Mr. Glenn May
New York State Department of Environmental Conservation
Division of Environmental Remediation
Region 9
270 Michigan Avenue
Buffalo, New York 14203

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Date: April 27, 2023
Our Ref: 30125855
Subject: **2022 Annual Groundwater Sampling Report**
Former Iroquois Gas/Westwood Pharmaceuticals Site
120 Dart Street and 40 Bradley Street, Buffalo, New York
NYSDEC Site No. 9-15-141A

Dear Mr. May,

On behalf of Bristol-Myers Squibb Company (BMS), Arcadis U.S., Inc. (Arcadis) is submitting this Annual Groundwater Sampling Report and supporting attachments for the two groundwater sampling events conducted in 2022 at the former Iroquois Gas/Westwood Pharmaceuticals Site located at 120 Dart Street and 40 Bradley Street in Buffalo, New York (Site).

The semi-annual groundwater monitoring program at the Site is completed in accordance with a verbal request made by Glenn May of the New York State Department of Environmental Conservation (NYSDEC) on August 4, 2015, to Vin Maresco of Arcadis. This report is written in accordance with the draft Site Management Plan dated February 14, 2022, and currently under NYSDEC review.

Arcadis personnel completed sampling events on November 8, 2022 and December 7, 2022. Groundwater sampling was completed in accordance with the December 2017 Proposed Groundwater Gauging and Sampling Plan (Groundwater Monitoring Plan)[1] and subsequent groundwater monitoring events. The field activities, field observations, and analytical results for groundwater sampling completed during both the November and December 2022 events are described below.

Field Activities

During the 2022 groundwater sampling events, Arcadis gauged Site monitoring wells and piezometers. A water-level meter was used to measure groundwater levels with an accuracy of approximately 0.01 feet.

Seven of the 22 Site monitoring well locations were scheduled to be sampled during both events: B6R, B7R, B8R, MWF2, MWF3, MWF4, and P8R. The wells were purged and sampled using disposable bailers and a three-volume purge technique. Purge water and equipment rinse water were containerized and then treated in the on-Site water treatment plant. Purge and sampling logs are included in **Attachment 1**. Following collection, all

[1] Arcadis. 2017. Proposed Groundwater Gauging and Sampling Plan (Groundwater Monitoring Plan), Former Iroquois Gas/Westwood Pharmaceutical Site, 100 Forest Avenue, Buffalo, New York, NYSDEC Site No. 915141A. December 14.

samples were packed on ice and submitted to Eurofins TestAmerica, Inc. of Amherst, New York, in accordance with chain-of-custody procedures. During both sampling events, groundwater samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) via United States Environmental Protection Agency Method 8260C.

Results

Groundwater Flow Conditions

Groundwater elevation data is provided in **Table 1**. As shown on **Figure 1** (November 2022) and **Figure 2** (December 2022), groundwater flow appears to be in a general westerly direction towards the collection trench. The groundwater elevations and flow direction are consistent with the project historical record. The collection trench acts as a groundwater sink and continues to draw in groundwater for treatment by the on-Site system.

Groundwater Analytical Results

Current and historical groundwater laboratory analytical results for BTEX are summarized in **Table 2**. Current dissolved BTEX concentrations in groundwater are shown on **Figure 3** (November 2022) and **Figure 4** (December 2022). The complete laboratory reports for these sampling events are included as **Attachment 2**.

During the November 2022 sampling event, total BTEX concentrations ranged from below laboratory method detection limits at monitoring wells B6R and MWF3 to 944 micrograms per liter at monitoring well P8R. Samples collected from monitoring wells B7R, B8R, MWF2, MWF4, and P8R exhibited BTEX at concentrations greater than the NYSDEC ambient water quality standards and guidance values presented in the NYSDEC Technical and Operational Guidance Series 1.1.1.[2] Results of the November 2022 analytical results are generally consistent with the historical project record.

During the December 2022 sampling event, total BTEX concentrations ranged from non-detect at monitoring wells B6R and MWF3 to 927 micrograms per liter at monitoring well B8R. Samples collected from monitoring wells B7R, B8R, MWF2, MWF4, and P8R exhibited detected BTEX at concentrations greater than NYSDEC ambient water quality standards and guidance values presented in the NYSDEC Technical and Operational Guidance Series 1.1.1.**Error! Bookmark not defined.** Results of the December 2022 analytical results are generally consistent with the results of the previous sampling event and the historical project record.

Groundwater analytical data trends for the eight wells sampled are presented on **Figures 5A** through **5H**.

Conclusions and Recommendations

Groundwater samples were collected from the November and December 2022 sampling events to represent current dissolved constituent of concern concentrations in groundwater. Based on this data, and the general consistency of the analytical results, we request the groundwater sampling program be conducted on an annual basis.

The on-Site groundwater treatment system continues to be maintained weekly and, barring occasional maintenance, has been in continual operation. A total of 433,686 gallons of groundwater were extracted, treated,

[2] NYSDEC. 1993. Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards And Guidance Values and Groundwater Effluent Limitations. October 22, 1993, reissued June 1998.

and discharged through the treatment system in 2022. In 2022, no non-aqueous phase liquid was recovered by the treatment system or the interceptor trench sump. Historic non-aqueous phase liquid recovery, from both the air lift procedures and treatment system, is shown on **Figure 6**.

If there are any questions regarding this letter, please contact Dustin Kirschner of Arcadis at 205-705-2775.

Sincerely,
Arcadis U.S., Inc.

Dustin Kirschner
Project Manager

Email: dustin.kirschner@arcadis.com
Direct Line: 201-705-2775

CC. R. Mator, BMS
J. Alonzo, de maximis, Inc.
T. Alexander, NFG
K. Hoelscher, NFG
V. Maresco, Arcadis

Enclosures:

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Table 1 – Groundwater Elevation Data
Table 2 – Groundwater Analytical Data for Volatile Organic Compounds

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Figure 2 – Groundwater Elevation Contour Map, December 7, 2022
Figure 3 – VOC Concentrations Map, November 8, 2022
Figure 4 – VOC Concentrations Map, December 7, 2022
Figures 5A-5H – BTEX Trends in Sampled Wells
Figure 6 – NAPL Recovery

Attachments
Attachment 1 – Groundwater Purge and Sampling Logs
Attachment 2 – Laboratory Reports

Tables

Table 1
Groundwater Elevation Data

2022 Annual Groundwater Sampling Report
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart Street and 40 Bradley Street, Buffalo, New York

Groundwater Elevation Data					
Well ID	Reference Elevation (ft. amsl)	November 8, 2022		December 7, 2022	
		DTW	GWE	DTW	GWE
B19	592.14	10.32	581.82	10.28	581.86
B6R	590.86	16.93	573.93	16.88	573.98
B7R	591.59	17.90	573.69	17.40	574.19
B8R	592.16	18.11	574.05	17.51	574.65
MWF1	592.28	8.96	583.32	10.42	581.86
MWF2	594.66	9.26	585.40	9.61	585.05
MWF3	591.66	4.80	586.86	4.01	587.65
MWF4	594.00	15.40	578.60	14.03	579.97
MWF5	589.90	13.93	575.97	12.65	577.25
MWS2	591.89	11.18	580.71	10.53	581.36
MWS4	593.05	12.15	580.90	11.47	581.58
P1	590.77	14.71	576.06	14.59	576.18
P2	591.30	16.94	574.36	16.81	574.49
P6R	590.85	17.25	573.60	17.36	573.49
P7R	591.36	17.55	573.81	17.15	574.21
P8R	591.28	17.90	573.38	17.05	574.23
PF3	591.48	14.57	576.91	14.45	577.03
PF4	591.48	19.72	571.76	17.92	573.56
PF6	592.86	6.74	586.12	6.11	586.75
PS1	592.89	11.39	581.50	10.34	582.55
PS2	593.40	13.62	579.78	12.19	581.21
TP1	591.27	17.48	573.79	16.94	574.33
TP2	589.87	15.99	573.88	15.30	574.57
Pumping Sump in Trench	589.26	19.17	570.09	19.20	570.06

Notes:
DTW - depth to water in feet, below top of casing
GWE - groundwater elevation, ft. amsl
ft. amsl - feet above mean sea level

Table 2
Groundwater Analytical Data for Volatile Organic Compounds

2022 Annual Groundwater Sampling Report
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart Street and 40 Bradley Street, Buffalo, New York

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	12/13/2011	9.75	ND < 0.20	ND < 0.20	ND < 0.20	ND < 0.40	ND < 0.20
	6/28/2012	8.46	ND < 0.20	ND < 0.20	ND < 0.20	ND < 0.40	ND < 0.20
	12/11/2012	10.01	0.099	2.1	0.7	2.7	1
	8/24/2015	NM	NS	NS	NS	NS	NS
	4/27/2016	7.78	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/21/2016	8.85	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	3/29/2017	6.49	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/20/2017	7.50	ND < 0.090	ND < 0.25	ND < 0.30	ND < 0.28	ND < 0.32
	10/23/2018	6.46	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/18/2018	6.67	ND < 0.82	ND < 1.0	ND < 1.5	ND < 1.3	ND < 1.5
	6/12/2019	6.60	ND < 0.82	ND < 1.0	ND < 1.5	ND < 1.3	ND < 1.5
	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
B6	12/13/2011	18.21	0.11	0.067	ND < 0.20	ND	ND < 0.20
	6/28/2012	18.59	0.22	ND < 0.20	ND < 0.20	ND	ND < 0.20
	12/11/2012	18.00	0.043	0.22	0.064	0.29	0.068
	8/24/2015	18.51	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	4/27/2016	18.70	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/20/2016	18.58	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	3/28/2017	25.81	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/19/2017	23.27	0.26 J	ND < 0.25	2.2	0.38 J	0.83 J
B6R	10/24/2018	16.94	**1**	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/17/2018	17.31	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	6/12/2019	16.34	ND < 0.41	ND < 0.51	2	ND < 0.66	ND < 0.76
	11/18/2019	16.97	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	9/3/2020	17.20	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
	9/2/2021	17.55	0.41 J	ND < 1.0	1.1	ND < 2.0	ND < 1.0
	11/10/2021	17.21	ND < 0.41 F1	ND < 0.51 F1	ND < 0.74 F1	ND < 0.66 F1	ND < 0.76
	11/9/2022	16.93	ND < 1.0	ND < 1.0	ND < 1.0	ND < 2.0	ND < 1.0
	12/8/2022	16.88	ND < 1.0	ND < 1.0	ND < 1.0	ND < 2.0	ND < 1.0
B7	12/13/2011	19.52	0.12	ND < 0.20	ND < 0.20	ND	ND < 0.20
	6/28/2012	20.42	**4.7**	0.068	0.079	ND	0.11
	12/11/2012	19.16	**3.9**	0.42	0.13	0.36	0.17
	8/25/2015	19.79	**9.8**	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	4/27/2016	19.90	**6.4**	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/21/2016	18.42	**12**	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	3/28/2017	26.47	**5.1**	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/20/2017	17.96	**56**	1.7	**38**	3.7	**12**
B7R	10/24/2018	18.01	**42**	ND < 1.0	**6.4**	ND < 1.3	1.5 J
	12/17/2018	18.31	**38**	ND < 1.0	**12**	ND < 1.3	2.9
	6/12/2019	16.99	**18**	ND < 0.51	**22**	1.1 J	**6.3**
	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
	9/2/2021	18.24	**32**	ND < 2.0	ND < 2.0	ND < 4.0	ND < 2.0
	11/11/2021	18.04	**22**	ND < 1.0	1.5 J	ND < 1.3	ND < 1.5

See Notes on Page 4.

Table 2
Groundwater Analytical Data for Volatile Organic Compounds

2022 Annual Groundwater Sampling Report
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart Street and 40 Bradley Street, Buffalo, New York

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**
B7R (cont.)	11/9/2022	17.90	**29**	ND < 2.0	ND < 2.0	ND < 4.0	ND < 4.0
	12/8/2022	17.40	**32**	ND < 1.0	ND < 1.0	ND < 2.0	ND < 1.0
B8	12/13/2011	18.11	**100**	1	**50**	**9.3**	**17**
	6/28/2012	18.72	**150**	1.4	**77**	**6.2**	**27**
	12/11/2012	18.03	**51**	1.3	**23**	**5.4**	**13**
	8/25/2015	18.41	**220**	1.7	**60**	**11**	**36**
	4/27/2016	NM	**100**	ND < 2.0	**54**	**6.3 J**	**21**
	12/20/2016	18.46	**450**	ND < 5.1	**45**	ND < 6.6	**32**
	3/29/2017	25.67	**7.5**	ND < 0.51	**20**	3.1	**7.5**
	12/20/2017	18.48	**530**	**250**	**830**	**300**	**210**
B8R	10/23/2018	18.26	**620**	**140**	**530**	**160**	**170**
	12/17/2018	18.25	**500**	**75**	**470**	**110**	**130**
	6/12/2019	17.15	**550**	**130**	**580**	**170**	**170**
	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**
	9/2/2021	18.45	**580**	**64**	**950**	**270**	**240**
	11/11/2021	18.20	**170**	**20**	**410**	**87**	**94**
	11/9/2022	18.11	**480**	ND < 20	**240**	**29 J**	**62**
	12/8/2022	17.51	**460**	**16 J**	**320**	**45**	**86**
MWF2	12/13/2011	9.74	**81**	**7.3**	**420**	**420**	**290**
	6/28/2012	9.45	**36**	4.5	**730**	**570**	**380**
	12/11/2012	8.90	**390**	**19**	**800**	**730**	**470**
	8/25/2015	8.97	**44**	**5.4 J**	**660**	**610**	**420**
	4/27/2016	9.22	**100**	**6.1**	**500**	**430**	**310**
	12/20/2016	9.39	**100**	ND < 20	**3000**	**2200**	**1200**
	3/29/2017	9.29	**37 J**	ND < 20	**420**	**380**	**310**
	12/19/2017	8.88	**14**	3.5 J	**320**	**200**	**190**
	10/24/2018	9.03	**23**	ND < 5.1	**190**	**230**	**180**
	12/18/2018	8.80	**16**	ND < 5.1	**140**	**220**	**190**
	6/12/2019	9.68	**26**	ND < 5.1	**570**	**230**	**310**
	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**
	9/2/2021	9.15	**25**	ND < 10	**490**	**310**	**280**
	11/11/2021	8.46	**44**	ND < 13	**1100**	**690**	**550**
	11/9/2022	9.26	**10 J**	ND < 25	**230**	**220**	**220**
	12/8/2022	9.61	ND < 10	ND < 10	**250**	**200**	**190**
MWF3	12/13/2011	4.92	ND < 0.20	ND < 0.20	ND < 0.20	ND < 0.40	ND < 0.20
	6/28/2012	6.00	0.37	ND < 0.20	ND < 0.20	0.13	1.1
	12/11/2012	4.80	0.26	0.35	1.6	2	1.5
	8/24/2015	NM	NS	NS	NS	NS	NS
	4/27/2016	5.16	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/20/2016	5.01	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	3/28/2017	12.19	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/19/2017	5.54	ND < 0.090	ND < 0.25	ND < 0.30	0.28 J	0.76 J
	10/24/2018	5.51	ND < 0.82	ND < 1.0	ND < 1.5	ND < 1.3	ND < 1.5
	12/18/2018	4.55	ND < 0.82	ND < 1.0	ND < 1.5	ND < 1.3	ND < 1.5

See Notes on Page 4.

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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**
MWF3 (cont.)	6/12/2019	4.32	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	11/18/2019	4.90	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
	9/2/2021	5.00	ND < 4.0	ND < 4.0	ND < 4.0	ND < 8.0	ND < 4.0
	11/11/2021	4.97	ND < 1.6	ND < 2.0	ND < 3.0	ND < 2.6	ND < 3.0
	11/9/2022	4.80	ND < 4.0	ND < 4.0	ND < 4.0	ND < 8.0	ND < 4.0
	12/8/2022	4.01	ND < 4.0	ND < 4.0	ND < 4.0	ND < 8.0	ND < 4.0
MWF4	12/13/2011	16.47	**64**	2.1	**84**	**16**	**54**
	6/28/2012	15.96	**90**	2.9	**120**	**19**	**73**
	12/11/2012	15.45	**100**	4.2	**200**	**38**	**99**
	8/25/2015	15.51	**76**	ND < 2.6	**72**	**11**	**56**
	4/27/2016	15.88	**53**	ND < 2.6	**51**	**11**	**49**
	12/20/2016	15.77	**69**	2.1	**82**	**13**	**59**
	3/29/2017	16.01	**75**	2.4	**91**	**13**	**63**
	12/19/2017	16.14	**83**	3.1	**110**	**14**	**75**
	10/23/2018	14.87	**67**	2.7 J	**120**	**13**	**61**
	12/17/2018	15.52	**81**	3.9 J	**160 F1**	**24**	**89**
	6/12/2019	15.50	**92**	4.7	**240**	**34**	**120**
	11/18/2019	14.92	**53**	2.4 J	**100**	**18**	**70**
	9/3/2020	15.50	NS**	NS**	NS**	NS**	NS**
	12/10/2020	15.23	**64**	2.3 J	**95**	**13**	**69**
	9/2/2021	15.30	**49**	ND < 4.0	**48**	**8.6**	**44**
	11/11/2021	15.24	**43**	ND < 2.0	**54**	**9.5**	**48**
	11/9/2022	15.40	**50**	ND < 4.0	**56**	**8.7**	**43**
	12/8/2022	14.03	**64**	3.4 J	**170**	**22**	**86**
MWS2	8/24/2015	NM	NS	NS	NS	NS	NS
	4/27/2016	NM	NS	NS	NS	NS	NS
	12/21/2016	18.95	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	3/28/2017	17.99	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/19/2017	11.98	ND < 0.090	ND < 0.25	ND < 0.30	ND < 0.28	ND < 0.32
	10/24/2018	11.24	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/18/2018	10.79	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	6/12/2019	10.66	NS	NS	NS	NS	NS
	11/18/2019	10.57	NS	NS	NS	NS	NS
	9/2/2021	11.20	NS	NS	NS	NS	NS
	11/10/2021	10.70	NS	NS	NS	NS	NS
	11/9/2022	11.18	NS	NS	NS	NS	NS
	12/8/2022	10.53	NS	NS	NS	NS	NS
PS1	12/13/2011	11.02	ND < 0.20	ND < 0.20	ND < 0.20	ND < 0.40	NM
	6/28/2012	11.57	ND < 0.20	ND < 0.20	ND < 0.20	ND < 0.40	NM
	12/11/2012	11.37	0.078	0.1	0.075	ND < 0.40	NM
	8/25/2015	10.03	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	NM
	4/27/2016	11.19	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/22/2016	12.72	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	3/29/2017	11.52	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	12/20/2017	12.89	ND < 0.090	ND < 0.25	ND < 0.30	ND < 0.28	ND < 0.32
	10/23/2018	11.54	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76

See Notes on Page 4.

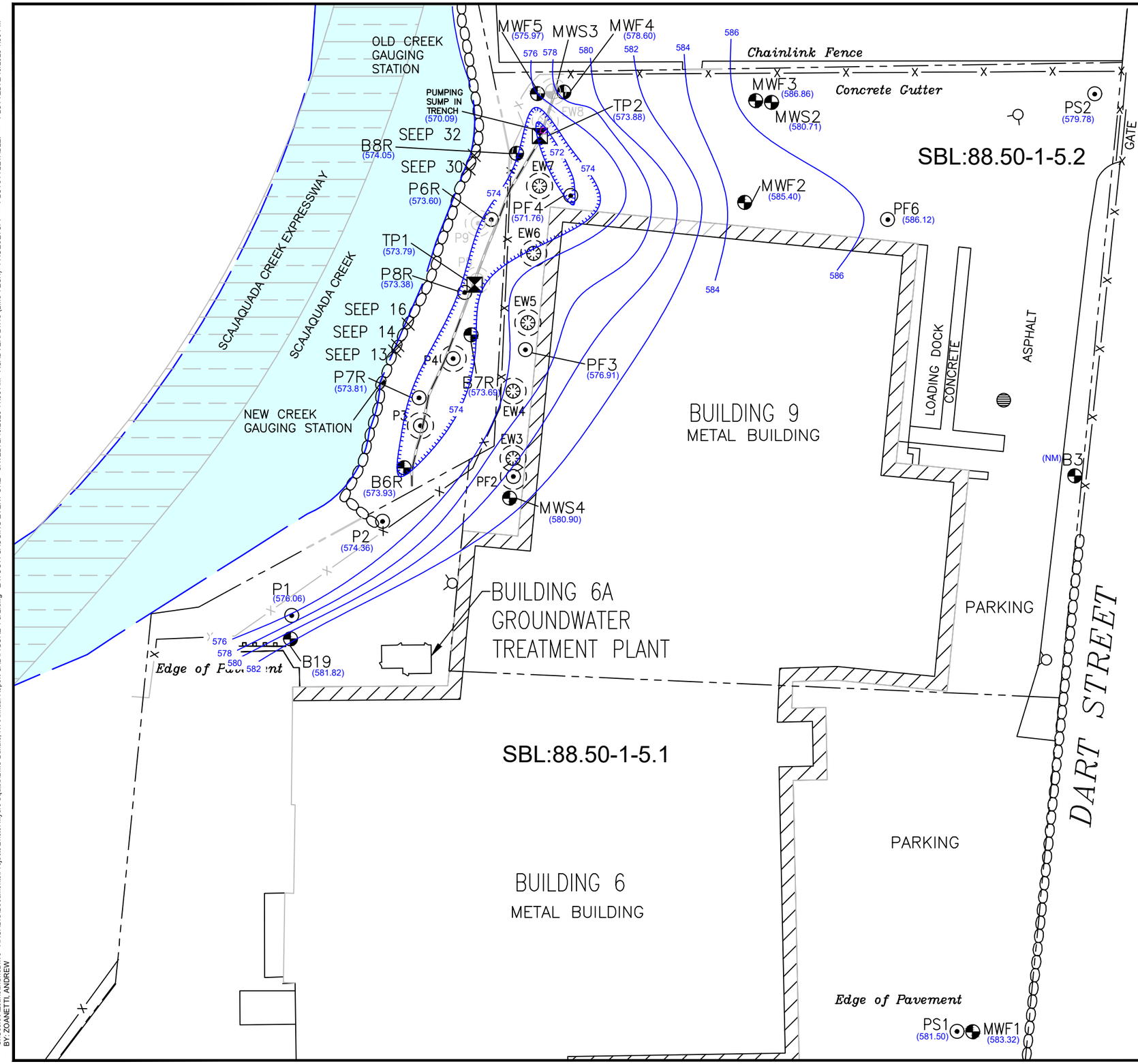
Table 2
Groundwater Analytical Data for Volatile Organic Compounds

2022 Annual Groundwater Sampling Report
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart Street and 40 Bradley Street, Buffalo, New York

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**
PS1 (cont.)	12/18/2018	10.48	ND < 0.41	ND < 0.51	ND < 0.74	ND < 0.66	ND < 0.76
	6/12/2019	10.72	NS	NS	NS	NS	NS
	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
	9/2/2021	11.75	NS	NS	NS	NS	NS
	11/10/2021	11.01	NS	NS	NS	NS	NS
P5*	8/25/2015	18.15	**84**	2.7 J	**300**	**10**	NM
	4/27/2016	18.59	**14**	ND < 2.6	**150**	**8.9 J**	**36**
	12/21/2016	18.50	**120**	ND < 10	**950**	**45**	**250**
	3/29/2017	18.82	**5.4**	ND < 1.0	**74**	**5**	**20**
	12/20/2017	NM*	NS*	NS*	NS*	NS*	NS*
P8R	6/12/2019	17.13	**130**	**5.5**	**240**	**22**	**54**
	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**
	9/2/2021	18.04	**180**	**9.6 F1**	**130 F1**	**31**	**40**
	11/11/2021	17.75	**210**	**14**	**230**	**47**	**80**
	11/9/2022	17.90	**260**	**5.9 J**	**510**	**38**	**130**
	12/8/2022	17.05	**210**	**11**	**200**	**44**	**64**

Notes:
Bolded analytical data represents results above NYSDEC TOGS 1.1.1 Standards.
* Well abandoned
**Well not sampled due to non-aqueous phase liquid observed during gauging.
µg/L = micrograms per liter
F1 = MS and/or MSD Recovery is outside acceptable limits.
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
NYSDEC = New York State Department of Environmental Conservation
TOGS = Technical and Operational Guidance Services

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
- 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

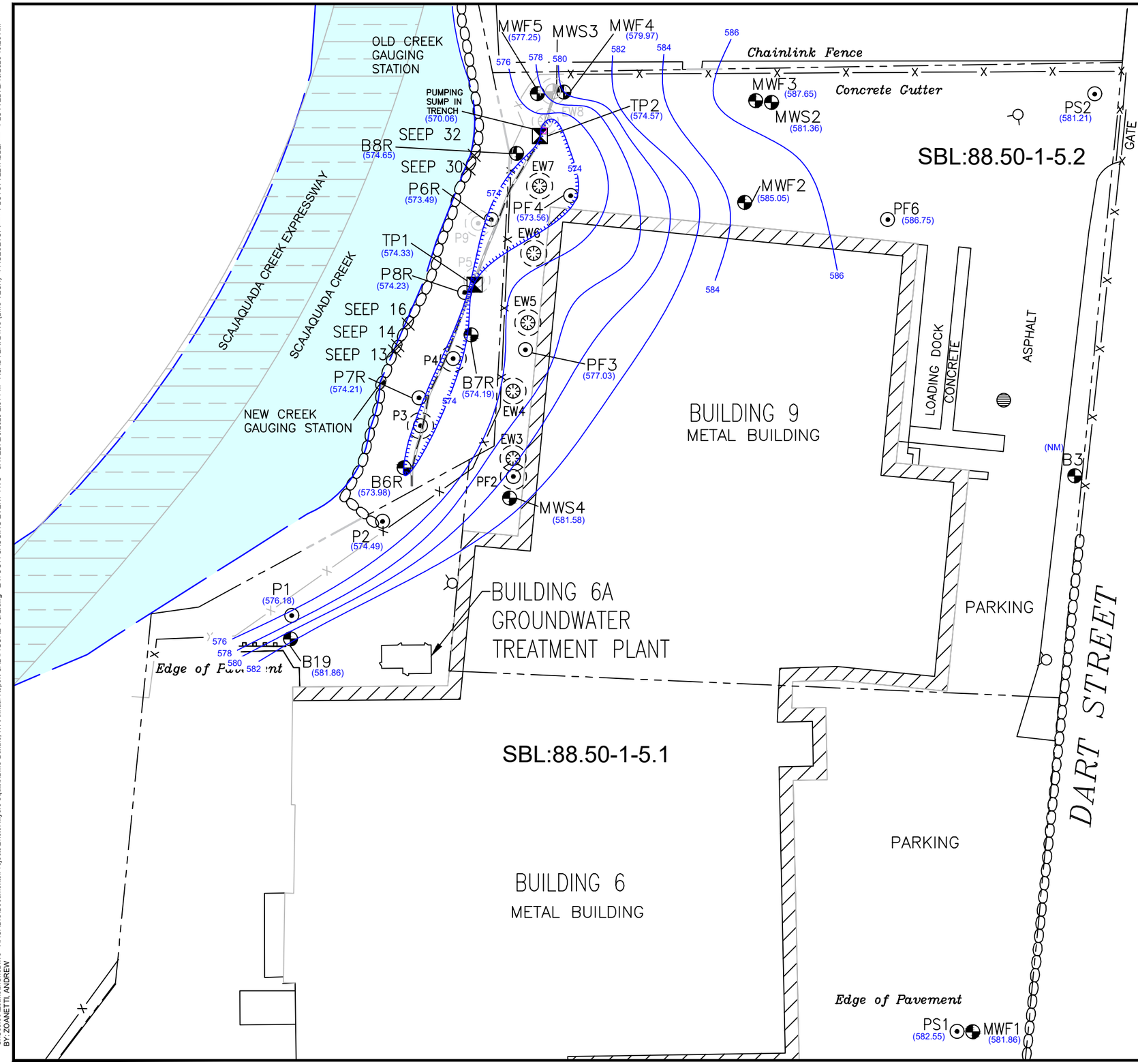
FORMER IROQUOIS GAS/WESTWOOD PHARMACEUTICAL SITE
120 DART ST. AND 40 BRADLEY ST.
BUFFALO, NEW YORK

GROUNDWATER ELEVATION CONTOUR MAP NOVEMBER 8, 2022

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PM/TM: M.BENOIT LYR:(Opt)ON="OFF="REF"
C:\Users\AZoanetti\OneDrive - ARCADIS\Documents\Projects\Bristol-Myers Squibb\BMS Buffalo, NY\Annual Report CAD\FIGURE 1 & 2.dwg LAYOUT: GAUGING EVENT ONE SAVED: 2/10/2023 11:38 AM ACADVER: 24.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 2/10/2023 1:59 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)
- (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

FORMER IROQUOIS GAS/WESTWOOD PHARMACEUTICAL SITE
120 DART ST. AND 40 BRADLEY ST.
BUFFALO, NEW YORK

GROUNDWATER ELEVATION CONTOUR MAP DECEMBER 7, 2022

ARCADIS Design & Consultancy for natural and built assets

FIGURE 2

CITY: SYRACUSE, NY DIV/GROUP: EBC-IM/DV DB: L.POSENAUER PM/TM: M.BENOIT LYR:(Opt)ON="OFF="REF"
C:\Users\AZoanetti\OneDrive - ARCADIS\Documents\Projects\Bristol-Myers Squibb\BMS Buffalo, NY\Annual Report CAD\FIGURE 1 & 2.dwg LAYOUT: GAUGING EVENT TWO SAVED: 2/9/2023 2:51 PM ACADVER: 24.1S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: ---- PLOTTED: 2/10/2023 10:26 AM
BY: ZOANETTI, ANDREW

B8R	
DATE SAMPLED	11/9/2022
COMPOUND	RESULT (ug/L)
BENZENE	480
TOLUENE	ND < 20
ETHYLBENZENE	240
m,p-XYLENE	29 J
o-XYLENE	62

P8R	
DATE SAMPLED	11/9/2022
COMPOUND	RESULT (ug/L)
BENZENE	260
TOLUENE	5.9 J
ETHYLBENZENE	510
m,p-XYLENE	38
o-XYLENE	130

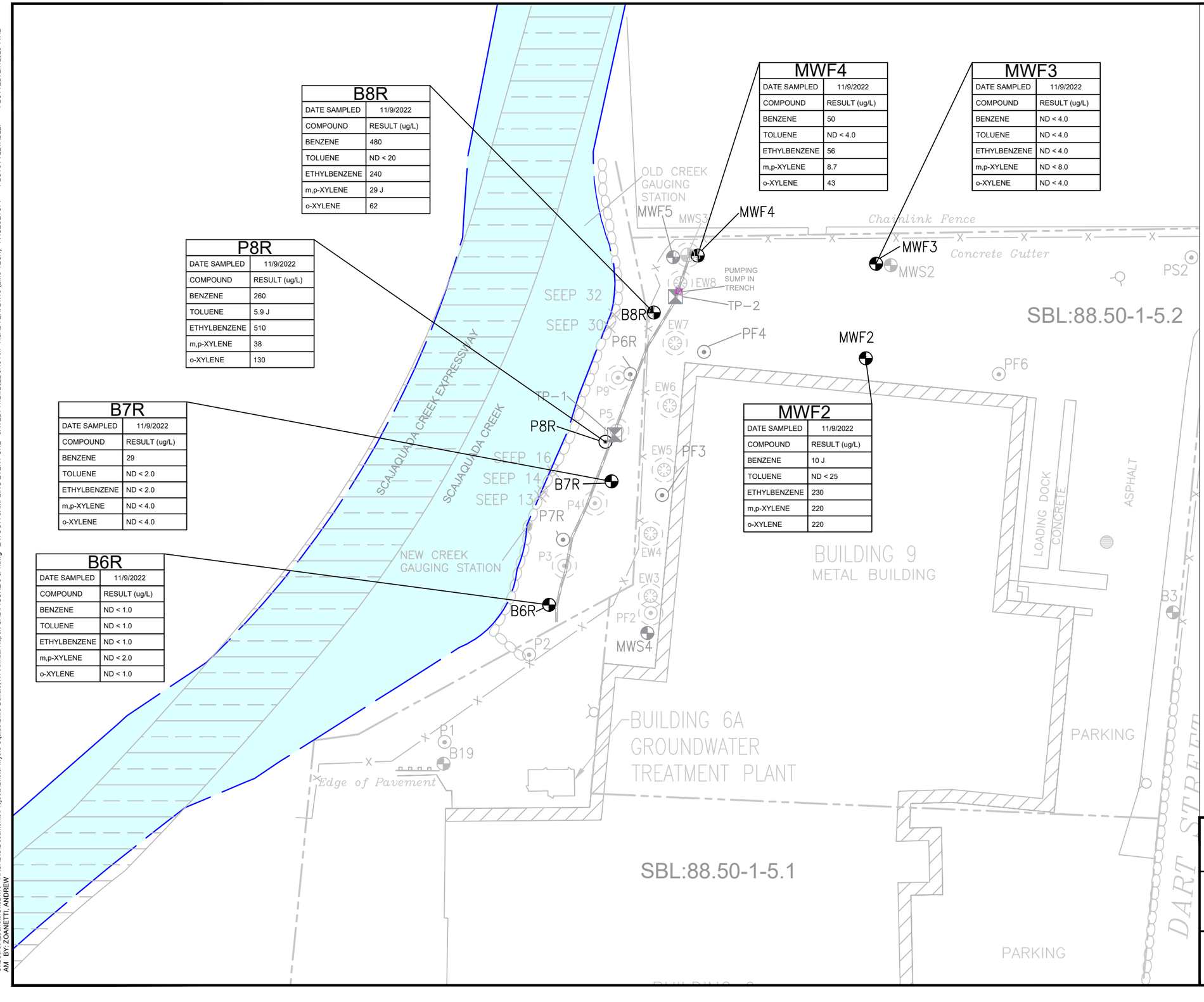
B7R	
DATE SAMPLED	11/9/2022
COMPOUND	RESULT (ug/L)
BENZENE	29
TOLUENE	ND < 2.0
ETHYLBENZENE	ND < 2.0
m,p-XYLENE	ND < 4.0
o-XYLENE	ND < 4.0

B6R	
DATE SAMPLED	11/9/2022
COMPOUND	RESULT (ug/L)
BENZENE	ND < 1.0
TOLUENE	ND < 1.0
ETHYLBENZENE	ND < 1.0
m,p-XYLENE	ND < 2.0
o-XYLENE	ND < 1.0

MWF4	
DATE SAMPLED	11/9/2022
COMPOUND	RESULT (ug/L)
BENZENE	50
TOLUENE	ND < 4.0
ETHYLBENZENE	56
m,p-XYLENE	8.7
o-XYLENE	43

MWF3	
DATE SAMPLED	11/9/2022
COMPOUND	RESULT (ug/L)
BENZENE	ND < 4.0
TOLUENE	ND < 4.0
ETHYLBENZENE	ND < 4.0
m,p-XYLENE	ND < 8.0
o-XYLENE	ND < 4.0

MWF2	
DATE SAMPLED	11/9/2022
COMPOUND	RESULT (ug/L)
BENZENE	10 J
TOLUENE	ND < 25
ETHYLBENZENE	230
m,p-XYLENE	220
o-XYLENE	220



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
F1	MS AND/OR MSD RECOVERY IS OUTSIDE ACCEPTABLE LIMITS

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

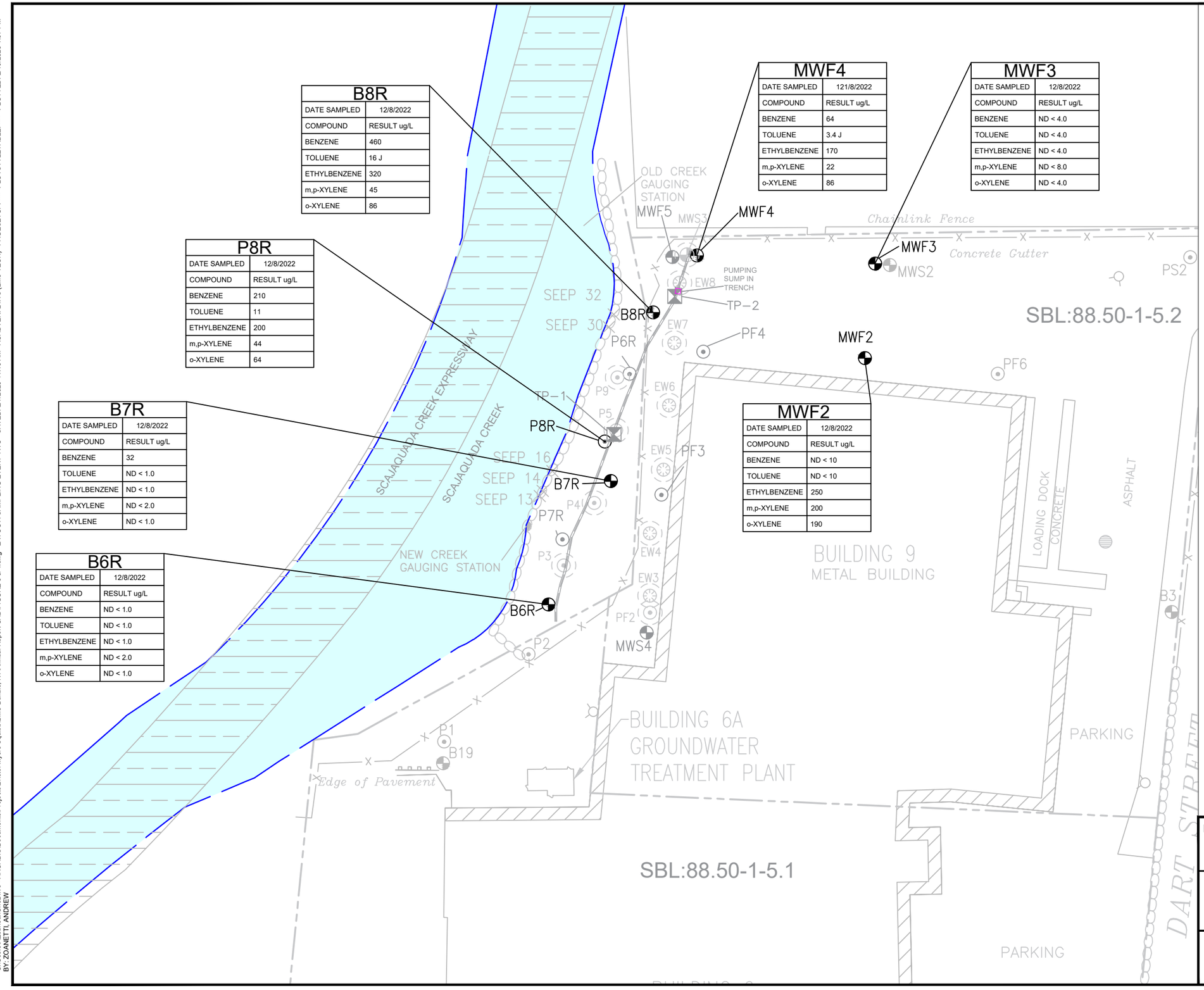
GRAPHIC SCALE

FORMER IROQUOIS GAS/WESTWOOD PHARMACEUTICAL SITE
120 DART ST. AND 40 BRADLEY ST.
BUFFALO, NEW YORK

VOC CONCENTRATIONS NOVEMBER 9, 2022

ARCADIS Design & Consultancy for natural and built assets

FIGURE 3



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
F1	MS AND/OR MSD RECOVERY IS OUTSIDE ACCEPTABLE LIMITS

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

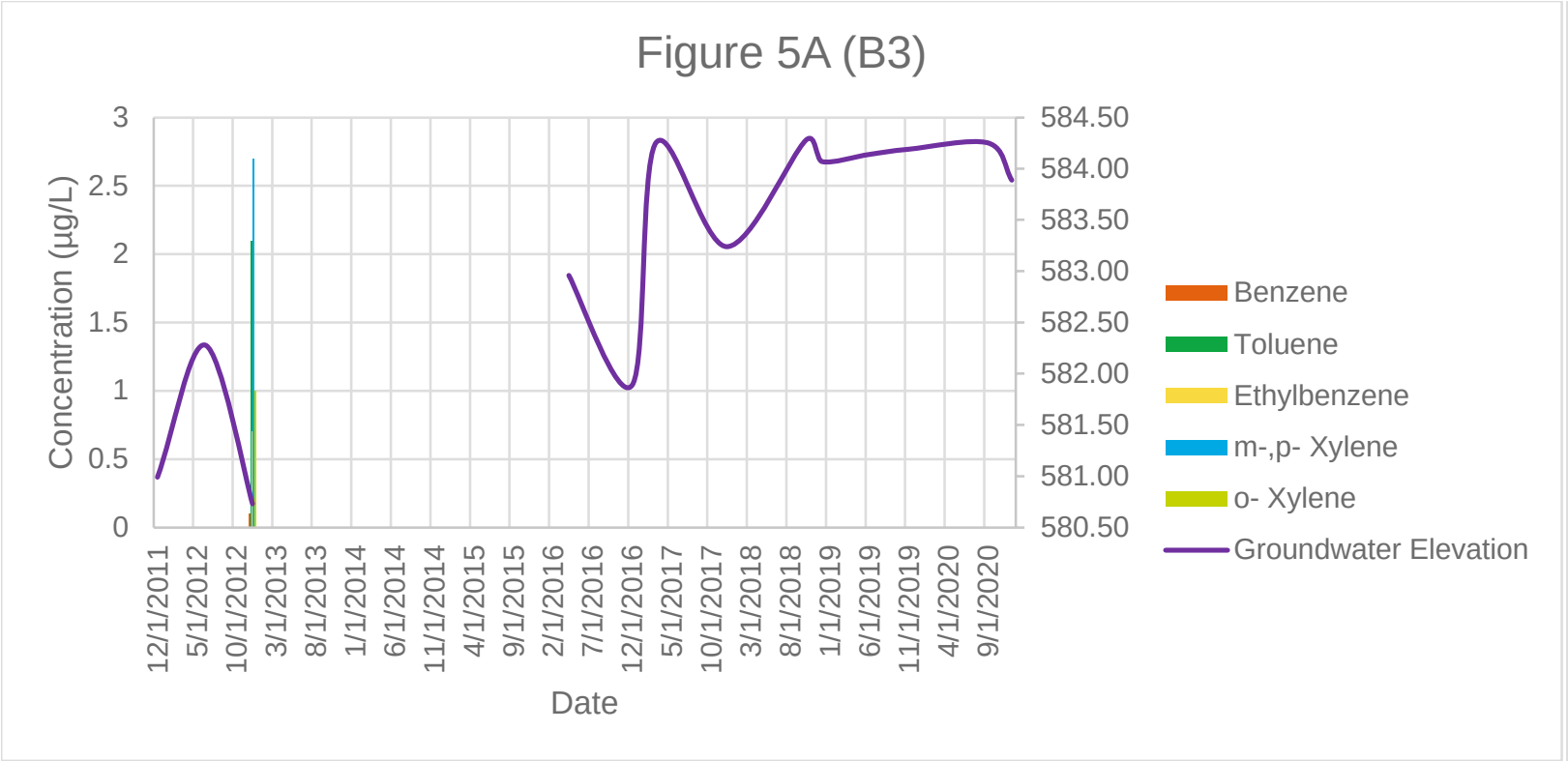
FORMER IROQUOIS GAS/WESTWOOD PHARMACEUTICAL SITE
120 DART ST. AND 40 BRADLEY ST.
BUFFALO, NEW YORK

VOC CONCENTRATIONS DECEMBER 7, 2022

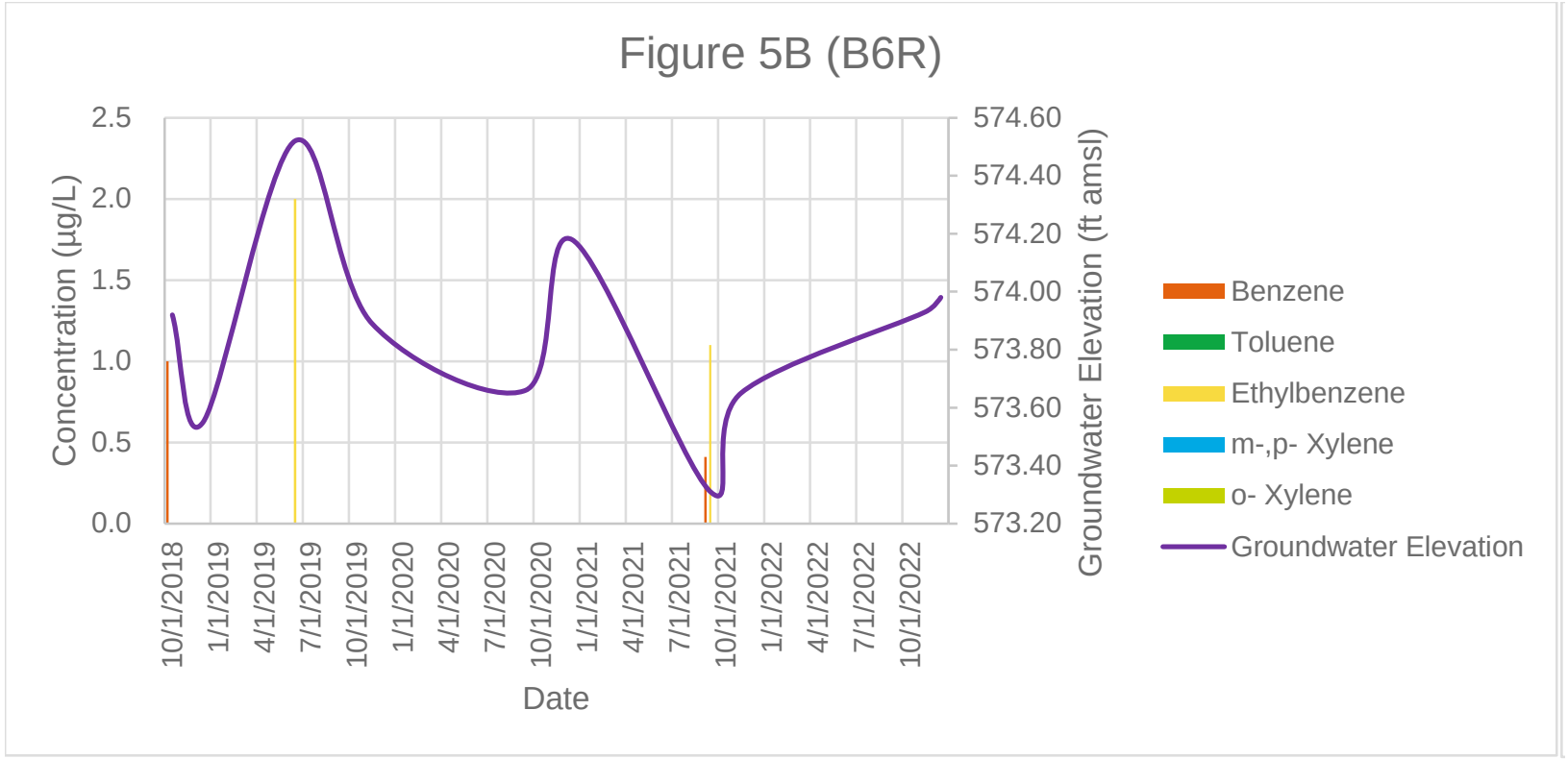
ARCADIS Design & Consultancy for natural and built assets

FIGURE 4

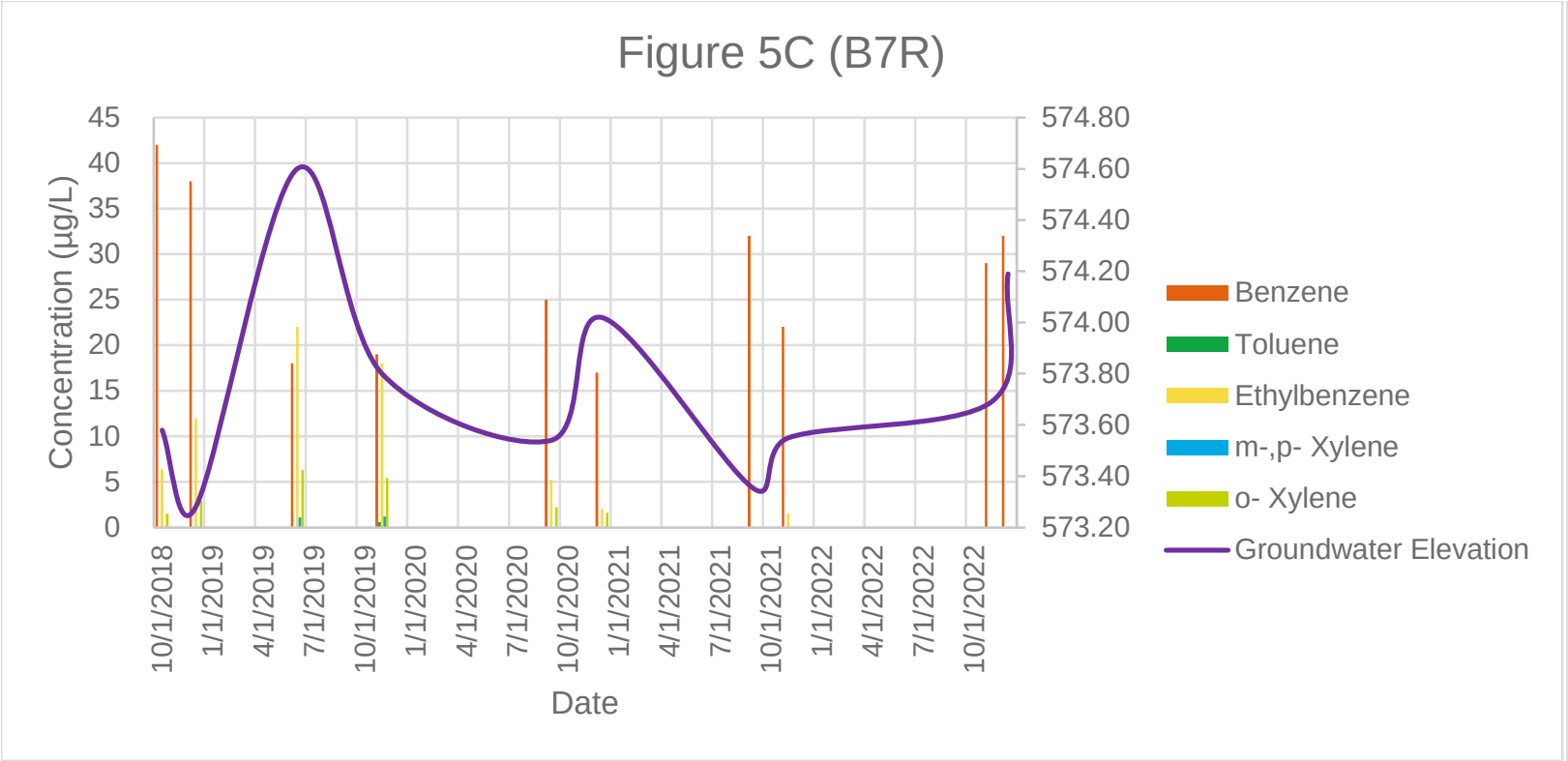
Groundwater Analytical Data Trends for VOCs
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, New York



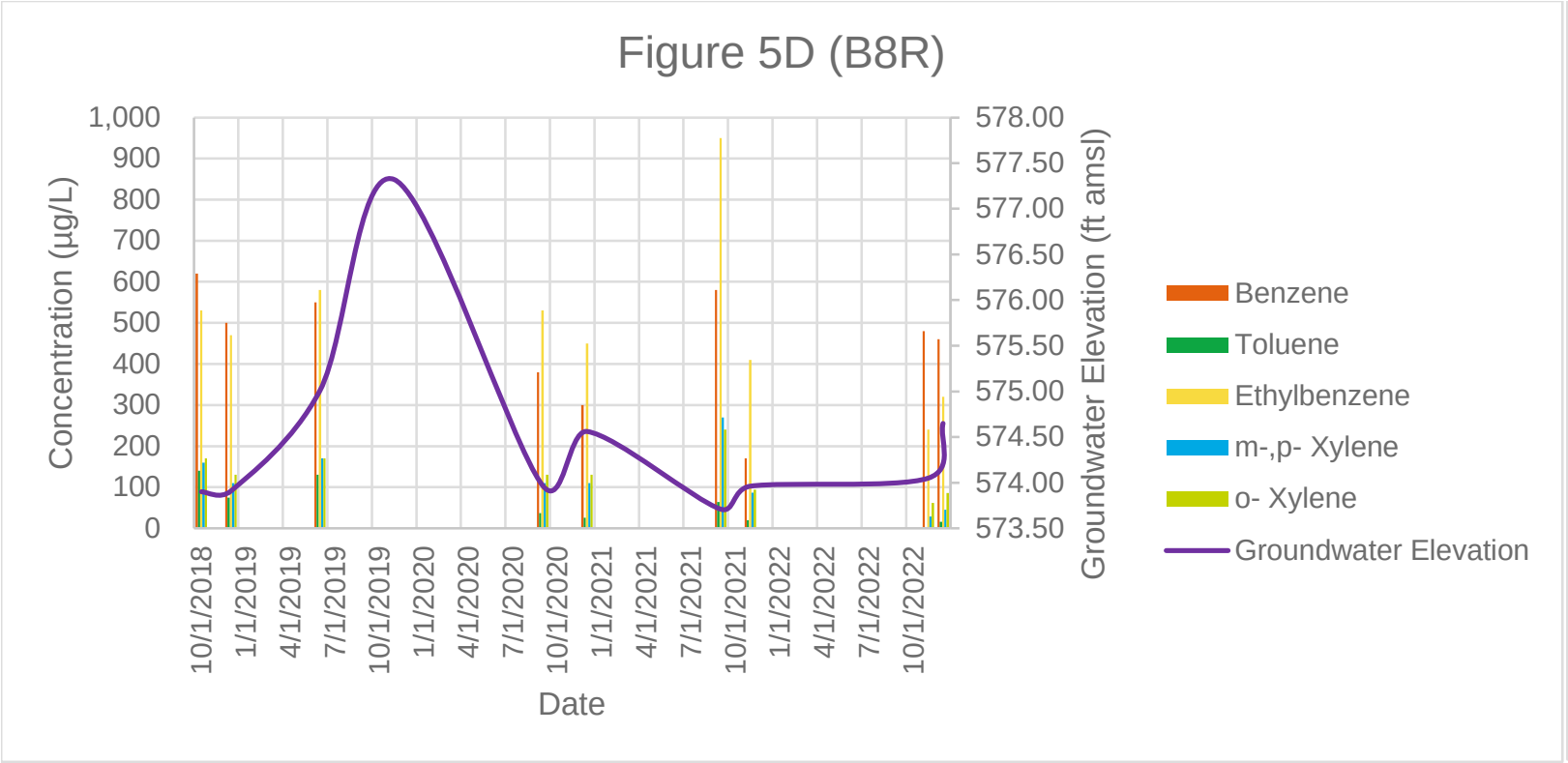
Groundwater Analytical Data Trends for VOCs
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, New York



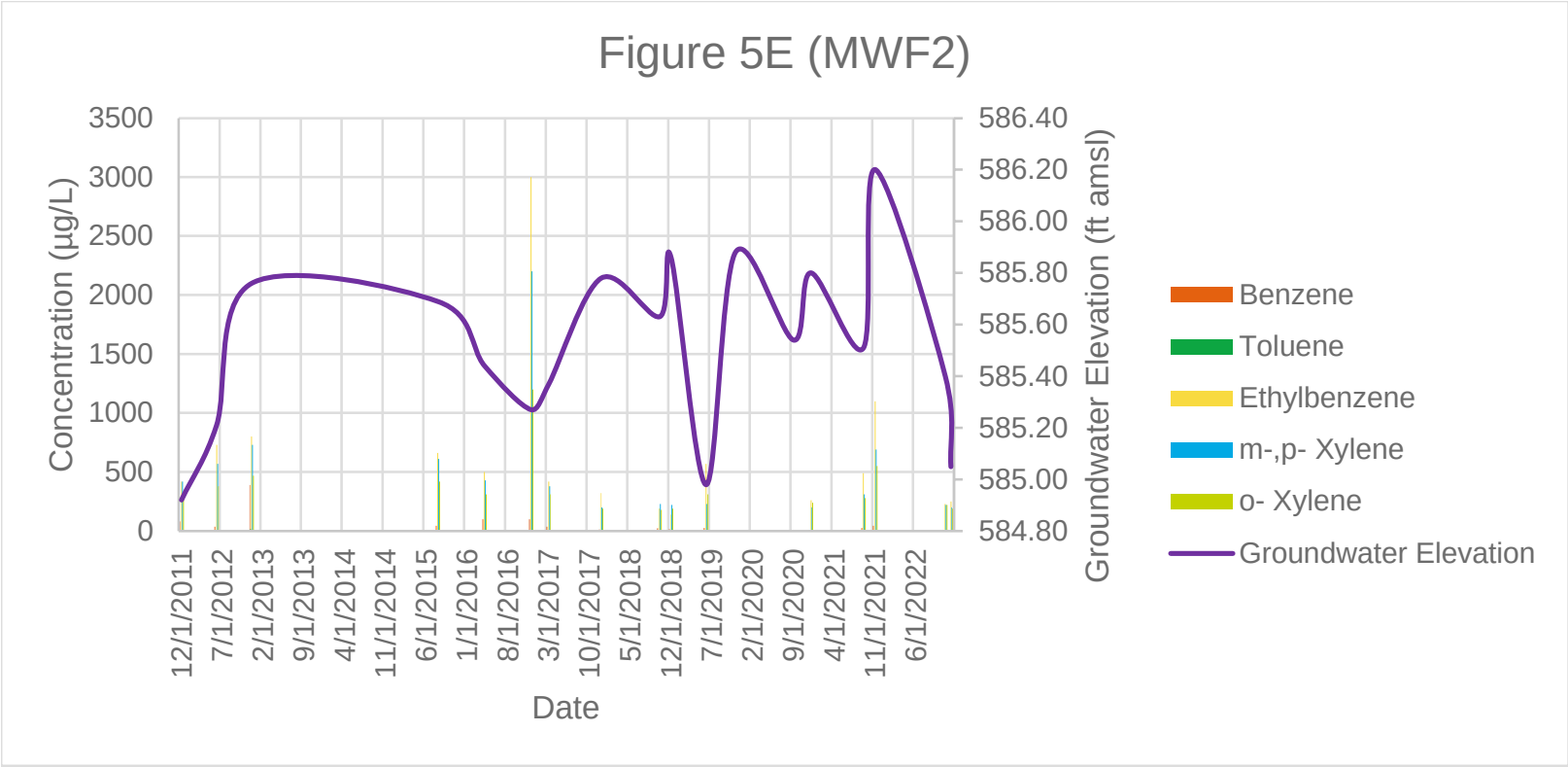
Groundwater Analytical Data Trends for VOCs
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, New York



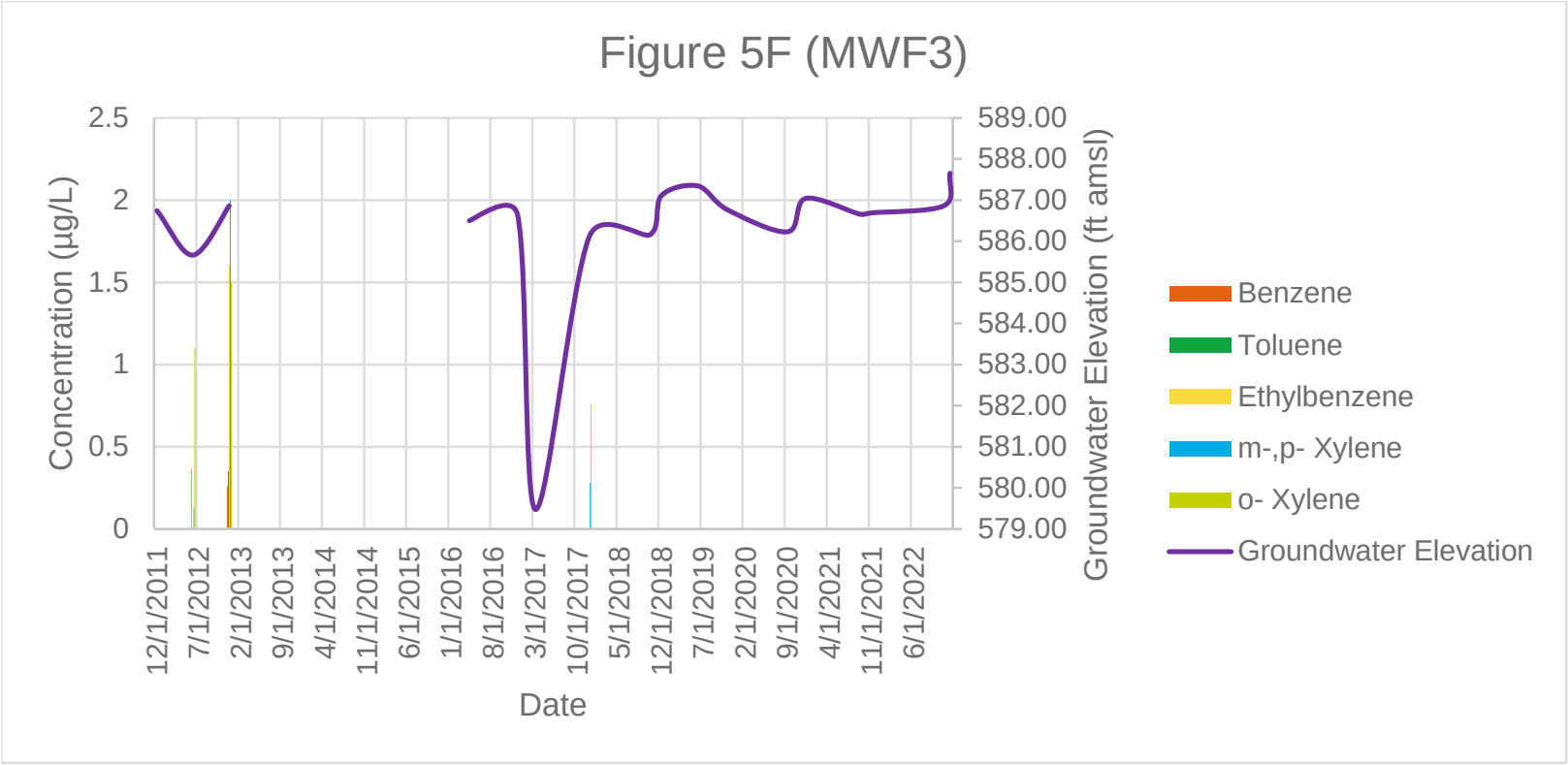
Groundwater Analytical Data Trends for VOCs
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, New York



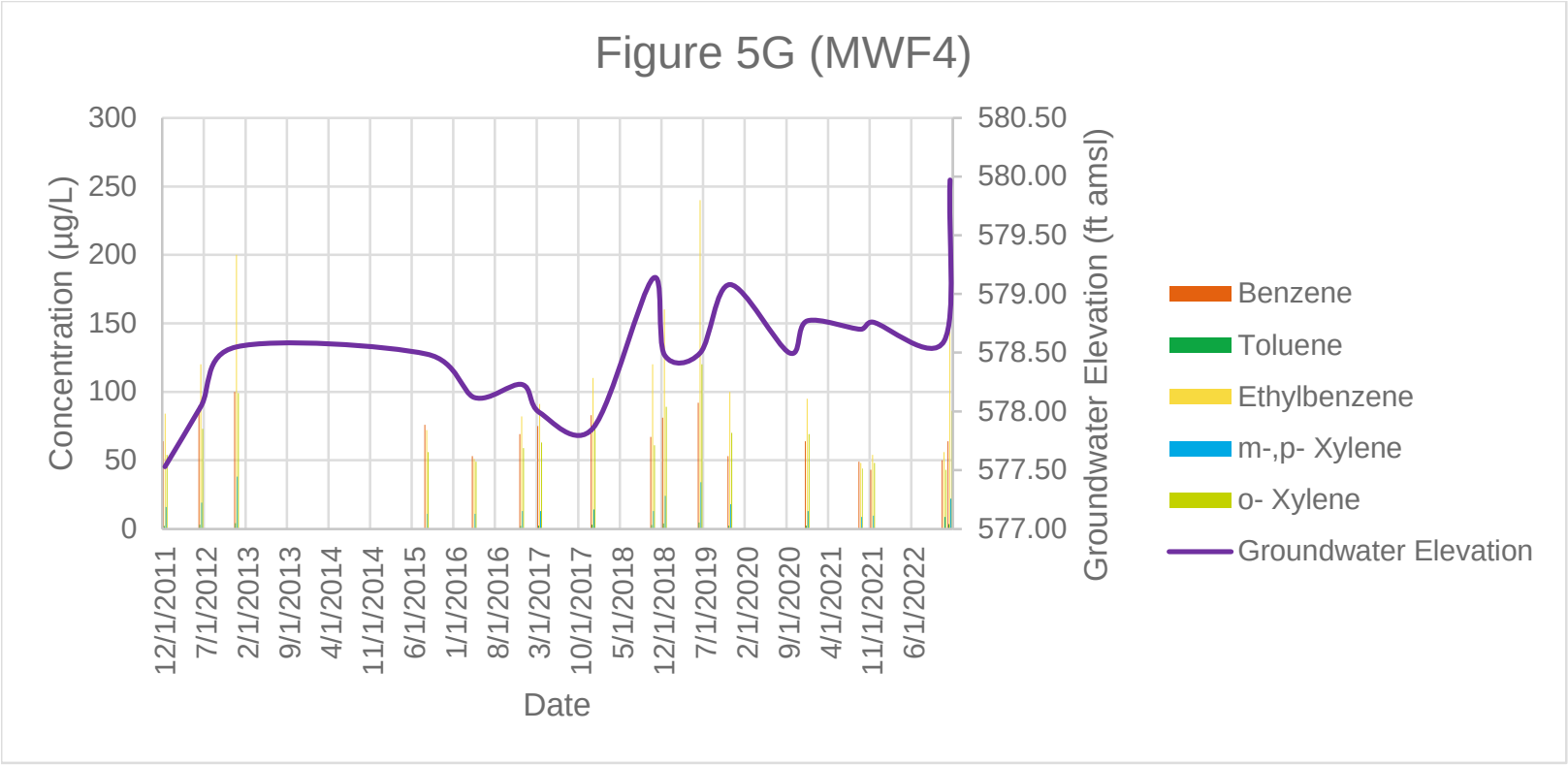
Groundwater Analytical Data Trends for VOCs
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, New York



Groundwater Analytical Data Trends for VOCs
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, New York



Groundwater Analytical Data Trends for VOCs
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, New York



Groundwater Analytical Data Trends for VOCs
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, New York

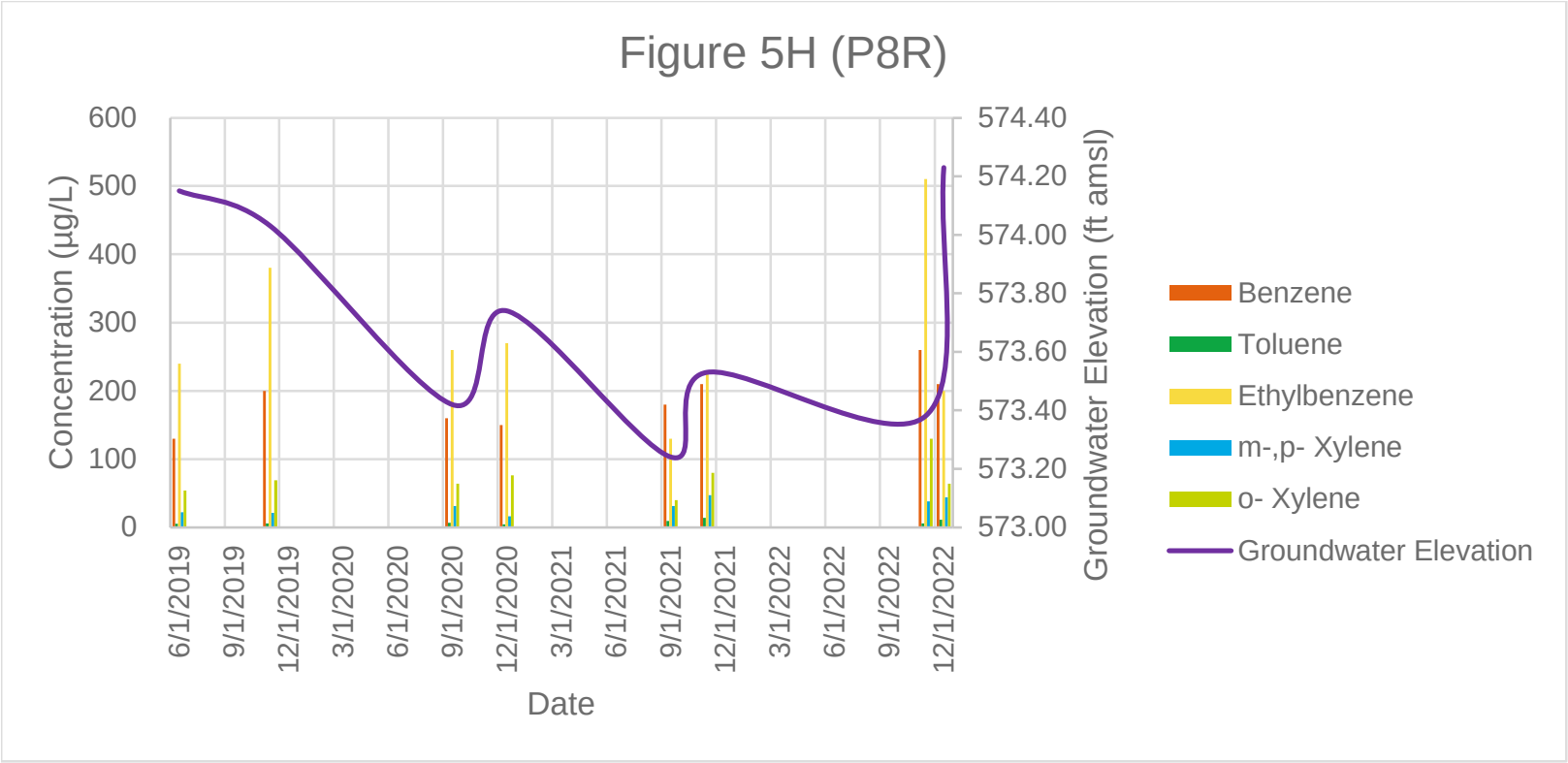
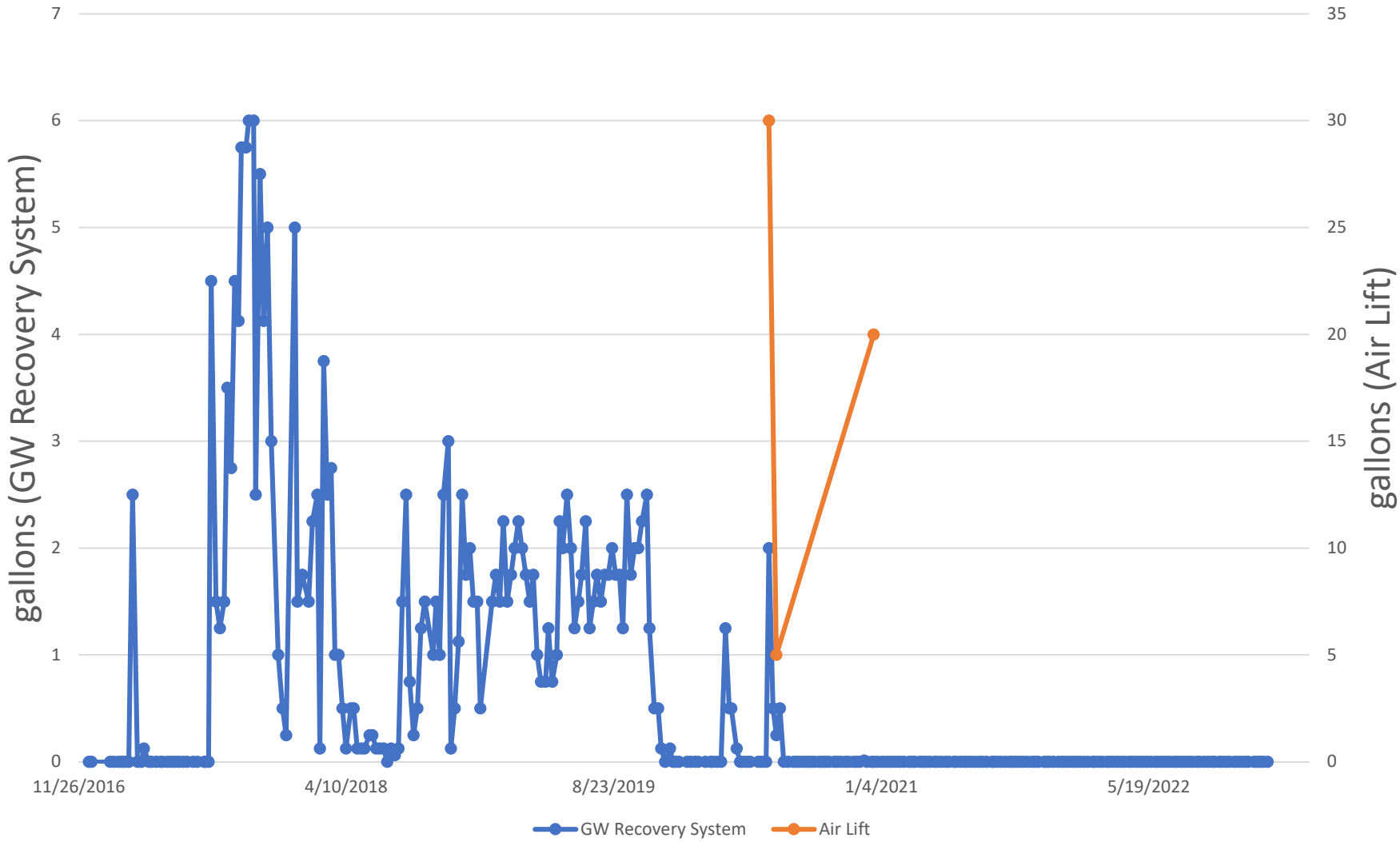


Figure 6
NAPL Recovery
Former Iroquois Gas/Westwood Pharmaceutical Site
120 Dart St. and 40 Bradley St., Buffalo, NY



Attachment 1

Groundwater Purge and Sampling Logs

Former Iroquois Gas/Westwood Pharmaceutical Site
Bristol-Myers Squibb
100 Forest Ave, Buffalo, NY
Weekly Monitoring Data Sheet

Measured By: JT 6/DR **Date:** 11/8/22

Well ID	Time	Total Depth (ft)	Depth To Water (ft)
B6	0911	- 30.65	16.93 sb
B7	0918	- 29.54	17.90 sb
MWF2	0832	- 30.68	9.26 Mb
MWF3	0814	- 19.09	4.80 Mb
MWF4	0841	- 23.31	15.40 fb
MWF5	0845	- 29.55	13.93 Mb
MWS2	0813	- 82.26	11.18 sb
MWS4	0905	- 84.78	12.15 sb
P6	0927	- 30.46	17.25 sb
P7	0916	- 29.81	17.55 sb
P8	0923	- 30.67	17.90 sb
PF3	0901	- 25.33	14.57 Mb
PF4	0855	- 31.51	19.72 sb
TP2	0849	- 23.27	15.99 sb
TP1	0926	- 27.06	17.48 sb
Pumping Sump in Trench	0848	- —	19.17 —

B8R	0852	29.74	18.11 sb
Bridge	0735	—	12.05
B5	0748	12.07	Damaged
PS1	0755	46.71	11.39 sb
MWF1	0757	19.92	8.96 sb
PS2	0805	92.19	13.62 sb
PF6	0829	27.15	6.74 Mb
P2	0909	27.50	16.94 sb
B19	0952	21.85	10.32 Mb
P1	0939	22.22	14.71 sb

ARCADIS Design & Consultancy for natural and built assets

Water Sampling Log

Project: BMS Project No.:

Site Location: Buffalo, NY Date: 11/8/22

Well No.: B8R Replicate No.: Weather: 46°F Sunny

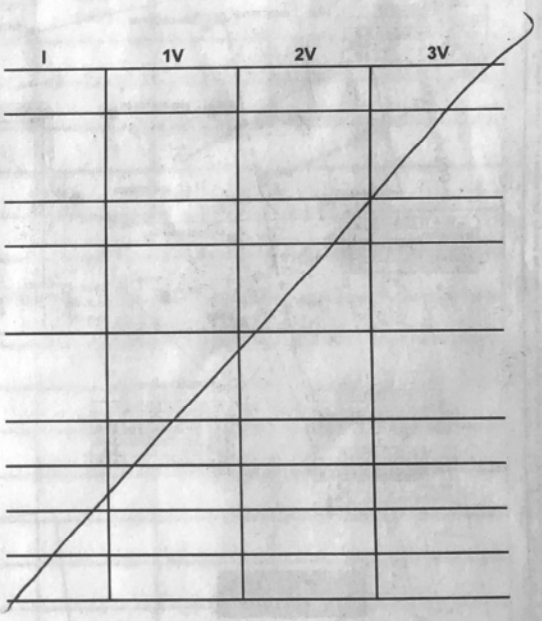
Sampling Personnel: Don Reed Sampling Time: 1131 Begin: 1131 End: 1131

Purge Data

Measuring Point (describe)	Top of Casing
Sounded Well Depth (ft bmp)	29.74
Depth to Water (ft bmp)	18.11
Depth to Packer (ft bmp)	-----
Water Column in Well (ft)	11.63
Casing Diameter	2"
Gallons in Well	1.89
Gallons Purged	5.67
Prior to Sampling	6.00
Pump Intake Setting (ft bmp)	
Packer Pressure (psi)	-----
Pumping Rate (gpm)	
Evacuation Method	BAILER
Sampling Method	"
Purge Time	Begin 1112 End 1128

Field Parameters

Color	Gray
Odor	Yes
Appearance	Cloudy
pH (s.u.)	
Conductivity (mS/cm) or (µmhos/cm) [1]	
Temperature (°C)	
DO (mg/L)	
ORP (mV)	
Turbidity (NTU)	
Time	
DTW (ft bmp)	



Remarks: DTW after purge 18.20
Sampled @ 1131

Parameter	Container	No.	Preservative
BTEX 8260	VOA	3	HCl

PID Reading: N/A

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

ARCADIS
Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project: BMS Buffalo
Project Number: —
Site Location: Buffalo, NY
Well ID: MW-4
Date: 11/8/22
Sampled By: JT6
Sampling Time: 1135
Recorded By: JT6
Weather: 46°F Sunny
Coded Replicate No.: —

Instrument Identification
Water Quality Meter(s): N/A
Serial #: —

Casing Material: PVC
Purge Method: Bailer
Casing Diameter: 2"
Screen Interval (ft bmp) Top: —
Bottom: —
Sounded Depth (ft bmp): 23.31
Pump Intake Depth (ft bmp): —
Depth to Water (ft bmp): 15.40
Purge Time Start: 1111
Finish: 1135

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or mS/cm) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)

Collected Sample Condition
Color: Clear
Odor: YES
Appearance: Clear

Parameter	Container	No.	Preservative
RTEX	VOA	3	HCL

PID Reading: —

Comments: Water Column: 7.91
3 well Vol. 3.86
Final DTW: 15.53

1) Circle one unit type

ARCADIS
Infrastructure, environment, facilities

Low-Flow Groundwater Sampling Log

Project	BMS Buffalo				
Project Number	—	Site Location	—	Well ID	MW-2
Date	11/9/22	Sampled By	JTG		
Sampling Time	0801	Recorded By	JTG		
Weather	36°F sunny	Coded Replicate No.	—		

Instrument Identification

Water Quality Meter(s)	N/A	Serial #	—
Casing Material	PVC	Purge Method	Bailer
Casing Diameter	2"	Screen Interval (ft bmp)	Top — Bottom —
Sounded Depth (ft bmp)	30.68	Pump Intake Depth (ft bmp)	—
Depth to Water (ft bmp)	9.26	~~Purge Time~~ Bail	Start 0725 Finish 0801

Field Parameter Measurements During Purging

Time	Minutes Elasped	Flow Rate (mL/min)	Volume Purged	Temp (°C)	pH (s.u.)	Conductivity (umhos or mS/cm) 1)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Depth to Water (ft bmp)

Collected Sample Condition — Color Clear — Odor yes — Appearance Milky

Parameter	Container	No.	Preservative
BTEX	VOA	3	HCl

PID Reading —

Comments: Water Column: 21.42
3 well vol: 10.5
Final DTW: 23.72

1) Circle one unit type

ARCADIS | Design & Consultancy for natural and built assets

Water Sampling Log

Project: BMS | Project No.:

Site Location: Buffalo NY | Date: 11/9/22

Well No.: MW-3 | Replicate No.: — | Weather: 36°F Sunny

Sampling Personnel: Don Reed | Sampling Time: ~~0801~~ 0805 Begin 0805 | End 0806

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	19.09
Depth to Water (ft bmp)	4.80
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	14.29
Casing Diameter	2"
Gallons in Well	2.32
Gallons Purged	6.96
Prior to Sampling	7.0
Pump Intake	—
Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	—
Evacuation Method	Bailer
Sampling Method	"
Purge Time	Begin 0743 End 0756

Field Parameters

	1	1V	2V	3V
Color	Gray			
Odor	Yes			
Appearance	Cloudy			
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)	–	–	–	–
Time				
DTW (ft bmp)				

Remarks: DTW after purge 7.55
DUP collected

Parameter	Container	No.	Preservative
BTEX 8260	VOA	6 (DUP)	HCl

PID Reading: N/A

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS | Design & Consultancy for natural and built assets

Water Sampling Log

Project: BMS Buffalo | Project No.: —

Site Location: Buffalo, NY | Date: 11/9/22

Well No.: B7R | Replicate No.: — | Weather: 46° & Sunny

Sampling Personnel: JTG | Sampling Time: 0956 Begin: 0954 End: 0956

Purge Data

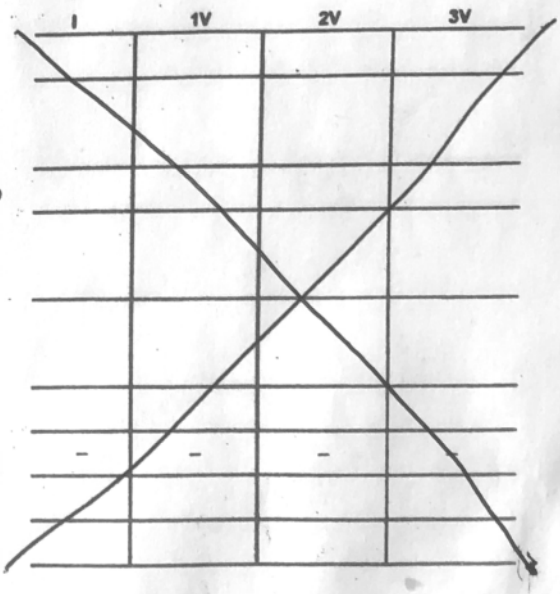
Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	29.54
Depth to Water (ft bmp)	17.90
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	11.64
Casing Diameter	2"
Gallons in Well	1.89
Gallons Purged	5.67
Prior to Sampling	17.97
Pump Intake	—
Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	—
Evacuation Method	Bailer
Sampling Method	Bailer
Purge Time	Begin 0944 End 0954

Field Parameters

Color: Dark Gray

Odor: Yes

Appearance: Very Cloudy



Remarks:

Parameter	Container	No.	Preservative
BTEX	VOA	3	HCl

PID Reading: N/A

Well Casing Volumes

Gal./Ft.				
	1¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 ¼" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS | Design & Consultancy for natural and built assets

Water Sampling Log

Project: BMS | Project No.:

Site Location: Buffalo NY | Date: 11/9/22

Well No.: BGR | Replicate No.: — | Weather: 46°F Sunny

Sampling Personnel: Don Reed | Sampling Time: 1002 Begin 0958 End 1002

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	30.65
Depth to Water (ft bmp)	16.93
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	13.72
Casing Diameter	2"
Gallons in Well	2.23
Gallons Purged	6.69
Prior to Sampling	6.75
Pump Intake	—
Setting (ft bmp)	—
Packer Pressure (psi)	—
Pumping Rate (gpm)	—
Evacuation Method	Bailer
Sampling Method	"
Purge Time	Begin 0940 End 0958

Field Parameters

Color: Gray

Odor: Yes

Appearance: Cloudy

	1	1V	2V	3V
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)	–	–	–	–
Time				
DTW (ft bmp)				

Remarks: DTW after purge 17.33

Parameter	Container	No.	Preservative
BTEX 8260	VOA	3	HCl

PID Reading: N/A

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

ARCADIS | Design & Consultancy for natural and built assets

Water Sampling Log

Project: BMS | Project No.:

Site Location: Buffalo NY | Date: 11/9/22

Well No.: P8R | Replicate No.: — | Weather: 49° Sunny

Sampling Personnel: DON REED | Sampling Time: 1029 | Begin: 1028 | End: 1029

Purge Data

Measuring Point (describe)	TOC
Sounded Well Depth (ft bmp)	30.67
Depth to Water (ft bmp)	17.90
Depth to Packer (ft bmp)	—
Water Column in Well (ft)	12.77
Casing Diameter	2"
Gallons in Well	2.08
Gallons Purged Prior to Sampling	6.24 / 6.25
Pump Intake Setting (ft bmp)	— / —
Packer Pressure (psi)	—
Pumping Rate (gpm)	—
Evacuation Method	Bailer
Sampling Method	"
Purge Time	Begin 1015 End 1028

Field Parameters

Color: Grey

Odor: Yes

Appearance: Cloudy

	1	1V	2V	3V
pH (s.u.)				
Conductivity (mS/cm) or (µmhos/cm) [1]				
Temperature (°C)				
DO (mg/L)				
ORP (mV)				
Turbidity (NTU)	–	–	–	–
Time				
DTW (ft bmp)				

Remarks: DTW After purge 21.20

Parameter	Container	No.	Preservative
BTEX 8260	VOA	3	HCl

PID Reading: N/A

Well Casing Volumes

Gal./Ft.				
	1 1/4" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
	1 1/2" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

1) Circle one unit type

Former Iroquois Gas/Westwood Pharmaceutical Site
Bristol-Myers Squibb
100 Forest Ave, Buffalo, NY
Weekly Monitoring Data Sheet

Measured By: DR Date: 12/7/2022

Well ID	Time	Total Depth (ft)	Depth To Water (ft)	
B6	0930	- 30.64	16.88	SB
B7	0945	- 29.50	17.40	SB
MWF2	1220	- 30.15	9.61	HB
MWF3	1245	- 19.07	4.01	MB
MWF4	1125	- 23.32	14.03	HB
MWF5	1130	- 29.55	12.65	MB
MWS2	1250	- 82.26	10.53	SB
MWS4	1040	- 84.78	11.47	SB
P6	1000	- 30.46	17.36	SB
P7	0935	- 29.80	17.15	SB
P8	0950	- 30.60	17.05	SB
PF3	1100	- 25.32	14.45	MB
PF4	1156	- 31.51	17.92	SB
TP2	1140	- 23.25	15.30	SB
TP1	0955	- 27.06	16.94	SB
Pumping Sump in Trench	1404	-	19.20	—
B19	1025	29.75	10.28	
MWF1	1325	~~19.92~~	10.42	
B8	1145	~~29.74~~	17.51	
P1	1015	~~22.12~~	14.59	
P2	0920	~~27.50~~	16.81	
PF6	1230	27.14	6.11	
PS1	1330	~~46.70~~	10.34	
PS2	1305	~~92.19~~	12.19	
Bridge	1355	22.21	12.15	

DEC 2022

Site | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ~~Jason Gutkowski~~ DON REED | **Well ID:** MWF2
Client / Job Number: Ashland LLC | **Date:** 12/8/2022
Weather: 41°F Overcast | **Time In:** 1510 **Time Out:** 1547

Well Information

Depth to Water:	(feet)	9.61	(from MP)
Total Depth:	(feet)	30.15	(from MP)
Length of Water Column:	(feet)	20.54	
Volume of Water in Well:	(gal)	3.348	
Intake depth for tubing:	(feet)	—	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	2" (circled)	Other:	

Purging Information

Purging Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☒	Other:		
Sampling Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Pump Start Time:	—					
Pump Stop Time:	—	Water-Quality Meter Type:				
Total Volume Removed:	(gal) 10.0	Did well go dry:	Yes ☐	No ☒		

Conversion Factors

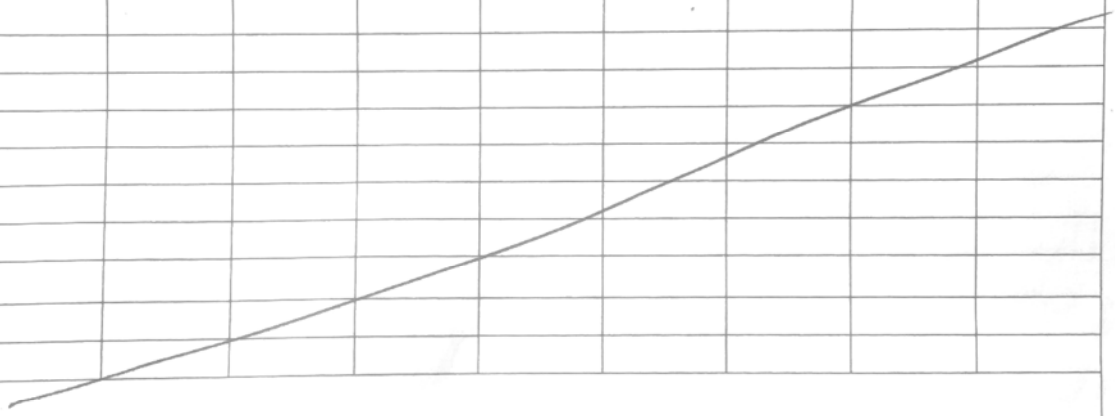
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									



Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica

Color: brown
Odor: yes
Appearance: cloudy, NAPL
Sample ID: MWF2 Sample Time: 1547
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By: DON REED

Problems / Observations

DEC 2022

Site | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ~~Jason Gutkowski~~ DON REED
Well ID: P8R
Client / Job Number: Ashland LLC
Date: 12/8/2022
Weather: 41°F Overcast
Time In: 12:18 Time Out: 12:40

Well Information

Depth to Water:	(feet)	17.05	(from MP)
Total Depth:	(feet)	30.60	(from MP)
Length of Water Column:	(feet)	13.55	
Volume of Water in Well:	(gal)	2.209	
Intake depth for tubing:	(feet)	—	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☒	Other:		
Sampling Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Pump Start Time:	—					
Pump Stop Time:	—	Water-Quality Meter Type:				
Total Volume Removed:	(gal) 6.6	Did well go dry:	Yes ☐	No ☒		

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica

Color: gray
Odor: yes
Appearance: cloudy
Sample ID: P8R Sample Time:
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By: DON REED

Problems / Observations

DEC 2022

Site | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ~~Jason Gutkowski~~ DON REED | **Well ID:** BBR
Client / Job Number: Ashland LLC | **Date:** 12/8/2022
Weather: 41°F Partly Sunny | **Time In:** 1304 **Time Out:** 1340

Well Information

Depth to Water:	(feet)	17.51	(from MP)
Total Depth:	(feet)	29.75	(from MP)
Length of Water Column:	(feet)	12.24	
Volume of Water in Well:	(gal)	1.995	
Intake depth for tubing:	(feet)	—	

Well Type:	Flushmount ☐		Stick-Up ☒		
Well Material:	Stainless Steel ☐		PVC ☒		
Well Locked:	Yes ☒		No ☐		
Measuring Point Marked:	Yes ☒		No ☐		
Well Diameter:	1"	(2")	Other:		

Purging Information

Purging Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☒	Other:			
Sampling Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:			
Pump Start Time:	—						
Pump Stop Time:	—	Water-Quality Meter Type:					
Total Volume Removed:	(gal) 6.0	Did well go dry:	Yes ☐	No ☒			

Conversion Factors

gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica

Color: gray
Odor: yes
Appearance: cloudy
Sample ID: BBR Sample Time: 1340
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☒ No ☐
Duplicate ID DUP Dup. Time: 1340
Chain of Custody Signed By: DON REED

Problems / Observations

DEC 2022

Site | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ~~Jason Gutkowski~~ DON REED
Client / Job Number: Ashland LLC
Weather: 43°F Overcast

Well ID: MWF3
Date: 12/8/2022
Time In: 1440 Time Out: 1503

Well Information

Depth to Water:	(feet)	~~FF~~ 4.01	(from MP)
Total Depth:	(feet)	19.07	(from MP)
Length of Water Column:	(feet)	15.06	
Volume of Water in Well:	(gal)	2.455	
Intake depth for tubing:	(feet)	—	

Well Type:	Flushmount ☒	Stick-Up ☐		
Well Material:	Stainless Steel ☒	PVC ☐		
Well Locked:	Yes ☒	No ☐		
Measuring Point Marked:	Yes ☒	No ☐		
Well Diameter:	1"	(2")	Other:	

Purging Information

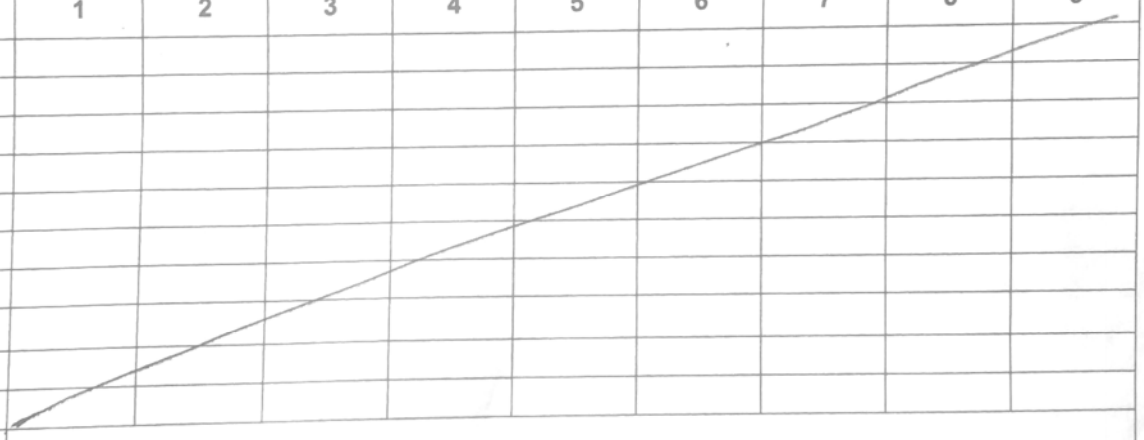
Purging Method:	Bailer	☒	Peristaltic	☐	Monsoon	☐	Other:
Tubing/Bailer Material:	Steel	☐	Polyethylene	☐	Teflon	☒	Other:
Sampling Method:	Bailer	☒	Peristaltic	☐	Monsoon	☐	Other:

Pump Start Time: —
Pump Stop Time: —
Water-Quality Meter Type:
Total Volume Removed: (gal) 7.4
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									



Problems / Observations

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica

Color: gray
Odor: yes
Appearance: cloudy
Sample ID: MWF3 Sample Time: 1503
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By: Don Reed

DEC 2022

Site | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ~~Jason Gutkowski~~ DON REED | Well ID: MWF4
Client / Job Number: Ashland LLC | Date: 12/8/2022
Weather: 41°F Partly Sunny | Time In: 13:45 Time Out: 14:07

Well Information

Depth to Water:	(feet)	14.03	(from MP)
Total Depth:	(feet)	23.32	(from MP)
Length of Water Column:	(feet)	9.29	
Volume of Water in Well:	(gal)	1.514	
Intake depth for tubing:	(feet)	—	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2)	Other:	

Purging Information

Purging Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☒	Other:		
Sampling Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Pump Start Time:	—					
Pump Stop Time:	—	Water-Quality Meter Type:				
Total Volume Removed:	(gal) 4.5	Did well go dry:	Yes ☐	No ☒		

Conversion Factors

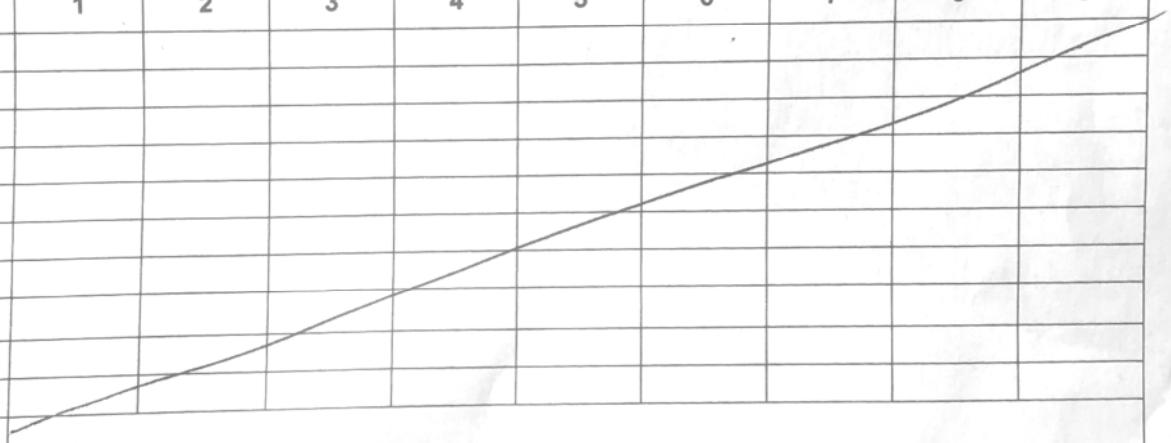
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									



Problems / Observations

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica

Color: gray
Odor: yes
Appearance: cloudy
Sample ID: MWF4 Sample Time: 1345
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By: DON REED

DEC 2022

Site | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ~~Jason Gutkowski~~ DON REED | **Well ID:** B6R
Client / Job Number: Ashland LLC | **Date:** 12/8/2022
Weather: 43°F Overcast | **Time In:** 1055 **Time Out:** 1116

Well Information

Depth to Water:	(feet)	16.88	(from MP)
Total Depth:	(feet)	30.64	(from MP)
Length of Water Column:	(feet)	13.76	
Volume of Water in Well:	(gal)	2.243	
Intake depth for tubing:	(feet)	—	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:			
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☒	Other:			
Sampling Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:			

Pump Start Time: —
Pump Stop Time: —
Water-Quality Meter Type:
Total Volume Removed: ~~7~~ (gal) 6.7
Did well go dry: Yes ☐ No ☒

Conversion Factors				
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469
1 gal = 3.785 L =3785 ml = 0.1337 cubic feet				

Unit Stability			
pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									

Problems / Observations

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica

Color: gray/brown
Odor: yes
Appearance: cloudy
Sample ID: B6R Sample Time: 1116
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By: DON REED

DEC 2022

Site | Event

GROUNDWATER SAMPLING LOG

Sampling Personnel: ~~Jason Gutkowski~~ DON REED
Well ID: B7R
Client / Job Number: Ashland LLC
Date: 12/8/2022
Weather: 43°F Overcast
Time In: 1125 Time Out: 1142

Well Information

Depth to Water:	(feet)	17.40	(from MP)
Total Depth:	(feet)	29.50	(from MP)
Length of Water Column:	(feet)	12.10	
Volume of Water in Well:	(gal)	1.972	
Intake depth for tubing:	(feet)	—	

Well Type:	Flushmount ☐		Stick-Up ☒	
Well Material:	Stainless Steel ☐		PVC ☒	
Well Locked:	Yes ☒		No ☐	
Measuring Point Marked:	Yes ☒		No ☐	
Well Diameter:	1"	(2")	Other:	

Purging Information

Purging Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Tubing/Bailer Material:	Steel ☐	Polyethylene ☐	Teflon ☒	Other:		
Sampling Method:	Bailer ☒	Peristaltic ☐	Monsoon ☐	Other:		
Pump Start Time: —						
Pump Stop Time: —	Water-Quality Meter Type:					
Total Volume Removed:	(gal) 5.9	Did well go dry:	Yes ☐	No ☒		

Conversion Factors

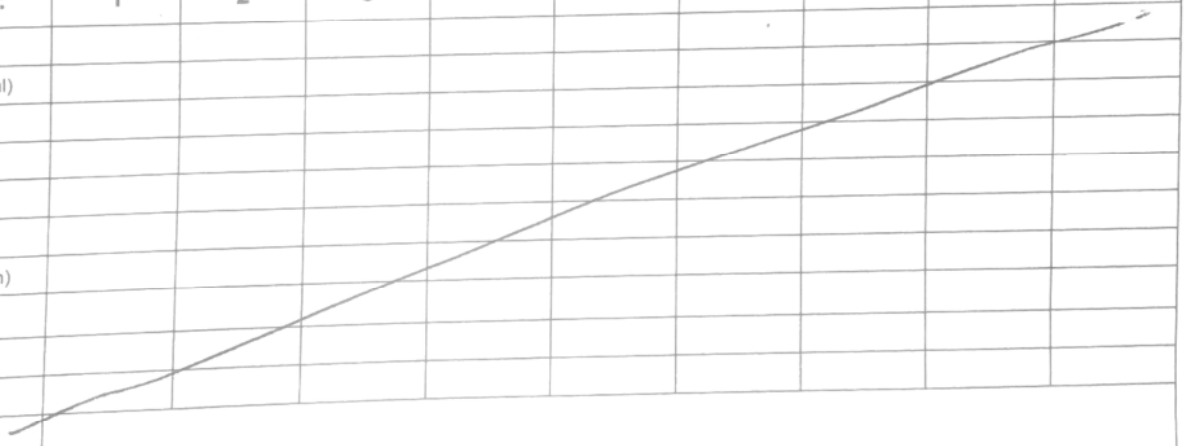
gal / ft. of water	1" ID	2" ID	4" ID	6" ID
	0.041	0.163	0.653	1.469

1 gal = 3.785 L =3785 ml = 0.1337 cubic feet

Unit Stability

pH	DO / Turb	Cond. /Temp	ORP
∀ 0.1	∀ 10%	∀ 3.0%	∀ 10 mV

Parameter:	1	2	3	4	5	6	7	8	9
Time									
Volume Purged (Gal)									
Rate (mL/min)									
Depth to Water (ft.)									
pH									
Temp. (C)									
Conductivity (mS/cm)									
Dissolved Oxygen (mg/L)									
ORP (mV)									
Turbidity (NTU)									
Notes:									



Problems / Observations

Sampling Information

Analyses	#	n	Laboratory
8260C VOCs	3		TestAmerica

Color: gray
Odor: yes
Appearance: cloudy
Sample ID: B7R Sample Time: 1142
MS/MSD: Yes ☐ No ☒
Duplicate: Yes ☐ No ☒
Duplicate ID Dup. Time:
Chain of Custody Signed By: DON REED

Attachment 2

Laboratory Reports

eurofins | Environment Testing

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/18/2022 5:07:12 PM

JOB DESCRIPTION

Iroquois Gas/Westwood Pharm.

JOB NUMBER

480-203754-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

my EOL

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-203754-1
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: 480-203754-1
Project/Site: Iroquois Gas/Westwood Pharm.

Job ID: 480-203754-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-203754-1

Comments
No additional comments.

Receipt
The samples were received on 11/9/2022 11:35 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 5.2º C.

GC/MS VOA
Method 8260C: The following samples were diluted due to the abundance of non-target analytes: B8R (480-203754-3) and MWF4 (480-203754-6). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted due to the abundance of non-target analytes: MWF2 (480-203754-4), (480-203754-A-4 MS) and (480-203754-A-4 MSD). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: B7R (480-203754-2), MWF3 (480-203754-5) and DUP (480-203754-8). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: P8R (480-203754-7). Elevated reporting limits (RLs) are provided.

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

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-203754-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: B6R — Lab Sample ID: 480-203754-1

No Detections.

Client Sample ID: B7R — Lab Sample ID: 480-203754-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	29		2.0	0.82	ug/L	2		8260C	Total/NA
Total BTEX	29		4.0	2.0	ug/L	2		8260C	Total/NA

Client Sample ID: B8R — Lab Sample ID: 480-203754-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	480		20	8.2	ug/L	20		8260C	Total/NA
Ethylbenzene	240		20	15	ug/L	20		8260C	Total/NA
m-Xylene & p-Xylene	29	J	40	13	ug/L	20		8260C	Total/NA
o-Xylene	62		20	15	ug/L	20		8260C	Total/NA
Xylenes, Total	91		40	13	ug/L	20		8260C	Total/NA
Total BTEX	810		40	20	ug/L	20		8260C	Total/NA

Client Sample ID: MWF2 — Lab Sample ID: 480-203754-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	10	J	25	10	ug/L	25		8260C	Total/NA
Ethylbenzene	230		25	19	ug/L	25		8260C	Total/NA
m-Xylene & p-Xylene	200		50	17	ug/L	25		8260C	Total/NA
o-Xylene	220		25	19	ug/L	25		8260C	Total/NA
Xylenes, Total	420		50	17	ug/L	25		8260C	Total/NA
Total BTEX	660		50	25	ug/L	25		8260C	Total/NA

Client Sample ID: MWF3 — Lab Sample ID: 480-203754-5

No Detections.

Client Sample ID: MWF4 — Lab Sample ID: 480-203754-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	50		4.0	1.6	ug/L	4		8260C	Total/NA
Ethylbenzene	56		4.0	3.0	ug/L	4		8260C	Total/NA
m-Xylene & p-Xylene	8.7		8.0	2.6	ug/L	4		8260C	Total/NA
o-Xylene	43		4.0	3.0	ug/L	4		8260C	Total/NA
Xylenes, Total	52		8.0	2.6	ug/L	4		8260C	Total/NA
Total BTEX	160		8.0	4.0	ug/L	4		8260C	Total/NA

Client Sample ID: P8R — Lab Sample ID: 480-203754-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	260		10	4.1	ug/L	10		8260C	Total/NA
Toluene	5.9	J	10	5.1	ug/L	10		8260C	Total/NA
Ethylbenzene	510		10	7.4	ug/L	10		8260C	Total/NA
m-Xylene & p-Xylene	38		20	6.6	ug/L	10		8260C	Total/NA
o-Xylene	130		10	7.6	ug/L	10		8260C	Total/NA
Xylenes, Total	170		20	6.6	ug/L	10		8260C	Total/NA
Total BTEX	940		20	10	ug/L	10		8260C	Total/NA

Client Sample ID: DUP — Lab Sample ID: 480-203754-8

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: B6R
Lab Sample ID: 480-203754-1
Date Collected: 11/09/22 10:02
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/15/22 00:25	1
Toluene	ND		1.0	0.51	ug/L			11/15/22 00:25	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/15/22 00:25	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/15/22 00:25	1
o-Xylene	ND		1.0	0.76	ug/L			11/15/22 00:25	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/15/22 00:25	1
Total BTEX	ND		2.0	1.0	ug/L			11/15/22 00:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/15/22 00:25*	*1*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*11/15/22 00:25*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/15/22 00:25*	*1*
Dibromofluoromethane (Surr)	*103*		*75 - 123*		*11/15/22 00:25*	*1*

Client Sample ID: B7R
Lab Sample ID: 480-203754-2
Date Collected: 11/09/22 09:56
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**29**		2.0	0.82	ug/L			11/15/22 00:47	2
Toluene	ND		2.0	1.0	ug/L			11/15/22 00:47	2
Ethylbenzene	ND		2.0	1.5	ug/L			11/15/22 00:47	2
m-Xylene & p-Xylene	ND		4.0	1.3	ug/L			11/15/22 00:47	2
o-Xylene	ND		2.0	1.5	ug/L			11/15/22 00:47	2
Xylenes, Total	ND		4.0	1.3	ug/L			11/15/22 00:47	2
Total BTEX	**29**		4.0	2.0	ug/L			11/15/22 00:47	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/15/22 00:47*	*2*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*11/15/22 00:47*	*2*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*11/15/22 00:47*	*2*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*11/15/22 00:47*	*2*

Client Sample ID: B8R
Lab Sample ID: 480-203754-3
Date Collected: 11/08/22 11:31
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**480**		20	8.2	ug/L			11/12/22 17:56	20
Toluene	ND		20	10	ug/L			11/12/22 17:56	20
Ethylbenzene	**240**		20	15	ug/L			11/12/22 17:56	20
m-Xylene & p-Xylene	**29**	**J**	40	13	ug/L			11/12/22 17:56	20
o-Xylene	**62**		20	15	ug/L			11/12/22 17:56	20
Xylenes, Total	**91**		40	13	ug/L			11/12/22 17:56	20
Total BTEX	**810**		40	20	ug/L			11/12/22 17:56	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*80 - 120*		*11/12/22 17:56*	*20*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*		*11/12/22 17:56*	*20*

Client Sample ID: B8R
Lab Sample ID: 480-203754-3
Date Collected: 11/08/22 11:31
Matrix: Water
Date Received: 11/09/22 11:35

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*11/12/22 17:56*	*20*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*11/12/22 17:56*	*20*

Client Sample ID: MWF2
Lab Sample ID: 480-203754-4
Date Collected: 11/09/22 08:01
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**10**	**J**	25	10	ug/L			11/15/22 01:08	25
Toluene	ND		25	13	ug/L			11/15/22 01:08	25
Ethylbenzene	**230**		25	19	ug/L			11/15/22 01:08	25
m-Xylene & p-Xylene	**200**		50	17	ug/L			11/15/22 01:08	25
o-Xylene	**220**		25	19	ug/L			11/15/22 01:08	25
Xylenes, Total	**420**		50	17	ug/L			11/15/22 01:08	25
Total BTEX	**660**		50	25	ug/L			11/15/22 01:08	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*		*11/15/22 01:08*	*25*
1,2-Dichloroethane-d4 (Surr)	*104*		*77 - 120*		*11/15/22 01:08*	*25*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*		*11/15/22 01:08*	*25*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*11/15/22 01:08*	*25*

Client Sample ID: MWF3
Lab Sample ID: 480-203754-5
Date Collected: 11/09/22 08:05
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.0	1.6	ug/L			11/15/22 01:30	4
Toluene	ND		4.0	2.0	ug/L			11/15/22 01:30	4
Ethylbenzene	ND		4.0	3.0	ug/L			11/15/22 01:30	4
m-Xylene & p-Xylene	ND		8.0	2.6	ug/L			11/15/22 01:30	4
o-Xylene	ND		4.0	3.0	ug/L			11/15/22 01:30	4
Xylenes, Total	ND		8.0	2.6	ug/L			11/15/22 01:30	4
Total BTEX	ND		8.0	4.0	ug/L			11/15/22 01:30	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/15/22 01:30*	*4*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*11/15/22 01:30*	*4*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/15/22 01:30*	*4*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*11/15/22 01:30*	*4*

Client Sample ID: MWF4
Lab Sample ID: 480-203754-6
Date Collected: 11/08/22 11:35
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**50**		4.0	1.6	ug/L			11/12/22 18:19	4
Toluene	ND		4.0	2.0	ug/L			11/12/22 18:19	4

Client Sample ID: MWF4
Lab Sample ID: 480-203754-6
Date Collected: 11/08/22 11:35
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	56		4.0	3.0	ug/L			11/12/22 18:19	4
m-Xylene & p-Xylene	8.7		8.0	2.6	ug/L			11/12/22 18:19	4
o-Xylene	43		4.0	3.0	ug/L			11/12/22 18:19	4
Xylenes, Total	52		8.0	2.6	ug/L			11/12/22 18:19	4
Total BTEX	160		8.0	4.0	ug/L			11/12/22 18:19	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*80 - 120*		*11/12/22 18:19*	*4*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*11/12/22 18:19*	*4*
4-Bromofluorobenzene (Surr)	*91*		*73 - 120*		*11/12/22 18:19*	*4*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*11/12/22 18:19*	*4*

Client Sample ID: P8R
Lab Sample ID: 480-203754-7
Date Collected: 11/09/22 10:29
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	260		10	4.1	ug/L			11/16/22 11:24	10
Toluene	5.9	J	10	5.1	ug/L			11/16/22 11:24	10
Ethylbenzene	510		10	7.4	ug/L			11/16/22 11:24	10
m-Xylene & p-Xylene	38		20	6.6	ug/L			11/16/22 11:24	10
o-Xylene	130		10	7.6	ug/L			11/16/22 11:24	10
Xylenes, Total	170		20	6.6	ug/L			11/16/22 11:24	10
Total BTEX	940		20	10	ug/L			11/16/22 11:24	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/16/22 11:24*	*10*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*11/16/22 11:24*	*10*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*11/16/22 11:24*	*10*
Dibromofluoromethane (Surr)	*94*		*75 - 123*		*11/16/22 11:24*	*10*

Client Sample ID: DUP
Lab Sample ID: 480-203754-8
Date Collected: 11/09/22 00:00
Matrix: Water
Date Received: 11/09/22 11:35

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.0	1.6	ug/L			11/15/22 02:14	4
Toluene	ND		4.0	2.0	ug/L			11/15/22 02:14	4
Ethylbenzene	ND		4.0	3.0	ug/L			11/15/22 02:14	4
m-Xylene & p-Xylene	ND		8.0	2.6	ug/L			11/15/22 02:14	4
o-Xylene	ND		4.0	3.0	ug/L			11/15/22 02:14	4
Xylenes, Total	ND		8.0	2.6	ug/L			11/15/22 02:14	4
Total BTEX	ND		8.0	4.0	ug/L			11/15/22 02:14	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*97*		*80 - 120*		*11/15/22 02:14*	*4*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*11/15/22 02:14*	*4*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*11/15/22 02:14*	*4*
Dibromofluoromethane (Surr)	*101*		*75 - 123*		*11/15/22 02:14*	*4*

Surrogate Summary

Client: ARCADIS U.S. Inc
Job ID: 480-203754-1
Project/Site: Iroquois Gas/Westwood Pharm.

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

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-203754-1	B6R	97	104	99	103
480-203754-2	B7R	97	106	99	101
480-203754-3	B8R	89	93	93	98
480-203754-4	MWF2	102	104	98	104
480-203754-4 MS	MWF2	102	100	97	101
480-203754-4 MSD	MWF2	102	101	96	101
480-203754-5	MWF3	97	103	100	102
480-203754-6	MWF4	89	94	91	96
480-203754-7	P8R	98	109	97	94
480-203754-8	DUP	97	102	100	101
LCS 480-649642/5	Lab Control Sample	93	89	93	95
LCS 480-649857/6	Lab Control Sample	102	103	97	103
LCS 480-650155/5	Lab Control Sample	99	107	102	105
MB 480-649642/7	Method Blank	89	95	89	98
MB 480-649857/8	Method Blank	98	103	99	102
MB 480-650155/7	Method Blank	100	111	95	97

Surrogate Legend

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

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

Lab Sample ID: MB 480-649642/7
Matrix: Water
Analysis Batch: 649642

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/12/22 10:13	1
Toluene	ND		1.0	0.51	ug/L			11/12/22 10:13	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/12/22 10:13	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/12/22 10:13	1
o-Xylene	ND		1.0	0.76	ug/L			11/12/22 10:13	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/12/22 10:13	1
Total BTEX	ND		2.0	1.0	ug/L			11/12/22 10:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*80 - 120*		*11/12/22 10:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*11/12/22 10:13*	*1*
4-Bromofluorobenzene (Surr)	*89*		*73 - 120*		*11/12/22 10:13*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*11/12/22 10:13*	*1*

Lab Sample ID: LCS 480-649642/5
Matrix: Water
Analysis Batch: 649642

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	25.0	25.8		ug/L		103	71 - 124
Toluene	25.0	25.4		ug/L		102	80 - 122
Ethylbenzene	25.0	25.2		ug/L		101	77 - 123
m-Xylene & p-Xylene	25.0	26.0		ug/L		104	76 - 122
o-Xylene	25.0	24.6		ug/L		98	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*93*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*89*		*77 - 120*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*
Dibromofluoromethane (Surr)	*95*		*75 - 123*

Lab Sample ID: MB 480-649857/8
Matrix: Water
Analysis Batch: 649857

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/15/22 00:03	1
Toluene	ND		1.0	0.51	ug/L			11/15/22 00:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/15/22 00:03	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/15/22 00:03	1
o-Xylene	ND		1.0	0.76	ug/L			11/15/22 00:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/15/22 00:03	1
Total BTEX	ND		2.0	1.0	ug/L			11/15/22 00:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*98*		*80 - 120*		*11/15/22 00:03*	*1*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 120*		*11/15/22 00:03*	*1*

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

Lab Sample ID: MB 480-649857/8
Matrix: Water
Analysis Batch: 649857

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		73 - 120		11/15/22 00:03	1
Dibromofluoromethane (Surr)	102		75 - 123		11/15/22 00:03	1

Lab Sample ID: LCS 480-649857/6
Matrix: Water
Analysis Batch: 649857

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	25.0	25.2		ug/L		101	71 - 124
Toluene	25.0	24.9		ug/L		100	80 - 122
Ethylbenzene	25.0	25.0		ug/L		100	77 - 123
m-Xylene & p-Xylene	25.0	25.4		ug/L		102	76 - 122
o-Xylene	25.0	25.2		ug/L		101	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	97		73 - 120
Dibromofluoromethane (Surr)	103		75 - 123

Lab Sample ID: 480-203754-4 MS
Matrix: Water
Analysis Batch: 649857

Client Sample ID: MWF2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	10	J	625	610		ug/L		96	71 - 124
Toluene	ND		625	613		ug/L		98	80 - 122
Ethylbenzene	230		625	802		ug/L		92	77 - 123
m-Xylene & p-Xylene	200		625	775		ug/L		92	76 - 122
o-Xylene	220		625	806		ug/L		94	76 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	102		80 - 120
1,2-Dichloroethane-d4 (Surr)	100		77 - 120
4-Bromofluorobenzene (Surr)	97		73 - 120
Dibromofluoromethane (Surr)	101		75 - 123

Lab Sample ID: 480-203754-4 MSD
Matrix: Water
Analysis Batch: 649857

Client Sample ID: MWF2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	10	J	625	639		ug/L		101	71 - 124	5	13
Toluene	ND		625	640		ug/L		102	80 - 122	4	15
Ethylbenzene	230		625	828		ug/L		96	77 - 123	3	15
m-Xylene & p-Xylene	200		625	819		ug/L		99	76 - 122	6	16
o-Xylene	220		625	838		ug/L		99	76 - 122	4	16

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

Lab Sample ID: 480-203754-4 MSD
Matrix: Water
Analysis Batch: 649857

Client Sample ID: MWF2
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	*102*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 120*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*

Lab Sample ID: MB 480-650155/7
Matrix: Water
Analysis Batch: 650155

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			11/16/22 10:24	1
Toluene	ND		1.0	0.51	ug/L			11/16/22 10:24	1
Ethylbenzene	ND		1.0	0.74	ug/L			11/16/22 10:24	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			11/16/22 10:24	1
o-Xylene	ND		1.0	0.76	ug/L			11/16/22 10:24	1
Xylenes, Total	ND		2.0	0.66	ug/L			11/16/22 10:24	1
Total BTEX	ND		2.0	1.0	ug/L			11/16/22 10:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/16/22 10:24*	*1*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*		*11/16/22 10:24*	*1*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*11/16/22 10:24*	*1*
Dibromofluoromethane (Surr)	*97*		*75 - 123*		*11/16/22 10:24*	*1*

Lab Sample ID: LCS 480-650155/5
Matrix: Water
Analysis Batch: 650155

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	25.0	24.4		ug/L		98	71 - 124
Toluene	25.0	22.9		ug/L		91	80 - 122
Ethylbenzene	25.0	23.5		ug/L		94	77 - 123
m-Xylene & p-Xylene	25.0	24.0		ug/L		96	76 - 122
o-Xylene	25.0	23.7		ug/L		95	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	*99*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 120*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*
Dibromofluoromethane (Surr)	*105*		*75 - 123*

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-203754-1
Project/Site: Iroquois Gas/Westwood Pharm.

GC/MS VOA

Analysis Batch: 649642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-203754-3	B8R	Total/NA	Water	8260C	
480-203754-6	MWF4	Total/NA	Water	8260C	
MB 480-649642/7	Method Blank	Total/NA	Water	8260C	
LCS 480-649642/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 649857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-203754-1	B6R	Total/NA	Water	8260C	
480-203754-2	B7R	Total/NA	Water	8260C	
480-203754-4	MWF2	Total/NA	Water	8260C	
480-203754-5	MWF3	Total/NA	Water	8260C	
480-203754-8	DUP	Total/NA	Water	8260C	
MB 480-649857/8	Method Blank	Total/NA	Water	8260C	
LCS 480-649857/6	Lab Control Sample	Total/NA	Water	8260C	
480-203754-4 MS	MWF2	Total/NA	Water	8260C	
480-203754-4 MSD	MWF2	Total/NA	Water	8260C	

Analysis Batch: 650155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-203754-7	P8R	Total/NA	Water	8260C	
MB 480-650155/7	Method Blank	Total/NA	Water	8260C	
LCS 480-650155/5	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-203754-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: B6R
Lab Sample ID: 480-203754-1
Date Collected: 11/09/22 10:02
Matrix: Water
Date Received: 11/09/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	649857	AXK	EET BUF	11/15/22 00:25

Client Sample ID: B7R
Lab Sample ID: 480-203754-2
Date Collected: 11/09/22 09:56
Matrix: Water
Date Received: 11/09/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		2	649857	AXK	EET BUF	11/15/22 00:47

Client Sample ID: B8R
Lab Sample ID: 480-203754-3
Date Collected: 11/08/22 11:31
Matrix: Water
Date Received: 11/09/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		20	649642	LCH	EET BUF	11/12/22 17:56

Client Sample ID: MWF2
Lab Sample ID: 480-203754-4
Date Collected: 11/09/22 08:01
Matrix: Water
Date Received: 11/09/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		25	649857	AXK	EET BUF	11/15/22 01:08

Client Sample ID: MWF3
Lab Sample ID: 480-203754-5
Date Collected: 11/09/22 08:05
Matrix: Water
Date Received: 11/09/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	649857	AXK	EET BUF	11/15/22 01:30

Client Sample ID: MWF4
Lab Sample ID: 480-203754-6
Date Collected: 11/08/22 11:35
Matrix: Water
Date Received: 11/09/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	649642	LCH	EET BUF	11/12/22 18:19

Client Sample ID: P8R
Lab Sample ID: 480-203754-7
Date Collected: 11/09/22 10:29
Matrix: Water
Date Received: 11/09/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	650155	CB	EET BUF	11/16/22 11:24

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-203754-1
Project/Site: Iroquois Gas/Westwood Pharm.

Client Sample ID: DUP
Lab Sample ID: 480-203754-8

Date Collected: 11/09/22 00:00
Matrix: Water

Date Received: 11/09/22 11:35

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	649857	AXK	EET BUF	11/15/22 02:14

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-203754-1
Project/Site: Iroquois Gas/Westwood Pharm.

Laboratory: Eurofins 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	03-31-23

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
8260C		Water	Total BTEX

Method Summary

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

Job ID: 480-203754-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-203754-1
Project/Site: Iroquois Gas/Westwood Pharm.

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-203754-1	B6R	Water	11/09/22 10:02	11/09/22 11:35
480-203754-2	B7R	Water	11/09/22 09:56	11/09/22 11:35
480-203754-3	B8R	Water	11/08/22 11:31	11/09/22 11:35
480-203754-4	MWF2	Water	11/09/22 08:01	11/09/22 11:35
480-203754-5	MWF3	Water	11/09/22 08:05	11/09/22 11:35
480-203754-6	MWF4	Water	11/08/22 11:35	11/09/22 11:35
480-203754-7	P8R	Water	11/09/22 10:29	11/09/22 11:35
480-203754-8	DUP	Water	11/09/22 00:00	11/09/22 11:35

Eurofins 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: Hartmann, Steve	Carrier Tracking No(s):	COC No: 480-178874-36164.1
Client Contact: Mr. Raymond Wagner	Phone: 315 413 6365	E-Mail: Steve.Hartmann@et.eurofinsus.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:	PO #: 30125855 task 00002			
Email: raymond.wagner@arcadis.com	WO #: Project- BMS 2021 OMM			
Project Name: Iroquois Gas/Westwood Pharm.-Semi-Annual	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, Y - Trizma, 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)	8260C - BTEX - 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
~~B6~~	—	—	—	Water			1		
B6R	11/9/22	1002	G	Water			3		
B7R	11/9/22	0956	G	Water			3		
B8R	11/8/22	1131	G	Water			3		
MWF2	11/9/22	0801	G	Water			3		
MWF3	11/9/22	0805	G	Water			3		
MWF4	11/8/22	1135	G	Water			3		
P8R	11/9/22	1029	G	Water			3		
DUP	11/9/22	—	G	Water			3		
				Water					

480-203754 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	[signature]	11/9/22 1038	Arcadis	[signature]	11/9/22 1038	ARCADIS
2	[signature]	11/9/22 1137	Arcadis	[signature]	11-9-22 11:35	FAB
3						

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

Cooler Temperature(s) °C and Other Remarks: 5.2 #1 ICE

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-203754-1

Login Number: 203754
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	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 Buffalo

Job Notes

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

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Wyatt.Watson@et.eurofinsus.com
Designee for
Steve Hartmann, Project Manager
Steve.Hartmann@et.eurofinsus.com
(413)572-4000

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/16/2022 3:29:11 PM

JOB DESCRIPTION

Iroquois Gas/Westwood Pharm.Semi-Annual

JOB NUMBER

480-204610-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

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Job Notes

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

Authorization

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Authorized for release by
Steve Hartmann, Project Manager
Steve.Hartmann@et.eurofinsus.com
(413)642-2616

Table of Contents

Definitions/Glossary

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

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

Job ID: 480-204610-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-204610-1

Comments
No additional comments.

Receipt
The samples were received on 12/8/2022 6:00 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 3.8º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: B8R (480-204610-3) and MWF4 (480-204610-6). Elevated reporting limits (RLs) are provided.

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MWF3 (480-204610-5). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MWF2 (480-204610-4), P8R (480-204610-7), DUP (480-204610-8), (480-204610-B-4 MS) and (480-204610-B-4 MSD). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The samples were analyzed within the 7-day holding time specified for unpreserved samples: MWF2 (480-204610-4), (480-204610-B-4 MS) and (480-204610-B-4 MSD).

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: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

Client Sample ID: B6R — Lab Sample ID: 480-204610-1

No Detections.

Client Sample ID: B7R — Lab Sample ID: 480-204610-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	32		1.0	0.41	ug/L	1		8260C	Total/NA
Total BTEX	32		2.0	1.0	ug/L	1		8260C	Total/NA

Client Sample ID: B8R — Lab Sample ID: 480-204610-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	460		20	8.2	ug/L	20		8260C	Total/NA
Toluene	16	J	20	10	ug/L	20		8260C	Total/NA
Ethylbenzene	320		20	15	ug/L	20		8260C	Total/NA
m-Xylene & p-Xylene	45		40	13	ug/L	20		8260C	Total/NA
o-Xylene	86		20	15	ug/L	20		8260C	Total/NA
Xylenes, Total	130		40	13	ug/L	20		8260C	Total/NA
Total BTEX	930		40	20	ug/L	20		8260C	Total/NA

Client Sample ID: MWF2 — Lab Sample ID: 480-204610-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	250		10	7.4	ug/L	10		8260C	Total/NA
m-Xylene & p-Xylene	200		20	6.6	ug/L	10		8260C	Total/NA
o-Xylene	190		10	7.6	ug/L	10		8260C	Total/NA
Xylenes, Total	390		20	6.6	ug/L	10		8260C	Total/NA
Total BTEX	640		20	10	ug/L	10		8260C	Total/NA

Client Sample ID: MWF3 — Lab Sample ID: 480-204610-5

No Detections.

Client Sample ID: MWF4 — Lab Sample ID: 480-204610-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	64		4.0	1.6	ug/L	4		8260C	Total/NA
Toluene	3.4	J	4.0	2.0	ug/L	4		8260C	Total/NA
Ethylbenzene	170		4.0	3.0	ug/L	4		8260C	Total/NA
m-Xylene & p-Xylene	22		8.0	2.6	ug/L	4		8260C	Total/NA
o-Xylene	86		4.0	3.0	ug/L	4		8260C	Total/NA
Xylenes, Total	110		8.0	2.6	ug/L	4		8260C	Total/NA
Total BTEX	350		8.0	4.0	ug/L	4		8260C	Total/NA

Client Sample ID: P8R — Lab Sample ID: 480-204610-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	210		5.0	2.1	ug/L	5		8260C	Total/NA
Toluene	11		5.0	2.6	ug/L	5		8260C	Total/NA
Ethylbenzene	200		5.0	3.7	ug/L	5		8260C	Total/NA
m-Xylene & p-Xylene	44		10	3.3	ug/L	5		8260C	Total/NA
o-Xylene	64		5.0	3.8	ug/L	5		8260C	Total/NA
Xylenes, Total	110		10	3.3	ug/L	5		8260C	Total/NA
Total BTEX	530		10	5.0	ug/L	5		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

Client Sample ID: DUP
Lab Sample ID: 480-204610-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	460		10	4.1	ug/L	10		8260C	Total/NA
Toluene	8.0	J	10	5.1	ug/L	10		8260C	Total/NA
Ethylbenzene	240		10	7.4	ug/L	10		8260C	Total/NA
m-Xylene & p-Xylene	27		20	6.6	ug/L	10		8260C	Total/NA
o-Xylene	80		10	7.6	ug/L	10		8260C	Total/NA
Xylenes, Total	110		20	6.6	ug/L	10		8260C	Total/NA
Total BTEX	820		20	10	ug/L	10		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: B6R
Lab Sample ID: 480-204610-1

Date Collected: 12/08/22 11:16
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/13/22 04:47	1
Toluene	ND		1.0	0.51	ug/L			12/13/22 04:47	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/22 04:47	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/13/22 04:47	1
o-Xylene	ND		1.0	0.76	ug/L			12/13/22 04:47	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/22 04:47	1
Total BTEX	ND		2.0	1.0	ug/L			12/13/22 04:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*80 - 120*		*12/13/22 04:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*12/13/22 04:47*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*12/13/22 04:47*	*1*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*12/13/22 04:47*	*1*

Client Sample ID: B7R
Lab Sample ID: 480-204610-2

Date Collected: 12/08/22 11:42
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**32**		1.0	0.41	ug/L			12/13/22 17:16	1
Toluene	ND		1.0	0.51	ug/L			12/13/22 17:16	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/22 17:16	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/13/22 17:16	1
o-Xylene	ND		1.0	0.76	ug/L			12/13/22 17:16	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/22 17:16	1
Total BTEX	**32**		2.0	1.0	ug/L			12/13/22 17:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*88*		*80 - 120*		*12/13/22 17:16*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*12/13/22 17:16*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*12/13/22 17:16*	*1*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*12/13/22 17:16*	*1*

Client Sample ID: B8R
Lab Sample ID: 480-204610-3

Date Collected: 12/08/22 13:40
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**460**		20	8.2	ug/L			12/13/22 05:34	20
Toluene	**16**	**J**	20	10	ug/L			12/13/22 05:34	20
Ethylbenzene	**320**		20	15	ug/L			12/13/22 05:34	20
m-Xylene & p-Xylene	**45**		40	13	ug/L			12/13/22 05:34	20
o-Xylene	**86**		20	15	ug/L			12/13/22 05:34	20
Xylenes, Total	**130**		40	13	ug/L			12/13/22 05:34	20
Total BTEX	**930**		40	20	ug/L			12/13/22 05:34	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*90*		*80 - 120*		*12/13/22 05:34*	*20*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*12/13/22 05:34*	*20*

Client Sample ID: B8R
Lab Sample ID: 480-204610-3

Date Collected: 12/08/22 13:40
Matrix: Water
Date Received: 12/08/22 18:00

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

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/13/22 05:34*	*20*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*12/13/22 05:34*	*20*

Client Sample ID: MWF2
Lab Sample ID: 480-204610-4

Date Collected: 12/08/22 15:47
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		10	4.1	ug/L			12/13/22 17:39	10
Toluene	ND		10	5.1	ug/L			12/13/22 17:39	10
Ethylbenzene	**250**		10	7.4	ug/L			12/13/22 17:39	10
m-Xylene & p-Xylene	**200**		20	6.6	ug/L			12/13/22 17:39	10
o-Xylene	**190**		10	7.6	ug/L			12/13/22 17:39	10
Xylenes, Total	**390**		20	6.6	ug/L			12/13/22 17:39	10
Total BTEX	**640**		20	10	ug/L			12/13/22 17:39	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*91*		*80 - 120*		*12/13/22 17:39*	*10*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*12/13/22 17:39*	*10*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*12/13/22 17:39*	*10*
Dibromofluoromethane (Surr)	*102*		*75 - 123*		*12/13/22 17:39*	*10*

Client Sample ID: MWF3
Lab Sample ID: 480-204610-5

Date Collected: 12/08/22 15:03
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		4.0	1.6	ug/L			12/13/22 06:21	4
Toluene	ND		4.0	2.0	ug/L			12/13/22 06:21	4
Ethylbenzene	ND		4.0	3.0	ug/L			12/13/22 06:21	4
m-Xylene & p-Xylene	ND		8.0	2.6	ug/L			12/13/22 06:21	4
o-Xylene	ND		4.0	3.0	ug/L			12/13/22 06:21	4
Xylenes, Total	ND		8.0	2.6	ug/L			12/13/22 06:21	4
Total BTEX	ND		8.0	4.0	ug/L			12/13/22 06:21	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*88*		*80 - 120*		*12/13/22 06:21*	*4*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*12/13/22 06:21*	*4*
4-Bromofluorobenzene (Surr)	*95*		*73 - 120*		*12/13/22 06:21*	*4*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*12/13/22 06:21*	*4*

Client Sample ID: MWF4
Lab Sample ID: 480-204610-6

Date Collected: 12/08/22 14:07
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**64**		4.0	1.6	ug/L			12/13/22 06:44	4
Toluene	**3.4**	**J**	4.0	2.0	ug/L			12/13/22 06:44	4

Client Sample ID: MWF4
Lab Sample ID: 480-204610-6

Date Collected: 12/08/22 14:07
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	170		4.0	3.0	ug/L			12/13/22 06:44	4
m-Xylene & p-Xylene	22		8.0	2.6	ug/L			12/13/22 06:44	4
o-Xylene	86		4.0	3.0	ug/L			12/13/22 06:44	4
Xylenes, Total	110		8.0	2.6	ug/L			12/13/22 06:44	4
Total BTEX	350		8.0	4.0	ug/L			12/13/22 06:44	4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*90*		*80 - 120*		*12/13/22 06:44*	*4*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*12/13/22 06:44*	*4*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*12/13/22 06:44*	*4*
Dibromofluoromethane (Surr)	*105*		*75 - 123*		*12/13/22 06:44*	*4*

Client Sample ID: P8R
Lab Sample ID: 480-204610-7

Date Collected: 12/08/22 12:42
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	210		5.0	2.1	ug/L			12/13/22 18:03	5
Toluene	11		5.0	2.6	ug/L			12/13/22 18:03	5
Ethylbenzene	200		5.0	3.7	ug/L			12/13/22 18:03	5
m-Xylene & p-Xylene	44		10	3.3	ug/L			12/13/22 18:03	5
o-Xylene	64		5.0	3.8	ug/L			12/13/22 18:03	5
Xylenes, Total	110		10	3.3	ug/L			12/13/22 18:03	5
Total BTEX	530		10	5.0	ug/L			12/13/22 18:03	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*88*		*80 - 120*		*12/13/22 18:03*	*5*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*12/13/22 18:03*	*5*
4-Bromofluorobenzene (Surr)	*92*		*73 - 120*		*12/13/22 18:03*	*5*
Dibromofluoromethane (Surr)	*98*		*75 - 123*		*12/13/22 18:03*	*5*

Client Sample ID: DUP
Lab Sample ID: 480-204610-8

Date Collected: 12/08/22 00:00
Matrix: Water
Date Received: 12/08/22 18:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	460		10	4.1	ug/L			12/13/22 18:25	10
Toluene	8.0	J	10	5.1	ug/L			12/13/22 18:25	10
Ethylbenzene	240		10	7.4	ug/L			12/13/22 18:25	10
m-Xylene & p-Xylene	27		20	6.6	ug/L			12/13/22 18:25	10
o-Xylene	80		10	7.6	ug/L			12/13/22 18:25	10
Xylenes, Total	110		20	6.6	ug/L			12/13/22 18:25	10
Total BTEX	820		20	10	ug/L			12/13/22 18:25	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*80 - 120*		*12/13/22 18:25*	*10*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*12/13/22 18:25*	*10*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*12/13/22 18:25*	*10*
Dibromofluoromethane (Surr)	*99*		*75 - 123*		*12/13/22 18:25*	*10*

Surrogate Summary

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

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

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(80-120)	(77-120)	(73-120)	(75-123)
480-204610-1	B6R	89	96	94	105
480-204610-2	B7R	88	106	96	98
480-204610-3	B8R	90	98	99	102
480-204610-4	MWF2	91	98	100	102
480-204610-4 MS	MWF2	91	95	99	101
480-204610-4 MSD	MWF2	82	96	88	99
480-204610-5	MWF3	88	97	95	105
480-204610-6	MWF4	90	100	99	105
480-204610-7	P8R	88	102	92	98
480-204610-8	DUP	89	94	93	99
LCS 480-653108/6	Lab Control Sample	94	91	97	102
LCS 480-653200/6	Lab Control Sample	94	93	99	102
MB 480-653108/8	Method Blank	92	96	93	100
MB 480-653200/9	Method Blank	92	95	97	100

Surrogate Legend

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

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

Lab Sample ID: MB 480-653108/8
Matrix: Water
Analysis Batch: 653108

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/13/22 02:51	1
Toluene	ND		1.0	0.51	ug/L			12/13/22 02:51	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/22 02:51	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/13/22 02:51	1
o-Xylene	ND		1.0	0.76	ug/L			12/13/22 02:51	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/22 02:51	1
Total BTEX	ND		2.0	1.0	ug/L			12/13/22 02:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*92*		*80 - 120*		*12/13/22 02:51*	*1*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*		*12/13/22 02:51*	*1*
4-Bromofluorobenzene (Surr)	*93*		*73 - 120*		*12/13/22 02:51*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*12/13/22 02:51*	*1*

Lab Sample ID: LCS 480-653108/6
Matrix: Water
Analysis Batch: 653108

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			25.0	26.9		ug/L		107	71 - 124		
Toluene			25.0	26.4		ug/L		106	80 - 122		
Ethylbenzene			25.0	26.5		ug/L		106	77 - 123		
m-Xylene & p-Xylene			25.0	27.3		ug/L		109	76 - 122		
o-Xylene			25.0	26.2		ug/L		105	76 - 122		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*94*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*91*		*77 - 120*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*
Dibromofluoromethane (Surr)	*102*		*75 - 123*

Lab Sample ID: MB 480-653200/9
Matrix: Water
Analysis Batch: 653200

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			12/13/22 13:59	1
Toluene	ND		1.0	0.51	ug/L			12/13/22 13:59	1
Ethylbenzene	ND		1.0	0.74	ug/L			12/13/22 13:59	1
m-Xylene & p-Xylene	ND		2.0	0.66	ug/L			12/13/22 13:59	1
o-Xylene	ND		1.0	0.76	ug/L			12/13/22 13:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			12/13/22 13:59	1
Total BTEX	ND		2.0	1.0	ug/L			12/13/22 13:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*92*		*80 - 120*		*12/13/22 13:59*	*1*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*		*12/13/22 13:59*	*1*

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

Lab Sample ID: MB 480-653200/9
Matrix: Water
Analysis Batch: 653200

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		73 - 120		12/13/22 13:59	1
Dibromofluoromethane (Surr)	100		75 - 123		12/13/22 13:59	1

Lab Sample ID: LCS 480-653200/6
Matrix: Water
Analysis Batch: 653200

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	25.0	25.7		ug/L		103	71 - 124
Toluene	25.0	26.2		ug/L		105	80 - 122
Ethylbenzene	25.0	26.1		ug/L		104	77 - 123
m-Xylene & p-Xylene	25.0	26.5		ug/L		106	76 - 122
o-Xylene	25.0	25.5		ug/L		102	76 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	94		80 - 120
1,2-Dichloroethane-d4 (Surr)	93		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Dibromofluoromethane (Surr)	102		75 - 123

Lab Sample ID: 480-204610-4 MS
Matrix: Water
Analysis Batch: 653200

Client Sample ID: MWF2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		250	284		ug/L		114	71 - 124
Toluene	ND		250	268		ug/L		107	80 - 122
Ethylbenzene	250		250	479		ug/L		93	77 - 123
m-Xylene & p-Xylene	200		250	442		ug/L		97	76 - 122
o-Xylene	190		250	421		ug/L		94	76 - 122

Surrogate	MS %Recovery	MS Qualifier	Limits
Toluene-d8 (Surr)	91		80 - 120
1,2-Dichloroethane-d4 (Surr)	95		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Dibromofluoromethane (Surr)	101		75 - 123

Lab Sample ID: 480-204610-4 MSD
Matrix: Water
Analysis Batch: 653200

Client Sample ID: MWF2
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		250	264		ug/L		106	71 - 124	7	13
Toluene	ND		250	230		ug/L		92	80 - 122	15	15
Ethylbenzene	250		250	461		ug/L		86	77 - 123	4	15
m-Xylene & p-Xylene	200		250	420		ug/L		89	76 - 122	5	16
o-Xylene	190		250	407		ug/L		88	76 - 122	3	16

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

Lab Sample ID: 480-204610-4 MSD
Client Sample ID: MWF2
Matrix: Water
Prep Type: Total/NA
Analysis Batch: 653200

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	*82*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*96*		*77 - 120*
4-Bromofluorobenzene (Surr)	*88*		*73 - 120*
Dibromofluoromethane (Surr)	*99*		*75 - 123*

QC Association Summary

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

GC/MS VOA

Analysis Batch: 653108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204610-1	B6R	Total/NA	Water	8260C	
480-204610-3	B8R	Total/NA	Water	8260C	
480-204610-5	MWF3	Total/NA	Water	8260C	
480-204610-6	MWF4	Total/NA	Water	8260C	
MB 480-653108/8	Method Blank	Total/NA	Water	8260C	
LCS 480-653108/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 653200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-204610-2	B7R	Total/NA	Water	8260C	
480-204610-4	MWF2	Total/NA	Water	8260C	
480-204610-7	P8R	Total/NA	Water	8260C	
480-204610-8	DUP	Total/NA	Water	8260C	
MB 480-653200/9	Method Blank	Total/NA	Water	8260C	
LCS 480-653200/6	Lab Control Sample	Total/NA	Water	8260C	
480-204610-4 MS	MWF2	Total/NA	Water	8260C	
480-204610-4 MSD	MWF2	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

Client Sample ID: B6R
Lab Sample ID: 480-204610-1
Date Collected: 12/08/22 11:16
Matrix: Water
Date Received: 12/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	653108	ATG	EET BUF	12/13/22 04:47

Client Sample ID: B7R
Lab Sample ID: 480-204610-2
Date Collected: 12/08/22 11:42
Matrix: Water
Date Received: 12/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	653200	ATG	EET BUF	12/13/22 17:16

Client Sample ID: B8R
Lab Sample ID: 480-204610-3
Date Collected: 12/08/22 13:40
Matrix: Water
Date Received: 12/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		20	653108	ATG	EET BUF	12/13/22 05:34

Client Sample ID: MWF2
Lab Sample ID: 480-204610-4
Date Collected: 12/08/22 15:47
Matrix: Water
Date Received: 12/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	653200	ATG	EET BUF	12/13/22 17:39

Client Sample ID: MWF3
Lab Sample ID: 480-204610-5
Date Collected: 12/08/22 15:03
Matrix: Water
Date Received: 12/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	653108	ATG	EET BUF	12/13/22 06:21

Client Sample ID: MWF4
Lab Sample ID: 480-204610-6
Date Collected: 12/08/22 14:07
Matrix: Water
Date Received: 12/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		4	653108	ATG	EET BUF	12/13/22 06:44

Client Sample ID: P8R
Lab Sample ID: 480-204610-7
Date Collected: 12/08/22 12:42
Matrix: Water
Date Received: 12/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		5	653200	ATG	EET BUF	12/13/22 18:03

Lab Chronicle

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

Client Sample ID: DUP
Lab Sample ID: 480-204610-8
Date Collected: 12/08/22 00:00
Matrix: Water
Date Received: 12/08/22 18:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	653200	ATG	EET BUF	12/13/22 18:25

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

Laboratory: Eurofins 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	03-31-23

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
8260C		Water	Total BTEX

Method Summary

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: ARCADIS U.S. Inc
Job ID: 480-204610-1
Project/Site: Iroquois Gas/Westwood Pharm.Semi-Annual

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-204610-1	B6R	Water	12/08/22 11:16	12/08/22 18:00
480-204610-2	B7R	Water	12/08/22 11:42	12/08/22 18:00
480-204610-3	B8R	Water	12/08/22 13:40	12/08/22 18:00
480-204610-4	MWF2	Water	12/08/22 15:47	12/08/22 18:00
480-204610-5	MWF3	Water	12/08/22 15:03	12/08/22 18:00
480-204610-6	MWF4	Water	12/08/22 14:07	12/08/22 18:00
480-204610-7	P8R	Water	12/08/22 12:42	12/08/22 18:00
480-204610-8	DUP	Water	12/08/22 00:00	12/08/22 18:00

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

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: DON REED	Lab PM: Hartmann, Steve	Carrier Tracking No(s):	COC No: 480-179767-36164.1
Client Contact: Mr. Raymond Wagner	Phone: 315 436 3605	E-Mail: Steve.Hartmann@et.eurofinsus.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			
State, Zip: NY, 13202	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 30125855 task 00002			
Email: raymond.wagner@arcadis.com	WO #: Project- BMS 2021 OMM			
Project Name: Iroquois Gas/Westwood Pharm.-Semi-Annual	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, Y - Trizma, 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)	8260C - BTEX - 8260	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
~~B6~~	—	—	—	Water			—		
B6R	12/8/22	1116	G	Water			3		
B7R	12/8/22	1142	G	Water			3		
B8R	12/8/22	1340	G	Water			3		
MWF2	12/8/22	1547	G	Water			3		
MWF3	12/8/22	1503	G	Water			3		
MWF4	12/8/22	1407	G	Water			3		
P8R	12/8/22	1242	G	Water			3		
DUP	12/8/22	—	G	Water			3		
				Water					

480-204610 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:

	Date/Time	Company		Date/Time	Company
Relinquished by:	12/8/2022 18:00	ARCADIS	Received by:	12-8-22 1800	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: 3.8 #1 ice

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-204610-1

Login Number: 204610

List Source: Eurofins 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	3.8 #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.	True	