390-34074.1
Client Contact: Mr. Raymond Wagner	Phone: 315 436 3605	E-Mail: Judy.Stone@Eurofinset.com		Page: Page 1 of 1
Company: ARCADIS U.S. Inc				Job #: 273251

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	Analysis Requested
City: Syracuse	TAT Requested (days): Standard Turn	
State, Zip: NY, 13202		
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: 30049063.00001 (until Jan 2021)	
Email: raymond.wagner@arcadis.com	WO #: Project- 30049063.00003	
Project Name: Iroquois Gas/Westwood Pharm.	Project #: 48011056	
Site:	SSOW#:	

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

460-223251 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total N	Special Instructions/Note:
			Preservation Code:				N		
001-1	11/19/20	0655	G	Water			X		Lab To Composite Samples Unpreserved Samples Short Hold Time 7 Days
001-2		0855					X		
001-3		1055					X		
001-4		1255					X		
Trip Blank	—	—	—				X		

1 2 3 4 5 6

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Jason Gutkowski	11/19/20 / 1300	Arcadis			
Relinquished by:	Date/Time: 11/20/20 1930	Company	Received by:	Date/Time: 11/20/20 1930	Company TA Edison
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 150335	Cooler Temperature(s) °C and Other Remarks: 2.8 °C IR#11

Ver: 01/16/2019

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 223251

Number of Coolers: 1 IR Gun # 11

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	2.8 °C	2.8 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: VR **Date:** 11/20/20

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 460-22325

Login Number: 223251
List Number: 1
Creator: Rivera, Kenneth

List Source: Eurofins TestAmerica, Edis

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	1150335
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	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

Eurofins TestAmerica, Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-224450-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Judy Stone

Authorized for release by:
12/22/2020 7:46:11 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 460-224450-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

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

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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: 460-224450-1

Laboratory: Eurofins TestAmerica, Edison

Narrative

Job Narrative
460-224450-1

Receipt
The samples were received on 12/9/2020 11:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.6º C.

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

GC/MS Semi VOA
Method 625.1: The laboratory control sample duplicate (LCSD) for preparation batch 460-746776 and analytical batch 460-746906 recovered outside control limits for the following analyte: n-Octadecane. The LCS recovery was within limits; therefore, the data have been reported.

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

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

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

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 460-224450-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: Trip Blank — Lab Sample ID: 460-224450-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.34	J	1.0	0.32	ug/L	1		624.1	Total/NA

Client Sample ID: 001_COMPOSITE of 1-4 — Lab Sample ID: 460-224450-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Zinc	0.0027	J	0.030	0.0026	mg/L	1		200.7 Rev 4.4	Total Recoverable
Cyanide, Total	0.19		0.010	0.0040	mg/L	1		335.4	Total/NA
pH	7.7	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	21.0	HF	0.1	0.1	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: Trip Blank
Lab Sample ID: 460-224450-5

Date Collected: 12/08/20 12:44
Matrix: Water
Date Received: 12/09/20 11:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.24	ug/L			12/10/20 11:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			12/10/20 11:00	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			12/10/20 11:00	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			12/10/20 11:00	1
1,1-Dichloroethene	ND		1.0	0.12	ug/L			12/10/20 11:00	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			12/10/20 11:00	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			12/10/20 11:00	1
1,2-Dichloroethene, Total	ND		2.0	0.44	ug/L			12/10/20 11:00	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			12/10/20 11:00	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			12/10/20 11:00	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			12/10/20 11:00	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			12/10/20 11:00	1
Acrolein	ND		4.0	1.1	ug/L			12/10/20 11:00	1
Acrylonitrile	ND		2.0	0.77	ug/L			12/10/20 11:00	1
Benzene	ND		1.0	0.43	ug/L			12/10/20 11:00	1
Bromoform	ND		1.0	0.54	ug/L			12/10/20 11:00	1
Bromomethane	ND		1.0	0.45	ug/L			12/10/20 11:00	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			12/10/20 11:00	1
Chlorobenzene	ND		1.0	0.38	ug/L			12/10/20 11:00	1
Dibromochloromethane	ND		1.0	0.13	ug/L			12/10/20 11:00	1
Chloroethane	ND		1.0	0.32	ug/L			12/10/20 11:00	1
Chloroform	ND		1.0	0.33	ug/L			12/10/20 11:00	1
Chloromethane	ND		1.0	0.43	ug/L			12/10/20 11:00	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			12/10/20 11:00	1
Bromodichloromethane	ND		1.0	0.34	ug/L			12/10/20 11:00	1
Ethylbenzene	ND		1.0	0.30	ug/L			12/10/20 11:00	1
Methylene Chloride	**0.34**	**J**	1.0	0.32	ug/L			12/10/20 11:00	1
Tetrachloroethene	ND		1.0	0.25	ug/L			12/10/20 11:00	1
Toluene	ND		1.0	0.38	ug/L			12/10/20 11:00	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			12/10/20 11:00	1
Trichloroethene	ND		1.0	0.31	ug/L			12/10/20 11:00	1
Trichlorofluoromethane	ND		1.0	0.14	ug/L			12/10/20 11:00	1
Vinyl chloride	ND		1.0	0.34	ug/L			12/10/20 11:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*		*12/10/20 11:00*	*1*
4-Bromofluorobenzene	*98*		*60 - 140*		*12/10/20 11:00*	*1*
Toluene-d8 (Surr)	*102*		*60 - 140*		*12/10/20 11:00*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*12/10/20 11:00*	*1*

Client Sample ID: 001_COMPOSITE of 1-4
Lab Sample ID: 460-224450-6

Date Collected: 12/08/20 06:45
Matrix: Water
Date Received: 12/09/20 11:00

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.24	ug/L			12/10/20 11:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			12/10/20 11:45	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			12/10/20 11:45	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			12/10/20 11:45	1

Client Sample ID: 001_COMPOSITE of 1-4
Lab Sample ID: 460-224450-6

Date Collected: 12/08/20 06:45
Matrix: Water
Date Received: 12/09/20 11:00

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.12	ug/L			12/10/20 11:45	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			12/10/20 11:45	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			12/10/20 11:45	1
1,2-Dichloroethene, Total	ND		2.0	0.44	ug/L			12/10/20 11:45	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			12/10/20 11:45	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			12/10/20 11:45	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			12/10/20 11:45	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			12/10/20 11:45	1
Acrolein	ND		4.0	1.1	ug/L			12/10/20 11:45	1
Acrylonitrile	ND		2.0	0.77	ug/L			12/10/20 11:45	1
Benzene	ND		1.0	0.43	ug/L			12/10/20 11:45	1
Bromoform	ND		1.0	0.54	ug/L			12/10/20 11:45	1
Bromomethane	ND		1.0	0.45	ug/L			12/10/20 11:45	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			12/10/20 11:45	1
Chlorobenzene	ND		1.0	0.38	ug/L			12/10/20 11:45	1
Dibromochloromethane	ND		1.0	0.13	ug/L			12/10/20 11:45	1
Chloroethane	ND		1.0	0.32	ug/L			12/10/20 11:45	1
Chloroform	ND		1.0	0.33	ug/L			12/10/20 11:45	1
Chloromethane	ND		1.0	0.43	ug/L			12/10/20 11:45	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			12/10/20 11:45	1
Bromodichloromethane	ND		1.0	0.34	ug/L			12/10/20 11:45	1
Ethylbenzene	ND		1.0	0.30	ug/L			12/10/20 11:45	1
Methylene Chloride	ND		1.0	0.32	ug/L			12/10/20 11:45	1
Tetrachloroethene	ND		1.0	0.25	ug/L			12/10/20 11:45	1
Toluene	ND		1.0	0.38	ug/L			12/10/20 11:45	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			12/10/20 11:45	1
Trichloroethene	ND		1.0	0.31	ug/L			12/10/20 11:45	1
Trichlorofluoromethane	ND		1.0	0.14	ug/L			12/10/20 11:45	1
Vinyl chloride	ND		1.0	0.34	ug/L			12/10/20 11:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*60 - 140*		*12/10/20 11:45*	*1*
4-Bromofluorobenzene	*94*		*60 - 140*		*12/10/20 11:45*	*1*
Toluene-d8 (Surr)	*99*		*60 - 140*		*12/10/20 11:45*	*1*
Dibromofluoromethane (Surr)	*103*		*60 - 140*		*12/10/20 11:45*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.5	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
1,2-Dichlorobenzene	ND		13	0.75	ug/L		12/14/20 17:29	12/15/20 01:40	1
1,2-Diphenylhydrazine	ND		13	0.46	ug/L		12/14/20 17:29	12/15/20 01:40	1
1,3-Dichlorobenzene	ND		13	2.5	ug/L		12/14/20 17:29	12/15/20 01:40	1
1,4-Dichlorobenzene	ND		13	0.66	ug/L		12/14/20 17:29	12/15/20 01:40	1
2,2'-Oxybis(1-chloropropane)	ND		13	0.79	ug/L		12/14/20 17:29	12/15/20 01:40	1
2,4,6-Trichlorophenol	ND		13	0.87	ug/L		12/14/20 17:29	12/15/20 01:40	1
2,4-Dichlorophenol	ND		13	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
2,4-Dimethylphenol	ND		13	0.83	ug/L		12/14/20 17:29	12/15/20 01:40	1
2,4-Dinitrophenol	ND		25	2.5	ug/L		12/14/20 17:29	12/15/20 01:40	1
2,4-Dinitrotoluene	ND		2.5	1.3	ug/L		12/14/20 17:29	12/15/20 01:40	1
2-Chloronaphthalene	ND		13	1.5	ug/L		12/14/20 17:29	12/15/20 01:40	1

Client Sample ID: 001_COMPOSITE of 1-4
Date Collected: 12/08/20 06:45
Date Received: 12/09/20 11:00

Lab Sample ID: 460-224450-6
Matrix: Water

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	ND		13	0.47	ug/L		12/14/20 17:29	12/15/20 01:40	1
2-Nitrophenol	ND		13	2.4	ug/L		12/14/20 17:29	12/15/20 01:40	1
3,3'-Dichlorobenzidine	ND		13	4.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
4,6-Dinitro-2-methylphenol	ND		25	4.3	ug/L		12/14/20 17:29	12/15/20 01:40	1
4-Bromophenyl phenyl ether	ND		13	0.93	ug/L		12/14/20 17:29	12/15/20 01:40	1
4-Chloro-3-methylphenol	ND		13	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
4-Chlorophenyl phenyl ether	ND		13	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
4-Nitrophenol	ND		25	2.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
Acenaphthene	ND		13	1.3	ug/L		12/14/20 17:29	12/15/20 01:40	1
Acenaphthylene	ND		13	1.0	ug/L		12/14/20 17:29	12/15/20 01:40	1
Anthracene	ND		13	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
Benzidine	ND		13	0.87	ug/L		12/14/20 17:29	12/15/20 01:40	1
Benzo[a]anthracene	ND		1.3	0.74	ug/L		12/14/20 17:29	12/15/20 01:40	1
Benzo[a]pyrene	ND		1.3	0.85	ug/L		12/14/20 17:29	12/15/20 01:40	1
Benzo[b]fluoranthene	ND		2.5	1.8	ug/L		12/14/20 17:29	12/15/20 01:40	1
Benzo[g,h,i]perylene	ND		13	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
Benzo[k]fluoranthene	ND		1.3	0.84	ug/L		12/14/20 17:29	12/15/20 01:40	1
Bis(2-chloroethoxy)methane	ND		13	0.80	ug/L		12/14/20 17:29	12/15/20 01:40	1
Bis(2-chloroethyl)ether	ND		1.3	0.86	ug/L		12/14/20 17:29	12/15/20 01:40	1
Bis(2-ethylhexyl) phthalate	ND		2.5	1.3	ug/L		12/14/20 17:29	12/15/20 01:40	1
Butyl benzyl phthalate	ND		13	1.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
Chrysene	ND		2.5	1.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
Dibenz(a,h)anthracene	ND		1.3	0.92	ug/L		12/14/20 17:29	12/15/20 01:40	1
Diethyl phthalate	ND		13	1.2	ug/L		12/14/20 17:29	12/15/20 01:40	1
Dimethyl phthalate	ND		13	2.0	ug/L		12/14/20 17:29	12/15/20 01:40	1
Di-n-butyl phthalate	ND		13	0.94	ug/L		12/14/20 17:29	12/15/20 01:40	1
Di-n-octyl phthalate	ND		13	1.8	ug/L		12/14/20 17:29	12/15/20 01:40	1
Fluoranthene	ND		13	1.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
Fluorene	ND		13	1.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
Hexachlorobenzene	ND		1.3	1.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
Hexachlorobutadiene	ND		1.3	0.55	ug/L		12/14/20 17:29	12/15/20 01:40	1
Hexachlorocyclopentadiene	ND		13	2.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
Hexachloroethane	ND		2.5	1.5	ug/L		12/14/20 17:29	12/15/20 01:40	1
Indeno[1,2,3-cd]pyrene	ND		2.5	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
Isophorone	ND		13	2.4	ug/L		12/14/20 17:29	12/15/20 01:40	1
Naphthalene	ND		2.5	1.4	ug/L		12/14/20 17:29	12/15/20 01:40	1
Decane	ND		13	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
Nitrobenzene	ND		2.5	2.0	ug/L		12/14/20 17:29	12/15/20 01:40	1
N-Nitrosodimethylamine	ND		13	0.80	ug/L		12/14/20 17:29	12/15/20 01:40	1
N-Nitrosodi-n-propylamine	ND		2.5	1.2	ug/L		12/14/20 17:29	12/15/20 01:40	1
N-Nitrosodiphenylamine	ND		13	1.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
n-Octadecane	ND	*-	13	1.0	ug/L		12/14/20 17:29	12/15/20 01:40	1
Pentachlorophenol	ND		25	3.8	ug/L		12/14/20 17:29	12/15/20 01:40	1
Phenanthrene	ND		13	1.9	ug/L		12/14/20 17:29	12/15/20 01:40	1
Phenol	ND		13	1.6	ug/L		12/14/20 17:29	12/15/20 01:40	1
Pyrene	ND		13	2.1	ug/L		12/14/20 17:29	12/15/20 01:40	1
2,6-Dinitrotoluene	ND		2.5	1.8	ug/L		12/14/20 17:29	12/15/20 01:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*106*		*14 - 149*	*12/14/20 17:29*	*12/15/20 01:40*	*1*

Client Sample ID: 001_COMPOSITE of 1-4
Lab Sample ID: 460-224450-6

Date Collected: 12/08/20 06:45
Matrix: Water
Date Received: 12/09/20 11:00

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*44 - 129*	*12/14/20 17:29*	*12/15/20 01:40*	*1*
2-Fluorophenol	*51*		*10 - 76*	*12/14/20 17:29*	*12/15/20 01:40*	*1*
Terphenyl-d14	*103*		*28 - 150*	*12/14/20 17:29*	*12/15/20 01:40*	*1*
Nitrobenzene-d5	*100*		*15 - 314*	*12/14/20 17:29*	*12/15/20 01:40*	*1*
Phenol-d5	*34*		*8 - 424*	*12/14/20 17:29*	*12/15/20 01:40*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	**0.0027**	**J**	0.030	0.0026	mg/L		12/22/20 10:51	12/22/20 17:44	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.091	ug/L		12/21/20 12:42	12/21/20 13:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.19**		0.010	0.0040	mg/L		12/20/20 15:37	12/21/20 10:41	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.7**	**HF**	0.1	0.1	SU			12/21/20 13:12	1
Temperature	**21.0**	**HF**	0.1	0.1	Degrees C			12/21/20 13:12	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 460-224450-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(60-140)	(60-140)	(60-140)	(60-140)
460-224450-5	Trip Blank	102	98	102	103
460-224450-6	001_COMPOSITE of 1-4	101	94	99	103
LCS 460-745833/4	Lab Control Sample	102	98	103	105
MB 460-745833/8	Method Blank	100	97	100	106

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	TPHL	NBZ	PHL
Lab Sample ID	Client Sample ID	(14-149)	(44-129)	(10-76)	(28-150)	(15-314)	(8-424)
460-224450-6	001_COMPOSITE of 1-4	106	98	51	103	100	34
LCS 460-746776/2-A	Lab Control Sample	85	69	39	57	76	25
LCSD 460-746776/3-A	Lab Control Sample Dup	86	69	38	59	73	26
MB 460-746776/1-A	Method Blank	93	80	41	75	87	27

Surrogate Legend

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

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 460-224450-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-745833/8
Matrix: Water
Analysis Batch: 745833

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	ND		1.0	0.24	ug/L			12/10/20 10:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.37	ug/L			12/10/20 10:38	1
1,1,2-Trichloroethane	ND		1.0	0.15	ug/L			12/10/20 10:38	1
1,1-Dichloroethane	ND		1.0	0.26	ug/L			12/10/20 10:38	1
1,1-Dichloroethene	ND		1.0	0.12	ug/L			12/10/20 10:38	1
1,2-Dichlorobenzene	ND		1.0	0.19	ug/L			12/10/20 10:38	1
1,2-Dichloroethane	ND		1.0	0.84	ug/L			12/10/20 10:38	1
1,2-Dichloroethene, Total	ND		2.0	0.44	ug/L			12/10/20 10:38	1
1,2-Dichloropropane	ND		1.0	0.35	ug/L			12/10/20 10:38	1
1,3-Dichlorobenzene	ND		1.0	0.13	ug/L			12/10/20 10:38	1
1,4-Dichlorobenzene	ND		1.0	0.18	ug/L			12/10/20 10:38	1
2-Chloroethyl vinyl ether	ND		1.0	0.91	ug/L			12/10/20 10:38	1
Acrolein	ND		4.0	1.1	ug/L			12/10/20 10:38	1
Acrylonitrile	ND		2.0	0.77	ug/L			12/10/20 10:38	1
Benzene	ND		1.0	0.43	ug/L			12/10/20 10:38	1
Bromoform	ND		1.0	0.54	ug/L			12/10/20 10:38	1
Bromomethane	ND		1.0	0.45	ug/L			12/10/20 10:38	1
Carbon tetrachloride	ND		1.0	0.21	ug/L			12/10/20 10:38	1
Chlorobenzene	ND		1.0	0.38	ug/L			12/10/20 10:38	1
Dibromochloromethane	ND		1.0	0.13	ug/L			12/10/20 10:38	1
Chloroethane	ND		1.0	0.32	ug/L			12/10/20 10:38	1
Chloroform	ND		1.0	0.33	ug/L			12/10/20 10:38	1
Chloromethane	ND		1.0	0.43	ug/L			12/10/20 10:38	1
cis-1,3-Dichloropropene	ND		1.0	0.46	ug/L			12/10/20 10:38	1
Bromodichloromethane	ND		1.0	0.34	ug/L			12/10/20 10:38	1
Ethylbenzene	ND		1.0	0.30	ug/L			12/10/20 10:38	1
Methylene Chloride	ND		1.0	0.32	ug/L			12/10/20 10:38	1
Tetrachloroethene	ND		1.0	0.25	ug/L			12/10/20 10:38	1
Toluene	ND		1.0	0.38	ug/L			12/10/20 10:38	1
trans-1,3-Dichloropropene	ND		1.0	0.22	ug/L			12/10/20 10:38	1
Trichloroethene	ND		1.0	0.31	ug/L			12/10/20 10:38	1
Trichlorofluoromethane	ND		1.0	0.14	ug/L			12/10/20 10:38	1
Vinyl chloride	ND		1.0	0.34	ug/L			12/10/20 10:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*60 - 140*		*12/10/20 10:38*	*1*
4-Bromofluorobenzene	*97*		*60 - 140*		*12/10/20 10:38*	*1*
Toluene-d8 (Surr)	*100*		*60 - 140*		*12/10/20 10:38*	*1*
Dibromofluoromethane (Surr)	*106*		*60 - 140*		*12/10/20 10:38*	*1*

Lab Sample ID: LCS 460-745833/4
Matrix: Water
Analysis Batch: 745833

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	20.0	20.6		ug/L		103	70 - 130
1,1,2,2-Tetrachloroethane	20.0	18.9		ug/L		95	60 - 140
1,1,2-Trichloroethane	20.0	19.1		ug/L		96	70 - 130

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-745833/4
Matrix: Water
Analysis Batch: 745833

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	20.0	18.5		ug/L		93	70 - 130
1,1-Dichloroethene	20.0	19.1		ug/L		96	50 - 150
1,2-Dichlorobenzene	20.0	17.6		ug/L		88	65 - 135
1,2-Dichloroethane	20.0	19.4		ug/L		97	70 - 130
1,2-Dichloropropane	20.0	18.9		ug/L		95	35 - 165
1,3-Dichlorobenzene	20.0	17.2		ug/L		86	70 - 130
1,4-Dichlorobenzene	20.0	17.8		ug/L		89	65 - 135
2-Chloroethyl vinyl ether	20.0	19.1		ug/L		95	0.1 - 225
Benzene	20.0	18.9		ug/L		94	65 - 135
Bromoform	20.0	20.9		ug/L		104	70 - 130
Bromomethane	20.0	19.1		ug/L		96	15 - 185
Carbon tetrachloride	20.0	20.5		ug/L		102	70 - 130
Chlorobenzene	20.0	18.8		ug/L		94	65 - 135
Dibromochloromethane	20.0	18.5		ug/L		93	70 - 135
Chloroethane	20.0	18.3		ug/L		91	40 - 160
Chloroform	20.0	19.4		ug/L		97	70 - 135
Chloromethane	20.0	17.4		ug/L		87	0.1 - 205
cis-1,3-Dichloropropene	20.0	18.9		ug/L		94	25 - 175
Bromodichloromethane	20.0	19.4		ug/L		97	65 - 135
Ethylbenzene	20.0	18.6		ug/L		93	60 - 140
Methylene Chloride	20.0	19.4		ug/L		97	60 - 140
Tetrachloroethene	20.0	17.4		ug/L		87	70 - 130
Toluene	20.0	18.7		ug/L		94	70 - 130
trans-1,3-Dichloropropene	20.0	19.1		ug/L		96	50 - 150
Trichloroethene	20.0	19.4		ug/L		97	65 - 135
Trichlorofluoromethane	20.0	21.1		ug/L		105	50 - 150
Vinyl chloride	20.0	15.4		ug/L		77	5 - 195

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*60 - 140*
4-Bromofluorobenzene	*98*		*60 - 140*
Toluene-d8 (Surr)	*103*		*60 - 140*
Dibromofluoromethane (Surr)	*105*		*60 - 140*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-746776/1-A
Matrix: Water
Analysis Batch: 746906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 746776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	1.3	ug/L		12/14/20 09:31	12/14/20 20:38	1
1,2-Dichlorobenzene	ND		10	0.60	ug/L		12/14/20 09:31	12/14/20 20:38	1
1,2-Diphenylhydrazine	ND		10	0.37	ug/L		12/14/20 09:31	12/14/20 20:38	1
1,3-Dichlorobenzene	ND		10	2.0	ug/L		12/14/20 09:31	12/14/20 20:38	1
1,4-Dichlorobenzene	ND		10	0.52	ug/L		12/14/20 09:31	12/14/20 20:38	1
2,2'-Oxybis(1-chloropropane)	ND		10	0.63	ug/L		12/14/20 09:31	12/14/20 20:38	1
2,4,6-Trichlorophenol	ND		10	0.70	ug/L		12/14/20 09:31	12/14/20 20:38	1
2,4-Dichlorophenol	ND		10	1.2	ug/L		12/14/20 09:31	12/14/20 20:38	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-746776/1-A
Matrix: Water
Analysis Batch: 746906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 746776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		10	0.66	ug/L		12/14/20 09:31	12/14/20 20:38	1
2,4-Dinitrophenol	ND		20	2.0	ug/L		12/14/20 09:31	12/14/20 20:38	1
2,4-Dinitrotoluene	ND		2.0	1.0	ug/L		12/14/20 09:31	12/14/20 20:38	1
2-Chloronaphthalene	ND		10	1.2	ug/L		12/14/20 09:31	12/14/20 20:38	1
2-Chlorophenol	ND		10	0.38	ug/L		12/14/20 09:31	12/14/20 20:38	1
2-Nitrophenol	ND		10	1.9	ug/L		12/14/20 09:31	12/14/20 20:38	1
3,3'-Dichlorobenzidine	ND		10	3.3	ug/L		12/14/20 09:31	12/14/20 20:38	1
4,6-Dinitro-2-methylphenol	ND		20	3.4	ug/L		12/14/20 09:31	12/14/20 20:38	1
4-Bromophenyl phenyl ether	ND		10	0.75	ug/L		12/14/20 09:31	12/14/20 20:38	1
4-Chloro-3-methylphenol	ND		10	1.2	ug/L		12/14/20 09:31	12/14/20 20:38	1
4-Chlorophenyl phenyl ether	ND		10	1.3	ug/L		12/14/20 09:31	12/14/20 20:38	1
4-Nitrophenol	ND		20	1.7	ug/L		12/14/20 09:31	12/14/20 20:38	1
Acenaphthene	ND		10	1.1	ug/L		12/14/20 09:31	12/14/20 20:38	1
Acenaphthylene	ND		10	0.82	ug/L		12/14/20 09:31	12/14/20 20:38	1
Anthracene	ND		10	1.3	ug/L		12/14/20 09:31	12/14/20 20:38	1
Benzidine	ND		10	0.70	ug/L		12/14/20 09:31	12/14/20 20:38	1
Benzo[a]anthracene	ND		1.0	0.59	ug/L		12/14/20 09:31	12/14/20 20:38	1
Benzo[a]pyrene	ND		1.0	0.68	ug/L		12/14/20 09:31	12/14/20 20:38	1
Benzo[b]fluoranthene	ND		2.0	1.4	ug/L		12/14/20 09:31	12/14/20 20:38	1
Benzo[g,h,i]perylene	ND		10	1.3	ug/L		12/14/20 09:31	12/14/20 20:38	1
Benzo[k]fluoranthene	ND		1.0	0.67	ug/L		12/14/20 09:31	12/14/20 20:38	1
Bis(2-chloroethoxy)methane	ND		10	0.64	ug/L		12/14/20 09:31	12/14/20 20:38	1
Bis(2-chloroethyl)ether	ND		1.0	0.69	ug/L		12/14/20 09:31	12/14/20 20:38	1
Bis(2-ethylhexyl) phthalate	ND		2.0	1.0	ug/L		12/14/20 09:31	12/14/20 20:38	1
Butyl benzyl phthalate	ND		10	0.85	ug/L		12/14/20 09:31	12/14/20 20:38	1
Chrysene	ND		2.0	0.91	ug/L		12/14/20 09:31	12/14/20 20:38	1
Dibenz(a,h)anthracene	ND		1.0	0.74	ug/L		12/14/20 09:31	12/14/20 20:38	1
Diethyl phthalate	ND		10	0.98	ug/L		12/14/20 09:31	12/14/20 20:38	1
Dimethyl phthalate	ND		10	1.6	ug/L		12/14/20 09:31	12/14/20 20:38	1
Di-n-butyl phthalate	ND		10	0.75	ug/L		12/14/20 09:31	12/14/20 20:38	1
Di-n-octyl phthalate	ND		10	1.4	ug/L		12/14/20 09:31	12/14/20 20:38	1
Fluoranthene	ND		10	0.84	ug/L		12/14/20 09:31	12/14/20 20:38	1
Fluorene	ND		10	0.91	ug/L		12/14/20 09:31	12/14/20 20:38	1
Hexachlorobenzene	ND		1.0	0.91	ug/L		12/14/20 09:31	12/14/20 20:38	1
Hexachlorobutadiene	ND		1.0	0.44	ug/L		12/14/20 09:31	12/14/20 20:38	1
Hexachlorocyclopentadiene	ND		10	1.7	ug/L		12/14/20 09:31	12/14/20 20:38	1
Hexachloroethane	ND		2.0	1.2	ug/L		12/14/20 09:31	12/14/20 20:38	1
Indeno[1,2,3-cd]pyrene	ND		2.0	1.3	ug/L		12/14/20 09:31	12/14/20 20:38	1
Isophorone	ND		10	1.9	ug/L		12/14/20 09:31	12/14/20 20:38	1
Naphthalene	ND		2.0	1.1	ug/L		12/14/20 09:31	12/14/20 20:38	1
Decane	ND		10	1.3	ug/L		12/14/20 09:31	12/14/20 20:38	1
Nitrobenzene	ND		2.0	1.6	ug/L		12/14/20 09:31	12/14/20 20:38	1
N-Nitrosodimethylamine	ND		10	0.64	ug/L		12/14/20 09:31	12/14/20 20:38	1
N-Nitrosodi-n-propylamine	ND		2.0	0.98	ug/L		12/14/20 09:31	12/14/20 20:38	1
N-Nitrosodiphenylamine	ND		10	0.89	ug/L		12/14/20 09:31	12/14/20 20:38	1
n-Octadecane	ND		10	0.81	ug/L		12/14/20 09:31	12/14/20 20:38	1
Pentachlorophenol	ND		20	3.0	ug/L		12/14/20 09:31	12/14/20 20:38	1
Phenanthrene	ND		10	1.5	ug/L		12/14/20 09:31	12/14/20 20:38	1
Phenol	ND		10	1.2	ug/L		12/14/20 09:31	12/14/20 20:38	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-746776/1-A
Matrix: Water
Analysis Batch: 746906

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 746776

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		10	1.6	ug/L		12/14/20 09:31	12/14/20 20:38	1
2,6-Dinitrotoluene	ND		2.0	1.4	ug/L		12/14/20 09:31	12/14/20 20:38	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*93*		*14 - 149*	*12/14/20 09:31*	*12/14/20 20:38*	*1*
2-Fluorobiphenyl	*80*		*44 - 129*	*12/14/20 09:31*	*12/14/20 20:38*	*1*
2-Fluorophenol	*41*		*10 - 76*	*12/14/20 09:31*	*12/14/20 20:38*	*1*
Terphenyl-d14	*75*		*28 - 150*	*12/14/20 09:31*	*12/14/20 20:38*	*1*
Nitrobenzene-d5	*87*		*15 - 314*	*12/14/20 09:31*	*12/14/20 20:38*	*1*
Phenol-d5	*27*		*8 - 424*	*12/14/20 09:31*	*12/14/20 20:38*	*1*

Lab Sample ID: LCS 460-746776/2-A
Matrix: Water
Analysis Batch: 746906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 746776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	80.0	51.6		ug/L		64	44 - 142
1,2-Dichlorobenzene	80.0	53.2		ug/L		67	25 - 101
1,3-Dichlorobenzene	80.0	49.0		ug/L		61	25 - 101
1,4-Dichlorobenzene	80.0	49.2		ug/L		62	27 - 101
2,2'-Oxybis(1-chloropropane)	80.0	52.6		ug/L		66	36 - 166
2,4,6-Trichlorophenol	80.0	58.6		ug/L		73	37 - 144
2,4-Dichlorophenol	80.0	56.2		ug/L		70	39 - 135
2,4-Dimethylphenol	80.0	54.6		ug/L		68	32 - 120
2,4-Dinitrophenol	160	131		ug/L		82	0.1 - 191
2,4-Dinitrotoluene	80.0	62.6		ug/L		78	39 - 139
2-Chloronaphthalene	80.0	52.2		ug/L		65	60 - 120
2-Chlorophenol	80.0	51.0		ug/L		64	55 - 101
2-Nitrophenol	80.0	56.6		ug/L		71	29 - 182
3,3'-Dichlorobenzidine	80.0	53.0		ug/L		66	0.1 - 262
4,6-Dinitro-2-methylphenol	160	128		ug/L		80	0.1 - 181
4-Bromophenyl phenyl ether	80.0	56.1		ug/L		70	53 - 127
4-Chloro-3-methylphenol	80.0	53.4		ug/L		67	22 - 147
4-Chlorophenyl phenyl ether	80.0	56.0		ug/L		70	25 - 158
4-Nitrophenol	160	45.4		ug/L		28	0.1 - 132
Acenaphthene	80.0	53.6		ug/L		67	47 - 135
Acenaphthylene	80.0	56.4		ug/L		71	33 - 145
Anthracene	80.0	54.8		ug/L		69	27 - 133
Benzidine	80.0	16.3		ug/L		20	0.1 - 136
Benzo[a]anthracene	80.0	50.5		ug/L		63	33 - 143
Benzo[a]pyrene	80.0	60.4		ug/L		75	17 - 163
Benzo[b]fluoranthene	80.0	57.6		ug/L		72	24 - 159
Benzo[g,h,i]perylene	80.0	74.9		ug/L		94	0.1 - 219
Benzo[k]fluoranthene	80.0	54.9		ug/L		69	11 - 162
Bis(2-chloroethoxy)methane	80.0	57.0		ug/L		71	33 - 184
Bis(2-chloroethyl)ether	80.0	60.2		ug/L		75	12 - 158
Bis(2-ethylhexyl) phthalate	80.0	50.4		ug/L		63	8 - 158
Butyl benzyl phthalate	80.0	50.8		ug/L		64	0.1 - 152

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-746776/2-A
Matrix: Water
Analysis Batch: 746906

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 746776

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	80.0	50.8		ug/L		63	17 - 168
Dibenz(a,h)anthracene	80.0	77.1		ug/L		96	0.1 - 227
Diethyl phthalate	80.0	58.9		ug/L		74	0.1 - 120
Dimethyl phthalate	80.0	58.8		ug/L		73	0.1 - 120
Di-n-butyl phthalate	80.0	56.8		ug/L		71	1 - 120
Di-n-octyl phthalate	80.0	46.9		ug/L		59	4 - 146
Fluoranthene	80.0	56.9		ug/L		71	26 - 137
Fluorene	80.0	58.1		ug/L		73	59 - 121
Hexachlorobenzene	80.0	57.1		ug/L		71	0.1 - 152
Hexachlorocyclopentadiene	80.0	39.2		ug/L		49	8 - 105
Hexachloroethane	80.0	39.8		ug/L		50	40 - 120
Indeno[1,2,3-cd]pyrene	80.0	76.8		ug/L		96	0.1 - 171
Isophorone	80.0	62.2		ug/L		78	21 - 196
Naphthalene	80.0	57.3		ug/L		72	21 - 133
Nitrobenzene	80.0	58.3		ug/L		73	35 - 180
N-Nitrosodi-n-propylamine	80.0	56.3		ug/L		70	0.1 - 230
N-Nitrosodiphenylamine	80.0	54.3		ug/L		68	60 - 140
Pentachlorophenol	160	114		ug/L		72	14 - 176
Phenanthrene	80.0	55.9		ug/L		70	54 - 120
Phenol	80.0	21.9		ug/L		27	5 - 120
Pyrene	80.0	47.6		ug/L		59	52 - 120
2,6-Dinitrotoluene	80.0	59.4		ug/L		74	50 - 158

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*85*		*14 - 149*
2-Fluorobiphenyl	*69*		*44 - 129*
2-Fluorophenol	*39*		*10 - 76*
Terphenyl-d14	*57*		*28 - 150*
Nitrobenzene-d5	*76*		*15 - 314*
Phenol-d5	*25*		*8 - 424*

Lab Sample ID: LCSD 460-746776/3-A
Matrix: Water
Analysis Batch: 746906

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 746776

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	80.0	52.7		ug/L		66	44 - 142	2	50
1,2-Dichlorobenzene	80.0	52.8		ug/L		66	25 - 101	1	50
1,3-Dichlorobenzene	80.0	47.6		ug/L		60	25 - 101	3	50
1,4-Dichlorobenzene	80.0	50.2		ug/L		63	27 - 101	2	50
2,2'-Oxybis(1-chloropropane)	80.0	52.5		ug/L		66	36 - 166	0	76
2,4,6-Trichlorophenol	80.0	57.0		ug/L		71	37 - 144	3	58
2,4-Dichlorophenol	80.0	56.4		ug/L		70	39 - 135	0	50
2,4-Dimethylphenol	80.0	53.3		ug/L		67	32 - 120	2	58
2,4-Dinitrophenol	160	127		ug/L		80	0.1 - 191	3	132
2,4-Dinitrotoluene	80.0	62.6		ug/L		78	39 - 139	0	42
2-Chloronaphthalene	80.0	53.3		ug/L		67	60 - 120	2	24
2-Chlorophenol	80.0	52.0		ug/L		65	55 - 101	2	61

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-746776/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 746906
Prep Batch: 746776

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Nitrophenol			80.0	56.8		ug/L		71	29 - 182	0	55
3,3'-Dichlorobenzidine			80.0	56.4		ug/L		70	0.1 - 262	6	108
4,6-Dinitro-2-methylphenol			160	128		ug/L		80	0.1 - 181	1	203
4-Bromophenyl phenyl ether			80.0	54.3		ug/L		68	53 - 127	3	43
4-Chloro-3-methylphenol			80.0	52.0		ug/L		65	22 - 147	3	73
4-Chlorophenyl phenyl ether			80.0	54.7		ug/L		68	25 - 158	2	61
4-Nitrophenol			160	45.3		ug/L		28	0.1 - 132	0	131
Acenaphthene			80.0	54.7		ug/L		68	47 - 135	2	48
Acenaphthylene			80.0	55.0		ug/L		69	33 - 145	2	74
Anthracene			80.0	54.7		ug/L		68	27 - 133	0	66
Benzidine			80.0	17.5		ug/L		22	0.1 - 136	7	50
Benzo[a]anthracene			80.0	51.0		ug/L		64	33 - 143	1	53
Benzo[a]pyrene			80.0	59.7		ug/L		75	17 - 163	1	72
Benzo[b]fluoranthene			80.0	56.9		ug/L		71	24 - 159	1	71
Benzo[g,h,i]perylene			80.0	76.3		ug/L		95	0.1 - 219	2	97
Benzo[k]fluoranthene			80.0	56.3		ug/L		70	11 - 162	3	63
Bis(2-chloroethoxy)methane			80.0	59.0		ug/L		74	33 - 184	3	54
Bis(2-chloroethyl)ether			80.0	58.9		ug/L		74	12 - 158	2	108
Bis(2-ethylhexyl) phthalate			80.0	51.4		ug/L		64	8 - 158	2	82
Butyl benzyl phthalate			80.0	51.1		ug/L		64	0.1 - 152	1	60
Chrysene			80.0	52.7		ug/L		66	17 - 168	4	87
Dibenz(a,h)anthracene			80.0	78.8		ug/L		98	0.1 - 227	2	126
Diethyl phthalate			80.0	57.6		ug/L		72	0.1 - 120	2	100
Dimethyl phthalate			80.0	58.2		ug/L		73	0.1 - 120	1	183
Di-n-butyl phthalate			80.0	54.7		ug/L		68	1 - 120	4	47
Di-n-octyl phthalate			80.0	47.6		ug/L		60	4 - 146	1	69
Fluoranthene			80.0	55.5		ug/L		69	26 - 137	2	66
Fluorene			80.0	57.7		ug/L		72	59 - 121	1	38
Hexachlorobenzene			80.0	54.3		ug/L		68	0.1 - 152	5	55
Hexachlorocyclopentadiene			80.0	39.3		ug/L		49	8 - 105	0	50
Hexachloroethane			80.0	39.2		ug/L		49	40 - 120	1	52
Indeno[1,2,3-cd]pyrene			80.0	80.4		ug/L		100	0.1 - 171	5	99
Isophorone			80.0	62.6		ug/L		78	21 - 196	1	93
Naphthalene			80.0	56.7		ug/L		71	21 - 133	1	65
Nitrobenzene			80.0	57.7		ug/L		72	35 - 180	1	62
N-Nitrosodi-n-propylamine			80.0	56.1		ug/L		70	0.1 - 230	0	87
N-Nitrosodiphenylamine			80.0	54.4		ug/L		68	60 - 140	0	50
Pentachlorophenol			160	114		ug/L		71	14 - 176	1	86
Phenanthrene			80.0	54.0		ug/L		67	54 - 120	4	39
Phenol			80.0	22.4		ug/L		28	5 - 120	2	64
Pyrene			80.0	49.8		ug/L		62	52 - 120	4	49
2,6-Dinitrotoluene			80.0	56.4		ug/L		71	50 - 158	5	48

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*86*		*14 - 149*
2-Fluorobiphenyl	*69*		*44 - 129*
2-Fluorophenol	*38*		*10 - 76*
Terphenyl-d14	*59*		*28 - 150*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-746776/3-A
Matrix: Water
Analysis Batch: 746906

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 746776

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*73*		*15 - 314*
Phenol-d5	*26*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 460-748758/1-A
Matrix: Water
Analysis Batch: 748768

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 748758

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.030	0.0026	mg/L		12/22/20 10:51	12/22/20 18:15	1

Lab Sample ID: LCS 460-748758/2-A
Matrix: Water
Analysis Batch: 748768

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 748758

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.500	0.511		mg/L		102	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 460-748476/1-A
Matrix: Water
Analysis Batch: 748521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 748476

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.091	ug/L		12/21/20 12:42	12/21/20 13:41	1

Lab Sample ID: LCS 460-748476/2-A
Matrix: Water
Analysis Batch: 748521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 748476

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	1.00	1.04		ug/L		104	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 460-748273/1-A
Matrix: Water
Analysis Batch: 748458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 748273

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0040	mg/L		12/20/20 15:36	12/21/20 10:34	1

Lab Sample ID: LCS 460-748273/2-A
Matrix: Water
Analysis Batch: 748458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 748273

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.107		mg/L		107	90 - 110

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: MRL 460-748273/22-A
Matrix: Water
Analysis Batch: 748458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 748273

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.0100	0.0115		mg/L		115	50 - 150

Method: SM 4500 H+ B - pH

Lab Sample ID: MB 460-748485/2
Matrix: Water
Analysis Batch: 748485

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

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	5.8		0.1	0.1	SU			12/21/20 13:08	1
Temperature	23.0		0.1	0.1	Degrees C			12/21/20 13:08	1

Lab Sample ID: LCSSRM 460-748485/3
Matrix: Water
Analysis Batch: 748485

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

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
pH	8.31	8.2		SU		98.7	97.6 - 102.4

Lab Sample ID: 460-224450-6 DU
Matrix: Water
Analysis Batch: 748485

Client Sample ID: 001_COMPOSITE of 1-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.7	HF	7.7		SU		0.3	10
Temperature	21.0	HF	21.0		Degrees C		0	

GC/MS VOA

Analysis Batch: 745833

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-5	Trip Blank	Total/NA	Water	624.1	
460-224450-6	001_COMPOSITE of 1-4	Total/NA	Water	624.1	
MB 460-745833/8	Method Blank	Total/NA	Water	624.1	
LCS 460-745833/4	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 746776

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total/NA	Water	625	
MB 460-746776/1-A	Method Blank	Total/NA	Water	625	
LCS 460-746776/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 460-746776/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 746906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total/NA	Water	625.1	746776
MB 460-746776/1-A	Method Blank	Total/NA	Water	625.1	746776
LCS 460-746776/2-A	Lab Control Sample	Total/NA	Water	625.1	746776
LCSD 460-746776/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	746776

Metals

Prep Batch: 748476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total/NA	Water	245.1	
MB 460-748476/1-A	Method Blank	Total/NA	Water	245.1	
LCS 460-748476/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 748521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total/NA	Water	245.1	748476
MB 460-748476/1-A	Method Blank	Total/NA	Water	245.1	748476
LCS 460-748476/2-A	Lab Control Sample	Total/NA	Water	245.1	748476

Prep Batch: 748758

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total Recoverable	Water	200.7	
MB 460-748758/1-A	Method Blank	Total Recoverable	Water	200.7	
LCS 460-748758/2-A	Lab Control Sample	Total Recoverable	Water	200.7	

Analysis Batch: 748768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total Recoverable	Water	200.7 Rev 4.4	748758
MB 460-748758/1-A	Method Blank	Total Recoverable	Water	200.7 Rev 4.4	748758
LCS 460-748758/2-A	Lab Control Sample	Total Recoverable	Water	200.7 Rev 4.4	748758

General Chemistry

Prep Batch: 748273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total/NA	Water	Distill/CN	

General Chemistry (Continued)

Prep Batch: 748273 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-748273/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 460-748273/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
MRL 460-748273/22-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 748458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total/NA	Water	335.4	748273
MB 460-748273/1-A	Method Blank	Total/NA	Water	335.4	748273
LCS 460-748273/2-A	Lab Control Sample	Total/NA	Water	335.4	748273
MRL 460-748273/22-A	Lab Control Sample	Total/NA	Water	335.4	748273

Analysis Batch: 748485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-224450-6	001_COMPOSITE of 1-4	Total/NA	Water	SM 4500 H+ B	
MB 460-748485/2	Method Blank	Total/NA	Water	SM 4500 H+ B	
LCSSRM 460-748485/3	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
460-224450-6 DU	001_COMPOSITE of 1-4	Total/NA	Water	SM 4500 H+ B	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 460-224450-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: Trip Blank
Lab Sample ID: 460-224450-5
Date Collected: 12/08/20 12:44
Matrix: Water
Date Received: 12/09/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	745833	12/10/20 11:00	CJM	TAL EDI

Client Sample ID: 001_COMPOSITE of 1-4
Lab Sample ID: 460-224450-6
Date Collected: 12/08/20 06:45
Matrix: Water
Date Received: 12/09/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	745833	12/10/20 11:45	CJM	TAL EDI
Total/NA	Prep	625			746776	12/14/20 17:29	OTS	TAL EDI
Total/NA	Analysis	625.1		1	746906	12/15/20 01:40	MME	TAL EDI
Total Recoverable	Prep	200.7			748758	12/22/20 10:51	IBS	TAL EDI
Total Recoverable	Analysis	200.7 Rev 4.4		1	748768	12/22/20 17:44	CDC	TAL EDI
Total/NA	Prep	245.1			748476	12/21/20 12:42	RBS	TAL EDI
Total/NA	Analysis	245.1		1	748521	12/21/20 13:54	RBS	TAL EDI
Total/NA	Prep	Distill/CN			748273	12/20/20 15:37	MBE	TAL EDI
Total/NA	Analysis	335.4		1	748458	12/21/20 10:41	RAK	TAL EDI
Total/NA	Analysis	SM 4500 H+ B		1	748485	12/21/20 13:12	YAH	TAL EDI

Laboratory References:
TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 460-224450-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Edison

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	11452	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 460-224450-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL EDI
200.7 Rev 4.4	Metals (ICP)	EPA	TAL EDI
245.1	Mercury (CVAA)	EPA	TAL EDI
335.4	Cyanide, Total	MCAWW	TAL EDI
SM 4500 H+ B	pH	SM	TAL EDI
200.7	Preparation, Total Recoverable Metals	EPA	TAL EDI
245.1	Preparation, Mercury	EPA	TAL EDI
625	Liquid-Liquid Extraction	40CFR136A	TAL EDI
Distill/CN	Distillation, Cyanide	None	TAL EDI

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 460-224450-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-224450-5	Trip Blank	Water	12/08/20 12:44	12/09/20 11:00	
460-224450-6	001_COMPOSITE of 1-4	Water	12/08/20 06:45	12/09/20 11:00	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-153382-34075.1
Client Contact: Jason Gutkowski	Phone: 3154363605	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: ARCADIS U.S., Inc.	PWSID:			Job #: 224450
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, ne, \, -5, (specify)
City: Syracuse	TAT Requested (days): One Week Turn			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed 30049063			
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056			
Site:	SSOW#:			

460-224450 Chain of Custody

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Num	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	12/8/20	0645	G	Water			X	X	X	X	X		Lab To 1
001-2	↓	0845	↓	↓			X	X	X	X	X		Composite 2
001-3		1045					X	X	X	X	X		Samples 3
001-4		1244					X	X	X	X	X		4
Trip Blank	—	—	—								X		Short Hold * 5
													Time 6
													Rush
													Delivery *

5 day SHORT HOLD

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Jason Gutkowski	12/8/20 1314	Arcadis	ACacierno via Fedex	12/9/20 1100	Yaedson
2	[illegible]	12/8/20 1744	TA			
3					12/8/20 1330	TAT

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: 1427217	Cooler Temperature(s) °C and Other Remarks: 3.6°C

Ver: 11/01/2020

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 224450-1

Number of Coolers: _____ IR Gun # 11

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	3.6°C	3.6°C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: aa Date: 12/9/20

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 460-224450-1

Login Number: 224450
List Number: 1
Creator: Rivera, Kenneth

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
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.	False	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Ms. Leslie Sedita
Industrial Waste Section
Buffalo Sewer Authority Treatment Plant
90 West Ferry Street
Buffalo, NY 14213-1799

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Phone: 315 446 9120
Fax: 315 449 0017
www.arcadis.com

Date: March 29, 2021
Our Ref: 30082116
Subject: **Discharge Monitoring Report – First Quarter 2021**
Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site No. 915141A
120 Dart Street and 40 Bradley Street, Buffalo, NY 14213
BSA Discharge Permit # 18-07-BU174

Dear Ms. Sedita,

On behalf of Bristol-Myers Squibb Company, Arcadis of New York, Inc. (Arcadis) is pleased to submit this first quarter 2021 Discharge Monitoring Report (DMR) for the above-referenced site, which covers the period January 1 through March 31, 2021. The monthly discharge sampling and DMR preparation were completed in accordance with the Buffalo Sewer Authority (BSA) Sampling Measurement and Analytical Guidelines Sheet. A total of 141,072 gallons of water were discharged during the reporting period (i.e., flow meter totalizer readings from 12/28/2020 to 3/29/2021). Laboratory analytical results indicate that the remedial system operated within BSA permit requirements during the first quarter 2021.

The sampling protocol and calculated discharges are based on the following: (1) total flows are a daily average taken over approximately 7 days; and (2) monthly composite samples are collected over an 8-hour period, where grab samples are collected every 2 hours. A total of four grab samples are collected throughout the 8-hour period. The discharge sample point location, following carbon treatment, is labeled as “C001 Sample Location” on the Process Flow Diagram (**Attachment A**). The Sample Collection and Log Sheets for the October, November, and December monthly sampling events are provided in **Attachment B**.

The monthly grab samples were submitted to Eurofins TestAmerica in Amherst, New York, where samples are composited and analyzed for pH via Method 4500 H+B, Total Mercury via United States Environmental Protection Agency (EPA) Method 245.1, Total Zinc via EPA Method 200.7, Total Cyanide via EPA Method 335.4, Volatile Organic Compounds via EPA Method 624.1, and Semi-Volatile Organic Compounds via EPA Method 625.1.

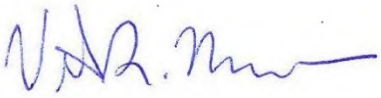
Laboratory analytical results and average daily flows are provided in the Quarterly Analytical Data Table (**Attachment C**). No exceedances of Daily Maximum or Maximum Allowable Instantaneous Discharge Limitations were observed during the reporting period. BSA Permit Specific Conditions require reporting of any compounds analyzed by EPA Methods 624 and 625 that are detected at a concentration above a threshold of 0.01 milligrams per liter (mg/L). In January, February, and March 2021, there were no detections above the reporting threshold. The laboratory analytical data packages are provided in **Attachment D**.

If you have any questions or would like to discuss further, please feel free to contact the undersigned.

Ms. Leslie Sedita
Buffalo Sewer Authority Treatment Plant
March 29, 2021

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violation.

Signed on behalf of Bristol-Myers Squibb Company and submitted by:



Vincent S. Maresco
Arcadis of New York, Inc.
Project Manager

Email: Vin.Maresco@arcadis.com
Direct Line: 315 671 9256

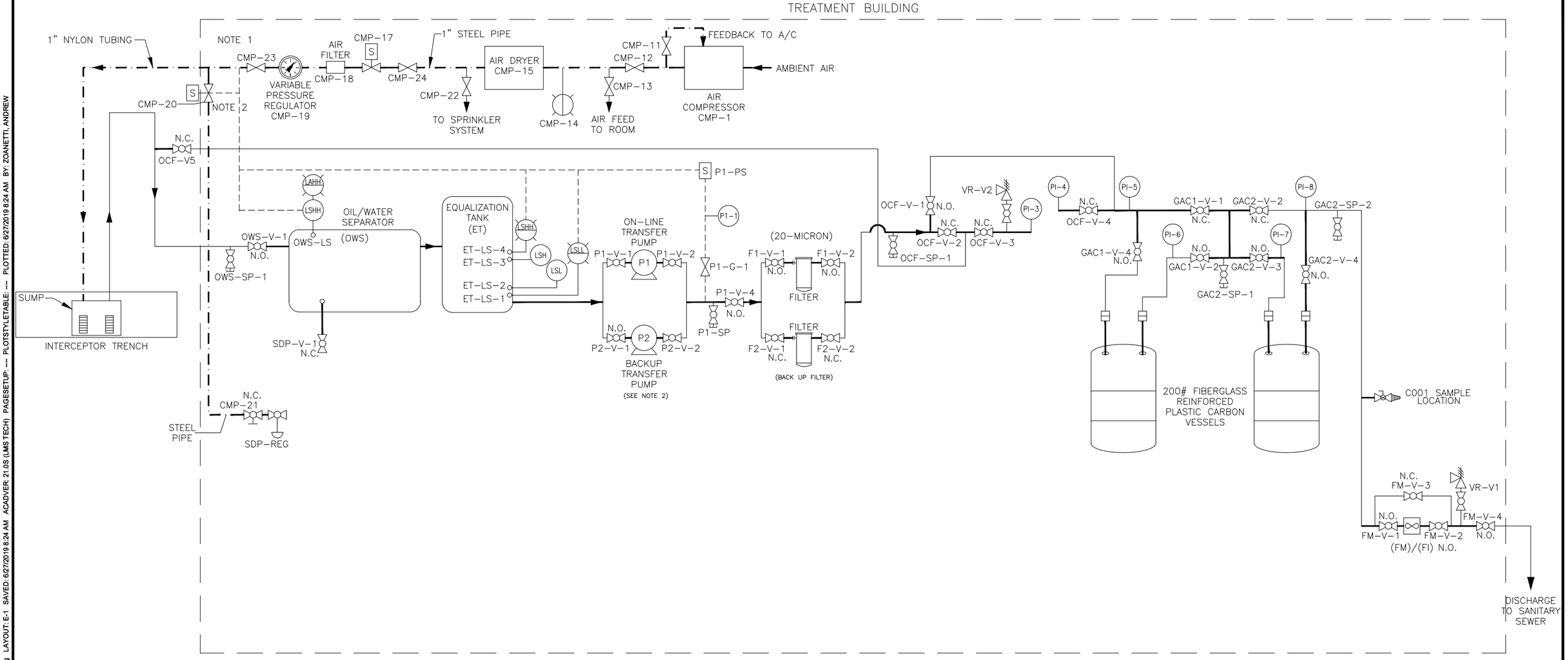
CC. Traserra Adams, BSA
Richard Mator, BMS
John Alonzo, de maximis, inc.
Dan Darragh, Cohen & Grigsby, PC
Katie Hoelscher, NFG

Attachments:

- A Process Flow Diagram
- B Sample Collection and Log Sheets for Monthly Sampling Events
- C Quarterly Analytical Data Table
- D Laboratory Analytical Data Package

Attachment A

Process Flow Diagram



NOTES:

1. SOLENOID VALVE IS ACTIVATED TO THE OFF-POSITION UNDER ANY OF THE FOLLOWING CONDITIONS:
   a) LSHH AT THE OIL-WATER SEPARATOR;
   b) LSHH AT THE EQUILIZATION TANK IS ACTIVATED;
   c) P1-PS HIGH PUMP DISCHARGE PRESSURE SWISWITCH IS ACTIVATED.

2. USE OF TRANSFER PUMPS IS ALTERED ON A QUARTERLY BASIS.

CITY: SYRACUSE, NY DIV/GROUP: DB: PM: TM: LYR:ON=*;OFF=*REF*
C:\Users\AZoanetti\Documents\Bristol-Myers Squibb\BMS Buffalo, NY\ATTACHMENT A.dwg LAYOUT: E-1 SAVED: 6/27/2019 8:24 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: --- PLOTTED: 6/27/2019 8:24 AM BY: ZOANETTI, ANDREW
XREFS:
TITLE

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name

Professional Engineer's No.

State	Date Signed	Project Mgr.
Designed by	Drawn by	Checked by

ARCADIS Design & Consultancy for natural and built assets
ARCADIS OF NEW YORK, INC.

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE NO. 915141A
120 DART STREET AND 40 BRADLEY STREET, BUFFALO, NY

PROCESS FLOW DIAGRAM

ARCADIS Project No.
B0087370.0000.00001

Date
SEPTEMBER 2017

ARCADIS
ARCADIS OF NEW YORK, INC.
110 W. FAYETTE ST., STE 300
SYRACUSE, NY 13202
TEL. 315.446.9120

PFD

Attachment B

Sample Collection and Log Sheets for Monthly Sampling Events

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroquois Gas/Westwood Pharm Permit #: 12-IR-BU174

Sample Location: 001 Sample Type: Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Preservative: One 1L-amber unpreserved glass bottle and two 40ml. clear vials every two hours.

Sample Date	1/5/21	→	→	→	JTG
Sample Time	0710	0910	1110	1310	JTG
Sample Observations	clear	→	→	→	JTG
pH Measurement	N/A	→	→	→	JTG
Weather	36°F Overcast	33°F Overcast	33°F Overcast	33°F Overcast	JTG
Comments	None	→	→	→	JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as summarized.

**pH will be analyzed at the lab once grab samples are completed.

Jason Gutkowski 1/5/21

Sample Technician Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroquois Gas/Westwood Pharm Permit #: 12-05-BU174

Sample Location: 001 Sample Type: Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Preservative: One 1L-amber unpreserved glass bottle and two 40ml, clear vials every two hours.

Sample Date	2/1/21				JTG
Sample Time	0720	0920	1120	1320	JTG
Sample Observations	Clear				JTG
pH Measurement	N/A				JTG
Weather	25°F Light Snow	25°F Light Snow	25°F Light Snow	27°F Light Snow	JTG
Comments	None				JTG

*sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as approved.

**pH will be analyzed at the lab once grab samples are completed.

Jason Gutkowski 2/1/21

Sample Technician Date

SAMPLE COLLECTION and LOG SHEET

Project Name: Iroquois Gas/Westwood Pharm Permit #: 13-05-BU174

Sample Location: 001 Sample Type: Monthly

Parameters: pH, Total Mercury, Total Cyanide, EPA Test Procedure 625

Sampling Equipment: N/A - Manual

Sample Vol/Prep: One 1L-amber unpreserved glass bottle and two 40ml. clear vials every two hours.

Sample Date	3/2/21				JTL
Sample Time	0705	0905	1105	1305	JTL
Sample Observations	Clear				JTL
pH Measurements	N/A				JTL
Weather	16°F Cloudy	18°F Sunny	21°F Cloudy	23°F Sunny	JTL
Comments	None				JTL

*Sample collection and handling comply with the guidelines established by the Environmental Protection Agency in 40 CFR Part 136 and as summarized.

**pH will be analyzed at the lab once grab samples are composited.

Jason Gutkowski 3/2/21

Sample Technician Date

Attachment C

Quarterly Analytical Data Table

Quarterly Analytical Data Table
Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site No. 915141A
120 Dart Street and 40 Bradley Street, Buffalo, NY
BSA Discharge Permit No. 18-07-BU174

ARCADIS Design & Consultancy for natural and built assets

Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	12/28/2020	1/5/2021	1/12/2021	1/19/2021	1/25/2021	2/1/2021	2/8/2021
Totalizer	gal	NA	270,748	280,946	293,487	295,934	307,269	321,018	332,654
Total Mercury	lbs	0.00001**	NA	ND	NS	NS	NS	ND	NS
Total Zinc	lbs	3.0**	NA	ND	NS	NS	NS	ND	NS
Total Cyanide	lbs	7.93**	NA	4.07E-02	NS	NS	NS	1.64E-03	NS
Total VOCs	mg/L	NA	NA	ND	NS	NS	NS	ND	NS
Total SVOCs	mg/L	NA	NA	ND	NS	NS	NS	ND	NS
pH	SU	5.0-12.0	NA	7.2 HF	NS	NS	NS	7.3 HF	NS
Total Daily Flow	gal	14,400	-	1,309	1,792	350	1,889	1,964	1,662

Sampling Parameter	Units	Daily Maximum Limit per BSA Permit	2/15/2021	2/25/2021	3/2/2021	3/9/2021	3/17/2021	3/23/2021	3/29/2021
Totalizer	gal	NA	341,115	356,778	365,341	372,714	390,284	400,558	411,820
Total Mercury	lbs	0.00001**	NS	NS	ND	NS	NS	NS	NS
Total Zinc	lbs	3.0**	NS	NS	ND	NS	NS	NS	NS
Total Cyanide	lbs	7.93**	NS	NS	1.57E-03	NS	NS	NS	NS
Total VOCs	mg/L	NA	NS	NS	ND	NS	NS	NS	NS
Total SVOCs	mg/L	NA	NS	NS	ND	NS	NS	NS	NS
pH	SU	5.0-12.0	NS	NS	7.3 HF	NS	NS	NS	NS
Total Daily Flow	gal	14,400	1,209	1,566	1,713	1,053	2,196	1,712	1,877

Notes:

B - Compound was found in the blank and the sample.
F1 - MS and/or MSD Recovery is outside acceptance limits.
HF - Field parameter with a holding time of 15 minutes. Test performed by laboratory at clients request. Analytical performed as required and in compliance by BSA permit.
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
NS - Not Sampled
ND - Not Detected at the reporting limit
NM - Not Measured
gal - Gallons
NA - Not Applicable
lbs - Pounds
mg/L - Milligrams per liter
SU - Standard Units
** - Maximum Allowable Instantaneous Discharge limits are also included in the permit. All analytical data for this quarter in in compliance with the Maximum Allowable Instantaneous Discharge limits. Analytical results are not presented in this table, they can be found in the attached analytical reports.
*** - The permittee must report any compound whose concentration is greater than 0.01 mg/L. The permittee is not authorized to discharge any of the parameters evaluated by this test procedure, which may cause or contribute to a violation of water quality incorporated into the permit.
Start of quarter values

Attachment D

Laboratory Analytical Data Packages

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-179857-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Joseph V. Giacomazza

Authorized for release by:
1/14/2021 10:04:51 AM
Joe Giacomazza, Project Manager I
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-179857-1

Job ID: 480-179857-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-179857-1

Comments
No additional comments.

Receipt
The samples were received on 1/5/2021 1:23 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 1-6-21 as requested by the client: COMPOSITE 001 1-4 (480-179857-6).
Regulatory defined guidance for in-laboratory compositing of samples, is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-565471 and analytical batch 480-565749 recovered outside control limits for the following analytes: Benzidine.

Method 625.1: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 480-565471 and analytical batch 480-565749 recovered outside control limits for the following analyte(s): Benzidine. Benzidine has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

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

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

General Chemistry
Method SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMPOSITE 001 1-4 (480-179857-6).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-179857-5

No Detections.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-179857-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.14		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.2	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	19.3	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-179857-5

Date Collected: 01/05/21 00:00

Matrix: Water

Date Received: 01/05/21 13:23

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			01/06/21 11:13	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			01/06/21 11:13	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			01/06/21 11:13	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			01/06/21 11:13	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			01/06/21 11:13	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			01/06/21 11:13	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			01/06/21 11:13	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			01/06/21 11:13	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			01/06/21 11:13	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			01/06/21 11:13	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			01/06/21 11:13	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			01/06/21 11:13	1
Acrolein	ND		100	17	ug/L			01/06/21 11:13	1
Acrylonitrile	ND		50	1.9	ug/L			01/06/21 11:13	1
Benzene	ND		5.0	0.60	ug/L			01/06/21 11:13	1
Bromoform	ND		5.0	0.47	ug/L			01/06/21 11:13	1
Bromomethane	ND		5.0	1.2	ug/L			01/06/21 11:13	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			01/06/21 11:13	1
Chlorobenzene	ND		5.0	0.48	ug/L			01/06/21 11:13	1
Dibromochloromethane	ND		5.0	0.41	ug/L			01/06/21 11:13	1
Chloroethane	ND		5.0	0.87	ug/L			01/06/21 11:13	1
Chloroform	ND		5.0	0.54	ug/L			01/06/21 11:13	1
Chloromethane	ND		5.0	0.64	ug/L			01/06/21 11:13	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			01/06/21 11:13	1
Bromodichloromethane	ND		5.0	0.54	ug/L			01/06/21 11:13	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			01/06/21 11:13	1
Ethylbenzene	ND		5.0	0.46	ug/L			01/06/21 11:13	1
Methylene Chloride	ND		5.0	0.81	ug/L			01/06/21 11:13	1
Tetrachloroethene	ND		5.0	0.34	ug/L			01/06/21 11:13	1
Toluene	ND		5.0	0.45	ug/L			01/06/21 11:13	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			01/06/21 11:13	1
Trichloroethene	ND		5.0	0.60	ug/L			01/06/21 11:13	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			01/06/21 11:13	1
Vinyl chloride	ND		5.0	0.75	ug/L			01/06/21 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*01/06/21 11:13*	*1*
4-Bromofluorobenzene (Surr)	*101*		*76 - 123*		*01/06/21 11:13*	*1*
Toluene-d8 (Surr)	*100*		*77 - 120*		*01/06/21 11:13*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*01/06/21 11:13*	*1*

Client Sample ID: COMPOSITE 001 1-4

Lab Sample ID: 480-179857-6

Date Collected: 01/05/21 13:10

Matrix: Water

Date Received: 01/05/21 13:23

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			01/06/21 11:36	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			01/06/21 11:36	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			01/06/21 11:36	1

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-179857-6
Date Collected: 01/05/21 13:10
Matrix: Water
Date Received: 01/05/21 13:23

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			01/06/21 11:36	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			01/06/21 11:36	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			01/06/21 11:36	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			01/06/21 11:36	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			01/06/21 11:36	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			01/06/21 11:36	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			01/06/21 11:36	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			01/06/21 11:36	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			01/06/21 11:36	1
Acrolein	ND		100	17	ug/L			01/06/21 11:36	1
Acrylonitrile	ND		50	1.9	ug/L			01/06/21 11:36	1
Benzene	ND		5.0	0.60	ug/L			01/06/21 11:36	1
Bromoform	ND		5.0	0.47	ug/L			01/06/21 11:36	1
Bromomethane	ND		5.0	1.2	ug/L			01/06/21 11:36	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			01/06/21 11:36	1
Chlorobenzene	ND		5.0	0.48	ug/L			01/06/21 11:36	1
Dibromochloromethane	ND		5.0	0.41	ug/L			01/06/21 11:36	1
Chloroethane	ND		5.0	0.87	ug/L			01/06/21 11:36	1
Chloroform	ND		5.0	0.54	ug/L			01/06/21 11:36	1
Chloromethane	ND		5.0	0.64	ug/L			01/06/21 11:36	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			01/06/21 11:36	1
Bromodichloromethane	ND		5.0	0.54	ug/L			01/06/21 11:36	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			01/06/21 11:36	1
Ethylbenzene	ND		5.0	0.46	ug/L			01/06/21 11:36	1
Methylene Chloride	ND		5.0	0.81	ug/L			01/06/21 11:36	1
Tetrachloroethene	ND		5.0	0.34	ug/L			01/06/21 11:36	1
Toluene	ND		5.0	0.45	ug/L			01/06/21 11:36	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			01/06/21 11:36	1
Trichloroethene	ND		5.0	0.60	ug/L			01/06/21 11:36	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			01/06/21 11:36	1
Vinyl chloride	ND		5.0	0.75	ug/L			01/06/21 11:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*68 - 130*		*01/06/21 11:36*	*1*
4-Bromofluorobenzene (Surr)	*103*		*76 - 123*		*01/06/21 11:36*	*1*
Toluene-d8 (Surr)	*101*		*77 - 120*		*01/06/21 11:36*	*1*
Dibromofluoromethane (Surr)	*107*		*75 - 123*		*01/06/21 11:36*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		01/07/21 15:01	01/12/21 16:54	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		01/07/21 15:01	01/12/21 16:54	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		01/07/21 15:01	01/12/21 16:54	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		01/07/21 15:01	01/12/21 16:54	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		01/07/21 15:01	01/12/21 16:54	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		01/07/21 15:01	01/12/21 16:54	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		01/07/21 15:01	01/12/21 16:54	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 16:54	1

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-179857-6
Date Collected: 01/05/21 13:10
Matrix: Water
Date Received: 01/05/21 13:23

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		01/07/21 15:01	01/12/21 16:54	1
2-Chlorophenol	ND		5.0	0.66	ug/L		01/07/21 15:01	01/12/21 16:54	1
2-Nitrophenol	ND		5.0	0.70	ug/L		01/07/21 15:01	01/12/21 16:54	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		01/07/21 15:01	01/12/21 16:54	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		01/07/21 15:01	01/12/21 16:54	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		01/07/21 15:01	01/12/21 16:54	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		01/07/21 15:01	01/12/21 16:54	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		01/07/21 15:01	01/12/21 16:54	1
4-Nitrophenol	ND		15	10	ug/L		01/07/21 15:01	01/12/21 16:54	1
Acenaphthene	ND		5.0	0.81	ug/L		01/07/21 15:01	01/12/21 16:54	1
Acenaphthylene	ND		5.0	0.87	ug/L		01/07/21 15:01	01/12/21 16:54	1
Anthracene	ND		5.0	1.4	ug/L		01/07/21 15:01	01/12/21 16:54	1
Benzidine	ND	*1	80	35	ug/L		01/07/21 15:01	01/12/21 16:54	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		01/07/21 15:01	01/12/21 16:54	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		01/07/21 15:01	01/12/21 16:54	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		01/07/21 15:01	01/12/21 16:54	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		01/07/21 15:01	01/12/21 16:54	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		01/07/21 15:01	01/12/21 16:54	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		01/07/21 15:01	01/12/21 16:54	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		01/07/21 15:01	01/12/21 16:54	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		01/07/21 15:01	01/12/21 16:54	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		01/07/21 15:01	01/12/21 16:54	1
Chrysene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
Decane	ND		10	1.6	ug/L		01/07/21 15:01	01/12/21 16:54	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		01/07/21 15:01	01/12/21 16:54	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		01/07/21 15:01	01/12/21 16:54	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		01/07/21 15:01	01/12/21 16:54	1
Diethyl phthalate	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		01/07/21 15:01	01/12/21 16:54	1
Fluoranthene	ND		5.0	1.6	ug/L		01/07/21 15:01	01/12/21 16:54	1
Fluorene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
Hexachloroethane	ND		5.0	0.60	ug/L		01/07/21 15:01	01/12/21 16:54	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		01/07/21 15:01	01/12/21 16:54	1
Isophorone	ND		5.0	0.74	ug/L		01/07/21 15:01	01/12/21 16:54	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		01/07/21 15:01	01/12/21 16:54	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 16:54	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		01/07/21 15:01	01/12/21 16:54	1
Naphthalene	ND		5.0	0.86	ug/L		01/07/21 15:01	01/12/21 16:54	1
Nitrobenzene	ND		5.0	0.81	ug/L		01/07/21 15:01	01/12/21 16:54	1
Pentachlorophenol	ND		10	1.6	ug/L		01/07/21 15:01	01/12/21 16:54	1
Phenanthrene	ND		5.0	1.2	ug/L		01/07/21 15:01	01/12/21 16:54	1
Phenol	ND		5.0	0.35	ug/L		01/07/21 15:01	01/12/21 16:54	1
Pyrene	ND		5.0	1.4	ug/L		01/07/21 15:01	01/12/21 16:54	1
n-Octadecane	ND		10	1.2	ug/L		01/07/21 15:01	01/12/21 16:54	1

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-179857-6
Date Collected: 01/05/21 13:10
Matrix: Water
Date Received: 01/05/21 13:23

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*82*		*52 - 151*	*01/07/21 15:01*	*01/12/21 16:54*	*1*
2-Fluorobiphenyl	*99*		*44 - 120*	*01/07/21 15:01*	*01/12/21 16:54*	*1*
2-Fluorophenol	*51*		*17 - 120*	*01/07/21 15:01*	*01/12/21 16:54*	*1*
Nitrobenzene-d5	*89*		*15 - 314*	*01/07/21 15:01*	*01/12/21 16:54*	*1*
p-Terphenyl-d14	*89*		*22 - 125*	*01/07/21 15:01*	*01/12/21 16:54*	*1*
Phenol-d5	*33*		*8 - 424*	*01/07/21 15:01*	*01/12/21 16:54*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		01/06/21 09:05	01/06/21 16:19	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/06/21 13:00	01/06/21 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.14**		0.010	0.0050	mg/L		01/06/21 21:32	01/07/21 18:04	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.2**	**HF**	0.1	0.1	SU			01/07/21 11:24	1
Temperature	**19.3**	**HF**	0.001	0.001	Degrees C			01/07/21 11:24	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-179857-5	TRIP BLANK	103	101	100	106
480-179857-6	COMPOSITE 001 1-4	108	103	101	107
LCS 480-565254/5	Lab Control Sample	103	103	103	106
MB 480-565254/7	Method Blank	103	104	103	106

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-179857-6	COMPOSITE 001 1-4	82	99	51	89	89	33
LCS 480-565471/2-A	Lab Control Sample	98	99	56	90	113	37
LCSD 480-565471/3-A	Lab Control Sample Dup	107	97	51	90	111	36
MB 480-565471/1-A	Method Blank	79	93	52	92	103	34

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-565254/7
Matrix: Water
Analysis Batch: 565254

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	ND		5.0	0.39	ug/L			01/06/21 10:49	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			01/06/21 10:49	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			01/06/21 10:49	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			01/06/21 10:49	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			01/06/21 10:49	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			01/06/21 10:49	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			01/06/21 10:49	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			01/06/21 10:49	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			01/06/21 10:49	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			01/06/21 10:49	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			01/06/21 10:49	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			01/06/21 10:49	1
Acrolein	ND		100	17	ug/L			01/06/21 10:49	1
Acrylonitrile	ND		50	1.9	ug/L			01/06/21 10:49	1
Benzene	ND		5.0	0.60	ug/L			01/06/21 10:49	1
Bromoform	ND		5.0	0.47	ug/L			01/06/21 10:49	1
Bromomethane	ND		5.0	1.2	ug/L			01/06/21 10:49	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			01/06/21 10:49	1
Chlorobenzene	ND		5.0	0.48	ug/L			01/06/21 10:49	1
Dibromochloromethane	ND		5.0	0.41	ug/L			01/06/21 10:49	1
Chloroethane	ND		5.0	0.87	ug/L			01/06/21 10:49	1
Chloroform	ND		5.0	0.54	ug/L			01/06/21 10:49	1
Chloromethane	ND		5.0	0.64	ug/L			01/06/21 10:49	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			01/06/21 10:49	1
Bromodichloromethane	ND		5.0	0.54	ug/L			01/06/21 10:49	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			01/06/21 10:49	1
Ethylbenzene	ND		5.0	0.46	ug/L			01/06/21 10:49	1
Methylene Chloride	ND		5.0	0.81	ug/L			01/06/21 10:49	1
Tetrachloroethene	ND		5.0	0.34	ug/L			01/06/21 10:49	1
Toluene	ND		5.0	0.45	ug/L			01/06/21 10:49	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			01/06/21 10:49	1
Trichloroethene	ND		5.0	0.60	ug/L			01/06/21 10:49	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			01/06/21 10:49	1
Vinyl chloride	ND		5.0	0.75	ug/L			01/06/21 10:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*		*01/06/21 10:49*	*1*
4-Bromofluorobenzene (Surr)	*104*		*76 - 123*		*01/06/21 10:49*	*1*
Toluene-d8 (Surr)	*103*		*77 - 120*		*01/06/21 10:49*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*01/06/21 10:49*	*1*

Lab Sample ID: LCS 480-565254/5
Matrix: Water
Analysis Batch: 565254

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	20.0	21.5		ug/L		108	52 - 162
1,1,2,2-Tetrachloroethane	20.0	21.5		ug/L		107	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-565254/5
Matrix: Water
Analysis Batch: 565254

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	21.3		ug/L		106	52 - 150
1,1-Dichloroethane	20.0	20.8		ug/L		104	59 - 155
1,1-Dichloroethene	20.0	22.5		ug/L		112	1 - 234
1,2-Dichlorobenzene	20.0	20.6		ug/L		103	18 - 190
1,2-Dichloroethane	20.0	21.2		ug/L		106	49 - 155
1,2-Dichloropropane	20.0	20.6		ug/L		103	1 - 210
1,3-Dichlorobenzene	20.0	20.8		ug/L		104	59 - 156
1,4-Dichlorobenzene	20.0	20.8		ug/L		104	18 - 190
2-Chloroethyl vinyl ether	20.0	22.3	J	ug/L		112	1 - 305
Benzene	20.0	20.7		ug/L		104	37 - 151
Bromoform	20.0	21.4		ug/L		107	45 - 169
Bromomethane	20.0	20.0		ug/L		100	1 - 242
Carbon tetrachloride	20.0	21.6		ug/L		108	70 - 140
Chlorobenzene	20.0	20.5		ug/L		102	37 - 160
Dibromochloromethane	20.0	20.8		ug/L		104	53 - 149
Chloroethane	20.0	20.0		ug/L		100	14 - 230
Chloroform	20.0	21.0		ug/L		105	51 - 138
Chloromethane	20.0	18.4		ug/L		92	1 - 273
cis-1,3-Dichloropropene	20.0	20.8		ug/L		104	1 - 227
Bromodichloromethane	20.0	20.9		ug/L		104	35 - 155
Ethylbenzene	20.0	20.7		ug/L		104	37 - 162
Methylene Chloride	20.0	20.4		ug/L		102	1 - 221
Tetrachloroethene	20.0	21.0		ug/L		105	64 - 148
Toluene	20.0	20.4		ug/L		102	47 - 150
trans-1,3-Dichloropropene	20.0	21.2		ug/L		106	17 - 183
Trichloroethene	20.0	20.9		ug/L		104	71 - 157
Trichlorofluoromethane	20.0	21.3		ug/L		106	17 - 181
Vinyl chloride	20.0	20.6		ug/L		103	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*68 - 130*
4-Bromofluorobenzene (Surr)	*103*		*76 - 123*
Toluene-d8 (Surr)	*103*		*77 - 120*
Dibromofluoromethane (Surr)	*106*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-565471/1-A
Matrix: Water
Analysis Batch: 565749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 565471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		01/07/21 15:01	01/12/21 15:16	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		01/07/21 15:01	01/12/21 15:16	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		01/07/21 15:01	01/12/21 15:16	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		01/07/21 15:01	01/12/21 15:16	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		01/07/21 15:01	01/12/21 15:16	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 15:16	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-565471/1-A
Matrix: Water
Analysis Batch: 565749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 565471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		01/07/21 15:01	01/12/21 15:16	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		01/07/21 15:01	01/12/21 15:16	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		01/07/21 15:01	01/12/21 15:16	1
2-Chlorophenol	ND		5.0	0.66	ug/L		01/07/21 15:01	01/12/21 15:16	1
2-Nitrophenol	ND		5.0	0.70	ug/L		01/07/21 15:01	01/12/21 15:16	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		01/07/21 15:01	01/12/21 15:16	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		01/07/21 15:01	01/12/21 15:16	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		01/07/21 15:01	01/12/21 15:16	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		01/07/21 15:01	01/12/21 15:16	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		01/07/21 15:01	01/12/21 15:16	1
4-Nitrophenol	ND		15	10	ug/L		01/07/21 15:01	01/12/21 15:16	1
Acenaphthene	ND		5.0	0.81	ug/L		01/07/21 15:01	01/12/21 15:16	1
Acenaphthylene	ND		5.0	0.87	ug/L		01/07/21 15:01	01/12/21 15:16	1
Anthracene	ND		5.0	1.4	ug/L		01/07/21 15:01	01/12/21 15:16	1
Benzidine	ND		80	35	ug/L		01/07/21 15:01	01/12/21 15:16	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		01/07/21 15:01	01/12/21 15:16	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		01/07/21 15:01	01/12/21 15:16	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		01/07/21 15:01	01/12/21 15:16	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		01/07/21 15:01	01/12/21 15:16	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		01/07/21 15:01	01/12/21 15:16	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		01/07/21 15:01	01/12/21 15:16	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		01/07/21 15:01	01/12/21 15:16	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		01/07/21 15:01	01/12/21 15:16	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		01/07/21 15:01	01/12/21 15:16	1
Chrysene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
Decane	ND		10	1.6	ug/L		01/07/21 15:01	01/12/21 15:16	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		01/07/21 15:01	01/12/21 15:16	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		01/07/21 15:01	01/12/21 15:16	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		01/07/21 15:01	01/12/21 15:16	1
Diethyl phthalate	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		01/07/21 15:01	01/12/21 15:16	1
Fluoranthene	ND		5.0	1.6	ug/L		01/07/21 15:01	01/12/21 15:16	1
Fluorene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
Hexachloroethane	ND		5.0	0.60	ug/L		01/07/21 15:01	01/12/21 15:16	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		01/07/21 15:01	01/12/21 15:16	1
Isophorone	ND		5.0	0.74	ug/L		01/07/21 15:01	01/12/21 15:16	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		01/07/21 15:01	01/12/21 15:16	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		01/07/21 15:01	01/12/21 15:16	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		01/07/21 15:01	01/12/21 15:16	1
Naphthalene	ND		5.0	0.86	ug/L		01/07/21 15:01	01/12/21 15:16	1
Nitrobenzene	ND		5.0	0.81	ug/L		01/07/21 15:01	01/12/21 15:16	1
Pentachlorophenol	ND		10	1.6	ug/L		01/07/21 15:01	01/12/21 15:16	1
Phenanthrene	ND		5.0	1.2	ug/L		01/07/21 15:01	01/12/21 15:16	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-565471/1-A
Matrix: Water
Analysis Batch: 565749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 565471

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		01/07/21 15:01	01/12/21 15:16	1
Pyrene	ND		5.0	1.4	ug/L		01/07/21 15:01	01/12/21 15:16	1
n-Octadecane	ND		10	1.2	ug/L		01/07/21 15:01	01/12/21 15:16	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*79*		*52 - 151*	*01/07/21 15:01*	*01/12/21 15:16*	*1*
2-Fluorobiphenyl	*93*		*44 - 120*	*01/07/21 15:01*	*01/12/21 15:16*	*1*
2-Fluorophenol	*52*		*17 - 120*	*01/07/21 15:01*	*01/12/21 15:16*	*1*
Nitrobenzene-d5	*92*		*15 - 314*	*01/07/21 15:01*	*01/12/21 15:16*	*1*
p-Terphenyl-d14	*103*		*22 - 125*	*01/07/21 15:01*	*01/12/21 15:16*	*1*
Phenol-d5	*34*		*8 - 424*	*01/07/21 15:01*	*01/12/21 15:16*	*1*

Lab Sample ID: LCS 480-565471/2-A
Matrix: Water
Analysis Batch: 565749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 565471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	43.7		ug/L		87	44 - 142
1,2-Dichlorobenzene	50.0	41.8		ug/L		84	32 - 129
1,3-Dichlorobenzene	50.0	42.0		ug/L		84	1 - 172
1,4-Dichlorobenzene	50.0	42.1		ug/L		84	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	46.7		ug/L		93	36 - 166
2,4,6-Trichlorophenol	50.0	49.3		ug/L		99	37 - 144
2,4-Dichlorophenol	50.0	46.9		ug/L		94	39 - 135
2,4-Dimethylphenol	50.0	46.8		ug/L		94	32 - 120
2,4-Dinitrophenol	100	95.0		ug/L		95	1 - 191
2,4-Dinitrotoluene	50.0	51.2		ug/L		102	39 - 139
2,6-Dinitrotoluene	50.0	50.0		ug/L		100	50 - 158
2-Chloronaphthalene	50.0	47.9		ug/L		96	60 - 120
2-Chlorophenol	50.0	43.2		ug/L		86	23 - 134
2-Nitrophenol	50.0	44.4		ug/L		89	29 - 182
3,3'-Dichlorobenzidine	100	93.5		ug/L		94	1 - 262
4,6-Dinitro-2-methylphenol	100	98.8		ug/L		99	1 - 181
4-Bromophenyl phenyl ether	50.0	48.9		ug/L		98	53 - 127
4-Chloro-3-methylphenol	50.0	45.5		ug/L		91	22 - 147
4-Chlorophenyl phenyl ether	50.0	49.1		ug/L		98	25 - 158
4-Nitrophenol	100	49.1		ug/L		49	1 - 132
Acenaphthene	50.0	50.0		ug/L		100	47 - 145
Acenaphthylene	50.0	50.9		ug/L		102	33 - 145
Anthracene	50.0	51.7		ug/L		103	27 - 133
Benzidine	100	ND		ug/L		25	1 - 120
Benzo[a]anthracene	50.0	51.0		ug/L		102	33 - 143
Benzo[a]pyrene	50.0	54.0		ug/L		108	17 - 163
Benzo[b]fluoranthene	50.0	55.9		ug/L		112	24 - 159
Benzo[g,h,i]perylene	50.0	56.1		ug/L		112	1 - 219
Benzo[k]fluoranthene	50.0	52.1		ug/L		104	11 - 162
Bis(2-chloroethoxy)methane	50.0	47.1		ug/L		94	33 - 184
Bis(2-chloroethyl)ether	50.0	47.0		ug/L		94	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-565471/2-A
Matrix: Water
Analysis Batch: 565749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 565471

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	52.3		ug/L		105	8 - 158
Butyl benzyl phthalate	50.0	52.4		ug/L		105	1 - 152
Chrysene	50.0	50.3		ug/L		101	17 - 168
Di-n-butyl phthalate	50.0	52.6		ug/L		105	1 - 120
Di-n-octyl phthalate	50.0	53.3		ug/L		107	4 - 146
Dibenz(a,h)anthracene	50.0	55.4		ug/L		111	1 - 227
Diethyl phthalate	50.0	53.1		ug/L		106	1 - 120
Dimethyl phthalate	50.0	52.0		ug/L		104	1 - 120
Fluoranthene	50.0	51.3		ug/L		103	26 - 137
Fluorene	50.0	50.3		ug/L		101	59 - 121
Hexachlorobenzene	50.0	51.2		ug/L		102	1 - 152
Hexachlorocyclopentadiene	50.0	47.0		ug/L		94	5 - 120
Hexachloroethane	50.0	40.2		ug/L		80	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	54.5		ug/L		109	1 - 171
Isophorone	50.0	48.0		ug/L		96	21 - 196
N-Nitrosodi-n-propylamine	50.0	49.3		ug/L		99	1 - 230
N-Nitrosodiphenylamine	50.0	49.1		ug/L		98	54 - 125
Naphthalene	50.0	46.3		ug/L		93	21 - 133
Nitrobenzene	50.0	45.9		ug/L		92	35 - 180
Pentachlorophenol	100	103		ug/L		103	14 - 176
Phenanthrene	50.0	50.5		ug/L		101	54 - 120
Phenol	50.0	21.3		ug/L		43	5 - 120
Pyrene	50.0	52.6		ug/L		105	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*52 - 151*
2-Fluorobiphenyl	*99*		*44 - 120*
2-Fluorophenol	*56*		*17 - 120*
Nitrobenzene-d5	*90*		*15 - 314*
p-Terphenyl-d14	*113*		*22 - 125*
Phenol-d5	*37*		*8 - 424*

Lab Sample ID: LCSD 480-565471/3-A
Matrix: Water
Analysis Batch: 565749

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 565471

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	42.1		ug/L		84	44 - 142	4	34
1,2-Dichlorobenzene	50.0	40.3		ug/L		81	32 - 129	4	38
1,3-Dichlorobenzene	50.0	39.9		ug/L		80	1 - 172	5	37
1,4-Dichlorobenzene	50.0	38.7		ug/L		77	20 - 124	8	40
2,2'-Oxybis(1-chloropropane)	50.0	44.4		ug/L		89	36 - 166	5	36
2,4,6-Trichlorophenol	50.0	49.9		ug/L		100	37 - 144	1	20
2,4-Dichlorophenol	50.0	47.0		ug/L		94	39 - 135	0	23
2,4-Dimethylphenol	50.0	48.1		ug/L		96	32 - 120	3	18
2,4-Dinitrophenol	100	99.0		ug/L		99	1 - 191	4	29
2,4-Dinitrotoluene	50.0	52.7		ug/L		105	39 - 139	3	20
2,6-Dinitrotoluene	50.0	51.8		ug/L		104	50 - 158	3	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-565471/3-A
Matrix: Water
Analysis Batch: 565749

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 565471

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	47.4		ug/L		95	60 - 120	1	30
2-Chlorophenol			50.0	40.2		ug/L		80	23 - 134	7	26
2-Nitrophenol			50.0	44.9		ug/L		90	29 - 182	1	28
3,3'-Dichlorobenzidine			100	96.1		ug/L		96	1 - 262	3	31
4,6-Dinitro-2-methylphenol			100	106		ug/L		106	1 - 181	7	30
4-Bromophenyl phenyl ether			50.0	52.2		ug/L		104	53 - 127	6	16
4-Chloro-3-methylphenol			50.0	46.2		ug/L		92	22 - 147	2	16
4-Chlorophenyl phenyl ether			50.0	50.6		ug/L		101	25 - 158	3	15
4-Nitrophenol			100	47.7		ug/L		48	1 - 132	3	24
Acenaphthene			50.0	50.3		ug/L		101	47 - 145	1	25
Acenaphthylene			50.0	50.5		ug/L		101	33 - 145	1	22
Anthracene			50.0	53.3		ug/L		107	27 - 133	3	15
Benzidine			100	ND	*1	ug/L		8	1 - 120	107	50
Benzo[a]anthracene			50.0	53.3		ug/L		107	33 - 143	4	15
Benzo[a]pyrene			50.0	55.0		ug/L		110	17 - 163	2	15
Benzo[b]fluoranthene			50.0	52.4		ug/L		105	24 - 159	6	17
Benzo[g,h,i]perylene			50.0	53.2		ug/L		106	1 - 219	5	19
Benzo[k]fluoranthene			50.0	57.6		ug/L		115	11 - 162	10	19
Bis(2-chloroethoxy)methane			50.0	46.7		ug/L		93	33 - 184	1	23
Bis(2-chloroethyl)ether			50.0	43.7		ug/L		87	12 - 158	7	33
Bis(2-ethylhexyl) phthalate			50.0	54.0		ug/L		108	8 - 158	3	15
Butyl benzyl phthalate			50.0	50.9		ug/L		102	1 - 152	3	15
Chrysene			50.0	51.7		ug/L		103	17 - 168	3	15
Di-n-butyl phthalate			50.0	52.8		ug/L		106	1 - 120	0	15
Di-n-octyl phthalate			50.0	54.4		ug/L		109	4 - 146	2	15
Dibenz(a,h)anthracene			50.0	53.9		ug/L		108	1 - 227	3	18
Diethyl phthalate			50.0	53.9		ug/L		108	1 - 120	2	15
Dimethyl phthalate			50.0	53.0		ug/L		106	1 - 120	2	15
Fluoranthene			50.0	49.4		ug/L		99	26 - 137	4	15
Fluorene			50.0	52.3		ug/L		105	59 - 121	4	18
Hexachlorobenzene			50.0	50.5		ug/L		101	1 - 152	1	15
Hexachlorocyclopentadiene			50.0	44.4		ug/L		89	5 - 120	6	50
Hexachloroethane			50.0	38.8		ug/L		78	40 - 120	4	43
Indeno[1,2,3-cd]pyrene			50.0	54.0		ug/L		108	1 - 171	1	17
Isophorone			50.0	49.7		ug/L		99	21 - 196	4	21
N-Nitrosodi-n-propylamine			50.0	46.2		ug/L		92	1 - 230	7	23
N-Nitrosodiphenylamine			50.0	54.0		ug/L		108	54 - 125	9	15
Naphthalene			50.0	45.0		ug/L		90	21 - 133	3	31
Nitrobenzene			50.0	45.8		ug/L		92	35 - 180	0	27
Pentachlorophenol			100	107		ug/L		107	14 - 176	4	21
Phenanthrene			50.0	52.1		ug/L		104	54 - 120	3	16
Phenol			50.0	20.1		ug/L		40	5 - 120	6	36
Pyrene			50.0	53.7		ug/L		107	52 - 120	2	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*107*		*52 - 151*
2-Fluorobiphenyl	*97*		*44 - 120*
2-Fluorophenol	*51*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-565471/3-A
Matrix: Water
Analysis Batch: 565749

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 565471

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*90*		*15 - 314*
p-Terphenyl-d14	*111*		*22 - 125*
Phenol-d5	*36*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-565246/1-A
Matrix: Water
Analysis Batch: 565410

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 565246

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		01/06/21 09:05	01/06/21 14:47	1

Lab Sample ID: LCS 480-565246/2-A
Matrix: Water
Analysis Batch: 565410

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 565246

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.199		mg/L		99	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-565308/1-A
Matrix: Water
Analysis Batch: 565351

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 565308

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/06/21 13:00	01/06/21 16:29	1

Lab Sample ID: LCS 480-565308/2-A
Matrix: Water
Analysis Batch: 565351

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 565308

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00677		mg/L		101	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-565360/1-A
Matrix: Water
Analysis Batch: 565496

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 565360

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		01/06/21 21:32	01/07/21 17:45	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-565360/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 565496 — **Prep Batch: 565360**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.377		mg/L		94	90 - 110

Lab Sample ID: LCS 480-565360/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 565496 — **Prep Batch: 565360**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.236		mg/L		94	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-565445/1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 565445

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.0		SU		100	99 - 101

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 565254

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-5	TRIP BLANK	Total/NA	Water	624.1	
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	624.1	
MB 480-565254/7	Method Blank	Total/NA	Water	624.1	
LCS 480-565254/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 565471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	625	
MB 480-565471/1-A	Method Blank	Total/NA	Water	625	
LCS 480-565471/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-565471/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 565749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	625.1	565471
MB 480-565471/1-A	Method Blank	Total/NA	Water	625.1	565471
LCS 480-565471/2-A	Lab Control Sample	Total/NA	Water	625.1	565471
LCSD 480-565471/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	565471

Metals

Prep Batch: 565246

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	200.7	
MB 480-565246/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-565246/2-A	Lab Control Sample	Total/NA	Water	200.7	

Prep Batch: 565308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	245.1	
MB 480-565308/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-565308/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 565351

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	245.1	565308
MB 480-565308/1-A	Method Blank	Total/NA	Water	245.1	565308
LCS 480-565308/2-A	Lab Control Sample	Total/NA	Water	245.1	565308

Analysis Batch: 565410

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	200.7 Rev 4.4	565246
MB 480-565246/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	565246
LCS 480-565246/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	565246

General Chemistry

Prep Batch: 565360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	Distill/CN	

General Chemistry (Continued)

Prep Batch: 565360 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-565360/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-565360/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-565360/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	

Analysis Batch: 565445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	SM 4500 H+ B	
LCS 480-565445/1	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Analysis Batch: 565496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-179857-6	COMPOSITE 001 1-4	Total/NA	Water	335.4	565360
MB 480-565360/1-A	Method Blank	Total/NA	Water	335.4	565360
LCS 480-565360/2-A	Lab Control Sample	Total/NA	Water	335.4	565360
LCS 480-565360/3-A	Lab Control Sample	Total/NA	Water	335.4	565360

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-179857-5

Date Collected: 01/05/21 00:00
Matrix: Water
Date Received: 01/05/21 13:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	565254	01/06/21 11:13	WJD	TAL BUF

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-179857-6

Date Collected: 01/05/21 13:10
Matrix: Water
Date Received: 01/05/21 13:23

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	565254	01/06/21 11:36	WJD	TAL BUF
Total/NA	Prep	625			565471	01/07/21 15:01	ATG	TAL BUF
Total/NA	Analysis	625.1		1	565749	01/12/21 16:54	JMM	TAL BUF
Total/NA	Prep	200.7			565246	01/06/21 09:05	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	565410	01/06/21 16:19	AMH	TAL BUF
Total/NA	Prep	245.1			565308	01/06/21 13:00	BMB	TAL BUF
Total/NA	Analysis	245.1		1	565351	01/06/21 16:49	BMB	TAL BUF
Total/NA	Prep	Distill/CN			565360	01/06/21 21:32	ALT	TAL BUF
Total/NA	Analysis	335.4		1	565496	01/07/21 18:04	ALT	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	565445	01/07/21 11:24	KEB	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	04-01-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-179857-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-179857-5	TRIP BLANK	Water	01/05/21 00:00	01/05/21 13:23	
480-179857-6	COMPOSITE 001 1-4	Water	01/05/21 13:10	01/05/21 13:23	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-153383-34075.1
Client Contact: Jason Gutkowski	Phone: 3154363605	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: ARCADIS U.S., Inc.	PWSID:			Job #:
Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:			
City: Syracuse	TAT Requested (days): Standard Turn			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed			
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001			
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	1/5/21	0710	G	Water			X	X	X	X	X		Lab To
001-2		0910					X	X	X	X	X		Composite
001-3		1110					X	X	X	X	X		Samples
001-4		1310					X	X	X	X	X		
Trip Blank	—	—	—								X		

480-179857 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: Jason Gutkowski	Date/Time: 1/5/21 1323	Company: Arcadis	Received by:
Relinquished by:	Date/Time:	Company	Received by:
Relinquished by:	Date/Time:	Company	Received by:

Received by:	Date/Time:	Company
	1/5/21 1323	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.1 #1

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-179857-1

Login Number: 179857

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Sabuda, Brendan D

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	3.1 #1 ICe
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.	False	lab composite 4 grabs
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	False	NA: Check done at department level as required

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ANALYTICAL REPORT

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

Laboratory Job ID: 480-180745-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
2/9/2021 5:35:34 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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: 480-180745-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-180745-1

Receipt
The samples were received on 2/1/2021 3:40 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.0º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 2-3-21 as requested by the client: COMPOSITE 001 1-4 (480-180745-6). Regulatory defined guidance for in-laboratory compositing of samples is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The continuing calibration verification (CCV) associated with batch 480-568476 recovered above the upper control limit for Hexachlorobutadiene. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The associated sample is impacted: COMPOSITE 001 1-4 (480-180745-6).

Method 625.1: The laboratory control sample duplicate (LCSD) for preparation batch 480-568350 and analytical batch 480-568476 recovered outside control limits for the following analyte: Di-n-butyl phthalate. This analyte was biased high in the LCSD and was not detected in the associated samples; therefore, the data have been reported.

Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-568350 and analytical batch 480-568476 recovered outside control limits for the following analytes: 4-Bromophenyl phenyl ether, 4-Chlorophenyl phenyl ether, Anthracene, Benzo[a]pyrene, Benzo[b]fluoranthene and Diethyl phthalate.

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

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMPOSITE 001 1-4 (480-180745-6).

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

Organic Prep
Method 625: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 480-568350.

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-180745-5

No Detections.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-180745-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.10		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.4	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-180745-5

Date Collected: 02/01/21 00:00

Matrix: Water

Date Received: 02/01/21 15:40

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/03/21 14:49	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/03/21 14:49	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/03/21 14:49	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/03/21 14:49	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/03/21 14:49	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/03/21 14:49	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/03/21 14:49	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			02/03/21 14:49	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/03/21 14:49	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/03/21 14:49	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/03/21 14:49	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/03/21 14:49	1
Acrolein	ND		100	17	ug/L			02/03/21 14:49	1
Acrylonitrile	ND		50	1.9	ug/L			02/03/21 14:49	1
Benzene	ND		5.0	0.60	ug/L			02/03/21 14:49	1
Bromoform	ND		5.0	0.47	ug/L			02/03/21 14:49	1
Bromomethane	ND		5.0	1.2	ug/L			02/03/21 14:49	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/03/21 14:49	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/03/21 14:49	1
Dibromochloromethane	ND		5.0	0.41	ug/L			02/03/21 14:49	1
Chloroethane	ND		5.0	0.87	ug/L			02/03/21 14:49	1
Chloroform	ND		5.0	0.54	ug/L			02/03/21 14:49	1
Chloromethane	ND		5.0	0.64	ug/L			02/03/21 14:49	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/03/21 14:49	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/03/21 14:49	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			02/03/21 14:49	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/03/21 14:49	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/03/21 14:49	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/03/21 14:49	1
Toluene	ND		5.0	0.45	ug/L			02/03/21 14:49	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/03/21 14:49	1
Trichloroethene	ND		5.0	0.60	ug/L			02/03/21 14:49	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/03/21 14:49	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/03/21 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 130*		*02/03/21 14:49*	*1*
4-Bromofluorobenzene (Surr)	*96*		*76 - 123*		*02/03/21 14:49*	*1*
Toluene-d8 (Surr)	*92*		*77 - 120*		*02/03/21 14:49*	*1*
Dibromofluoromethane (Surr)	*95*		*75 - 123*		*02/03/21 14:49*	*1*

Client Sample ID: COMPOSITE 001 1-4

Lab Sample ID: 480-180745-6

Date Collected: 02/01/21 13:20

Matrix: Water

Date Received: 02/01/21 15:40

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			02/03/21 15:13	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/03/21 15:13	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/03/21 15:13	1

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-180745-6
Date Collected: 02/01/21 13:20
Matrix: Water
Date Received: 02/01/21 15:40

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/03/21 15:13	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/03/21 15:13	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/03/21 15:13	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/03/21 15:13	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			02/03/21 15:13	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/03/21 15:13	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/03/21 15:13	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/03/21 15:13	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/03/21 15:13	1
Acrolein	ND		100	17	ug/L			02/03/21 15:13	1
Acrylonitrile	ND		50	1.9	ug/L			02/03/21 15:13	1
Benzene	ND		5.0	0.60	ug/L			02/03/21 15:13	1
Bromoform	ND		5.0	0.47	ug/L			02/03/21 15:13	1
Bromomethane	ND		5.0	1.2	ug/L			02/03/21 15:13	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/03/21 15:13	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/03/21 15:13	1
Dibromochloromethane	ND		5.0	0.41	ug/L			02/03/21 15:13	1
Chloroethane	ND		5.0	0.87	ug/L			02/03/21 15:13	1
Chloroform	ND		5.0	0.54	ug/L			02/03/21 15:13	1
Chloromethane	ND		5.0	0.64	ug/L			02/03/21 15:13	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/03/21 15:13	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/03/21 15:13	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			02/03/21 15:13	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/03/21 15:13	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/03/21 15:13	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/03/21 15:13	1
Toluene	ND		5.0	0.45	ug/L			02/03/21 15:13	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/03/21 15:13	1
Trichloroethene	ND		5.0	0.60	ug/L			02/03/21 15:13	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/03/21 15:13	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/03/21 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*		*02/03/21 15:13*	*1*
4-Bromofluorobenzene (Surr)	*95*		*76 - 123*		*02/03/21 15:13*	*1*
Toluene-d8 (Surr)	*95*		*77 - 120*		*02/03/21 15:13*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*02/03/21 15:13*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		9.5	0.78	ug/L		02/04/21 08:48	02/05/21 15:10	1
1,2-Dichlorobenzene	ND		9.5	4.8	ug/L		02/04/21 08:48	02/05/21 15:10	1
1,2-Diphenylhydrazine	ND		9.5	0.74	ug/L		02/04/21 08:48	02/05/21 15:10	1
1,3-Dichlorobenzene	ND		9.5	0.66	ug/L		02/04/21 08:48	02/05/21 15:10	1
1,4-Dichlorobenzene	ND		9.5	5.4	ug/L		02/04/21 08:48	02/05/21 15:10	1
2,2'-Oxybis(1-chloropropane)	ND		4.8	0.80	ug/L		02/04/21 08:48	02/05/21 15:10	1
2,4,6-Trichlorophenol	ND		4.8	0.95	ug/L		02/04/21 08:48	02/05/21 15:10	1
2,4-Dichlorophenol	ND		4.8	0.73	ug/L		02/04/21 08:48	02/05/21 15:10	1
2,4-Dimethylphenol	ND		4.8	1.3	ug/L		02/04/21 08:48	02/05/21 15:10	1
2,4-Dinitrophenol	ND		9.5	4.8	ug/L		02/04/21 08:48	02/05/21 15:10	1

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-180745-6
Date Collected: 02/01/21 13:20
Matrix: Water
Date Received: 02/01/21 15:40

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		9.5	4.8	ug/L		02/04/21 08:48	02/05/21 15:10	1
2,6-Dinitrotoluene	ND		4.8	0.95	ug/L		02/04/21 08:48	02/05/21 15:10	1
2-Chloronaphthalene	ND		4.8	0.87	ug/L		02/04/21 08:48	02/05/21 15:10	1
2-Chlorophenol	ND		4.8	0.63	ug/L		02/04/21 08:48	02/05/21 15:10	1
2-Nitrophenol	ND		4.8	0.67	ug/L		02/04/21 08:48	02/05/21 15:10	1
3,3'-Dichlorobenzidine	ND		4.8	0.78	ug/L		02/04/21 08:48	02/05/21 15:10	1
4,6-Dinitro-2-methylphenol	ND		9.5	0.63	ug/L		02/04/21 08:48	02/05/21 15:10	1
4-Bromophenyl phenyl ether	ND	*1	4.8	1.3	ug/L		02/04/21 08:48	02/05/21 15:10	1
4-Chloro-3-methylphenol	ND		4.8	1.0	ug/L		02/04/21 08:48	02/05/21 15:10	1
4-Chlorophenyl phenyl ether	ND	*1	4.8	1.2	ug/L		02/04/21 08:48	02/05/21 15:10	1
4-Nitrophenol	ND		14	9.5	ug/L		02/04/21 08:48	02/05/21 15:10	1
Acenaphthene	ND		4.8	0.77	ug/L		02/04/21 08:48	02/05/21 15:10	1
Acenaphthylene	ND		4.8	0.83	ug/L		02/04/21 08:48	02/05/21 15:10	1
Anthracene	ND	*1	4.8	1.3	ug/L		02/04/21 08:48	02/05/21 15:10	1
Benzidine	ND		76	33	ug/L		02/04/21 08:48	02/05/21 15:10	1
Benzo[a]anthracene	ND		4.8	1.0	ug/L		02/04/21 08:48	02/05/21 15:10	1
Benzo[a]pyrene	ND	*1	4.8	1.2	ug/L		02/04/21 08:48	02/05/21 15:10	1
Benzo[b]fluoranthene	ND	*1	4.8	1.1	ug/L		02/04/21 08:48	02/05/21 15:10	1
Benzo[g,h,i]perylene	ND		4.8	1.4	ug/L		02/04/21 08:48	02/05/21 15:10	1
Benzo[k]fluoranthene	ND		4.8	1.2	ug/L		02/04/21 08:48	02/05/21 15:10	1
Bis(2-chloroethoxy)methane	ND		4.8	0.71	ug/L		02/04/21 08:48	02/05/21 15:10	1
Bis(2-chloroethyl)ether	ND		4.8	0.89	ug/L		02/04/21 08:48	02/05/21 15:10	1
Bis(2-ethylhexyl) phthalate	ND		9.5	1.1	ug/L		02/04/21 08:48	02/05/21 15:10	1
Butyl benzyl phthalate	ND		4.8	1.0	ug/L		02/04/21 08:48	02/05/21 15:10	1
Chrysene	ND		4.8	0.95	ug/L		02/04/21 08:48	02/05/21 15:10	1
Decane	ND		9.5	1.5	ug/L		02/04/21 08:48	02/05/21 15:10	1
Di-n-butyl phthalate	ND	*+	4.8	1.5	ug/L		02/04/21 08:48	02/05/21 15:10	1
Di-n-octyl phthalate	ND		4.8	1.1	ug/L		02/04/21 08:48	02/05/21 15:10	1
Dibenz(a,h)anthracene	ND		4.8	1.4	ug/L		02/04/21 08:48	02/05/21 15:10	1
Diethyl phthalate	ND	*1	4.8	0.95	ug/L		02/04/21 08:48	02/05/21 15:10	1
Dimethyl phthalate	ND		4.8	0.87	ug/L		02/04/21 08:48	02/05/21 15:10	1
Fluoranthene	ND		4.8	1.5	ug/L		02/04/21 08:48	02/05/21 15:10	1
Fluorene	ND		4.8	0.95	ug/L		02/04/21 08:48	02/05/21 15:10	1
Hexachlorobenzene	ND		4.8	0.95	ug/L		02/04/21 08:48	02/05/21 15:10	1
Hexachlorobutadiene	ND		4.8	0.95	ug/L		02/04/21 08:48	02/05/21 15:10	1
Hexachlorocyclopentadiene	ND		9.5	4.8	ug/L		02/04/21 08:48	02/05/21 15:10	1
Hexachloroethane	ND		4.8	0.57	ug/L		02/04/21 08:48	02/05/21 15:10	1
Indeno[1,2,3-cd]pyrene	ND		4.8	1.4	ug/L		02/04/21 08:48	02/05/21 15:10	1
Isophorone	ND		4.8	0.70	ug/L		02/04/21 08:48	02/05/21 15:10	1
N-Nitrosodi-n-propylamine	ND		4.8	0.85	ug/L		02/04/21 08:48	02/05/21 15:10	1
N-Nitrosodimethylamine	ND		9.5	4.8	ug/L		02/04/21 08:48	02/05/21 15:10	1
N-Nitrosodiphenylamine	ND		4.8	0.38	ug/L		02/04/21 08:48	02/05/21 15:10	1
Naphthalene	ND		4.8	0.82	ug/L		02/04/21 08:48	02/05/21 15:10	1
Nitrobenzene	ND		4.8	0.77	ug/L		02/04/21 08:48	02/05/21 15:10	1
Pentachlorophenol	ND		9.5	1.5	ug/L		02/04/21 08:48	02/05/21 15:10	1
Phenanthrene	ND		4.8	1.1	ug/L		02/04/21 08:48	02/05/21 15:10	1
Phenol	ND		4.8	0.33	ug/L		02/04/21 08:48	02/05/21 15:10	1
Pyrene	ND		4.8	1.3	ug/L		02/04/21 08:48	02/05/21 15:10	1
n-Octadecane	ND		9.5	1.1	ug/L		02/04/21 08:48	02/05/21 15:10	1

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-180745-6
Date Collected: 02/01/21 13:20
Matrix: Water
Date Received: 02/01/21 15:40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*106*		*52 - 151*	*02/04/21 08:48*	*02/05/21 15:10*	*1*
2-Fluorobiphenyl	*89*		*44 - 120*	*02/04/21 08:48*	*02/05/21 15:10*	*1*
2-Fluorophenol	*45*		*17 - 120*	*02/04/21 08:48*	*02/05/21 15:10*	*1*
Nitrobenzene-d5	*80*		*15 - 314*	*02/04/21 08:48*	*02/05/21 15:10*	*1*
p-Terphenyl-d14	*82*		*22 - 125*	*02/04/21 08:48*	*02/05/21 15:10*	*1*
Phenol-d5	*31*		*8 - 424*	*02/04/21 08:48*	*02/05/21 15:10*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		02/05/21 09:17	02/05/21 19:13	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/03/21 13:37	02/03/21 18:01	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.10**		0.010	0.0050	mg/L		02/03/21 22:54	02/04/21 20:20	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.3**	**HF**	0.1	0.1	SU			02/02/21 17:27	1
Temperature	**20.4**	**HF**	0.001	0.001	Degrees C			02/02/21 17:27	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-180745-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-180745-5	TRIP BLANK	96	96	92	95
480-180745-6	COMPOSITE 001 1-4	99	95	95	98
LCS 480-568193/6	Lab Control Sample	98	96	102	101
MB 480-568193/8	Method Blank	99	91	97	98

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-180745-6	COMPOSITE 001 1-4	106	89	45	80	82	31
LCS 480-568350/2-A	Lab Control Sample	110	89	45	85	100	35
LCSD 480-568350/3-A	Lab Control Sample Dup	131	98	51	93	113	38
MB 480-568350/1-A	Method Blank	109	87	47	86	97	33

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-568193/8
Matrix: Water
Analysis Batch: 568193

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	ND		5.0	0.39	ug/L			02/03/21 11:40	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			02/03/21 11:40	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			02/03/21 11:40	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			02/03/21 11:40	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			02/03/21 11:40	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			02/03/21 11:40	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			02/03/21 11:40	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			02/03/21 11:40	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			02/03/21 11:40	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			02/03/21 11:40	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			02/03/21 11:40	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			02/03/21 11:40	1
Acrolein	ND		100	17	ug/L			02/03/21 11:40	1
Acrylonitrile	ND		50	1.9	ug/L			02/03/21 11:40	1
Benzene	ND		5.0	0.60	ug/L			02/03/21 11:40	1
Bromoform	ND		5.0	0.47	ug/L			02/03/21 11:40	1
Bromomethane	ND		5.0	1.2	ug/L			02/03/21 11:40	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			02/03/21 11:40	1
Chlorobenzene	ND		5.0	0.48	ug/L			02/03/21 11:40	1
Dibromochloromethane	ND		5.0	0.41	ug/L			02/03/21 11:40	1
Chloroethane	ND		5.0	0.87	ug/L			02/03/21 11:40	1
Chloroform	ND		5.0	0.54	ug/L			02/03/21 11:40	1
Chloromethane	ND		5.0	0.64	ug/L			02/03/21 11:40	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			02/03/21 11:40	1
Bromodichloromethane	ND		5.0	0.54	ug/L			02/03/21 11:40	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			02/03/21 11:40	1
Ethylbenzene	ND		5.0	0.46	ug/L			02/03/21 11:40	1
Methylene Chloride	ND		5.0	0.81	ug/L			02/03/21 11:40	1
Tetrachloroethene	ND		5.0	0.34	ug/L			02/03/21 11:40	1
Toluene	ND		5.0	0.45	ug/L			02/03/21 11:40	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			02/03/21 11:40	1
Trichloroethene	ND		5.0	0.60	ug/L			02/03/21 11:40	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			02/03/21 11:40	1
Vinyl chloride	ND		5.0	0.75	ug/L			02/03/21 11:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*		*02/03/21 11:40*	*1*
4-Bromofluorobenzene (Surr)	*91*		*76 - 123*		*02/03/21 11:40*	*1*
Toluene-d8 (Surr)	*97*		*77 - 120*		*02/03/21 11:40*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*02/03/21 11:40*	*1*

Lab Sample ID: LCS 480-568193/6
Matrix: Water
Analysis Batch: 568193

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	20.0	19.3		ug/L		97	52 - 162
1,1,2,2-Tetrachloroethane	20.0	19.3		ug/L		97	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-568193/6
Matrix: Water
Analysis Batch: 568193

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	20.0		ug/L		100	52 - 150
1,1-Dichloroethane	20.0	19.1		ug/L		96	59 - 155
1,1-Dichloroethene	20.0	19.5		ug/L		97	1 - 234
1,2-Dichlorobenzene	20.0	20.1		ug/L		100	18 - 190
1,2-Dichloroethane	20.0	18.5		ug/L		93	49 - 155
1,2-Dichloropropane	20.0	20.0		ug/L		100	1 - 210
1,3-Dichlorobenzene	20.0	19.7		ug/L		98	59 - 156
1,4-Dichlorobenzene	20.0	19.6		ug/L		98	18 - 190
2-Chloroethyl vinyl ether	20.0	20.8	J	ug/L		104	1 - 305
Benzene	20.0	19.3		ug/L		97	37 - 151
Bromoform	20.0	20.3		ug/L		102	45 - 169
Bromomethane	20.0	21.3		ug/L		107	1 - 242
Carbon tetrachloride	20.0	19.4		ug/L		97	70 - 140
Chlorobenzene	20.0	19.5		ug/L		98	37 - 160
Dibromochloromethane	20.0	20.3		ug/L		102	53 - 149
Chloroethane	20.0	21.2		ug/L		106	14 - 230
Chloroform	20.0	20.4		ug/L		102	51 - 138
Chloromethane	20.0	20.3		ug/L		101	1 - 273
cis-1,3-Dichloropropene	20.0	20.3		ug/L		102	1 - 227
Bromodichloromethane	20.0	20.7		ug/L		103	35 - 155
Ethylbenzene	20.0	19.5		ug/L		98	37 - 162
Methylene Chloride	20.0	19.2		ug/L		96	1 - 221
Tetrachloroethene	20.0	19.2		ug/L		96	64 - 148
Toluene	20.0	19.9		ug/L		99	47 - 150
trans-1,3-Dichloropropene	20.0	19.9		ug/L		100	17 - 183
Trichloroethene	20.0	19.1		ug/L		95	71 - 157
Trichlorofluoromethane	20.0	21.6		ug/L		108	17 - 181
Vinyl chloride	20.0	21.2		ug/L		106	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 130*
4-Bromofluorobenzene (Surr)	*96*		*76 - 123*
Toluene-d8 (Surr)	*102*		*77 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-568350/1-A
Matrix: Water
Analysis Batch: 568476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		02/04/21 08:48	02/05/21 13:33	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		02/04/21 08:48	02/05/21 13:33	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		02/04/21 08:48	02/05/21 13:33	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		02/04/21 08:48	02/05/21 13:33	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		02/04/21 08:48	02/05/21 13:33	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		02/04/21 08:48	02/05/21 13:33	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-568350/1-A
Matrix: Water
Analysis Batch: 568476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		02/04/21 08:48	02/05/21 13:33	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		02/04/21 08:48	02/05/21 13:33	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		02/04/21 08:48	02/05/21 13:33	1
2-Chlorophenol	ND		5.0	0.66	ug/L		02/04/21 08:48	02/05/21 13:33	1
2-Nitrophenol	ND		5.0	0.70	ug/L		02/04/21 08:48	02/05/21 13:33	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		02/04/21 08:48	02/05/21 13:33	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		02/04/21 08:48	02/05/21 13:33	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		02/04/21 08:48	02/05/21 13:33	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		02/04/21 08:48	02/05/21 13:33	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		02/04/21 08:48	02/05/21 13:33	1
4-Nitrophenol	ND		15	10	ug/L		02/04/21 08:48	02/05/21 13:33	1
Acenaphthene	ND		5.0	0.81	ug/L		02/04/21 08:48	02/05/21 13:33	1
Acenaphthylene	ND		5.0	0.87	ug/L		02/04/21 08:48	02/05/21 13:33	1
Anthracene	ND		5.0	1.4	ug/L		02/04/21 08:48	02/05/21 13:33	1
Benzidine	ND		80	35	ug/L		02/04/21 08:48	02/05/21 13:33	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		02/04/21 08:48	02/05/21 13:33	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		02/04/21 08:48	02/05/21 13:33	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		02/04/21 08:48	02/05/21 13:33	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		02/04/21 08:48	02/05/21 13:33	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		02/04/21 08:48	02/05/21 13:33	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		02/04/21 08:48	02/05/21 13:33	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		02/04/21 08:48	02/05/21 13:33	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		02/04/21 08:48	02/05/21 13:33	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		02/04/21 08:48	02/05/21 13:33	1
Chrysene	ND		5.0	1.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
Decane	ND		10	1.6	ug/L		02/04/21 08:48	02/05/21 13:33	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		02/04/21 08:48	02/05/21 13:33	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		02/04/21 08:48	02/05/21 13:33	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		02/04/21 08:48	02/05/21 13:33	1
Diethyl phthalate	ND		5.0	1.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		02/04/21 08:48	02/05/21 13:33	1
Fluoranthene	ND		5.0	1.6	ug/L		02/04/21 08:48	02/05/21 13:33	1
Fluorene	ND		5.0	1.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
Hexachloroethane	ND		5.0	0.60	ug/L		02/04/21 08:48	02/05/21 13:33	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		02/04/21 08:48	02/05/21 13:33	1
Isophorone	ND		5.0	0.74	ug/L		02/04/21 08:48	02/05/21 13:33	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		02/04/21 08:48	02/05/21 13:33	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		02/04/21 08:48	02/05/21 13:33	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		02/04/21 08:48	02/05/21 13:33	1
Naphthalene	ND		5.0	0.86	ug/L		02/04/21 08:48	02/05/21 13:33	1
Nitrobenzene	ND		5.0	0.81	ug/L		02/04/21 08:48	02/05/21 13:33	1
Pentachlorophenol	ND		10	1.6	ug/L		02/04/21 08:48	02/05/21 13:33	1
Phenanthrene	ND		5.0	1.2	ug/L		02/04/21 08:48	02/05/21 13:33	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-568350/1-A
Matrix: Water
Analysis Batch: 568476

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568350

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		02/04/21 08:48	02/05/21 13:33	1
Pyrene	ND		5.0	1.4	ug/L		02/04/21 08:48	02/05/21 13:33	1
n-Octadecane	ND		10	1.2	ug/L		02/04/21 08:48	02/05/21 13:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*109*		*52 - 151*	*02/04/21 08:48*	*02/05/21 13:33*	*1*
2-Fluorobiphenyl	*87*		*44 - 120*	*02/04/21 08:48*	*02/05/21 13:33*	*1*
2-Fluorophenol	*47*		*17 - 120*	*02/04/21 08:48*	*02/05/21 13:33*	*1*
Nitrobenzene-d5	*86*		*15 - 314*	*02/04/21 08:48*	*02/05/21 13:33*	*1*
p-Terphenyl-d14	*97*		*22 - 125*	*02/04/21 08:48*	*02/05/21 13:33*	*1*
Phenol-d5	*33*		*8 - 424*	*02/04/21 08:48*	*02/05/21 13:33*	*1*

Lab Sample ID: LCS 480-568350/2-A
Matrix: Water
Analysis Batch: 568476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	34.5		ug/L		69	44 - 142
1,2-Dichlorobenzene	50.0	30.8		ug/L		62	32 - 129
1,3-Dichlorobenzene	50.0	28.5		ug/L		57	1 - 172
1,4-Dichlorobenzene	50.0	28.6		ug/L		57	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	33.4		ug/L		67	36 - 166
2,4,6-Trichlorophenol	50.0	45.4		ug/L		91	37 - 144
2,4-Dichlorophenol	50.0	47.4		ug/L		95	39 - 135
2,4-Dimethylphenol	50.0	46.1		ug/L		92	32 - 120
2,4-Dinitrophenol	100	102		ug/L		102	1 - 191
2,4-Dinitrotoluene	50.0	49.6		ug/L		99	39 - 139
2,6-Dinitrotoluene	50.0	48.2		ug/L		96	50 - 158
2-Chloronaphthalene	50.0	40.5		ug/L		81	60 - 120
2-Chlorophenol	50.0	38.1		ug/L		76	23 - 134
2-Nitrophenol	50.0	45.2		ug/L		90	29 - 182
3,3'-Dichlorobenzidine	100	92.0		ug/L		92	1 - 262
4,6-Dinitro-2-methylphenol	100	106		ug/L		106	1 - 181
4-Bromophenyl phenyl ether	50.0	47.9		ug/L		96	53 - 127
4-Chloro-3-methylphenol	50.0	49.8		ug/L		100	22 - 147
4-Chlorophenyl phenyl ether	50.0	45.7		ug/L		91	25 - 158
4-Nitrophenol	100	57.8		ug/L		58	1 - 132
Acenaphthene	50.0	42.9		ug/L		86	47 - 145
Acenaphthylene	50.0	43.2		ug/L		86	33 - 145
Anthracene	50.0	47.1		ug/L		94	27 - 133
Benzidine	100	ND		ug/L		8	1 - 120
Benzo[a]anthracene	50.0	48.7		ug/L		97	33 - 143
Benzo[a]pyrene	50.0	48.1		ug/L		96	17 - 163
Benzo[b]fluoranthene	50.0	46.5		ug/L		93	24 - 159
Benzo[g,h,i]perylene	50.0	47.9		ug/L		96	1 - 219
Benzo[k]fluoranthene	50.0	50.4		ug/L		101	11 - 162
Bis(2-chloroethoxy)methane	50.0	41.7		ug/L		83	33 - 184
Bis(2-chloroethyl)ether	50.0	36.9		ug/L		74	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-568350/2-A
Matrix: Water
Analysis Batch: 568476

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568350

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	50.0	53.6		ug/L		107	8 - 158
Butyl benzyl phthalate	50.0	51.4		ug/L		103	1 - 152
Chrysene	50.0	47.2		ug/L		94	17 - 168
Di-n-butyl phthalate	50.0	54.0		ug/L		108	1 - 120
Di-n-octyl phthalate	50.0	53.5		ug/L		107	4 - 146
Dibenz(a,h)anthracene	50.0	50.1		ug/L		100	1 - 227
Diethyl phthalate	50.0	51.1		ug/L		102	1 - 120
Dimethyl phthalate	50.0	51.3		ug/L		103	1 - 120
Fluoranthene	50.0	50.1		ug/L		100	26 - 137
Fluorene	50.0	45.5		ug/L		91	59 - 121
Hexachlorobenzene	50.0	52.6		ug/L		105	1 - 152
Hexachlorocyclopentadiene	50.0	34.5		ug/L		69	5 - 120
Hexachloroethane	50.0	27.1		ug/L		54	40 - 120
Indeno[1,2,3-cd]pyrene	50.0	49.0		ug/L		98	1 - 171
Isophorone	50.0	45.4		ug/L		91	21 - 196
N-Nitrosodi-n-propylamine	50.0	40.7		ug/L		81	1 - 230
N-Nitrosodiphenylamine	50.0	45.9		ug/L		92	54 - 125
Naphthalene	50.0	38.0		ug/L		76	21 - 133
Nitrobenzene	50.0	41.7		ug/L		83	35 - 180
Pentachlorophenol	100	104		ug/L		104	14 - 176
Phenanthrene	50.0	46.0		ug/L		92	54 - 120
Phenol	50.0	17.1		ug/L		34	5 - 120
Pyrene	50.0	48.6		ug/L		97	52 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*110*		*52 - 151*
2-Fluorobiphenyl	*89*		*44 - 120*
2-Fluorophenol	*45*		*17 - 120*
Nitrobenzene-d5	*85*		*15 - 314*
p-Terphenyl-d14	*100*		*22 - 125*
Phenol-d5	*35*		*8 - 424*

Lab Sample ID: LCSD 480-568350/3-A
Matrix: Water
Analysis Batch: 568476

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 568350

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	50.0	39.4		ug/L		79	44 - 142	13	34
1,2-Dichlorobenzene	50.0	33.3		ug/L		67	32 - 129	8	38
1,3-Dichlorobenzene	50.0	31.8		ug/L		64	1 - 172	11	37
1,4-Dichlorobenzene	50.0	31.0		ug/L		62	20 - 124	8	40
2,2'-Oxybis(1-chloropropane)	50.0	36.1		ug/L		72	36 - 166	8	36
2,4,6-Trichlorophenol	50.0	53.4		ug/L		107	37 - 144	16	20
2,4-Dichlorophenol	50.0	49.9		ug/L		100	39 - 135	5	23
2,4-Dimethylphenol	50.0	52.7		ug/L		105	32 - 120	13	18
2,4-Dinitrophenol	100	122		ug/L		122	1 - 191	18	29
2,4-Dinitrotoluene	50.0	57.4		ug/L		115	39 - 139	15	20
2,6-Dinitrotoluene	50.0	53.5		ug/L		107	50 - 158	11	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-568350/3-A
Matrix: Water
Analysis Batch: 568476

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 568350

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene	50.0	46.9		ug/L		94	60 - 120	14	30
2-Chlorophenol	50.0	42.0		ug/L		84	23 - 134	10	26
2-Nitrophenol	50.0	50.1		ug/L		100	29 - 182	10	28
3,3'-Dichlorobenzidine	100	103		ug/L		103	1 - 262	11	31
4,6-Dinitro-2-methylphenol	100	122		ug/L		122	1 - 181	14	30
4-Bromophenyl phenyl ether	50.0	57.8	*1	ug/L		116	53 - 127	19	16
4-Chloro-3-methylphenol	50.0	53.5		ug/L		107	22 - 147	7	16
4-Chlorophenyl phenyl ether	50.0	53.8	*1	ug/L		108	25 - 158	16	15
4-Nitrophenol	100	72.4		ug/L		72	1 - 132	22	24
Acenaphthene	50.0	48.3		ug/L		97	47 - 145	12	25
Acenaphthylene	50.0	48.7		ug/L		97	33 - 145	12	22
Anthracene	50.0	55.2	*1	ug/L		110	27 - 133	16	15
Benzidine	100	ND		ug/L		8	1 - 120	3	50
Benzo[a]anthracene	50.0	55.8		ug/L		112	33 - 143	14	15
Benzo[a]pyrene	50.0	56.6	*1	ug/L		113	17 - 163	16	15
Benzo[b]fluoranthene	50.0	57.8	*1	ug/L		116	24 - 159	22	17
Benzo[g,h,i]perylene	50.0	55.5		ug/L		111	1 - 219	15	19
Benzo[k]fluoranthene	50.0	55.3		ug/L		111	11 - 162	9	19
Bis(2-chloroethoxy)methane	50.0	45.5		ug/L		91	33 - 184	9	23
Bis(2-chloroethyl)ether	50.0	40.6		ug/L		81	12 - 158	10	33
Bis(2-ethylhexyl) phthalate	50.0	60.1		ug/L		120	8 - 158	11	15
Butyl benzyl phthalate	50.0	59.6		ug/L		119	1 - 152	15	15
Chrysene	50.0	52.9		ug/L		106	17 - 168	11	15
Di-n-butyl phthalate	50.0	62.4	*+	ug/L		125	1 - 120	15	15
Di-n-octyl phthalate	50.0	60.6		ug/L		121	4 - 146	12	15
Dibenz(a,h)anthracene	50.0	56.9		ug/L		114	1 - 227	13	18
Diethyl phthalate	50.0	60.0	*1	ug/L		120	1 - 120	16	15
Dimethyl phthalate	50.0	57.3		ug/L		115	1 - 120	11	15
Fluoranthene	50.0	57.7		ug/L		115	26 - 137	14	15
Fluorene	50.0	52.3		ug/L		105	59 - 121	14	18
Hexachlorobenzene	50.0	59.4		ug/L		119	1 - 152	12	15
Hexachlorocyclopentadiene	50.0	38.1		ug/L		76	5 - 120	10	50
Hexachloroethane	50.0	30.3		ug/L		61	40 - 120	11	43
Indeno[1,2,3-cd]pyrene	50.0	56.8		ug/L		114	1 - 171	15	17
Isophorone	50.0	50.8		ug/L		102	21 - 196	11	21
N-Nitrosodi-n-propylamine	50.0	43.7		ug/L		87	1 - 230	7	23
N-Nitrosodiphenylamine	50.0	53.3		ug/L		107	54 - 125	15	15
Naphthalene	50.0	43.2		ug/L		86	21 - 133	13	31
Nitrobenzene	50.0	47.0		ug/L		94	35 - 180	12	27
Pentachlorophenol	100	121		ug/L		121	14 - 176	15	21
Phenanthrene	50.0	53.6		ug/L		107	54 - 120	15	16
Phenol	50.0	21.6		ug/L		43	5 - 120	23	36
Pyrene	50.0	55.1		ug/L		110	52 - 120	13	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*131*		*52 - 151*
2-Fluorobiphenyl	*98*		*44 - 120*
2-Fluorophenol	*51*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-568350/3-A
Matrix: Water
Analysis Batch: 568476

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 568350

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*93*		*15 - 314*
p-Terphenyl-d14	*113*		*22 - 125*
Phenol-d5	*38*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-568376/1-A
Matrix: Water
Analysis Batch: 568625

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568376

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		02/05/21 09:17	02/05/21 18:32	1

Lab Sample ID: LCS 480-568376/2-A
Matrix: Water
Analysis Batch: 568625

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568376

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.189		mg/L		94	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-568260/1-A
Matrix: Water
Analysis Batch: 568308

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568260

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/03/21 13:37	02/03/21 17:53	1

Lab Sample ID: LCS 480-568260/2-A
Matrix: Water
Analysis Batch: 568308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568260

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00687		mg/L		103	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-568319/1-A
Matrix: Water
Analysis Batch: 568435

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 568319

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		02/03/21 22:54	02/04/21 20:13	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-568319/2-A
Matrix: Water
Analysis Batch: 568435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568319

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.376		mg/L		94	90 - 110

Lab Sample ID: LCS 480-568319/3-A
Matrix: Water
Analysis Batch: 568435

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 568319

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.234		mg/L		94	90 - 110

Lab Sample ID: 480-180745-6 DU
Matrix: Water
Analysis Batch: 568435

Client Sample ID: COMPOSITE 001 1-4
Prep Type: Total/NA
Prep Batch: 568319

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cyanide, Total	0.10		0.100		mg/L		4	15

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-568166/23
Matrix: Water
Analysis Batch: 568166

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.1		SU		101	99 - 101

Lab Sample ID: 480-180745-6 DU
Matrix: Water
Analysis Batch: 568166

Client Sample ID: COMPOSITE 001 1-4
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.3	HF	7.3		SU		0.1	5
Temperature	20.4	HF	20.0		Degrees C		2	10

GC/MS VOA

Analysis Batch: 568193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-5	TRIP BLANK	Total/NA	Water	624.1	
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	624.1	
MB 480-568193/8	Method Blank	Total/NA	Water	624.1	
LCS 480-568193/6	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 568350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	625	
MB 480-568350/1-A	Method Blank	Total/NA	Water	625	
LCS 480-568350/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-568350/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 568476

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	625.1	568350
MB 480-568350/1-A	Method Blank	Total/NA	Water	625.1	568350
LCS 480-568350/2-A	Lab Control Sample	Total/NA	Water	625.1	568350
LCSD 480-568350/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	568350

Metals

Prep Batch: 568260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	245.1	
MB 480-568260/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-568260/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 568308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	245.1	568260
MB 480-568260/1-A	Method Blank	Total/NA	Water	245.1	568260
LCS 480-568260/2-A	Lab Control Sample	Total/NA	Water	245.1	568260

Prep Batch: 568376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	200.7	
MB 480-568376/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-568376/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 568625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	200.7 Rev 4.4	568376
MB 480-568376/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	568376
LCS 480-568376/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	568376

General Chemistry

Analysis Batch: 568166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 568166 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-568166/23	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	
480-180745-6 DU	COMPOSITE 001 1-4	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 568319

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	Distill/CN	
MB 480-568319/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-568319/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-568319/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-180745-6 DU	COMPOSITE 001 1-4	Total/NA	Water	Distill/CN	

Analysis Batch: 568435

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-180745-6	COMPOSITE 001 1-4	Total/NA	Water	335.4	568319
MB 480-568319/1-A	Method Blank	Total/NA	Water	335.4	568319
LCS 480-568319/2-A	Lab Control Sample	Total/NA	Water	335.4	568319
LCS 480-568319/3-A	Lab Control Sample	Total/NA	Water	335.4	568319
480-180745-6 DU	COMPOSITE 001 1-4	Total/NA	Water	335.4	568319

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-180745-5

Date Collected: 02/01/21 00:00
Matrix: Water
Date Received: 02/01/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	568193	02/03/21 14:49	WJD	TAL BUF

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-180745-6

Date Collected: 02/01/21 13:20
Matrix: Water
Date Received: 02/01/21 15:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	568193	02/03/21 15:13	WJD	TAL BUF
Total/NA	Prep	625			568350	02/04/21 08:48	JMP	TAL BUF
Total/NA	Analysis	625.1		1	568476	02/05/21 15:10	JMM	TAL BUF
Total/NA	Prep	200.7			568376	02/05/21 09:17	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	568625	02/05/21 19:13	AMH	TAL BUF
Total/NA	Prep	245.1			568260	02/03/21 13:37	BMB	TAL BUF
Total/NA	Analysis	245.1		1	568308	02/03/21 18:01	BMB	TAL BUF
Total/NA	Prep	Distill/CN			568319	02/03/21 22:54	ALT	TAL BUF
Total/NA	Analysis	335.4		1	568435	02/04/21 20:20	ALT	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	568166	02/02/21 17:27	KMF	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-180745-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-180745-5	TRIP BLANK	Water	02/01/21 00:00	02/01/21 15:40	
480-180745-6	COMPOSITE 001 1-4	Water	02/01/21 13:20	02/01/21 15:40	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-153384-34075.1
Client Contact: Jason Gutkowski	Phone: 3154363605	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: ARCADIS U.S., Inc.	PWSID:			Job #:

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:
City: Syracuse	TAT Requested (days): Standard Turn
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed 30049063
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056
Site:	SSOW#:

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, F - NaHSO4, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3

480-180745 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7; 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	2/1/21	0720	G	Water			X	X	X	X	X		Lab To Composite Samples
001-2	↓	0920	↓	↓			X	X	X	X	X		
001-3		1120					X	X	X	X	X		
001-4		1320					X	X	X	X	X		
—	—	—									X		

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Dan Gutkowski	2/1/21 / 1340	Arcadis		2/1/2021 1520	BTL-Buffalo
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 2.0 #1 ICE

Ver: 11/01/2020

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-180745-1

Login Number: 180745

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Kolb, Chris M

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	arcadis
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 480-181590-1
Client Project/Site: Iroquois Gas/Westwood Pharm.

For:
ARCADIS U.S. Inc
One Lincoln Center
110 West Fayette St, Suite 300
Syracuse, New York 13202

Attn: Mr. Raymond Wagner

Authorized for release by:
3/10/2021 12:09:26 PM

Judy Stone, Senior Project Manager
(484)685-0868
Judy.Stone@Eurofinset.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

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

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

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

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes. Test performed by laboratory at client's request.

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

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-181590-1

Job ID: 480-181590-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative
480-181590-1

Receipt
The samples were received on 3/2/2021 1:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.3º C.

GC/MS VOA
Method 624.1: The following Volatile sample was composited by the laboratory on 03-04-21 as requested by the client: COMPOSITE 001 1-4 (480-181590-6). Regulatory defined guidance for in-laboratory compositing of samples is currently not available. Laboratory sample compositing was performed using established project specifications and/or laboratory standard operating procedures.

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

GC/MS Semi VOA
Method 625.1: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 480-571227 and analytical batch 480-571297 recovered outside control limits for the following analyte: Benzidine.

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

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

General Chemistry
Methods 9040C, SM 4500 H+ B: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: COMPOSITE 001 1-4 (480-181590-6).

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

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-181590-5

No Detections.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-181590-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyanide, Total	0.11		0.010	0.0050	mg/L	1		335.4	Total/NA
pH	7.3	HF	0.1	0.1	SU	1		SM 4500 H+ B	Total/NA
Temperature	20.9	HF	0.001	0.001	Degrees C	1		SM 4500 H+ B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-181590-5

Date Collected: 03/02/21 00:00

Matrix: Water

Date Received: 03/02/21 13:20

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/04/21 14:30	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/04/21 14:30	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/04/21 14:30	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/04/21 14:30	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/04/21 14:30	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/04/21 14:30	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/04/21 14:30	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/04/21 14:30	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/04/21 14:30	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/04/21 14:30	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/04/21 14:30	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/04/21 14:30	1
Acrolein	ND		100	17	ug/L			03/04/21 14:30	1
Acrylonitrile	ND		50	1.9	ug/L			03/04/21 14:30	1
Benzene	ND		5.0	0.60	ug/L			03/04/21 14:30	1
Bromoform	ND		5.0	0.47	ug/L			03/04/21 14:30	1
Bromomethane	ND		5.0	1.2	ug/L			03/04/21 14:30	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/04/21 14:30	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/04/21 14:30	1
Dibromochloromethane	ND		5.0	0.41	ug/L			03/04/21 14:30	1
Chloroethane	ND		5.0	0.87	ug/L			03/04/21 14:30	1
Chloroform	ND		5.0	0.54	ug/L			03/04/21 14:30	1
Chloromethane	ND		5.0	0.64	ug/L			03/04/21 14:30	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/04/21 14:30	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/04/21 14:30	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			03/04/21 14:30	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/04/21 14:30	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/04/21 14:30	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/04/21 14:30	1
Toluene	ND		5.0	0.45	ug/L			03/04/21 14:30	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/04/21 14:30	1
Trichloroethene	ND		5.0	0.60	ug/L			03/04/21 14:30	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			03/04/21 14:30	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/04/21 14:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*68 - 130*		*03/04/21 14:30*	*1*
4-Bromofluorobenzene (Surr)	*106*		*76 - 123*		*03/04/21 14:30*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*03/04/21 14:30*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*03/04/21 14:30*	*1*

Client Sample ID: COMPOSITE 001 1-4

Lab Sample ID: 480-181590-6

Date Collected: 03/02/21 13:05

Matrix: Water

Date Received: 03/02/21 13:20

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.39	ug/L			03/04/21 14:55	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/04/21 14:55	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/04/21 14:55	1

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-181590-6
Date Collected: 03/02/21 13:05
Matrix: Water
Date Received: 03/02/21 13:20

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/04/21 14:55	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/04/21 14:55	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/04/21 14:55	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/04/21 14:55	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/04/21 14:55	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/04/21 14:55	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/04/21 14:55	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/04/21 14:55	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/04/21 14:55	1
Acrolein	ND		100	17	ug/L			03/04/21 14:55	1
Acrylonitrile	ND		50	1.9	ug/L			03/04/21 14:55	1
Benzene	ND		5.0	0.60	ug/L			03/04/21 14:55	1
Bromoform	ND		5.0	0.47	ug/L			03/04/21 14:55	1
Bromomethane	ND		5.0	1.2	ug/L			03/04/21 14:55	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/04/21 14:55	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/04/21 14:55	1
Dibromochloromethane	ND		5.0	0.41	ug/L			03/04/21 14:55	1
Chloroethane	ND		5.0	0.87	ug/L			03/04/21 14:55	1
Chloroform	ND		5.0	0.54	ug/L			03/04/21 14:55	1
Chloromethane	ND		5.0	0.64	ug/L			03/04/21 14:55	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/04/21 14:55	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/04/21 14:55	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			03/04/21 14:55	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/04/21 14:55	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/04/21 14:55	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/04/21 14:55	1
Toluene	ND		5.0	0.45	ug/L			03/04/21 14:55	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/04/21 14:55	1
Trichloroethene	ND		5.0	0.60	ug/L			03/04/21 14:55	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			03/04/21 14:55	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/04/21 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*68 - 130*		*03/04/21 14:55*	*1*
4-Bromofluorobenzene (Surr)	*103*		*76 - 123*		*03/04/21 14:55*	*1*
Toluene-d8 (Surr)	*102*		*77 - 120*		*03/04/21 14:55*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*03/04/21 14:55*	*1*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		03/03/21 14:54	03/04/21 16:57	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		03/03/21 14:54	03/04/21 16:57	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		03/03/21 14:54	03/04/21 16:57	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		03/03/21 14:54	03/04/21 16:57	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		03/03/21 14:54	03/04/21 16:57	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		03/03/21 14:54	03/04/21 16:57	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		03/03/21 14:54	03/04/21 16:57	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 16:57	1

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-181590-6
Date Collected: 03/02/21 13:05
Matrix: Water
Date Received: 03/02/21 13:20

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		03/03/21 14:54	03/04/21 16:57	1
2-Chlorophenol	ND		5.0	0.66	ug/L		03/03/21 14:54	03/04/21 16:57	1
2-Nitrophenol	ND		5.0	0.70	ug/L		03/03/21 14:54	03/04/21 16:57	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		03/03/21 14:54	03/04/21 16:57	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		03/03/21 14:54	03/04/21 16:57	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		03/03/21 14:54	03/04/21 16:57	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		03/03/21 14:54	03/04/21 16:57	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		03/03/21 14:54	03/04/21 16:57	1
4-Nitrophenol	ND		15	10	ug/L		03/03/21 14:54	03/04/21 16:57	1
Acenaphthene	ND		5.0	0.81	ug/L		03/03/21 14:54	03/04/21 16:57	1
Acenaphthylene	ND		5.0	0.87	ug/L		03/03/21 14:54	03/04/21 16:57	1
Anthracene	ND		5.0	1.4	ug/L		03/03/21 14:54	03/04/21 16:57	1
Benzidine	ND	*1	80	35	ug/L		03/03/21 14:54	03/04/21 16:57	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		03/03/21 14:54	03/04/21 16:57	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		03/03/21 14:54	03/04/21 16:57	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		03/03/21 14:54	03/04/21 16:57	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		03/03/21 14:54	03/04/21 16:57	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		03/03/21 14:54	03/04/21 16:57	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		03/03/21 14:54	03/04/21 16:57	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		03/03/21 14:54	03/04/21 16:57	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		03/03/21 14:54	03/04/21 16:57	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		03/03/21 14:54	03/04/21 16:57	1
Chrysene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
Decane	ND		10	1.6	ug/L		03/03/21 14:54	03/04/21 16:57	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		03/03/21 14:54	03/04/21 16:57	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		03/03/21 14:54	03/04/21 16:57	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		03/03/21 14:54	03/04/21 16:57	1
Diethyl phthalate	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		03/03/21 14:54	03/04/21 16:57	1
Fluoranthene	ND		5.0	1.6	ug/L		03/03/21 14:54	03/04/21 16:57	1
Fluorene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
Hexachloroethane	ND		5.0	0.60	ug/L		03/03/21 14:54	03/04/21 16:57	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		03/03/21 14:54	03/04/21 16:57	1
Isophorone	ND		5.0	0.74	ug/L		03/03/21 14:54	03/04/21 16:57	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		03/03/21 14:54	03/04/21 16:57	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 16:57	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		03/03/21 14:54	03/04/21 16:57	1
Naphthalene	ND		5.0	0.86	ug/L		03/03/21 14:54	03/04/21 16:57	1
Nitrobenzene	ND		5.0	0.81	ug/L		03/03/21 14:54	03/04/21 16:57	1
Pentachlorophenol	ND		10	1.6	ug/L		03/03/21 14:54	03/04/21 16:57	1
Phenanthrene	ND		5.0	1.2	ug/L		03/03/21 14:54	03/04/21 16:57	1
Phenol	ND		5.0	0.35	ug/L		03/03/21 14:54	03/04/21 16:57	1
Pyrene	ND		5.0	1.4	ug/L		03/03/21 14:54	03/04/21 16:57	1
n-Octadecane	ND		10	1.2	ug/L		03/03/21 14:54	03/04/21 16:57	1

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: COMPOSITE 001 1-4

Lab Sample ID: 480-181590-6

Date Collected: 03/02/21 13:05

Matrix: Water

Date Received: 03/02/21 13:20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*89*		*52 - 151*	*03/03/21 14:54*	*03/04/21 16:57*	*1*
2-Fluorobiphenyl	*102*		*44 - 120*	*03/03/21 14:54*	*03/04/21 16:57*	*1*
2-Fluorophenol	*54*		*17 - 120*	*03/03/21 14:54*	*03/04/21 16:57*	*1*
Nitrobenzene-d5	*95*		*15 - 314*	*03/03/21 14:54*	*03/04/21 16:57*	*1*
p-Terphenyl-d14	*100*		*22 - 125*	*03/03/21 14:54*	*03/04/21 16:57*	*1*
Phenol-d5	*34*		*8 - 424*	*03/03/21 14:54*	*03/04/21 16:57*	*1*

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		03/08/21 11:31	03/09/21 00:04	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/04/21 13:34	03/04/21 16:43	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	**0.11**		0.010	0.0050	mg/L		03/04/21 21:11	03/05/21 19:35	1

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
pH	**7.3**	**HF**	0.1	0.1	SU			03/04/21 11:46	1
Temperature	**20.9**	**HF**	0.001	0.001	Degrees C			03/04/21 11:46	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-181590-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(68-130)	(76-123)	(77-120)	(75-123)
480-181590-5	TRIP BLANK	100	106	99	108
480-181590-6	COMPOSITE 001 1-4	99	103	102	105
LCS 480-571349/5	Lab Control Sample	98	104	102	100
MB 480-571349/7	Method Blank	96	104	99	103

Surrogate Legend

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

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	TPHd14	PHL
Lab Sample ID	Client Sample ID	(52-151)	(44-120)	(17-120)	(15-314)	(22-125)	(8-424)
480-181590-6	COMPOSITE 001 1-4	89	102	54	95	100	34
LCS 480-571227/2-A	Lab Control Sample	89	91	53	89	102	35
LCSD 480-571227/3-A	Lab Control Sample Dup	98	99	54	93	109	36
MB 480-571227/1-A	Method Blank	84	100	53	94	106	34

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPHd14 = p-Terphenyl-d14
PHL = Phenol-d5

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-571349/7
Matrix: Water
Analysis Batch: 571349

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	ND		5.0	0.39	ug/L			03/04/21 14:07	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.26	ug/L			03/04/21 14:07	1
1,1,2-Trichloroethane	ND		5.0	0.48	ug/L			03/04/21 14:07	1
1,1-Dichloroethane	ND		5.0	0.59	ug/L			03/04/21 14:07	1
1,1-Dichloroethene	ND		5.0	0.85	ug/L			03/04/21 14:07	1
1,2-Dichlorobenzene	ND		5.0	0.44	ug/L			03/04/21 14:07	1
1,2-Dichloroethane	ND		5.0	0.60	ug/L			03/04/21 14:07	1
1,2-Dichloroethene, Total	ND		10	3.2	ug/L			03/04/21 14:07	1
1,2-Dichloropropane	ND		5.0	0.61	ug/L			03/04/21 14:07	1
1,3-Dichlorobenzene	ND		5.0	0.54	ug/L			03/04/21 14:07	1
1,4-Dichlorobenzene	ND		5.0	0.51	ug/L			03/04/21 14:07	1
2-Chloroethyl vinyl ether	ND		25	1.9	ug/L			03/04/21 14:07	1
Acrolein	ND		100	17	ug/L			03/04/21 14:07	1
Acrylonitrile	ND		50	1.9	ug/L			03/04/21 14:07	1
Benzene	ND		5.0	0.60	ug/L			03/04/21 14:07	1
Bromoform	ND		5.0	0.47	ug/L			03/04/21 14:07	1
Bromomethane	ND		5.0	1.2	ug/L			03/04/21 14:07	1
Carbon tetrachloride	ND		5.0	0.51	ug/L			03/04/21 14:07	1
Chlorobenzene	ND		5.0	0.48	ug/L			03/04/21 14:07	1
Dibromochloromethane	ND		5.0	0.41	ug/L			03/04/21 14:07	1
Chloroethane	ND		5.0	0.87	ug/L			03/04/21 14:07	1
Chloroform	ND		5.0	0.54	ug/L			03/04/21 14:07	1
Chloromethane	ND		5.0	0.64	ug/L			03/04/21 14:07	1
cis-1,3-Dichloropropene	ND		5.0	0.33	ug/L			03/04/21 14:07	1
Bromodichloromethane	ND		5.0	0.54	ug/L			03/04/21 14:07	1
Ethyl methacrylate	ND		5.0	0.61	ug/L			03/04/21 14:07	1
Ethylbenzene	ND		5.0	0.46	ug/L			03/04/21 14:07	1
Methylene Chloride	ND		5.0	0.81	ug/L			03/04/21 14:07	1
Tetrachloroethene	ND		5.0	0.34	ug/L			03/04/21 14:07	1
Toluene	ND		5.0	0.45	ug/L			03/04/21 14:07	1
trans-1,3-Dichloropropene	ND		5.0	0.44	ug/L			03/04/21 14:07	1
Trichloroethene	ND		5.0	0.60	ug/L			03/04/21 14:07	1
Trichlorofluoromethane	ND		5.0	0.45	ug/L			03/04/21 14:07	1
Vinyl chloride	ND		5.0	0.75	ug/L			03/04/21 14:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*68 - 130*		*03/04/21 14:07*	*1*
4-Bromofluorobenzene (Surr)	*104*		*76 - 123*		*03/04/21 14:07*	*1*
Toluene-d8 (Surr)	*99*		*77 - 120*		*03/04/21 14:07*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*03/04/21 14:07*	*1*

Lab Sample ID: LCS 480-571349/5
Matrix: Water
Analysis Batch: 571349

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	20.0	20.0		ug/L		100	52 - 162
1,1,2,2-Tetrachloroethane	20.0	18.8		ug/L		94	46 - 157

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-571349/5
Matrix: Water
Analysis Batch: 571349

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,2-Trichloroethane	20.0	21.2		ug/L		106	52 - 150
1,1-Dichloroethane	20.0	18.9		ug/L		95	59 - 155
1,1-Dichloroethene	20.0	20.1		ug/L		101	1 - 234
1,2-Dichlorobenzene	20.0	19.3		ug/L		97	18 - 190
1,2-Dichloroethane	20.0	18.8		ug/L		94	49 - 155
1,2-Dichloropropane	20.0	20.2		ug/L		101	1 - 210
1,3-Dichlorobenzene	20.0	19.8		ug/L		99	59 - 156
1,4-Dichlorobenzene	20.0	20.0		ug/L		100	18 - 190
2-Chloroethyl vinyl ether	20.0	20.9	J	ug/L		105	1 - 305
Benzene	20.0	19.6		ug/L		98	37 - 151
Bromoform	20.0	21.8		ug/L		109	45 - 169
Bromomethane	20.0	19.5		ug/L		97	1 - 242
Carbon tetrachloride	20.0	18.8		ug/L		94	70 - 140
Chlorobenzene	20.0	20.3		ug/L		102	37 - 160
Dibromochloromethane	20.0	20.3		ug/L		101	53 - 149
Chloroethane	20.0	18.3		ug/L		91	14 - 230
Chloroform	20.0	19.3		ug/L		96	51 - 138
Chloromethane	20.0	18.5		ug/L		92	1 - 273
cis-1,3-Dichloropropene	20.0	21.0		ug/L		105	1 - 227
Bromodichloromethane	20.0	19.9		ug/L		99	35 - 155
Ethylbenzene	20.0	20.9		ug/L		105	37 - 162
Methylene Chloride	20.0	19.2		ug/L		96	1 - 221
Tetrachloroethene	20.0	18.9		ug/L		95	64 - 148
Toluene	20.0	20.1		ug/L		100	47 - 150
trans-1,3-Dichloropropene	20.0	19.4		ug/L		97	17 - 183
Trichloroethene	20.0	19.3		ug/L		97	71 - 157
Trichlorofluoromethane	20.0	19.5		ug/L		97	17 - 181
Vinyl chloride	20.0	18.8		ug/L		94	1 - 251

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*68 - 130*
4-Bromofluorobenzene (Surr)	*104*		*76 - 123*
Toluene-d8 (Surr)	*102*		*77 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-571227/1-A
Matrix: Water
Analysis Batch: 571297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 571227

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		10	0.82	ug/L		03/03/21 14:54	03/04/21 12:56	1
1,2-Dichlorobenzene	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
1,2-Diphenylhydrazine	ND		10	0.78	ug/L		03/03/21 14:54	03/04/21 12:56	1
1,3-Dichlorobenzene	ND		10	0.69	ug/L		03/03/21 14:54	03/04/21 12:56	1
1,4-Dichlorobenzene	ND		10	5.6	ug/L		03/03/21 14:54	03/04/21 12:56	1
2,2'-Oxybis(1-chloropropane)	ND		5.0	0.84	ug/L		03/03/21 14:54	03/04/21 12:56	1
2,4,6-Trichlorophenol	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 12:56	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-571227/1-A
Matrix: Water
Analysis Batch: 571297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 571227

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		5.0	0.77	ug/L		03/03/21 14:54	03/04/21 12:56	1
2,4-Dimethylphenol	ND		5.0	1.4	ug/L		03/03/21 14:54	03/04/21 12:56	1
2,4-Dinitrophenol	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
2,4-Dinitrotoluene	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
2,6-Dinitrotoluene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
2-Chloronaphthalene	ND		5.0	0.91	ug/L		03/03/21 14:54	03/04/21 12:56	1
2-Chlorophenol	ND		5.0	0.66	ug/L		03/03/21 14:54	03/04/21 12:56	1
2-Nitrophenol	ND		5.0	0.70	ug/L		03/03/21 14:54	03/04/21 12:56	1
3,3'-Dichlorobenzidine	ND		5.0	0.82	ug/L		03/03/21 14:54	03/04/21 12:56	1
4,6-Dinitro-2-methylphenol	ND		10	0.66	ug/L		03/03/21 14:54	03/04/21 12:56	1
4-Bromophenyl phenyl ether	ND		5.0	1.4	ug/L		03/03/21 14:54	03/04/21 12:56	1
4-Chloro-3-methylphenol	ND		5.0	1.1	ug/L		03/03/21 14:54	03/04/21 12:56	1
4-Chlorophenyl phenyl ether	ND		5.0	1.3	ug/L		03/03/21 14:54	03/04/21 12:56	1
4-Nitrophenol	ND		15	10	ug/L		03/03/21 14:54	03/04/21 12:56	1
Acenaphthene	ND		5.0	0.81	ug/L		03/03/21 14:54	03/04/21 12:56	1
Acenaphthylene	ND		5.0	0.87	ug/L		03/03/21 14:54	03/04/21 12:56	1
Anthracene	ND		5.0	1.4	ug/L		03/03/21 14:54	03/04/21 12:56	1
Benzidine	ND		80	35	ug/L		03/03/21 14:54	03/04/21 12:56	1
Benzo[a]anthracene	ND		5.0	1.1	ug/L		03/03/21 14:54	03/04/21 12:56	1
Benzo[a]pyrene	ND		5.0	1.3	ug/L		03/03/21 14:54	03/04/21 12:56	1
Benzo[b]fluoranthene	ND		5.0	1.2	ug/L		03/03/21 14:54	03/04/21 12:56	1
Benzo[g,h,i]perylene	ND		5.0	1.5	ug/L		03/03/21 14:54	03/04/21 12:56	1
Benzo[k]fluoranthene	ND		5.0	1.3	ug/L		03/03/21 14:54	03/04/21 12:56	1
Bis(2-chloroethoxy)methane	ND		5.0	0.75	ug/L		03/03/21 14:54	03/04/21 12:56	1
Bis(2-chloroethyl)ether	ND		5.0	0.93	ug/L		03/03/21 14:54	03/04/21 12:56	1
Bis(2-ethylhexyl) phthalate	ND		10	1.2	ug/L		03/03/21 14:54	03/04/21 12:56	1
Butyl benzyl phthalate	ND		5.0	1.1	ug/L		03/03/21 14:54	03/04/21 12:56	1
Chrysene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
Decane	ND		10	1.6	ug/L		03/03/21 14:54	03/04/21 12:56	1
Di-n-butyl phthalate	ND		5.0	1.6	ug/L		03/03/21 14:54	03/04/21 12:56	1
Di-n-octyl phthalate	ND		5.0	1.2	ug/L		03/03/21 14:54	03/04/21 12:56	1
Dibenz(a,h)anthracene	ND		5.0	1.5	ug/L		03/03/21 14:54	03/04/21 12:56	1
Diethyl phthalate	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
Dimethyl phthalate	ND		5.0	0.91	ug/L		03/03/21 14:54	03/04/21 12:56	1
Fluoranthene	ND		5.0	1.6	ug/L		03/03/21 14:54	03/04/21 12:56	1
Fluorene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
Hexachlorobenzene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
Hexachlorobutadiene	ND		5.0	1.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
Hexachlorocyclopentadiene	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
Hexachloroethane	ND		5.0	0.60	ug/L		03/03/21 14:54	03/04/21 12:56	1
Indeno[1,2,3-cd]pyrene	ND		5.0	1.5	ug/L		03/03/21 14:54	03/04/21 12:56	1
Isophorone	ND		5.0	0.74	ug/L		03/03/21 14:54	03/04/21 12:56	1
N-Nitrosodi-n-propylamine	ND		5.0	0.89	ug/L		03/03/21 14:54	03/04/21 12:56	1
N-Nitrosodimethylamine	ND		10	5.0	ug/L		03/03/21 14:54	03/04/21 12:56	1
N-Nitrosodiphenylamine	ND		5.0	0.40	ug/L		03/03/21 14:54	03/04/21 12:56	1
Naphthalene	ND		5.0	0.86	ug/L		03/03/21 14:54	03/04/21 12:56	1
Nitrobenzene	ND		5.0	0.81	ug/L		03/03/21 14:54	03/04/21 12:56	1
Pentachlorophenol	ND		10	1.6	ug/L		03/03/21 14:54	03/04/21 12:56	1
Phenanthrene	ND		5.0	1.2	ug/L		03/03/21 14:54	03/04/21 12:56	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-571227/1-A
Matrix: Water
Analysis Batch: 571297

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 571227

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		5.0	0.35	ug/L		03/03/21 14:54	03/04/21 12:56	1
Pyrene	ND		5.0	1.4	ug/L		03/03/21 14:54	03/04/21 12:56	1
n-Octadecane	ND		10	1.2	ug/L		03/03/21 14:54	03/04/21 12:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*84*		*52 - 151*	*03/03/21 14:54*	*03/04/21 12:56*	*1*
2-Fluorobiphenyl	*100*		*44 - 120*	*03/03/21 14:54*	*03/04/21 12:56*	*1*
2-Fluorophenol	*53*		*17 - 120*	*03/03/21 14:54*	*03/04/21 12:56*	*1*
Nitrobenzene-d5	*94*		*15 - 314*	*03/03/21 14:54*	*03/04/21 12:56*	*1*
p-Terphenyl-d14	*106*		*22 - 125*	*03/03/21 14:54*	*03/04/21 12:56*	*1*
Phenol-d5	*34*		*8 - 424*	*03/03/21 14:54*	*03/04/21 12:56*	*1*

Lab Sample ID: LCS 480-571227/2-A
Matrix: Water
Analysis Batch: 571297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 571227

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	50.0	41.8		ug/L		84	44 - 142
1,2-Dichlorobenzene	50.0	38.3		ug/L		77	32 - 129
1,3-Dichlorobenzene	50.0	37.3		ug/L		75	1 - 172
1,4-Dichlorobenzene	50.0	37.9		ug/L		76	20 - 124
2,2'-Oxybis(1-chloropropane)	50.0	37.6		ug/L		75	36 - 166
2,4,6-Trichlorophenol	50.0	47.5		ug/L		95	37 - 144
2,4-Dichlorophenol	50.0	46.3		ug/L		93	39 - 135
2,4-Dimethylphenol	50.0	47.3		ug/L		95	32 - 120
2,4-Dinitrophenol	100	112		ug/L		112	1 - 191
2,4-Dinitrotoluene	50.0	49.5		ug/L		99	39 - 139
2,6-Dinitrotoluene	50.0	48.5		ug/L		97	50 - 158
2-Chloronaphthalene	50.0	43.5		ug/L		87	60 - 120
2-Chlorophenol	50.0	39.8		ug/L		80	23 - 134
2-Nitrophenol	50.0	47.2		ug/L		94	29 - 182
3,3'-Dichlorobenzidine	100	95.3		ug/L		95	1 - 262
4,6-Dinitro-2-methylphenol	100	104		ug/L		104	1 - 181
4-Bromophenyl phenyl ether	50.0	45.4		ug/L		91	53 - 127
4-Chloro-3-methylphenol	50.0	51.7		ug/L		103	22 - 147
4-Chlorophenyl phenyl ether	50.0	46.8		ug/L		94	25 - 158
4-Nitrophenol	100	52.8		ug/L		53	1 - 132
Acenaphthene	50.0	44.1		ug/L		88	47 - 145
Acenaphthylene	50.0	44.8		ug/L		90	33 - 145
Anthracene	50.0	47.8		ug/L		96	27 - 133
Benzidine	100	ND		ug/L		24	1 - 120
Benzo[a]anthracene	50.0	49.7		ug/L		99	33 - 143
Benzo[a]pyrene	50.0	49.9		ug/L		100	17 - 163
Benzo[b]fluoranthene	50.0	49.4		ug/L		99	24 - 159
Benzo[g,h,i]perylene	50.0	50.0		ug/L		100	1 - 219
Benzo[k]fluoranthene	50.0	47.7		ug/L		95	11 - 162
Bis(2-chloroethoxy)methane	50.0	44.5		ug/L		89	33 - 184
Bis(2-chloroethyl)ether	50.0	41.6		ug/L		83	12 - 158

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-571227/2-A
Matrix: Water
Analysis Batch: 571297

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 571227

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Bis(2-ethylhexyl) phthalate			50.0	58.8		ug/L		118	8 - 158		
Butyl benzyl phthalate			50.0	56.4		ug/L		113	1 - 152		
Chrysene			50.0	50.8		ug/L		102	17 - 168		
Di-n-butyl phthalate			50.0	54.2		ug/L		108	1 - 120		
Di-n-octyl phthalate			50.0	58.4		ug/L		117	4 - 146		
Dibenz(a,h)anthracene			50.0	51.3		ug/L		103	1 - 227		
Diethyl phthalate			50.0	52.2		ug/L		104	1 - 120		
Dimethyl phthalate			50.0	49.9		ug/L		100	1 - 120		
Fluoranthene			50.0	51.2		ug/L		102	26 - 137		
Fluorene			50.0	46.1		ug/L		92	59 - 121		
Hexachlorobenzene			50.0	46.0		ug/L		92	1 - 152		
Hexachlorocyclopentadiene			50.0	37.9		ug/L		76	5 - 120		
Hexachloroethane			50.0	39.0		ug/L		78	40 - 120		
Indeno[1,2,3-cd]pyrene			50.0	50.8		ug/L		102	1 - 171		
Isophorone			50.0	47.1		ug/L		94	21 - 196		
N-Nitrosodi-n-propylamine			50.0	45.1		ug/L		90	1 - 230		
N-Nitrosodiphenylamine			50.0	47.7		ug/L		95	54 - 125		
Naphthalene			50.0	43.2		ug/L		86	21 - 133		
Nitrobenzene			50.0	44.4		ug/L		89	35 - 180		
Pentachlorophenol			100	106		ug/L		106	14 - 176		
Phenanthrene			50.0	47.4		ug/L		95	54 - 120		
Phenol			50.0	19.0		ug/L		38	5 - 120		
Pyrene			50.0	53.0		ug/L		106	52 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*89*		*52 - 151*
2-Fluorobiphenyl	*91*		*44 - 120*
2-Fluorophenol	*53*		*17 - 120*
Nitrobenzene-d5	*89*		*15 - 314*
p-Terphenyl-d14	*102*		*22 - 125*
Phenol-d5	*35*		*8 - 424*

Lab Sample ID: LCSD 480-571227/3-A
Matrix: Water
Analysis Batch: 571297

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 571227

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			50.0	44.3		ug/L		89	44 - 142	6	34
1,2-Dichlorobenzene			50.0	39.9		ug/L		80	32 - 129	4	38
1,3-Dichlorobenzene			50.0	39.0		ug/L		78	1 - 172	4	37
1,4-Dichlorobenzene			50.0	39.9		ug/L		80	20 - 124	5	40
2,2'-Oxybis(1-chloropropane)			50.0	39.6		ug/L		79	36 - 166	5	36
2,4,6-Trichlorophenol			50.0	51.0		ug/L		102	37 - 144	7	20
2,4-Dichlorophenol			50.0	48.5		ug/L		97	39 - 135	5	23
2,4-Dimethylphenol			50.0	48.7		ug/L		97	32 - 120	3	18
2,4-Dinitrophenol			100	123		ug/L		123	1 - 191	9	29
2,4-Dinitrotoluene			50.0	53.8		ug/L		108	39 - 139	8	20
2,6-Dinitrotoluene			50.0	53.7		ug/L		107	50 - 158	10	17

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-571227/3-A
Matrix: Water
Analysis Batch: 571297

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 571227

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Chloronaphthalene			50.0	47.4		ug/L		95	60 - 120	9	30
2-Chlorophenol			50.0	42.9		ug/L		86	23 - 134	7	26
2-Nitrophenol			50.0	49.1		ug/L		98	29 - 182	4	28
3,3'-Dichlorobenzidine			100	103		ug/L		103	1 - 262	8	31
4,6-Dinitro-2-methylphenol			100	116		ug/L		116	1 - 181	11	30
4-Bromophenyl phenyl ether			50.0	50.9		ug/L		102	53 - 127	12	16
4-Chloro-3-methylphenol			50.0	53.3		ug/L		107	22 - 147	3	16
4-Chlorophenyl phenyl ether			50.0	52.0		ug/L		104	25 - 158	11	15
4-Nitrophenol			100	59.4		ug/L		59	1 - 132	12	24
Acenaphthene			50.0	48.7		ug/L		97	47 - 145	10	25
Acenaphthylene			50.0	49.0		ug/L		98	33 - 145	9	22
Anthracene			50.0	51.9		ug/L		104	27 - 133	8	15
Benzidine			100	ND	*1	ug/L		14	1 - 120	52	50
Benzo[a]anthracene			50.0	52.8		ug/L		106	33 - 143	6	15
Benzo[a]pyrene			50.0	54.9		ug/L		110	17 - 163	9	15
Benzo[b]fluoranthene			50.0	51.0		ug/L		102	24 - 159	3	17
Benzo[g,h,i]perylene			50.0	54.3		ug/L		109	1 - 219	8	19
Benzo[k]fluoranthene			50.0	56.4		ug/L		113	11 - 162	17	19
Bis(2-chloroethoxy)methane			50.0	45.9		ug/L		92	33 - 184	3	23
Bis(2-chloroethyl)ether			50.0	43.7		ug/L		87	12 - 158	5	33
Bis(2-ethylhexyl) phthalate			50.0	61.8		ug/L		124	8 - 158	5	15
Butyl benzyl phthalate			50.0	59.3		ug/L		119	1 - 152	5	15
Chrysene			50.0	54.2		ug/L		108	17 - 168	7	15
Di-n-butyl phthalate			50.0	58.9		ug/L		118	1 - 120	8	15
Di-n-octyl phthalate			50.0	61.4		ug/L		123	4 - 146	5	15
Dibenz(a,h)anthracene			50.0	55.1		ug/L		110	1 - 227	7	18
Diethyl phthalate			50.0	56.3		ug/L		113	1 - 120	8	15
Dimethyl phthalate			50.0	54.9		ug/L		110	1 - 120	10	15
Fluoranthene			50.0	55.5		ug/L		111	26 - 137	8	15
Fluorene			50.0	50.6		ug/L		101	59 - 121	9	18
Hexachlorobenzene			50.0	50.0		ug/L		100	1 - 152	8	15
Hexachlorocyclopentadiene			50.0	41.0		ug/L		82	5 - 120	8	50
Hexachloroethane			50.0	40.3		ug/L		81	40 - 120	3	43
Indeno[1,2,3-cd]pyrene			50.0	53.9		ug/L		108	1 - 171	6	17
Isophorone			50.0	48.9		ug/L		98	21 - 196	4	21
N-Nitrosodi-n-propylamine			50.0	47.1		ug/L		94	1 - 230	4	23
N-Nitrosodiphenylamine			50.0	51.7		ug/L		103	54 - 125	8	15
Naphthalene			50.0	43.8		ug/L		88	21 - 133	1	31
Nitrobenzene			50.0	45.7		ug/L		91	35 - 180	3	27
Pentachlorophenol			100	117		ug/L		117	14 - 176	10	21
Phenanthrene			50.0	51.0		ug/L		102	54 - 120	7	16
Phenol			50.0	19.9		ug/L		40	5 - 120	4	36
Pyrene			50.0	56.2		ug/L		112	52 - 120	6	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*52 - 151*
2-Fluorobiphenyl	*99*		*44 - 120*
2-Fluorophenol	*54*		*17 - 120*

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 480-571227/3-A
Matrix: Water
Analysis Batch: 571297

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 571227

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*93*		*15 - 314*
p-Terphenyl-d14	*109*		*22 - 125*
Phenol-d5	*36*		*8 - 424*

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 480-571643/1-A
Matrix: Water
Analysis Batch: 571791

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 571643

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	ND		0.010	0.0015	mg/L		03/08/21 11:31	03/08/21 23:20	1

Lab Sample ID: LCS 480-571643/2-A
Matrix: Water
Analysis Batch: 571791

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 571643

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.200	0.196		mg/L		98	85 - 115

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 480-571352/1-A
Matrix: Water
Analysis Batch: 571416

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 571352

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		03/04/21 13:34	03/04/21 16:26	1

Lab Sample ID: LCS 480-571352/2-A
Matrix: Water
Analysis Batch: 571416

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 571352

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00667	0.00680		mg/L		102	85 - 115

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 480-571421/1-A
Matrix: Water
Analysis Batch: 571553

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 571421

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		03/04/21 21:11	03/05/21 19:00	1

Method: 335.4 - Cyanide, Total (Continued)

Lab Sample ID: LCS 480-571421/2-A
Matrix: Water
Analysis Batch: 571553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 571421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.400	0.431		mg/L		108	90 - 110

Lab Sample ID: LCS 480-571421/3-A
Matrix: Water
Analysis Batch: 571553

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 571421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.250	0.259		mg/L		104	90 - 110

Lab Sample ID: 480-181590-6 MS
Matrix: Water
Analysis Batch: 571553

Client Sample ID: COMPOSITE 001 1-4
Prep Type: Total/NA
Prep Batch: 571421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.11		0.100	0.197		mg/L		90	90 - 110

Method: SM 4500 H+ B - pH

Lab Sample ID: LCS 480-571361/45
Matrix: Water
Analysis Batch: 571361

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
pH	7.00	7.1		SU		101	99 - 101

GC/MS VOA

Analysis Batch: 571349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-5	TRIP BLANK	Total/NA	Water	624.1	
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	624.1	
MB 480-571349/7	Method Blank	Total/NA	Water	624.1	
LCS 480-571349/5	Lab Control Sample	Total/NA	Water	624.1	

GC/MS Semi VOA

Prep Batch: 571227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	625	
MB 480-571227/1-A	Method Blank	Total/NA	Water	625	
LCS 480-571227/2-A	Lab Control Sample	Total/NA	Water	625	
LCSD 480-571227/3-A	Lab Control Sample Dup	Total/NA	Water	625	

Analysis Batch: 571297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	625.1	571227
MB 480-571227/1-A	Method Blank	Total/NA	Water	625.1	571227
LCS 480-571227/2-A	Lab Control Sample	Total/NA	Water	625.1	571227
LCSD 480-571227/3-A	Lab Control Sample Dup	Total/NA	Water	625.1	571227

Metals

Prep Batch: 571352

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	245.1	
MB 480-571352/1-A	Method Blank	Total/NA	Water	245.1	
LCS 480-571352/2-A	Lab Control Sample	Total/NA	Water	245.1	

Analysis Batch: 571416

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	245.1	571352
MB 480-571352/1-A	Method Blank	Total/NA	Water	245.1	571352
LCS 480-571352/2-A	Lab Control Sample	Total/NA	Water	245.1	571352

Prep Batch: 571643

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	200.7	
MB 480-571643/1-A	Method Blank	Total/NA	Water	200.7	
LCS 480-571643/2-A	Lab Control Sample	Total/NA	Water	200.7	

Analysis Batch: 571791

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	200.7 Rev 4.4	571643
MB 480-571643/1-A	Method Blank	Total/NA	Water	200.7 Rev 4.4	571643
LCS 480-571643/2-A	Lab Control Sample	Total/NA	Water	200.7 Rev 4.4	571643

General Chemistry

Analysis Batch: 571361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	SM 4500 H+ B	

General Chemistry (Continued)

Analysis Batch: 571361 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 480-571361/45	Lab Control Sample	Total/NA	Water	SM 4500 H+ B	

Prep Batch: 571421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	Distill/CN	
MB 480-571421/1-A	Method Blank	Total/NA	Water	Distill/CN	
LCS 480-571421/2-A	Lab Control Sample	Total/NA	Water	Distill/CN	
LCS 480-571421/3-A	Lab Control Sample	Total/NA	Water	Distill/CN	
480-181590-6 MS	COMPOSITE 001 1-4	Total/NA	Water	Distill/CN	

Analysis Batch: 571553

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-181590-6	COMPOSITE 001 1-4	Total/NA	Water	335.4	571421
MB 480-571421/1-A	Method Blank	Total/NA	Water	335.4	571421
LCS 480-571421/2-A	Lab Control Sample	Total/NA	Water	335.4	571421
LCS 480-571421/3-A	Lab Control Sample	Total/NA	Water	335.4	571421
480-181590-6 MS	COMPOSITE 001 1-4	Total/NA	Water	335.4	571421

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-181590-5

Date Collected: 03/02/21 00:00
Matrix: Water
Date Received: 03/02/21 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	571349	03/04/21 14:30	WJD	TAL BUF

Client Sample ID: COMPOSITE 001 1-4
Lab Sample ID: 480-181590-6

Date Collected: 03/02/21 13:05
Matrix: Water
Date Received: 03/02/21 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	571349	03/04/21 14:55	WJD	TAL BUF
Total/NA	Prep	625			571227	03/03/21 14:54	ATG	TAL BUF
Total/NA	Analysis	625.1		1	571297	03/04/21 16:57	JMM	TAL BUF
Total/NA	Prep	200.7			571643	03/08/21 11:31	ADM	TAL BUF
Total/NA	Analysis	200.7 Rev 4.4		1	571791	03/09/21 00:04	AMH	TAL BUF
Total/NA	Prep	245.1			571352	03/04/21 13:34	BMB	TAL BUF
Total/NA	Analysis	245.1		1	571416	03/04/21 16:43	BMB	TAL BUF
Total/NA	Prep	Distill/CN			571421	03/04/21 21:11	ALT	TAL BUF
Total/NA	Analysis	335.4		1	571553	03/05/21 19:35	ALT	TAL BUF
Total/NA	Analysis	SM 4500 H+ B		1	571361	03/04/21 11:46	KEB	TAL BUF

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins TestAmerica, Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-21

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
624.1		Water	1,2-Dichloroethene, Total
624.1		Water	Ethyl methacrylate
625.1	625	Water	1,2-Dichlorobenzene
625.1	625	Water	1,3-Dichlorobenzene
625.1	625	Water	1,4-Dichlorobenzene
SM 4500 H+ B		Water	pH
SM 4500 H+ B		Water	Temperature

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL BUF
200.7 Rev 4.4	Metals (ICP)	EPA	TAL BUF
245.1	Mercury (CVAA)	EPA	TAL BUF
335.4	Cyanide, Total	MCAWW	TAL BUF
SM 4500 H+ B	pH	SM	TAL BUF
200.7	Preparation, Total Metals	EPA	TAL BUF
245.1	Preparation, Mercury	EPA	TAL BUF
625	Liquid-Liquid Extraction	40CFR136A	TAL BUF
Distill/CN	Distillation, Cyanide	None	TAL BUF

Protocol References:

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-181590-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-181590-5	TRIP BLANK	Water	03/02/21 00:00	03/02/21 13:20	
480-181590-6	COMPOSITE 001 1-4	Water	03/02/21 13:05	03/02/21 13:20	

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins | Environment Testing America

Client Information	Sampler: Jason Gutkowski	Lab PM: Stone, Judy L	Carrier Tracking No(s):	COC No: 480-153385-34075.1
Client Contact: Jason Gutkowski	Phone: 315 436 3605	E-Mail: Judy.Stone@Eurofinset.com	State of Origin:	Page: Page 1 of 1
Company: ARCADIS U.S., Inc.	PWSID:			Job #:

Address: One Lincoln Center 110 West Fayette St, Suite 300	Due Date Requested:	
City: Syracuse	TAT Requested (days): Standard Turn	
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No	
Phone: 315-671-9173(Tel) 315-446-8053(Fax)	PO #: Needed	
Email: jason.gutkowski@arcadis.com	WO #: 30003542-00001	
Project Name: Iroquois Gas/Westwood Pharm. Monthly	Project #: 48011056	
Site:	SSOW#:	

Analysis Requested

480-181590 Chain of Custody

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, M - Hexane, N - None, O - AsNaO2, ...O4S, ...O3, ...O3, ...4, ...odecahydrate, ...ne, ...-5, (specify)

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	200.7, 245.1	335.4 - Cyanide, Total	SM4500_H+ - pH	625.1_PREC - (MOD) Priority Pollutant List - SVOA - 6	624.1_PREC - (MOD) Priority Pollutant List - VOA - 62	Total Number of con	Special Instructions/Note:
			Preservation Code:				D	B	N	N	N		
001-1	3/2/21	0705	G	Water			X	X	X	X	X		Lab To
001-2	↓	0905	↓	↓			X	X	X	X	X		Composite
001-3		1105					X	X	X	X	X		Samples
001-4		1305					X	X	X	X	X		
Trip Blank	—	—	—								X		Short Hold
													Time

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Sam Gutkowski	Date/Time: 3/2/21 / 1320	Company: Arcadis	Received by:		Date/Time: 3/2/21 1320	Company: TAS	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:		Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 3.3

Ver: 11/01/2020

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3/10/2021

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-181590-1

Login Number: 181590

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Wallace, Cameron

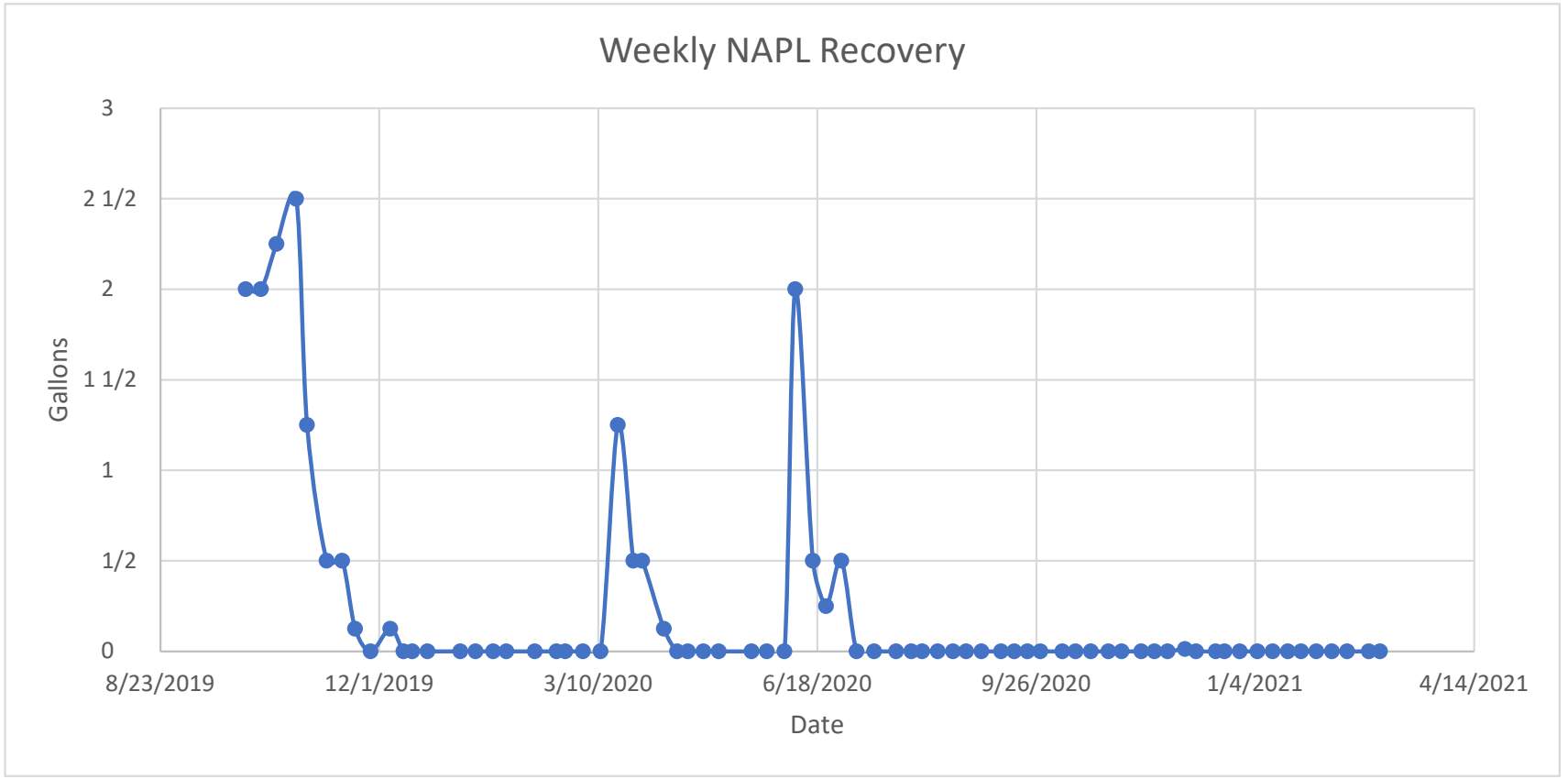
Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature 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	ARCADIS
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Appendix B

NAPL Recovery

Date	Weekly NAPL Recovered (gallons)	Date	Weekly NAPL Recovered (gallons)
10/1/2019	2	6/29/2020	1/2
10/8/2019	2	7/6/2020	0
10/15/2019	2 1/4	7/14/2020	0
10/24/2019	2 1/2	7/24/2020	0
10/29/2019	1 1/4	7/31/2020	0
11/7/2019	1/2	8/5/2020	0
11/14/2019	1/2	8/12/2020	0
11/20/2019	1/8	8/19/2020	0
11/27/2019	0	8/25/2020	0
12/6/2019	1/8	9/1/2020	0
12/12/2019	0	9/10/2020	0
12/16/2019	0	9/16/2020	0
12/23/2019	0	9/22/2020	0
1/7/2020	0	9/28/2020	0
1/14/2020	0	10/8/2020	0
1/22/2020	0	10/14/2020	0
1/28/2020	0	10/21/2020	0
2/10/2020	0	10/29/2020	0
2/20/2020	0	11/4/2020	0
2/24/2020	0	11/13/2020	0
3/3/2020	0	11/19/2020	0
3/11/2020	0	11/25/2020	0
3/19/2020	1 1/4	12/3/2020	0
3/26/2020	1/2	12/8/2020	0
3/30/2020	1/2	12/17/2020	0
4/9/2020	1/8	12/21/2020	0
4/15/2020	0	12/28/2020	0
4/20/2020	0	1/5/2021	0
4/27/2020	0	1/12/2021	0
5/4/2020	0	1/19/2021	0
5/19/2020	0	1/25/2021	0
5/26/2020	0	2/1/2021	0
6/3/2020	0	2/8/2021	0
6/8/2020	2	2/15/2021	0
6/16/2020	1/2	2/25/2021	0
6/22/2020	1/4	3/2/2021	0

Notes:
1. pump raised above DNAPL level on 12/6/2019
2. Pump lowered below DNAPL level on 3/11/2020
3. 30 gallons of NAPL removed with air lift on 6/8/2020; 5 gallons of NAPL removed with air lift on 6/22/2020; 20 gallons of NAPL removed with air lift on 12/21/2020



Notes:
1. pump raised above DNAPL level on 12/6/2019
2. Pump lowered below DNAPL level on 3/11/2020
3. 30 gallons of NAPL removed with air lift on 6/8/2020; 5 gallons of NAPL removed with air lift on 6/22/2020; 20 gallons of NAPL removed with air lift on 12/21/2020

Appendix C

Groundwater Monitoring

Table C-1
Groundwater Elevation Data
Iroquois Gas/Westwood Pharmaceutical Site
120 Dart Street and 40 Bradley Street, City of Buffalo, Erie County, New York
NYSDEC Site No. 915141A

Groundwater Elevation Data			
Well ID	Reference Elevation (ft. amsl)	11/18/2019*	
		DTW	GWE
B19	592.14	10.19	581.95
B3	590.74	6.55	584.19
B6R	590.86	16.97	573.89
B7R	591.59	17.79	573.80
B8R	592.16	14.84	577.32
MWF1	592.28	7.52	584.76
MWF2	594.66	8.78	585.88
MWF3	591.66	4.90	586.76
MWF4	594.00	14.92	579.08
MWF5	589.90	13.46	576.44
MWS2	591.89	10.57	581.32
MWS4	593.05	11.54	581.51
P1	590.77	14.61	576.16
P2	591.30	17.13	574.17
P6R	590.85	17.01	573.84
P7R	591.36	17.45	573.91
P8R	591.28	17.25	574.03
PF3	591.48	13.04	578.44
PF4	591.48	18.40	573.08
PF6	592.86	5.79	587.07
PS1	592.89	10.30	582.59
PS2	593.40	12.28	581.12
TP1	591.27	17.90	573.37
TP2	589.87	15.72	574.15
Pumping Sump in Trench	589.26	20.59	568.67

Notes:
DTW - Depth to water in feet, below top of casing
GWE - Groundwater Elevation, ft. amsl
NM - Not Measured
ft. amsl - feet above mean sea level
*Product thickness (11/18/19) - B8R and MWF5 - 0.01 ft.; MWF2 - trace.

Table C-2
Groundwater Elevation Data
Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., City of Buffalo, Erie County, New York
NYSDEC Site No. 915141A

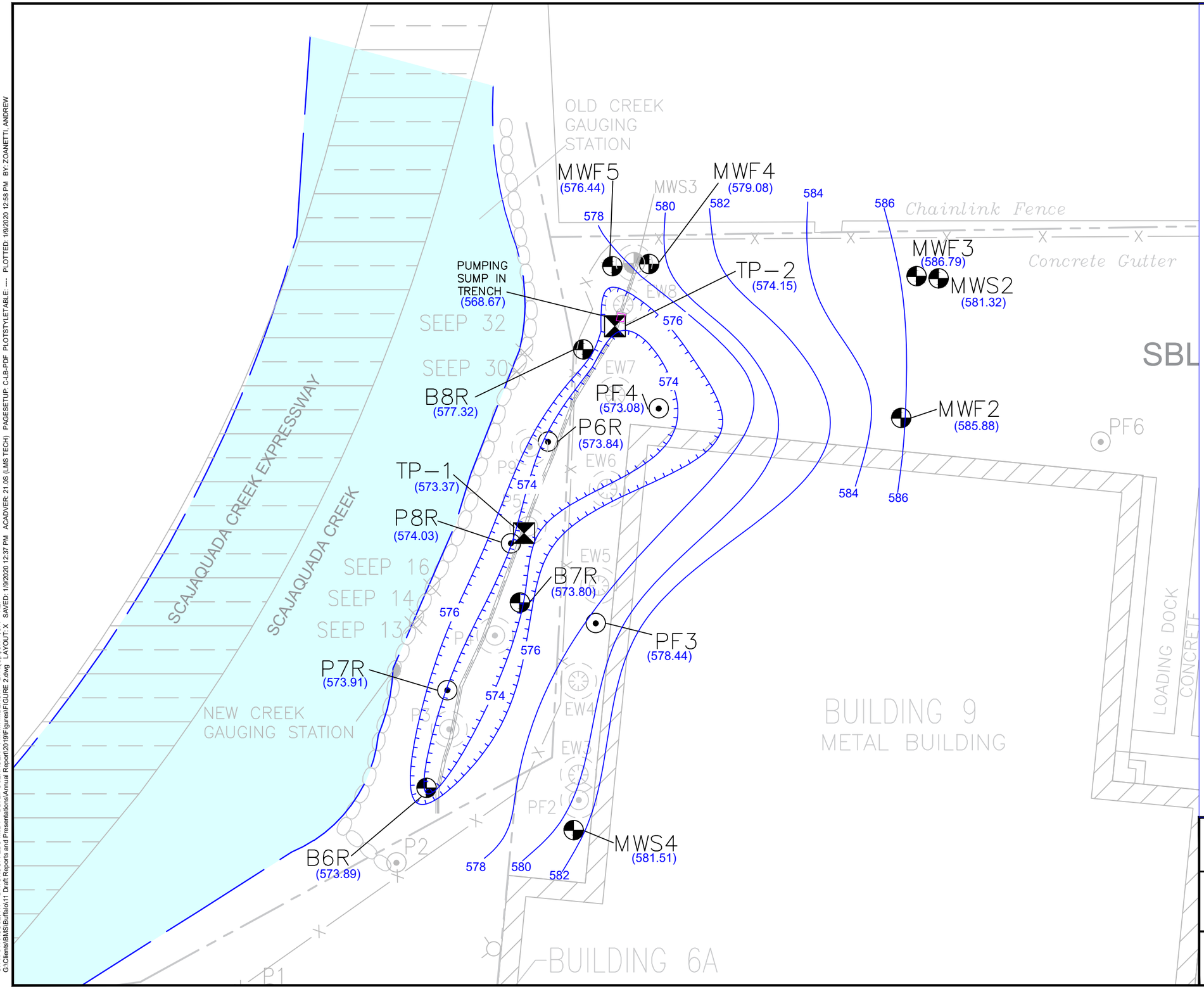
Groundwater Elevation Data					
Well ID	Reference Elevation (ft. amsl)	9/3/2020		12/9/2020	
		DTW	GWE	DTW	GWE
B19	592.14	10.05	582.09	10.32	581.82
B3	590.74	6.49	584.25	6.85	583.89
B6R	590.86	17.20	573.66	16.68	574.18
B7R	591.59	18.05	573.54	17.57	574.02
B8R	592.16	18.19	573.97	17.60	574.56
MWF1	592.28	8.02	584.26	15.81	576.47
MWF2	594.66	9.12	585.54	8.86	585.80
MWF3	591.66	5.43	586.23	4.62	587.04
MWF4	594.00	15.50	578.50	15.23	578.77
MWF5	589.90	14.05	575.85	20.88	569.02
MWS2	591.89	11.36	580.53	10.86	581.03
MWS4	593.05	13.30	579.75	11.72	581.33
P1	590.77	15.07	575.70	14.78	575.99
P2	591.30	17.25	574.05	16.89	574.41
P6R	590.85	17.22	573.63	16.75	574.10
P7R	591.36	17.47	573.89	17.16	574.20
P8R	591.28	17.86	573.42	17.54	573.74
PF3	591.48	13.00	578.48	12.99	578.49
PF4	591.48	19.40	572.08	18.78	572.70
PF6	592.86	6.54	586.32	5.94	586.92
PS1	592.89	12.27	580.62	18.79	574.10
PS2	593.40	13.01	580.39	12.48	580.92
TP1	591.27	17.56	573.71	17.20	574.07
TP2	589.87	16.16	573.71	15.77	574.10
Pumping Sump in Trench	589.26	16.70	572.56	19.75*	569.51

Notes:
DTW - Depth to water in feet, below top of casing
GWE - Groundwater Elevation, ft. amsl
NM - Not Measured
ft. amsl - feet above mean sea level
* 3.0 ft of NAPL was measured in the pumping sump

Table C-3
Groundwater Analytical Data for VOCs
Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., City of Buffalo, Erie County, New York
NYSDEC Site No. 915141A

Well ID	Date	Depth to Water (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	m-, p- Xylene (µg/L)	o-Xylene (µg/L)
NYSDEC TOGS 1.1.1 Standards			**1**	**5**	**5**	**5**	**5**
B3	11/18/2019	6.55	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	9/2/2020	6.49	ND < 1.6	ND < 2.0	ND < 3.0	ND < 2.6	ND < 3.0
	12/9/2020	6.85	ND < 1.6	ND < 2.0	ND < 3.0	ND <2.6	ND < 3.0
B6R	11/18/2019	16.97	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	9/3/2020	17.2	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/10/2020	16.68	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
B7R	11/18/2019	17.79	19	0.51 J	18	1.2 J	5.4
	9/3/2020	18.05	25	ND < 0.51	5.2	ND < 0.66	2.2
	12/10/2020	17.57	17	ND < 0.51	2	ND < 0.66	1.6
B8R	11/18/2019	14.84	NS**	NS**	NS**	NS**	NS**
	9/2/2020	18.19	380	37	530	110	130
	12/9/2020	17.60	300	26	450	110	130
MWF2	11/18/2019	8.78	NS**	NS**	NS**	NS**	NS**
	9/3/2020	9.12	NS**	NS**	NS**	NS**	NS**
	12/10/2020	8.86	11	ND < 5.1	260	200	240
MWF3	11/18/2019	4.9	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	9/2/2020	5.43	ND < 1.6	ND < 2.0	ND < 3.0	ND < 2.6	ND < 3.0
	12/9/2020	4.62	ND < 1.6	ND < 2.0	ND < 3.0	ND < 2.6	ND < 3.0
MWF4	11/18/2019	14.92	53	2.4 J	100	18	70
	9/3/2020	15.5	NS**	NS**	NS**	NS**	NS**
	12/10/2020	15.23	64	2.3 J	95	13	69
MWS2	11/18/2019	10.57	NS	NS	NS	NS	NS
PS1	11/18/2019	10.30	NS	NS	NS	NS	NS
	9/3/2020	12.27	NS	NS	NS	NS	NS
	12/9/2020	18.79	NS	NS	NS	NS	NS
P8R	11/18/2019	17.25	200	5.8	380	21	69
	9/3/2020	17.86	160	6.7	260	31	64
	12/10/2020	17.54	150	4.2 J	270	16	76

Notes:
µg/L = micrograms per liter
ft = feet
J = Result is less than the Reporting Limit but greater than or equal to the Method Detection Limit and the concentration is an approximate value.
ND = non detect (value shown is the method detection limit)
NM = not measured
NS = not sampled
F1 = MS and/or MSD Recovery is outside acceptable limits.
TOGS = Technical and Operational Guidance Services
Bolded analytical data represents results above NYSDEC TOGS 1.1.1 Standards.
**Well not sampled due to NAPL observed during gauging.



LEGEND :

- INTERCEPTOR TRENCH
- PROPERTY BOUNDARY
- FENCE
- SHEET PILE RETAINING WALL
- MONITORING WELL
- ABANDONED MONITORING WELL
- STREAM GAUGE
- SEEP LOCATION
- PIEZOMETER
- ABANDONED PIEZOMETER
- GROUNDWATER EXTRACTION WELL
- ABANDONED GROUNDWATER EXTRACTION WELL
- TRENCH PIEZOMETER
- RECOVERY SUMP
- 580 ——— 580 GROUNDWATER CONTOUR
- (580.00) GROUNDWATER ELEVATION (FT)

NOTE:

1. BASE MAP FROM A GROUNDWATER & ENVIRONMENTAL SERVICES, INC. FIGURE TITLED "PROPOSED GROUNDWATER COLLECTION TRENCH LOCATION MAP" DATED 4/13/2013.

0 50 100

GRAPHIC SCALE

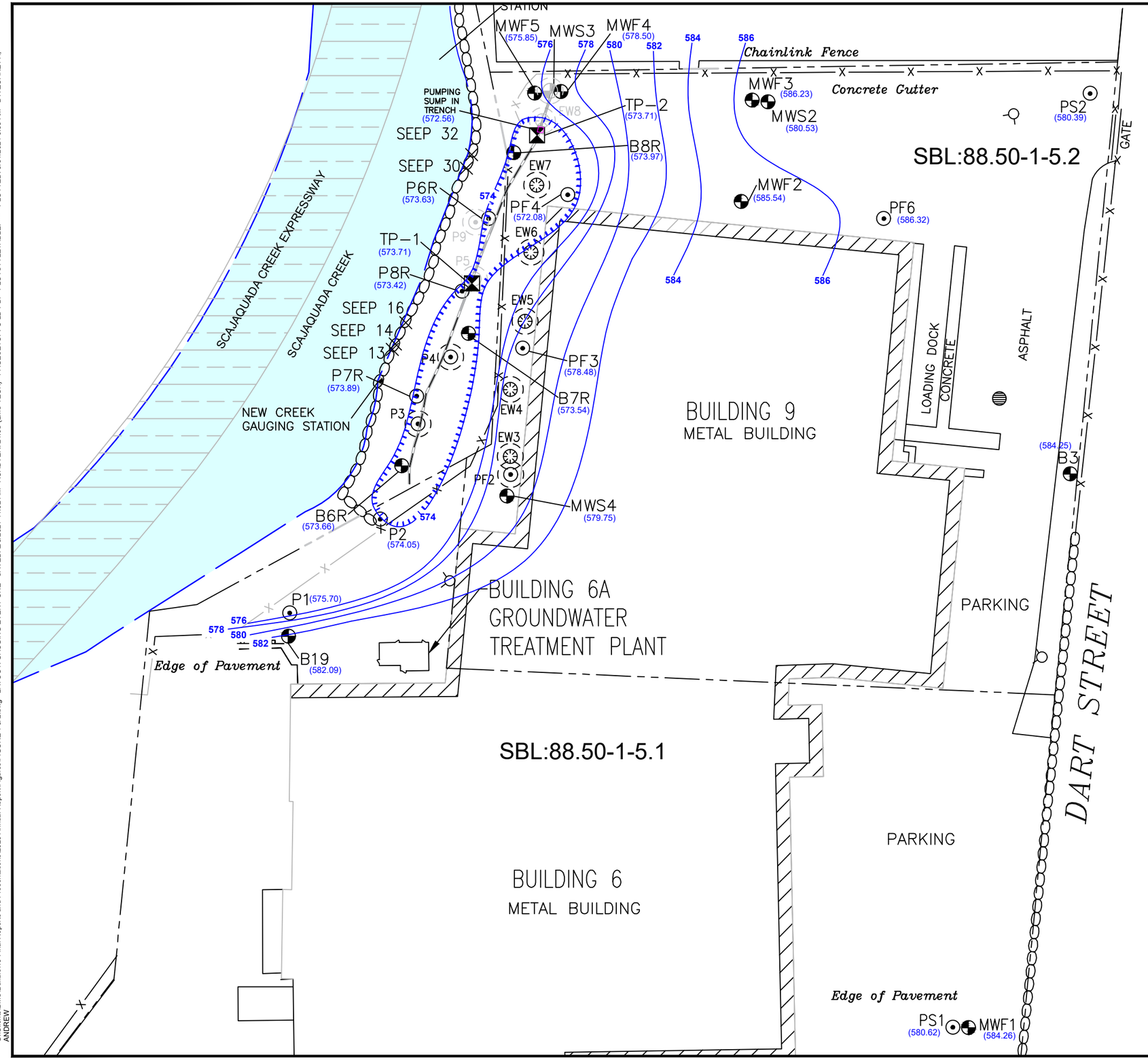
IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE
120 DART ST. AND 40 BRADLEY ST.
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
NYSDEC SITE915141A

GROUNDWATER ELEVATION CONTOUR MAP NOVEMBER 18, 2019

ARCADIS

FIGURE C-1

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PMTM: M.BENOIT LYR:(Opt)ON=*;OFF=*REF*
G:\Clients\BMS\Buffalo\11 Draft Reports and Presentations\Annual Report\2019\Figures\FIGURE 2.dwg LAYOUT:X SAVED: 1/9/2020 12:37 PM ACADVER: 21.0S (LMSTECH) PAGESETUP: C-LB-PDF PLOTSTYLETABLE: --- PLOTTED: 1/9/2020 12:58 PM BY: ZOANETTI, ANDREW



LEGEND :

- INTERCEPTOR TRENCH
- PROPERTY BOUNDARY
- FENCE
- SHEET PILE RETAINING WALL
- MONITORING WELL
- ABANDONED MONITORING WELL
- STREAM GAUGE
- SEEP LOCATION
- PIEZOMETER
- ABANDONED PIEZOMETER
- GROUNDWATER EXTRACTION WELL
- ABANDONED GROUNDWATER EXTRACTION WELL
- TRENCH PIEZOMETER
- RECOVERY SUMP
- 580 ——— 580 GROUNDWATER CONTOUR
- (580.00) GROUNDWATER ELEVATION (FT)

NOTE:

1. BASE MAP FROM A GROUNDWATER & ENVIRONMENTAL SERVICES, INC. FIGURE TITLED "PROPOSED GROUNDWATER COLLECTION TRENCH LOCATION MAP" DATED 4/13/2013.

0 100' 200'

GRAPHIC SCALE

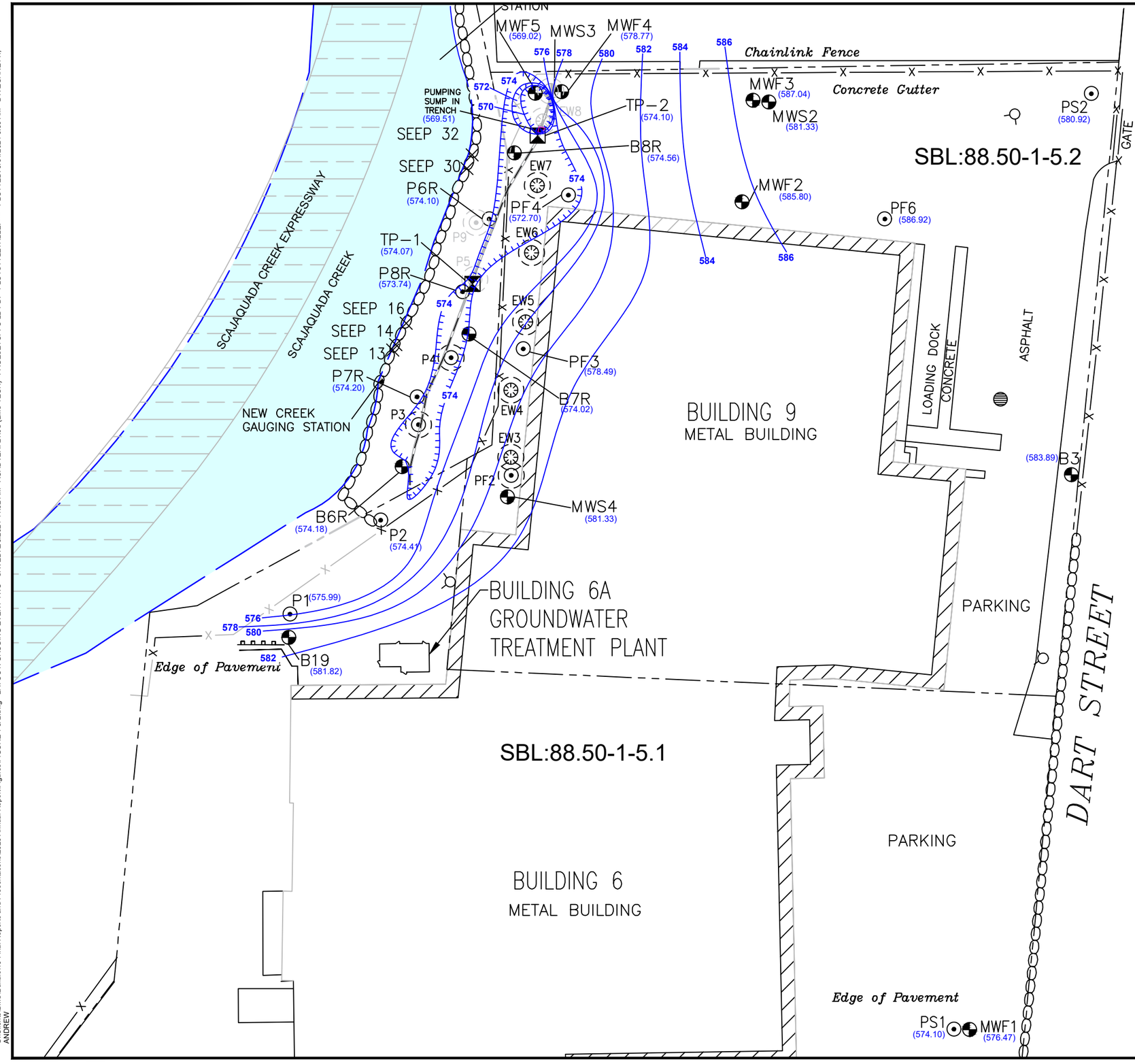
IROQUOIS GAS/WESTWOOD PHARMACEUTICAL SITE
120 DART ST. AND 40 BRADLEY ST.
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
NYSDEC SITE NO. 915141A

GROUNDWATER ELEVATION CONTOUR MAP SEPTEMBER 3, 2020

ARCADIS

FIGURE C-2

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PMTM: M.BENOIT LYR:(Opt)ON=*;OFF=*REF*
G:\Clients\BMS\Buffalo\10 Final Reports and Presentations\2020 Annual Report\Figures\FIGURE 1 & 2.dwg LAYOUT: GAUGING EVENT ONE SAVED: 2/5/2021 11:32 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: C-LB-PDF PLOTSTYLETABLE: --- PLOTTED: 3/31/2021 9:58 AM BY: ZOANETTI, ANDREW



LEGEND :

- INTERCEPTOR TRENCH
- PROPERTY BOUNDARY
- FENCE
- SHEET PILE RETAINING WALL
- MONITORING WELL
- ABANDONED MONITORING WELL
- STREAM GAUGE
- SEEP LOCATION
- PIEZOMETER
- ABANDONED PIEZOMETER
- GROUNDWATER EXTRACTION WELL
- ABANDONED GROUNDWATER EXTRACTION WELL
- TRENCH PIEZOMETER
- RECOVERY SUMP
- 580 — 580 GROUNDWATER CONTOUR
- (580.00) GROUNDWATER ELEVATION (FT)
- (NM) NOT MEASURED

NOTE:

1. BASE MAP FROM A GROUNDWATER & ENVIRONMENTAL SERVICES, INC. FIGURE TITLED "PROPOSED GROUNDWATER COLLECTION TRENCH LOCATION MAP" DATED 4/13/2013.

0 100' 200'

GRAPHIC SCALE

IROQUOIS GAS/WESTWOOD PHARMACEUTICAL SITE
120 DART ST. AND 40 BRADLEY ST.
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
NYSDEC SITE NO. 915141A

GROUNDWATER ELEVATION CONTOUR MAP DECEMBER 9, 2020

ARCADIS

FIGURE C-3

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PMTM: M.BENOIT LYR:(Opt)ON=*;OFF=*REF* SAVED: 2/5/2021 11:32 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: C-LB-PDF PLOTSTYLETABLE: ---- PLOTTED: 3/31/2021 9:59 AM BY: ZOANETTI, ANDREW
G:\Clients\BMS\Buffalo\10 Final Reports and Presentations\2020 Annual Report\Figures\FIGURE 1 & 2.dwg LAYOUT: GAUGING EVENT TWO

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PM:TM. M.BENOIT LYR:(Opt)ON=*;OFF=*REF*
G:\Clients\BMS\Buffalo\11 Draft Reports and Presentations\Annual Report\2019\Figures\FIGURE 4.dwg LAYOUT:X SAVED: 1/9/2020 11:26 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: C-LB-PDF PLOTSTYLETABLE: ---- PLOTTED: 1/9/2020 11:28 AM BY: ZOANETTI, ANDREW

B8R	
DATE SAMPLED	11/18/2019
COMPOUND	RESULT ug/L
BENZENE	NS
TOLUENE	NS
ETHYLBENZENE	NS
m,p-XYLENE	NS
o-XYLENE	NS

MWF4	
DATE SAMPLED	11/18/2019
COMPOUND	RESULT ug/L
BENZENE	53
TOLUENE	2.4 J
ETHYLBENZENE	100
m,p-XYLENE	18
o-XYLENE	70

MWF3	
DATE SAMPLED	11/18/2019
COMPOUND	RESULT ug/L
BENZENE	ND < 0.41
TOLUENE	ND < 0.51
ETHYLBENZENE	ND < 0.74
m,p-XYLENE	ND < 0.66
o-XYLENE	ND < 0.76

P8R	
DATE SAMPLED	11/18/2019
COMPOUND	RESULT ug/L
BENZENE	200
TOLUENE	5.8
ETHYLBENZENE	380
m,p-XYLENE	21
o-XYLENE	69

B7R	
DATE SAMPLED	11/18/2019
COMPOUND	RESULT ug/L
BENZENE	19
TOLUENE	0.51 J
ETHYLBENZENE	18
m,p-XYLENE	1.2 J
o-XYLENE	5.4

MWF2	
DATE SAMPLED	11/18/2019
COMPOUND	RESULT ug/L
BENZENE	NS
TOLUENE	NS
ETHYLBENZENE	NS
m,p-XYLENE	NS
o-XYLENE	NS

B6R	
DATE SAMPLED	11/18/2019
COMPOUND	RESULT ug/L
BENZENE	ND < 0.41
TOLUENE	ND < 0.51
ETHYLBENZENE	ND < 0.74
m,p-XYLENE	ND < 0.66
o-XYLENE	ND < 0.76

B3	
DATE SAMPLED	11/18/2019
COMPOUND	RESULT ug/L
BENZENE	ND < 0.41
TOLUENE	ND < 0.51
ETHYLBENZENE	ND < 0.74
m,p-XYLENE	ND < 1.3
o-XYLENE	ND < 1.5

OLD CREEK GAUGING STATION
MWF5
MWS3
MWF4
Chainlink Fence
MWF3
Concrete Gutter
MWS2
PS2
PUMPING SUMP IN TRENCH
EW8
TP-2
B8R
SEEP 32
SEEP 30
EW7
P6R
PF4
MWF2
PF6
SBL:88.50-1-5.2
SCAJAQUADA CREEK EXPRESSWAY
SCAJAQUADA CREEK
TP-1
P9
EW6
P5
P8R
SEEP 16
SEEP 14
SEEP 13
B7R
EW5
PF3
P4
P7R
P3
EW4
EW3
NEW CREEK GAUGING STATION
B6R
PF2
MWS4
P2
BUILDING 9
METAL BUILDING
LOADING DOCK
CONCRETE
ASPHALT
B3
P1
B19
Edge of Pavement
BUILDING 6A
GROUNDWATER
TREATMENT PLANT
PARKING
DART STREET
SBL:88.50-1-5.1
PARKING

LEGEND :

- INTERCEPTOR TRENCH
- PROPERTY BOUNDARY
- FENCE
- SHEET PILE RETAINING WALL
- MONITORING WELL
- ABANDONED MONITORING WELL
- STREAM GAUGE
- SEEP LOCATION
- PIEZOMETER
- ABANDONED PIEZOMETER
- GROUNDWATER EXTRACTION WELL
- ABANDONED GROUNDWATER EXTRACTION WELL
- TRENCH PIEZOMETER
- RECOVERY SUMP
- NS NOT SAMPLED
- ND NOT DETECTED
- J ESTIMATED CONCENTRATION

NOTE:

1. BASE MAP FROM A GROUNDWATER & ENVIRONMENTAL SERVICES, INC. FIGURE TITLED "PROPOSED GROUNDWATER COLLECTION TRENCH LOCATION MAP" DATED 4/13/2013.

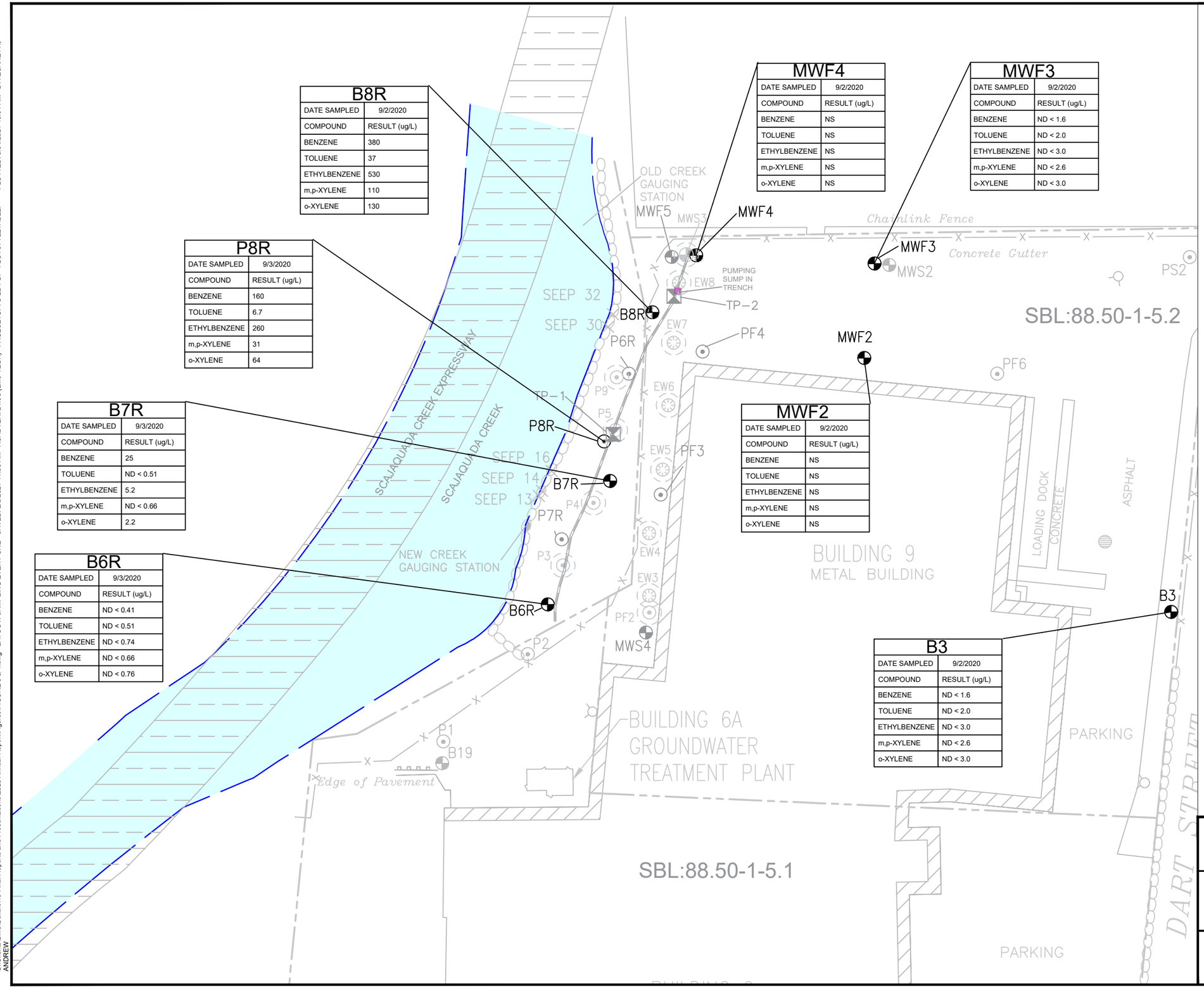
0 75 150
GRAPHIC SCALE

IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE
120 DART ST. AND 40 BRADLEY ST.
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
NYSDEC SITE NO. 915141A

VOC CONCENTRATIONS NOVEMBER 18, 2019

ARCADIS

FIGURE
C-4



LEGEND :

- INTERCEPTOR TRENCH
- PROPERTY BOUNDARY
- FENCE
- SHEET PILE RETAINING WALL
- MONITORING WELL
- ABANDONED MONITORING WELL
- STREAM GAUGE
- SEEP LOCATION
- PIEZOMETER
- ABANDONED PIEZOMETER
- GROUNDWATER EXTRACTION WELL
- ABANDONED GROUNDWATER EXTRACTION WELL
- TRENCH PIEZOMETER
- RECOVERY SUMP
- NS NOT SAMPLED
- ND NOT DETECTED
- J ESTIMATED CONCENTRATION

NOTE:

1. BASE MAP FROM A GROUNDWATER & ENVIRONMENTAL SERVICES, INC. FIGURE TITLED "PROPOSED GROUNDWATER COLLECTION TRENCH LOCATION MAP" DATED 4/13/2013.

0 75 150

GRAPHIC SCALE

IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE
120 DART ST. AND 40 BRADLEY ST.
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
NYSDEC SITE NO. 915141A

VOC CONCENTRATIONS SEPTEMBER 2-3, 2020

ARCADIS

FIGURE C-5

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PM/TM: M.BENOIT LYR:(On)(Xn+*;OFF=*REF*
G:\Clients\BMS\Buffalo\10 Final Reports and Presentations\2020 Annual Report\Figures\FIGURE 3 & 4.dwg LAYOUT: SAMPLING EVENT ONE SAVED: 2/5/2021 11:33 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: C-LB-PDF PLOTSTYLETABLE: --- PLOTTED: 3/31/2021 10:01 AM BY: ZOANETTI, ANDREW

B8R	
DATE SAMPLED	12/9/2020
COMPOUND	RESULT ug/L
BENZENE	300
TOLUENE	26
ETHYLBENZENE	450
m,p-XYLENE	110
o-XYLENE	130

P8R	
DATE SAMPLED	12/10/2020
COMPOUND	RESULT ug/L
BENZENE	150
TOLUENE	4.2 J
ETHYLBENZENE	270
m,p-XYLENE	16
o-XYLENE	76

B7R	
DATE SAMPLED	12/10/2020
COMPOUND	RESULT ug/L
BENZENE	17
TOLUENE	ND < 0.51
ETHYLBENZENE	2.0
m,p-XYLENE	ND < 0.66
o-XYLENE	1.6

B6R	
DATE SAMPLED	12/10/2020
COMPOUND	RESULT ug/L
BENZENE	ND < 0.41
TOLUENE	ND < 0.51
ETHYLBENZENE	ND < 0.74
m,p-XYLENE	ND < 0.66
o-XYLENE	ND < 0.76

MWF4	
DATE SAMPLED	12/9/2020
COMPOUND	RESULT ug/L
BENZENE	64
TOLUENE	2.3 J
ETHYLBENZENE	95
m,p-XYLENE	13
o-XYLENE	69

MWF3	
DATE SAMPLED	12/9/2020
COMPOUND	RESULT ug/L
BENZENE	ND < 1.6
TOLUENE	ND < 2.0
ETHYLBENZENE	ND < 3.0
m,p-XYLENE	ND < 2.6
o-XYLENE	ND < 3.0

MWF2	
DATE SAMPLED	12/10/2020
COMPOUND	RESULT ug/L
BENZENE	11
TOLUENE	ND < 5.1
ETHYLBENZENE	260
m,p-XYLENE	200
o-XYLENE	240

B3	
DATE SAMPLED	12/9/2020
COMPOUND	RESULT ug/L
BENZENE	ND < 1.6
TOLUENE	ND < 2.0
ETHYLBENZENE	ND < 3.0
m,p-XYLENE	ND < 2.6
o-XYLENE	ND < 3.0

OLD CREEK GAUGING STATION
MWF5
MWS3
MWF4
Chainlink Fence
MWF3
Concrete Gutter
MWS2
PS2
PUMPING SUMP IN TRENCH
EW8
TP-2
B8R
SEEP 32
SEEP 30
EW7
PF4
P6R
MWF2
PF6
SBL:88.50-1-5.2
SCAJAQUADA CREEK EXPRESSWAY
SCAJAQUADA CREEK
TP-1
P9
EW6
P5
P8R
SEEP 16
SEEP 14
SEEP 13
B7R
EW5
PF3
P4
P7R
NEW CREEK GAUGING STATION
P3
EW4
EW3
PF2
MWS4
BUILDING 9
METAL BUILDING
LOADING DOCK
CONCRETE
ASPHALT
B3
B6R
P2
BUILDING 6A
GROUNDWATER
TREATMENT PLANT
P1
B19
Edge of Pavement
PARKING
DART STREET
SBL:88.50-1-5.1
PARKING

LEGEND :

- INTERCEPTOR TRENCH
- PROPERTY BOUNDARY
- FENCE
- SHEET PILE RETAINING WALL
- MONITORING WELL
- ABANDONED MONITORING WELL
- STREAM GAUGE
- SEEP LOCATION
- PIEZOMETER
- ABANDONED PIEZOMETER
- GROUNDWATER EXTRACTION WELL
- ABANDONED GROUNDWATER EXTRACTION WELL
- TRENCH PIEZOMETER
- RECOVERY SUMP

NS	NOT SAMPLED
ND	NOT DETECTED
J	ESTIMATED CONCENTRATION

NOTE:

1. BASE MAP FROM A GROUNDWATER & ENVIRONMENTAL SERVICES, INC. FIGURE TITLED "PROPOSED GROUNDWATER COLLECTION TRENCH LOCATION MAP" DATED 4/13/2013.

0 75 150
GRAPHIC SCALE

IROQUOIS GAS/WESTWOOD PHARMACEUTICALS TERRESTRIAL SITE
120 DART ST. AND 40 BRADLEY ST.
CITY OF BUFFALO, ERIE COUNTY, NEW YORK
NYSDEC SITE NO. 915141A

VOC CONCENTRATIONS DECEMBER 9-10, 2020

ARCADIS

FIGURE
C-6

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PMTM: M.BENOIT LYR:(Opt)ON=*;OFF=*REF*
G:\Clients\BMS\Buffalo\10 Final Reports and Presentations\2020 Annual Report\Figures\FIGURE 3 & 4.dwg LAYOUT: SAMPLING EVENT TWO SAVED: 2/5/2021 11:33 AM ACADVER: 21.0S (LMS TECH) PAGESETUP: C:\LB-PDF PLOTSTYLETABLE: ---- PLOTTED: 3/31/2021 10:01 AM BY: ZOANETTI, ANDREW

Appendix D

Creek and Sheet Pile Wall Inspections

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 10/1/2019

Weather: 79°F, sunny

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 10/1/2019

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 10/1/2019

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 11/27/2019

Weather: 60°F, overcast/rain

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 11/27/2019

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 11/27/2019

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 12/12/2019

Weather: 25°F, overcast

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 12/12/2019

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 12/12/2019

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 1/22/2020

Weather: 30°F, overcast

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 1/22/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 1/22/2020

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 2/24/2020

Weather: 44°F, overcast

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 2/24/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 2/24/2020

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 3/11/2020

Weather: 33°F, partly sunny

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 3/11/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 3/11/2020

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 4/20/2020

Weather: 35°F, sunny

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 4/20/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 4/20/2020

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 5/19/2020

Weather: 55°F, overcast

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 5/19/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 5/19/2020

Iroquois Gas/Westwood Pharm
100 Forest Avenue, Buffalo, NY
NYSDEC Site No. 9-15-141
Monthly Creek Inspection Report

Inspection Date: 6/16/2020

Weather: 75°F, sunny

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 6/16/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 6/16/2020

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart St. and 40 Bradley St., Buffalo, NY
NYSDEC Site No. 915141A
Monthly Creek Inspection Report

Inspection Date: 7/29/2020

Weather: 75°F, overcast

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 7/29/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 7/29/2020

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart St. and 40 Bradley St., Buffalo, NY
NYSDEC Site No. 915141A
Monthly Creek Inspection Report

Inspection Date: 8/19/2020

Weather: 65°F, sunny

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 7/29/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 7/29/2020

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart St. and 40 Bradley St., Buffalo, NY
NYSDEC Site No. 915141A
Monthly Creek Inspection Report

Inspection Date: 9/3/2020

Weather: 70°F, sunny

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 8/19/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 8/19/2020

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart St. and 40 Bradley St., Buffalo, NY
NYSDEC Site No. 915141A
Monthly Creek Inspection Report

Inspection Date: 10/29/2020

Weather: 48°F, overcast

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 10/29/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 10/29/2020

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart St. and 40 Bradley St., Buffalo, NY
NYSDEC Site No. 915141A
Monthly Creek Inspection Report

Inspection Date: 11/4/2020

Weather: 54°F, sunny

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 11/4/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 11/4/2020

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart St. and 40 Bradley St., Buffalo, NY
NYSDEC Site No. 915141A
Monthly Creek Inspection Report

Inspection Date: 12/8/2020

Weather: 25°F, partly cloudy

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 12/8/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 12/8/2020

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart St. and 40 Bradley St., Buffalo, NY
NYSDEC Site No. 915141A
Monthly Creek Inspection Report

Inspection Date: 1/12/2021

Weather: 31°F, overcast

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 1/12/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 1/12/2020

Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart St. and 40 Bradley St., Buffalo, NY
NYSDEC Site No. 915141A
Monthly Creek Inspection Report

Inspection Date: 2/15/2021

Weather: 25°F, ligh snow

Personnel: Jason Gutkowski

Inspection Notes:

1) ARCADIS performed the inspection via binoculars from the bike path across the creek. There were no visual signs of seepage or sheen observed.

2) Photographs of the bank are attached.

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of water surface

Taken: 2/15/2020

PHOTOGRAPH LOG

Monthly Creek Inspection Report
Iroquois Gas/Westwood Pharm
NYSDEC Site No. 9-15-141
100 Forest Avenue, Buffalo, NY

Photograph of sheet pile wall

Taken: 2/15/2020

Appendix E

Waste Manifest

print or type
designed for use on elite (12-pitch) typewriter.)

SO90389

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	N/A	1	(800) 814-1204	BMS112019

5. Generator's Name and Mailing Address
Bristol-Myers Squibb Company
100 Forest Avenue
Buffalo New York 14213 315 671 9173
Generator's Phone:

Generator's Site Address (if different than mailing address)
Bristol-Myers Squibb Company
100 Forest Avenue
Buffalo New York 14213

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
Waste Recovery Solutions Inc
343 King Street
Myerstown PA 17067 (717) 866-9955
Facility's Phone:

U.S. EPA ID Number
PAR000043026

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non-RCRA, Non-DOT Regulated Material, (Debris Impacted with Petroleum Based Tar (NAPL))	2	6yd box	6,000 lbs	12 CY	None
2	Non-RCRA, Non-DOT Regulated Material, (Granular Carbon Impacted with NAPL)	7	55gal drum	4,000 lbs	51 cubic feet	None
3	Non-RCRA, Non-DOT Regulated Material, (Petroleum Based Non-Aqueous Phase Liquid (NAPL))	3	55gal drum	1,400 lbs	165 gal.	None
4.						

13. Special Handling Instructions and Additional Information

1 CVY-1100041937 Debris Impacted with Petroleum Based Tar (NAPL) CWT: N/A PO#:
2 CVY-1100041938 Granular Carbon Impacted with NAPL CWT: N/A PO#:
3 CVY-1100041939 Petroleum Based Non-Aqueous Phase Liquid (NAPL) CWT: N/A PO#:

Trailer #_____
Emergency Response Guide On-board
Site arrival time _____
Site departure time _____
www.covanta.com

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Richard L. Mator — Signature — Month Day Year

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month Day Year

Transporter 2 Printed/Typed Name — Signature — Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name — Signature — Month Day Year

Attachment 1

Air Lift Memo

MEMO

To:
Richard L. Mator, BMS

From:
Raymond Wagner

Date:
September 18, 2020

Copies:
John Alonzo, BMS
Vin Maresco, Arcadis
Gary Wrobleski, Arcadis
Pete Greer, Arcadis
Andrew Zoanetti, Arcadis

Arcadis Project No.:
30049063

Arcadis of New York, Inc.
One Lincoln Center
110 West Fayette Street
Suite 300
Syracuse
New York 13202
Tel 315 446 9120
Fax 315 449 0017

Subject:
DNAPL Air Lift Recovery Efforts
Former Iroquois Gas/Westwood Pharmaceuticals Terrestrial Site
120 Dart Street and 40 Bradley Street, Buffalo, New York

Introduction and History

This document provides a summary of additional procedures taken in 2019 and 2020 to recover DNAPL in the interceptor trench collection sump at the Former Iroquois Gas/Westwood Pharmaceuticals Site located at120 Dart Street and 40 Bradley Street, Buffalo, New York.

Background

In 2017 an interceptor trench was constructed to increase the capture of NAPL and impacted groundwater. This trench was effective and as a result the NAPL was captured in the collection sump (**Photo 1**). The collection sump pump was effective in removing the normal loading of water with some DNAPL, however, the increased effectiveness of the interceptor trench in capturing more viscous DNAPL coal tar recently lead to pump operational difficulties due to the viscosity of the DNAPL.

Photo 1 – Interceptor Trench Collection Sump

In late November 2019, the QED AP4+T Long Pumps in the collection sump began to have intermittent clogging due to high viscosity DNAPL. After some investigation, it was discovered there was several feet of high viscosity coal tar based DNAPL in the sump. Two pumps were replaced over the next few months that were not able to be repaired or cleaned to restore operation (**Photo 2**). When the QED AP4 pumps began having issues, the pump intake was at 25.58 ft from the top of the sump. The water level was approximately 20 ft from top of the sump, medium viscous DNAPL at 22 ft to 27 ft, and high viscous DNAPL from 27 ft to the well bottom at 30.58 ft. The pumps were also raised to 23 ft from the top of the sump to avoid clogging while a solution was found.

Photo 2 – Disassembled AP4+T Pump

An analysis of alternative pumping options was completed to evaluate methods to remove the viscous DNAPL and is summarized in **Table 1**.

The Arcadis project team reviewed and evaluated DNAPL removal and alternative pumping methods and determined the most cost-effective options are pump replacement or air lift removal. The main issues to overcome were the viscous nature of the DNAPL and the 30 ft of head to lift/pump the fluid up to a recovery tank. A plan of action to test the effectiveness of the air lift method to remove the DNAPL from the well was decided upon in April 2020, but field implementation was slowed due to the COVID-19 restrictions.

Table 1. DNAPL Recovery Cost/Benefit Analysis

Option	Equipment Cost	DNAPL Collection Rate	Additional Costs	Benefits	Disadvantages
QED Eliminator bladder pump	$3,200 (with controller)	6 gpm max (less for high viscosity)	1. New underground discharge line. 2. New DNAPL storage.	1. Operates on available compressed air. 2. Air isolated from DNAPL.	1. Low flow rate. 2. Unknown viscosity limit.
QED AP4+ High Viscosity model	$3,100 (with controller)	6.4 gpm max (less for high viscosity)	1. New underground discharge line. 2. New DNAPL storage.	1. Simple installation – replace existing similar pump. 2. Operates on available compressed air.	1. Limited to 7,000 cSt viscosity. 2. Flow when pumping water is higher than when pumping NAPL.
QED Pulse pump LP1301	$2,180 (with controller)	2 gpm (less for high viscosity)	1. New underground discharge line. 2. New DNAPL storage.	1. Recommended by QED. 2. Set times between cycles.	1. Low flow rate. 2. Unknown viscosity limit.
Xitech DNAPL recovery pump ADJ1100	$2,125	1 gph - 60 gph	1. New underground discharge line. 2. New DNAPL storage.	1. Operates on available compressed air. 2. Temporary pilot system available. 3. Recommend finger heater.	1. Some options may require electric power. 2. Unknown viscosity limit.
Blackhawk V-2 pneumatic piston pump model 101	$6000 - $9000	2 gpm max	1. New underground discharge line. 2. New DNAPL storage. 3. Vault redesign to fit above ground equipment. 4. Modification of wellhead.	1. Operates on available compressed air. 2. Pneumatic drive accessible above ground. 3. Air isolated from DNAPL.	1. Will not fit within confines of vault. 2. Unknown viscosity limit.
Abanaki DNAPL belt skimmer	$3,500	6 gph (4" belt)	1. Vault redesign to fit skimmer system. 2. System includes 55 gal drum to store DNAPL. 3. Electrical power to vault.	1. No down well equipment except belt.	1. Limited DNAPL storage at collection sump vault (and no containment). 2. Above ground DNAPL pump likely necessary. 3. Will not fit within confines of vault.
Periodic DNAPL collection with air lift	$500		1. Labor required for every collection event.	1. No new piping to be installed. 2. No agency approval needed.	1. Volume that may be collected at one time may be too low to be cost effective.
No changes			1. Pumps treated as wear items, require replacement at regular intervals.	1. No added components/complexity. 2. No agency approval needed.	1. Mixing DNAPL/water/LNAPL that will later be separated. 2. DNAPL leads to pump failure.

Procedures and Equipment

The air lift in principle can be explained simply as a bubble of air being forced to a certain depth and then while traveling up a hose to the surface it forces a column of water to be lifted. As multiple columns of water are lifted a venturi is created that pulls in debris from the bottom intake and pushes to the exit point of the hose above grade (**Figures 1 and 2**).

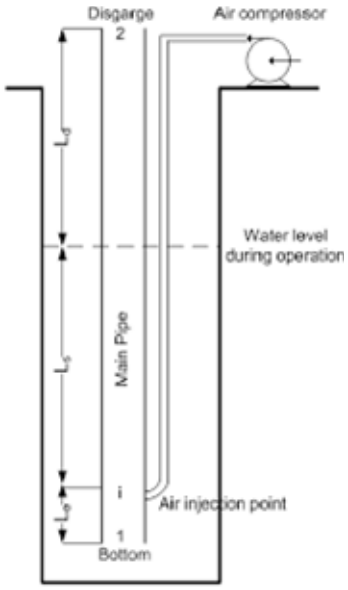


Figure 1 – Air Lift Diagram

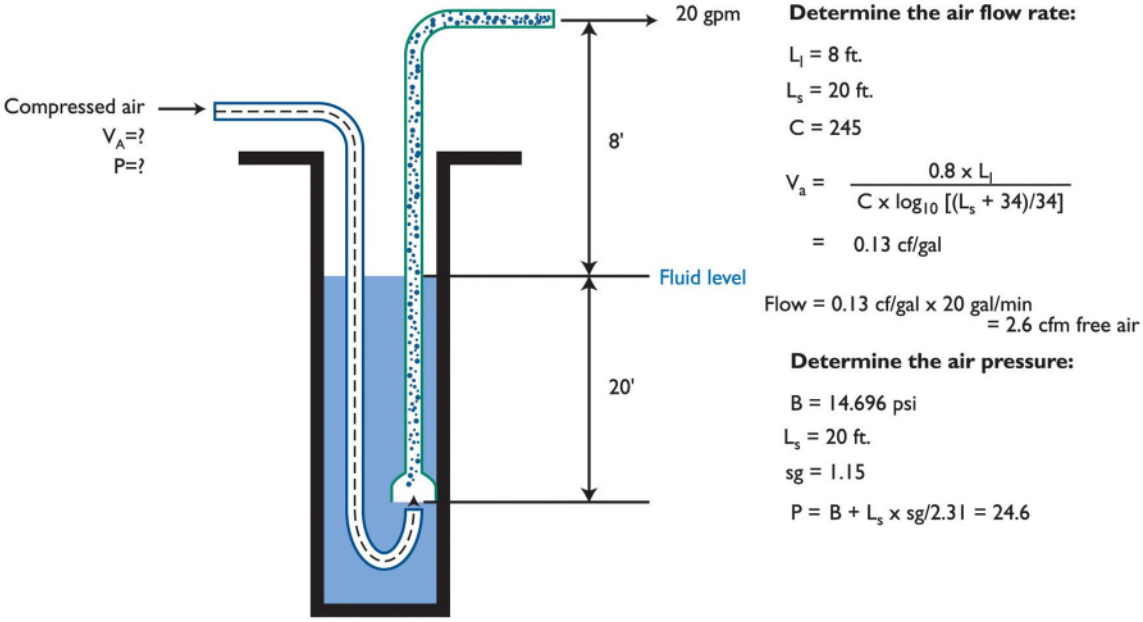


Figure 2 – Air Lift Calculations

Below is the parts list for the air lift design, that were constructed as shown in **Figure 3**:

- 1.25” suction tube
- 50’x 0.5” air line
- 6”x 0.5” PVC pipe
- One 90° 0.5” PVC elbow fitting
- One connector for 0.5” airline to PVC transition
- 50’x 1.25” hard suction line
- 3’x 1.25” Sch 80 PVC pipe
- 1.25” connector to connect PVC pipe to hard suction line
- Air regulator with gauge for 0.5” line with 0-50 psi range
- 2x 0.5” fitting to connect airline to both sides of air regulator
- Zip ties (18”)
- Connector to attached 0.5” airline to well vault air supply

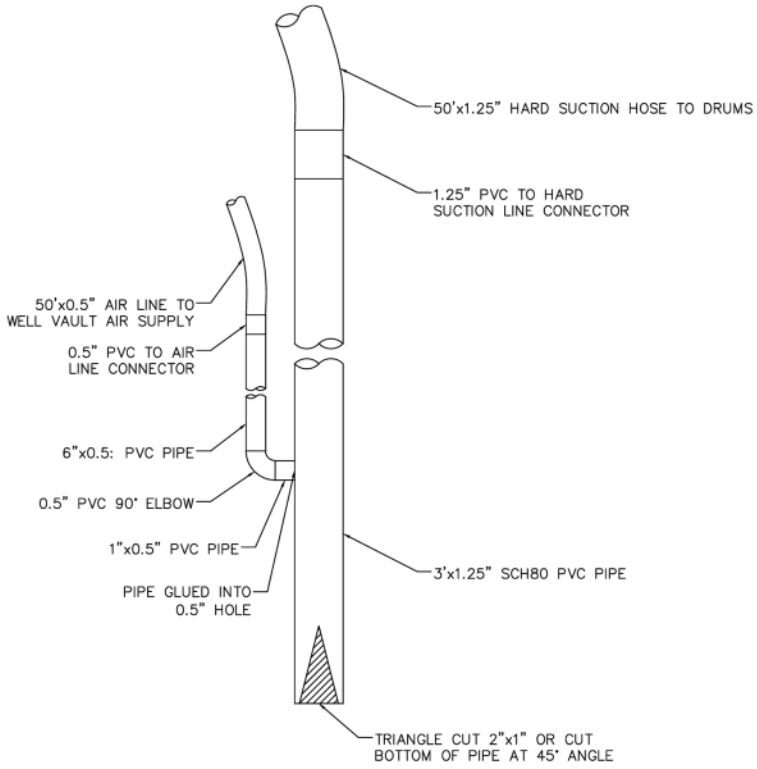


Figure 3 – Air Lift Assembly

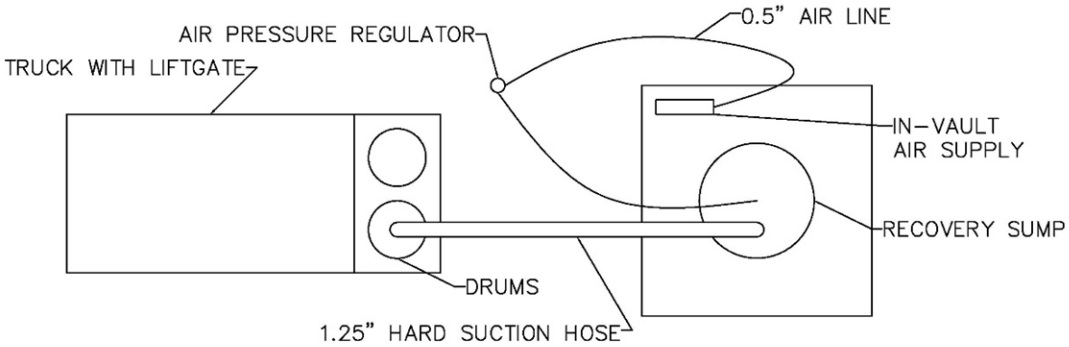


Figure 4 – Air Lift Equipment Setup

DNAPL Removal and Recovery

On June 8, 2020 the first air lift operation was performed. Approximately 30 gallons of coal tar was recovered with very little water over 5 hours. The viscosity of the coal tar ranged from maple syrup (~144 centipoise [cp]) to honey (~2,000 cp). The air pressure was set at 90 psi to start the air lift and was stabilized at 30 psi to maintain the air lift. Prior to the lift, depth to product was 20 ft from the top of the sump. After the lift, depth to product rose to 15 ft due to the DNAPL and water layers mixing in the sump. Depth to product was measured weekly following the air lift, and a second air lift was completed on June 22, 2020. A third air lift was completed on December 21, 2020. DNAPL removal and depths to product are shown in **Table 2**. In total, 55 gallons of DNAPL has been removed from the three air lifts in 2020 to date.

Table 2. DNAPL Removal and Depths to Product

Date	DNAPL Removed (gals)	Depth to Product Before Lift (ft below top of sump)	Depth to Product After Lift (ft below top of sump)
6/8/2020	30	20	15
6/16/2020	n/a	28.5	n/a
6/22/2020	5	28.5	29.9
6/29/2020	n/a	29.9	n/a
7/6/2020	n/a	29.9	n/a
7/14/2020	n/a	28.58*	n/a
7/24/2020	n/a	28.58	n/a
7/29/2020	n/a	28.4	n/a
8/7/2020	n/a	28.3	n/a
12/21/20	20	27.5	29.2

*Increase in product thickness due to rain event.

Health and Safety Procedures

With guidance from a technical expert with experience in performing air lifts to clear wells of obstructions, all parts were assembled in the field. One team member held and monitored flow from a feeder hose into a waste collection 55-gal drum, while the second team member controlled the air pressure which drove the flow rate of the fluid. In the event of a malfunction the air would be shut off which stops all movement of liquid and drops all air pressure to zero.

Prior to the June 8, 2020 air lift, the field and management team held a meeting to discuss the appropriate safety precautions to be taken and how to protect the area of the operation to have zero environmental impact. The following health and safety measures were implemented (**Photos 3 and 4**):

1) Safety meeting to include emergency response procedures as well as reminder of WorkCare for non-emergency injuries
2) Field personnel review and understand system and emergency shutdown process
3) PPE: nitrile gloves, steel toed rubber boots, Splash resistant Tyvek suit, safety glasses, face shield
4) Use of a heavy gauge plastic to protect ground cover and stormwater runoff

Photo 3 – DNAPL Air Lift Recovery Operations

Photo 4 – DNAPL Air Lift Operations

Schedule for Ongoing Pumping Operations and DNAPL Recharge

The lower part of the air lift system is currently stored in the recovery sump and can have the upper unit and hose installed in a timely manner. Currently, DNAPL removal will be conducted on an as needed basis as level dictates. A DNAPL thickness of 3 ft is being used as a trigger for an air lift operation. Normal pumping operations will continue until another air lift is required. A new QED AP4 recovery pump designed specifically for high viscosity is being evaluated as a more permanent solution and enhancement. Such a pump would work in conjunction with the existing total fluids AP4 pump. The recharge rate of the DNAPL is being tracked to determine if occasional air lifting will be more cost effective than an addition of a permanent pump.

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