nationalgrid

Steven P. Stucker, C.P.G.
Lead Environmental Engineer

February 9, 2023

Mr. Scott Deyette
Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURC
625 Broadway
Albany, New York 12233-7014

RE: National Grid Former Manufactured Gas Plant Site
Anthony Street, Watertown, New York
Annual Groundwater Monitoring Report

Dear Mr. Deyette:

Enclosed for your review is the 2022 Annual Groundwater Monitoring Report for the NG Watertown Former MGP Site.

Groundwater and Environmental Services, Inc., (GES) OM&M contractor for National Grid, conducts all long-term OM&M activities at the site. Quarterly site inspections were conducted in 2022 (March, June, September and December). The site is generally in good shape and in compliance. There were detections of BTEX and/or PAH in all five monitoring wells sampled.

If you have any questions, then please feel free to contact me at 315.428.5652.

Very truly yours,

for SPS

Steven P. Stucker, C.P.G.
Lead Environmental Engineer
National Grid

Cc: Devin T. Shay – Groundwater and Environmental Services, Inc.

National Grid

Annual Groundwater Monitoring Report

National Grid Watertown (Anthony Street) Former MGP Site
Anthony Street, Watertown NY13601

February 2023

Version 1

Annual Groundwater Monitoring Report

National Grid Watertown (Anthony St.) Former
MGP Site
Anthony Street
Watertown, NY 13601

Prepared for:
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Syracuse, NY 13202

Prepared by:
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www.gesonline.com

GES Project:
0603324.136010.221

Date:
February 9, 2023

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

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Appendices

1 Introduction

This Annual Groundwater Monitoring Report presents results from the activities conducted at the Watertown (Anthony Street) former non-owned manufactured gas plant (MGP) site located in Watertown, New York (the Site). A site location map is presented on **Figure 1**, and a site map is presented as **Figure 2**. The work summarized in this report is conducted in accordance with the Site Management Plan (SMP) for the Site, which was approved by the New York State Department of Environmental Conservation (NYSDEC) on March 17, 2017.

A detailed discussion of the annual monitoring activities and results is presented below.

2 Annual Groundwater Monitoring

2.1 Objectives

The objectives of the June 2022 groundwater monitoring activities were to:

- Obtain groundwater elevation data from monitoring wells in the vicinity of the Site to evaluate groundwater flow direction and velocity, and compare the results with historical groundwater flow conditions.
- Obtain analytical data to assess potential changes in groundwater quality at the Site and compare the results to the Class GA groundwater standards and guidance values presented in the NYSDEC document entitled, "Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (TOGS 1.1.1), reissued June 1998 and amended April 2000 and June 2004.

2.2 Groundwater Well Gauging

The June 8, 2022 groundwater monitoring field activities were conducted by GES. Prior to collecting groundwater samples, static fluid level measurements were collected from MW-1, MW-2, MW-3, MW-3R, MW-4E, MW-5R, MW-6R and MW-7R. Water levels were measured to the nearest 0.01 foot using an electronic oil-water interface probe to determine the depth from a surveyed mark on the top of the inner polyvinyl chloride (PVC) well casing to the groundwater within the well.

The fluid level measurements obtained from each monitoring well were converted to groundwater elevations using the surveyed well elevations. The calculated groundwater elevations for each monitoring well are listed in **Table 1**, and are depicted on **Figure 3**. **Table 1** also includes groundwater elevation measurements obtained during previous groundwater monitoring events.

Groundwater generally flows to the north-northwest from the Site toward the Black River. Groundwater elevations ranged from 422.15 feet above sea level (asl; well MW-7R) to 439.30 feet asl (well MW-2). Field data from the gauging event is presented in **Appendix B**.

2.3 Groundwater Well Sampling and Analytical Results

Groundwater samples were collected by GES from five (5) monitoring wells on June 8, 2022 (including MW-2, MW-4R, MW-5R, MW-6R and MW-7R). Low-flow sampling techniques were used to purge groundwater from each monitoring well prior to collecting groundwater samples. Field parameters (consisting of turbidity, temperature, pH, conductivity, oxidation reduction potential [ORP], and dissolved oxygen) were measured approximately every 5 to 10 minutes during well purging, and the depth to water was monitored throughout the pumping process to minimize drawdown within the well. Well purging activities continued at each well until the field parameters stabilized and the turbidity of the water in the wells was reduced to less than 50 nephelometric turbidity units (NTUs). Groundwater field data is presented in **Appendix B**.

Following purging, groundwater samples were collected. The groundwater samples were bottled and shipped to Pace Analytical for laboratory analysis for Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX; EPA Method 8260C), Semi-Volatile Polycyclic Aromatic Hydrocarbons (PAHs; EPA Method 8270D), and total cyanide (EPA Method 9012B). Quality assurance/quality control (QA/QC) samples, including a field duplicate, matrix spike, and duplicate matrix spike were also submitted for laboratory analysis. The laboratory analytical results for the groundwater samples were reported using NYSDEC Analytical Services Protocol (ASP) Category B data deliverable packages to facilitate data validation.

Purge water generated during the sampling activities was collected in 5-gallon buckets and transferred into 55-gallon steel drums for characterization prior to offsite treatment/disposal in accordance with applicable regulations.

Analytical results from the laboratory analysis report are summarized in **Table 2** and compared to the Class GA groundwater standards and guidance values presented in TOGS 1.1.1. VOC exceedances are bolded on **Table 2** and further shown on **Figure 4**. The Data Usability Summary Report (DUSR) is included in **Appendix C**.

There were BTEX and/or PAH detections in all the monitoring wells sampled. BTEX, acenaphthene, and naphthalene were detected above the regulatory criteria in one or more samples. Cyanide was detected in monitoring wells MW-2, MW-4R, MW-5R, MW-6R, and MW-7R. As shown on **Table 2**, in general, BTEX, PAHs, and total cyanide detected in groundwater during the June 2022 sampling event are lower or consistent compared to previous sampling results.

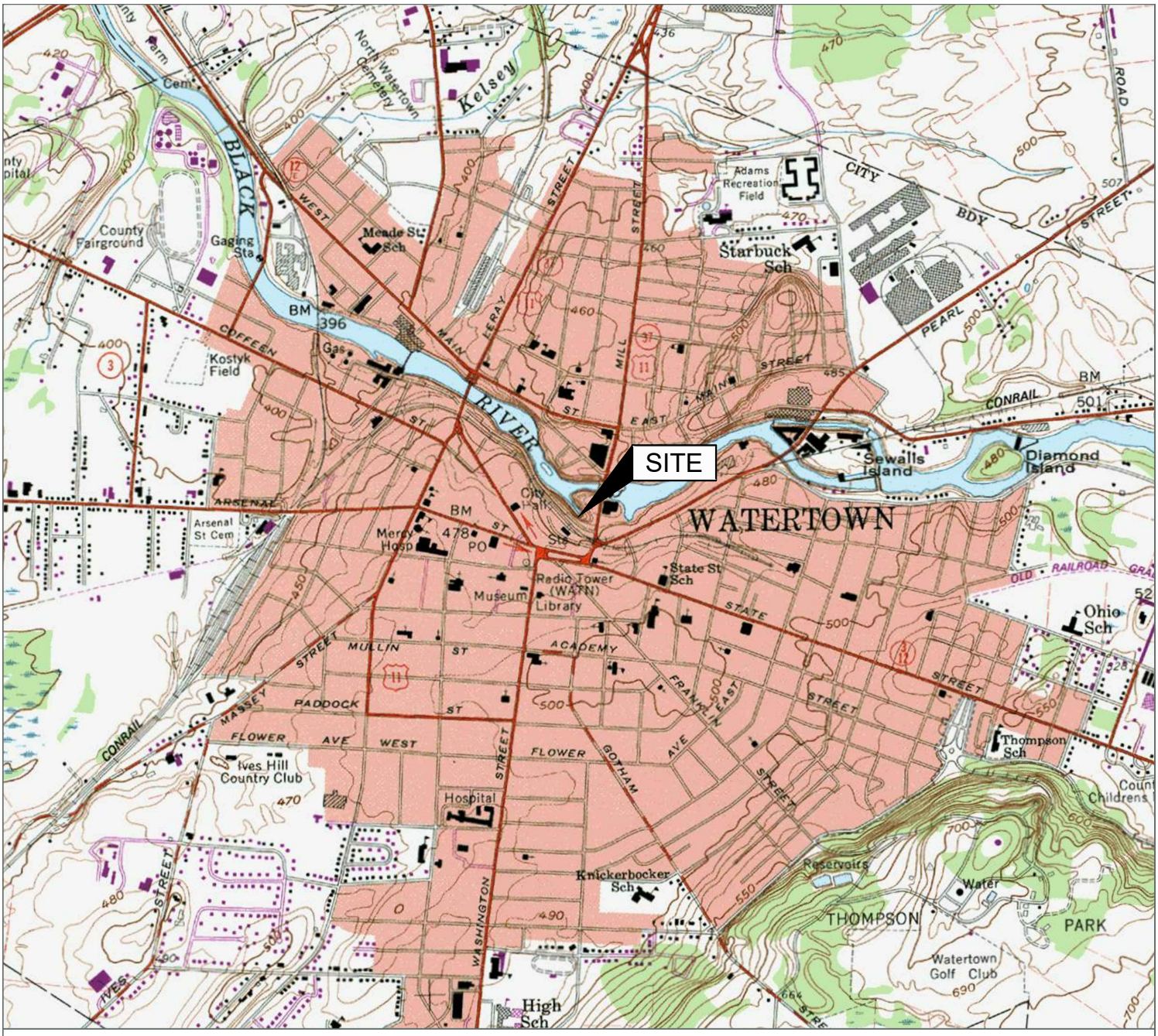
3 Quarterly Site-Wide Inspections

The quarterly site-wide inspections were completed on March 29, June 8, September 29, and December 15, 2022. The Site Inspection Forms are presented in **Appendix A**. In general, the Site is in compliance.

4 Recommendations

At this time, National Grid recommends continuing the annual monitoring activities. The next annual groundwater sampling event would be in the Summer 2023. Annual site-wide inspections are required; however, for internal security purposes, National Grid will continue to conduct quarterly site-wide inspections.

Figures



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USGS 7.5 Minute Series
Topographic Quadrangle, 1982
Watertown, New York
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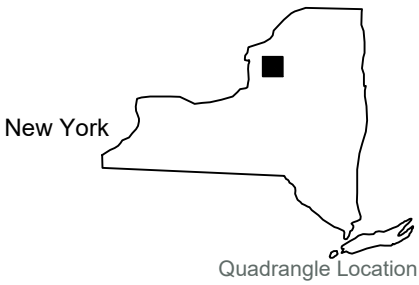

Site Location Map

National Grid
Anthony Street
Watertown, New York

Drawn
W.G.S.
Designed

Approved

Date
8/19/20
Figure
1

Scale In Feet
0 2000

Groundwater & Environmental Services, Inc.

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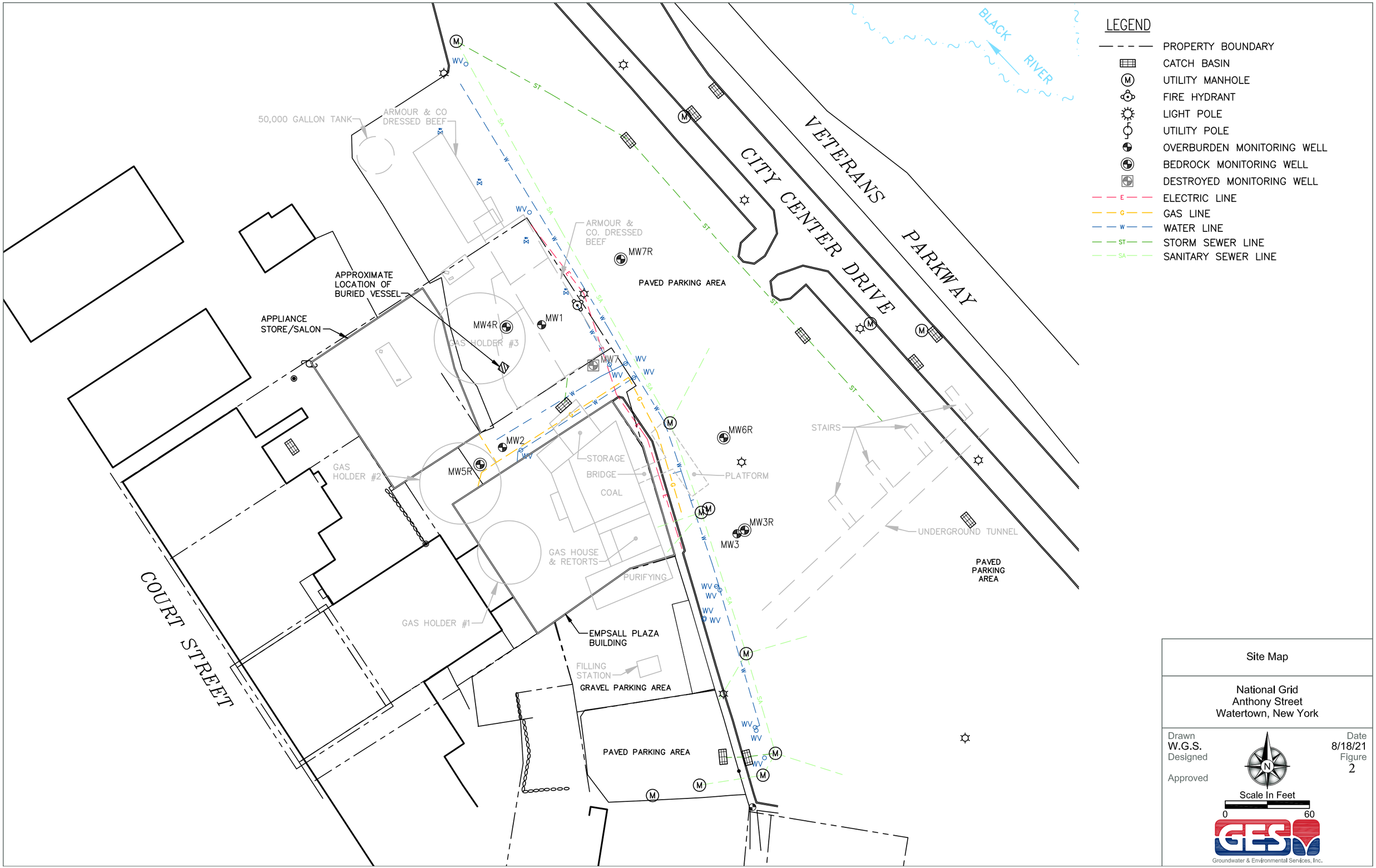

Site Map

National Grid
Anthony Street
Watertown, New York

Drawn W.G.S.
Designed
Approved

Date 8/18/21
Figure 2

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.

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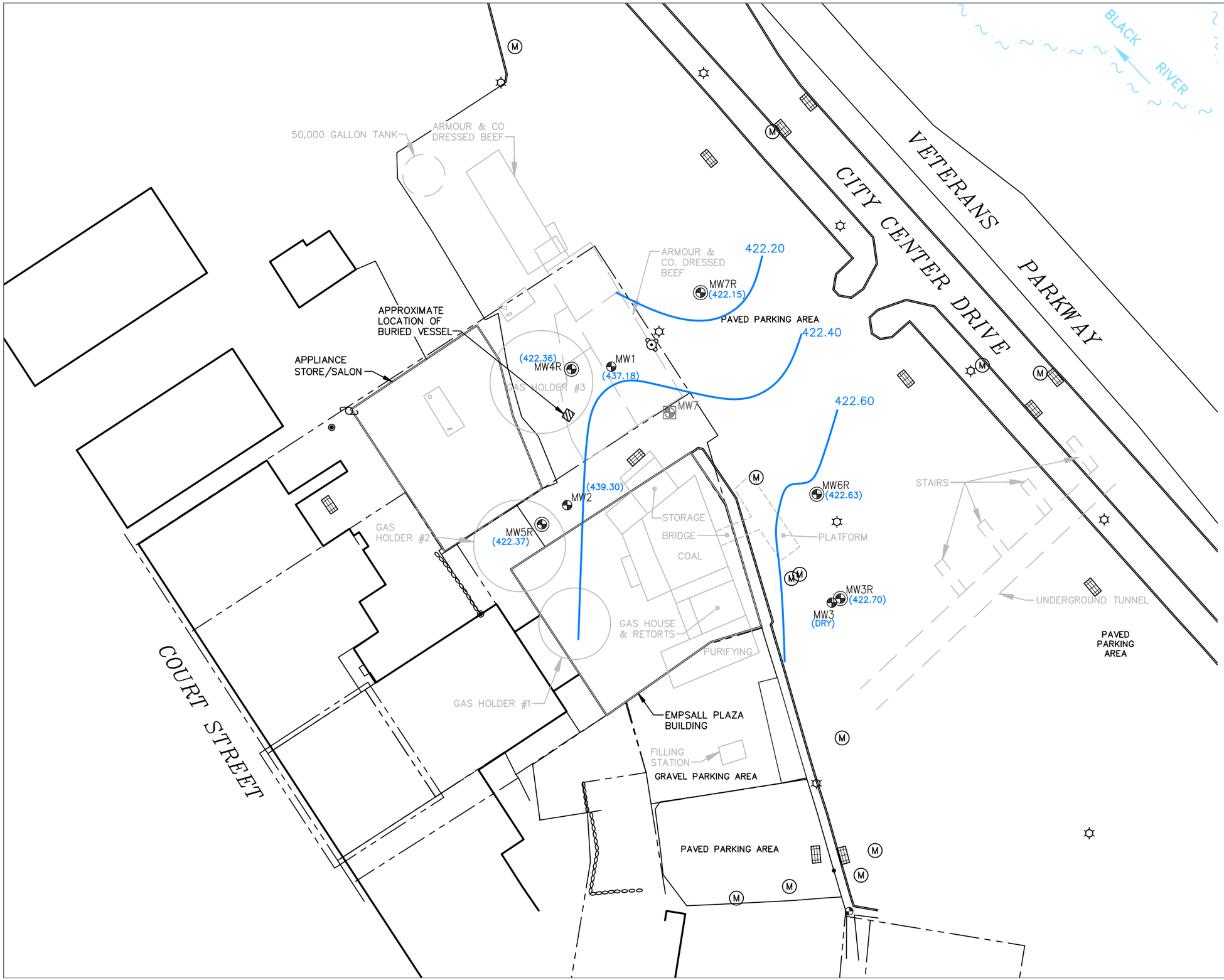

LEGEND

- PROPERTY BOUNDARY
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- LIGHT POLE
- UTILITY POLE
- OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- DESTROYED MONITORING WELL
- (422.70) GROUNDWATER ELEVATION (feet)
- GROUNDWATER CONTOUR (feet)

NOTE:

MW1 AND MW2 WERE NOT USED TO GENERATE GROUNDWATER CONTOURS.

Groundwater Contour Map
June 8, 2022

National Grid
Anthony Street
Watertown, New York

Drawn W.G.S.
Designed
Approved
Date 1/28/23
Figure 3

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.

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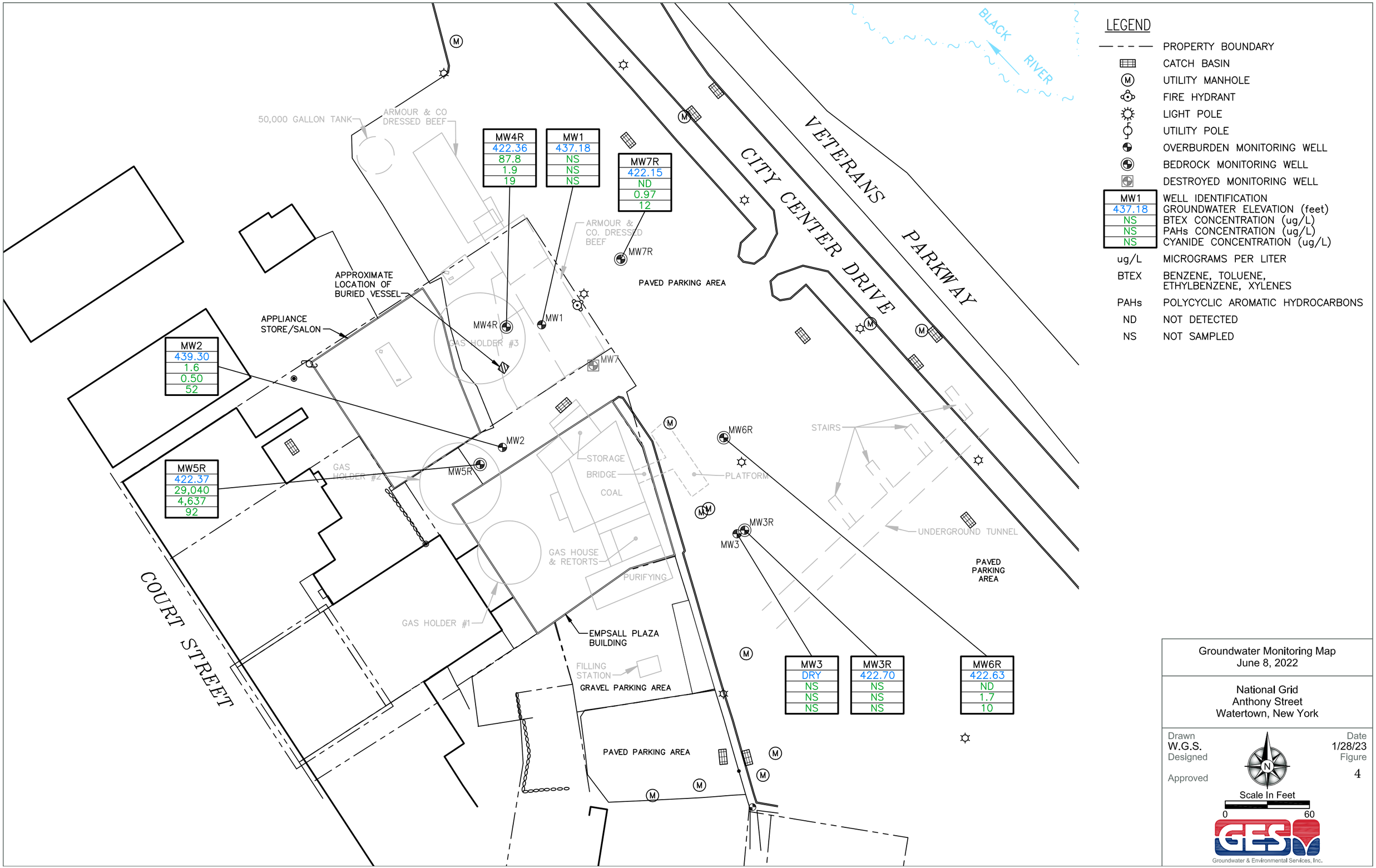

LEGEND

- PROPERTY BOUNDARY
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- LIGHT POLE
- UTILITY POLE
- OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- DESTROYED MONITORING WELL

MW1	WELL IDENTIFICATION
437.18	GROUNDWATER ELEVATION (feet)
NS	BTEX CONCENTRATION (ug/L)
NS	PAHs CONCENTRATION (ug/L)
NS	CYANIDE CONCENTRATION (ug/L)

- ug/L — MICROGRAMS PER LITER
- BTEX — BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
- PAHs — POLYCYCLIC AROMATIC HYDROCARBONS
- ND — NOT DETECTED
- NS — NOT SAMPLED

Groundwater Monitoring Map
June 8, 2022

National Grid
Anthony Street
Watertown, New York

Drawn W.G.S.
Designed
Approved

Date 1/28/23
Figure 4

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.

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Tables

Table 1

Groundwater Monitoring Well Gauging Data

Well ID	Well Type & Diameter	Top of Inner Casing Elevation	Depth To Well Bottom	Well Bottom Elevation	Screen Elevation	Depth To Water (12/14/15	Groundwater Elevation (12/14/15)	Depth To Water (08/11/20)	Groundwater Elevation (08/11/20)	Depth To Water (06/23/21)	Groundwater Elevation (06/23/21)	Depth To Water (06/08/22)	Groundwater Elevation (06/08/22)
MW-1	Flushmount; PVC; 2-inch	444.62	8.50	436.12	3.00 - 8.00	7.47	436.92	7.11	437.51	7.45	437.17	7.44	437.18
MW-2	Flushmount; PVC; 2-inch	444.60	8.50	436.10	3.00 - 8.00	6.00	438.35	5.68	438.92	5.52	439.08	5.30	439.30
MW-3	Flushmount; PVC; 2-inch	445.39	8.70	436.69	3.20 - 8.20	7.25	438.40	DRY	-	5.74	439.65	DRY	-
MW-3R	Flushmount; PVC; 2-inch	445.48	24.40	421.08	14.40 - 24.00	22.81	422.52	22.82	422.66	22.82	422.66	22.78	422.70
MW-4R	Flushmount; PVC; 2-inch	444.76	50.00	394.76	20.00 - 40.00	23.11	421.22	22.28	422.48	22.39	422.37	22.40	422.36
MW-5R	Flushmount; PVC; 2-inch	444.60	50.00	394.60	20.00 - 40.00	22.02	422.04	22.00	422.60	22.30	422.30	22.23	422.37
MW-6R	Flushmount; PVC; 2-inch	445.16	50.00	395.16	18.00 - 40.00	22.56	421.69	22.57	422.59	22.56	422.60	22.53	422.63
MW-7R	Flushmount; PVC; 2-inch	443.60	45.00	398.60	18.00 - 40.00	21.45	421.67	21.40	422.20	21.48	422.12	21.45	422.15

Table 2

Groundwater Analytical Data

MW-1

	NYSDEC TOGS 1.1.1 Guidance Values	Units	10/27/05	09/08/10	06/25/13	12/15/15	08/11/20
BTEX			ND	ND	ND	ND	ND
Benzene	1	µg/L	ND	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND	ND
SVOCs			ND	ND	6.8 J	ND	0.95
Acenaphthene	20	µg/L	ND	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	**0.86 J**	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	0.79 J	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	**1.1 J**	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	**0.78 J**	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND	ND
Naphthalene	10	µg/L	ND	ND	ND	ND	0.95
Phenanthrene	50	µg/L	ND	ND	0.77 J	ND	ND
Pyrene	50	µg/L	ND	ND	1.2 J	ND	ND
Inorganics							
Cyanide, Total	200	µg/L	**744**	**596**	**210**	31	150

Notes:

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

Bolded = values indicate exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data

MW-2

	NYSDEC TOGS 1.1.1 Guidance Values	Units	10/27/05	10/15/08	09/08/10	06/25/13	12/14/15	08/11/20	06/23/21	06/08/22
BTEX			4.0 J	5.5 J	4.2	2.8	1.4	3.2	1.1	1.6
Benzene	1	µg/L	**4.0 J**	**4.3**	**2.4**	**2.8**	**1.4**	**3.2**	**1.1**	**1.6**
Ethylbenzene	5	µg/L	ND	0.90 J	ND	ND	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	1.8	ND	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	0.30 J	ND	ND	ND	ND	ND	ND
SVOCs			ND	4.3 J	2.4 J	ND	ND	1.3	1.1	0.50
Acenaphthene	20	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	µg/L	ND	4.3 J	2.4 J	ND	ND	1.3	1.1	0.50
Phenanthrene	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND	ND	ND	ND	ND
Inorganics										
Cyanide, Total	200	µg/L	98	90	127 J	61	50	70	43	52

Notes:

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

Bolded = values indicate exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data

MW-3R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	10/15/08	09/08/10	06/23/13	12/14/15	08/11/20
BTEX			ND	ND	ND	ND	ND
Benzene	1	µg/L	ND	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND	ND
SVOCs			ND	ND	ND	ND	1.1
Acenaphthene	20	µg/L	ND	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND	ND
Naphthalene	10	µg/L	ND	ND	ND	ND	1.1
Phenanthrene	50	µg/L	ND	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND	ND
Inorganics							
Cyanide, Total	200	µg/L	2.5 J	ND	5.2 J	5.5 J	ND

Notes:

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

Bolded = values indicate exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data

MW-4R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	10/16/08	09/07/10	06/26/13	12/14/15	08/11/20	06/23/21	06/08/22
BTEX			2,239	769	23.8	7.2 J	2.1	57.0	87.8
Benzene	1	µg/L	**1,200**	**670 D**	**22**	**7.2 J**	**2.1**	**55.5**	**79.8**
Ethylbenzene	5	µg/L	**510**	**51**	1.8	ND	ND	1.5	4.5
Toluene	5	µg/L	**49**	**6.6**	ND	ND	ND	ND	ND
Total Xylenes	5	µg/L	**480**	**41**	ND	ND	ND	ND	3.5
SVOCs			443 J	16.89 J	ND	ND	1.14	2.3	1.9
Acenaphthene	20	µg/L	4.3 J	ND	ND	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	µg/L	1.3 J	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	µg/L	**430**	**16**	ND	ND	1.0	2.3	1.8
Phenanthrene	50	µg/L	6.9 J	0.89 J	ND	ND	0.14	ND	0.12
Pyrene	50	µg/L	ND	ND	ND	ND	ND	ND	ND
Inorganics									
Cyanide, Total	200	µg/L	ND	ND	11	13	19	12	19

Notes:

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

Bolded = values indicate exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data

MW-5R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	10/15/08	09/08/10	06/23/13	12/15/15	08/11/20	06/23/21	06/08/22
BTEX			20,300	12,800	27,100	8,340	29,290	17,900	29,040
Benzene	1	µg/L	**3,800**	**4,200 D**	**6,600 D**	**3900**	**4,370**	**3,350**	**7,760**
Ethylbenzene	5	µg/L	**2,000**	**2,100 D**	**3,500 D**	**740**	**4,350**	**3,250**	**4,460**
Toluene	5	µg/L	**9,700**	**3,600 D**	**11,000 D**	**2600**	**13,200**	**6,720**	**10,400**
Total Xylenes	5	µg/L	**4,800**	**2,900 D**	**6,000 D**	**1100**	**7,370**	**4,580**	**6,420**
SVOCs			1,927 J	2,461 J	3,598 J	2,231 J	7,647	3,158	4,637
Acenaphthene	20	µg/L	**70 J**	**74**	**74 J**	**62 DJ**	**78.1**	**82.2**	**102**
Acenaphthylene	- -	µg/L	69 J	26	56 J	17 J	46.3	27.1	ND
Anthracene	50	µg/L	11 J	4.7	5.5 J	ND	4.4	3.8	4.2
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	1.0 J	ND	0.66 J	0.92	0.85	0.71
Fluorene	50	µg/L	41 J	29	32 J	21 J	29.1	27.8	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	**ND**	ND	ND	ND	ND
Naphthalene	10	µg/L	**1,700**	**2,300 D**	**3,400 D**	**2,200 D**	**7,460**	**2,990**	**4,530**
Phenanthrene	50	µg/L	36 J	26	30 J	20 J	27.8	25.2	ND
Pyrene	50	µg/L	ND	0.71 J	ND	0.56 J	0.74	0.70	0.55
Inorganics									
Cyanide, Total	200	µg/L	98	ND	180	89	86	96	92

Notes:

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

Bolded = values indicate exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data

MW-6R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	10/16/08	09/08/10	06/25/13	12/15/15	08/11/20	06/23/21	06/08/22
BTEX			ND	ND	0.52 J	ND	ND	ND	ND
Benzene	1	µg/L	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	0.52 J	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND	ND	ND	ND
SVOCs			ND	ND	ND	ND	8.58	3.4	1.7
Acenaphthene	20	µg/L	ND	ND	ND	ND	0.20	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND	0.12	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND	0.28	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND	**0.14**	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	**0.19**	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND	0.38	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND	0.59	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	µg/L	ND	ND	ND	ND	3.7	3.4	1.7
Phenanthrene	50	µg/L	ND	ND	ND	ND	2.4	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND	0.58	ND	ND
Inorganics									
Cyanide, Total	200	µg/L	ND	ND	ND	ND	ND	ND	10

Notes:

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

Bolded = values indicate exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data

MW-7R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	10/16/08	09/07/10	06/25/13	12/15/15	08/11/20	06/23/21	06/08/22
BTEX			ND	ND	ND	ND	ND	ND	ND
Benzene	1	µg/L	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND	ND	ND	ND
SVOCs			ND	ND	ND	ND	2.4	1.0	0.97
Acenaphthene	20	µg/L	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	µg/L	ND	ND	ND	ND	2.4	1.0	0.97
Phenanthrene	50	µg/L	ND	ND	ND	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND	ND	ND	ND
Inorganics									
Cyanide, Total	200	µg/L	3.1 J	ND	ND	30	ND	ND	12

Notes:

Results are presented in units of micrograms per liter (µg/L).

E = Results exceeded calibration range

D = Compound quantitated using a secondary dilution

J = Analyte was detected at a concentration less than the laboratory reporting limit

ND (<#) = Not detected above laboratory reporting limit. # represents the laboratory reporting limit.

Bolded = values indicate exceedance of the NYSDEC AWQS

Appendix A – Field Inspection Reports

Site Management Plan Inspection Form
Anthony Street
Former MGP Site
Watertown, New York

Date: 12/15/2022 Time: 8:45

Technician: KL Weather: Cloudy 27

General Site Wide Conditions				
Any signs of ground-intrusive activities?	YES	NO		COMMENTS:
Any soil disturbance regardless of quantity/extent?	YES	NO		COMMENTS:
Any surface erosion?	YES	NO		COMMENTS:
Any settlement?	YES	NO		COMMENTS:
Bare or sparsely-vegetated areas?	YES	NO		COMMENTS:
Excessive cracking or missing pavement?	YES	NO		COMMENTS:
Any other conditions affecting the thickness or the integrity of the soil cover system?	YES	NO		COMMENTS:
Any repairs, maintenace or corrective actions since the last inspection?	YES	NO		COMMENTS:
Have the front lawns been mowed?	YES	NO		COMMENTS:
Conditon of the asphalt pavement	GOOD	FAIR	POOR	COMMENTS:
Conditon of the front sidewalks?	GOOD	FAIR	POOR	COMMENTS:
Conditon of the building foundations?	GOOD	FAIR	POOR	COMMENTS:
Are the requirements of the SMP being met?	YES	NO		COMMENTS:
Are there any needed changes?	YES	NO		COMMENTS:
Are the site records complete and up to date?	YES	NO		COMMENTS:

Site Monitoring Wells		
Well ID.	***Location Secure***	
MW-1	YES	NO
MW-2	YES	NO
MW-3	YES	NO
MW-3R	YES	NO
MW-4R	YES	NO
MW-5R	YES	NO
MW-6R	YES	NO
MW-7R	YES	NO

General Comments:

Site Management Plan Inspection Form
Anthony Street
Former MGP Site
Watertown, New York

Date: 9/29/2022 Time: 7:30

Technician: KL Weather: Partly Cloudy 48

General Site Wide Conditions

Any signs of ground-intrusive activities?	YES		NO	COMMENTS:
Any soil disturbance regardless of quantity/extent?	YES		NO	COMMENTS:
Any surface erosion?	YES		NO	COMMENTS:
Any settlement?	YES		NO	COMMENTS:
Bare or sparsely-vegetated areas?	YES		NO	COMMENTS:
Excessive cracking or missing pavement?	YES		NO	COMMENTS:
Any other conditions affecting the thickness or the integrity of the soil cover system?	YES		NO	COMMENTS:
Any repairs, maintenace or corrective actions since the last inspection?	YES		NO	COMMENTS:
Have the front lawns been mowed?	YES		NO	COMMENTS:
Conditon of the asphalt pavement	GOOD	FAIR	POOR	COMMENTS:
Conditon of the front sidewalks?	GOOD	FAIR	POOR	COMMENTS:
Conditon of the building foundations?	GOOD	FAIR	POOR	COMMENTS:
Are the requirements of the SMP being met?	YES		NO	COMMENTS:
Are there any needed changes?	YES		NO	COMMENTS:
Are the site records complete and up to date?	YES		NO	COMMENTS:

Site Monitoring Wells

Well ID.	*Location Secure*	
MW-1	YES	NO
MW-2	YES	NO
MW-3	YES	NO
MW-3R	YES	NO
MW-4R	YES	NO
MW-5R	YES	NO
MW-6R	YES	NO
MW-7R	YES	NO

General Comments:

Site Management Plan Inspection Form
Anthony Street
Former MGP Site
Watertown, New York

Date: 6/8/2022 Time: 8:00

Technician: KL Weather: Partly Cloudy 60

General Site Wide Conditions				
Any signs of ground-intrusive activities?	YES	NO		COMMENTS:
Any soil disturbance regardless of quantity/extent?	YES	NO		COMMENTS:
Any surface erosion?	YES	NO		COMMENTS:
Any settlement?	YES	NO		COMMENTS:
Bare or sparsely-vegetated areas?	YES	NO		COMMENTS:
Excessive cracking or missing pavement?	YES	NO		COMMENTS:
Any other conditions affecting the thickness or the integrity of the soil cover system?	YES	NO		COMMENTS:
Any repairs, maintenace or corrective actions since the last inspection?	YES	NO		COMMENTS:
Have the front lawns been mowed?	YES	NO		COMMENTS:
Conditon of the asphalt pavement	GOOD	FAIR	POOR	COMMENTS:
Conditon of the front sidewalks?	GOOD	FAIR	POOR	COMMENTS:
Conditon of the building foundations?	GOOD	FAIR	POOR	COMMENTS:
Are the requirements of the SMP being met?	YES	NO		COMMENTS:
Are there any needed changes?	YES	NO		COMMENTS:
Are the site records complete and up to date?	YES	NO		COMMENTS:

Site Monitoring Wells		
Well ID.	***Location Secure***	
MW-1	YES	NO
MW-2	YES	NO
MW-3	YES	NO
MW-3R	YES	NO
MW-4R	YES	NO
MW-5R	YES	NO
MW-6R	YES	NO
MW-7R	YES	NO

General Comments:

Site Management Plan Inspection Form
Anthony Street
Former MGP Site
Watertown, New York

Date: 3/29/2022 Time: 8:00

Technician: KL Weather: Sunny 20

General Site Wide Conditions				
Any signs of ground-intrusive activities?	YES	NO		COMMENTS:
Any soil disturbance regardless of quantity/extent?	YES	NO		COMMENTS:
Any surface erosion?	YES	NO		COMMENTS:
Any settlement?	YES	NO		COMMENTS:
Bare or sparsely-vegetated areas?	YES	NO		COMMENTS:
Excessive cracking or missing pavement?	YES	NO		COMMENTS:
Any other conditions affecting the thickness or the integrity of the soil cover system?	YES	NO		COMMENTS:
Any repairs, maintenace or corrective actions since the last inspection?	YES	NO		COMMENTS:
Have the front lawns been mowed?	YES	NO		COMMENTS:
Conditon of the asphalt pavement	GOOD	FAIR	POOR	COMMENTS:
Conditon of the front sidewalks?	GOOD	FAIR	POOR	COMMENTS:
Conditon of the building foundations?	GOOD	FAIR	POOR	COMMENTS:
Are the requirements of the SMP being met?	YES	NO		COMMENTS:
Are there any needed changes?	YES	NO		COMMENTS:
Are the site records complete and up to date?	YES	NO		COMMENTS:

Site Monitoring Wells		
Well ID.	***Location Secure***	
MW-1	YES	NO
MW-2	YES	NO
MW-3	YES	NO
MW-3R	YES	NO
MW-4R	YES	NO
MW-5R	YES	NO
MW-6R	YES	NO
MW-7R	YES	NO

General Comments:

Appendix B – Well Sampling Field Data

National Grid
Anthony Street
Watertown, New York

Annual Groundwater Sampling Event
6/ /2022
KL/PL

Well ID	Sample?	Well Size	DTW	DTP	DTB	Comments
MW-1	Yes	2"	7.44		7.85	
MW-2	Yes	2"	5.30		7.30	
MW-3	Yes	2"	DRY		5.76	historically dry
MW-3R	Yes	2"	22.79		23.30	
MW-4R	Yes	2"	22.40		44.80	MS/MSD
MW-5R	Yes	2"	22.23		44.45	Field Duplicate
MW-6R	Yes	2"	22.52		45.00	
MW-7R	Yes	2"	21.45		45.05	

DTW *-depth to water*

DTP *-depth to product*

DTB *-depth to bottom*

National Grid
Anthony Street, Watertown New York

Sampling Personnel: VK
Job Number: 0603275-136010-221
Well Id. **MW-1**

Date: 6/9/22
Weather: PC 60
Time In: 09:45 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	7.44	
Depth to Bottom:	(feet)	7.85	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	0.41	
Volume of Water in Well:	(gal)	0.065	
Three Well Volumes:	(gal)	0.196	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	(ml/min)	200			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	2			

Did well go dry? Yes [ ] No [ ]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
09:00								
09:05								
09:10								
09:15								
09:20								
09:30								

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 100ml ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **MW-1-0622** Duplicate? Yes [ ] No [X]
Sample Time: 09:30 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
Anthony Street, Watertown New York

Sampling Personnel: Peter Lyon
Job Number: 0603275-136010-221
Well Id. **MW-3R**

Date: 6/8/22
Weather: 65° Partly cloudy
Time In: 0945 Time Out: 1000

Well Information

		TOC	Other
Depth to Water:	(feet)	22.78	
Depth to Bottom:	(feet)	23.30	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	.52	
Volume of Water in Well:	(gal)	.08	
Three Well Volumes:	(gal)	.24	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	(ml/min)				
Duration of Pumping:	(min)				
Total Volume Removed:	(gal)				

Did well go dry? Yes [X] No [ ]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 100ml ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **MW-3R-0622** Duplicate? Yes [ ] No [X]
Sample Time: MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes: Too little water to pump DRY

National Grid
Anthony Street, Watertown New York

Sampling Personnel: [illegible]
Job Number: 0603275-136010-221
Well Id. **MW-2**

Date: 6/8/22
Weather: Sunny 62
Time In: 10:55 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	~~22.40~~	5.30
Depth to Bottom:	(feet)	7.30	
Depth to Product:	(feet)	~~2.00~~	
Length of Water Column:	(feet)	~~3~~	2.00
Volume of Water in Well:	(gal)	.32	
Three Well Volumes:	(gal)	~~3.32~~	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	(ml/min)	200			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	2			

Did well go dry? Yes [ ] No [ ]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
11:00	5.46	13.84	7.48	-210	0.000	165	10.59	0.000
11:05	5.80	13.39	7.51	-173	0.483	172	7.29	0.313
11:10	5.85	13.34	7.43	-151	0.471	37.0	7.93	0.306
11:20	6.07	13.44	7.37	-131	0.466	10.1	7.41	0.303
11:25	5.85	13.44	7.36	-130	0.467	5.0	7.18	0.303
11:30	5.88	13.47	7.35	-119	0.468	3.0	6.49	0.304
~~11:35~~								

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's
EPA SW-846 Method 8260 VOC's BTEX
EPA SW-846 Method 9012 Total Cyanide

2 - 100ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-2-0622** Duplicate? Yes [X] No [ ]
Sample Time: 11:30 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
Anthony Street, Watertown New York

Sampling Personnel: Peter Lyon
Job Number: 0603275-136010-221
Well Id. **MW-3**

Date: 6/9/22
Weather: 67° Partly Cloudy
Time In: 0944 Time Out: 0945

Well Information

		TOC	Other
Depth to Water:	(feet)	Dry	
Depth to Bottom:	(feet)	5.76	
Depth to Product:	(feet)		
Length of Water Column:	(feet)		
Volume of Water in Well:	(gal)		
Three Well Volumes:	(gal)		

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]		
Sampling Method:	Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]		
Average Pumping Rate:	(ml/min)				
Duration of Pumping:	(min)				
Total Volume Removed:	(gal)				

Did well go dry? Yes [X] No [ ]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 100ml ambers	Yes [X]	No [ ]
EPA SW-846 Method 8260	VOC's BTEX	3 - 40 ml vials	Yes [X]	No [ ]
EPA SW-846 Method 9012	Total Cyanide	1 - 250 ml plastic	Yes [X]	No [ ]

Sample ID: **MW-3-0622** Duplicate? Yes [ ] No [X]
Sample Time: MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes: Well is Dry No Sample

National Grid
Anthony Street, Watertown New York

Sampling Personnel: KL
Job Number: 0603275-136010-221
Well Id. **MW-4R**

Date: 6/8/22
Weather: Sunny 62
Time In: 09:10 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	22.40	
Depth to Bottom:	(feet)	44.80	
Depth to Product:	(feet)		
Length of Water Column:	(feet)	22.4	
Volume of Water in Well:	(gal)	3.58	
Three Well Volumes:	(gal)	10.75	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other:
Well Diameter: 1" [ ] 2" [X] Other:
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	(ml/min)	200			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	20			

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
09:15	22.93	14.68	6.54	36	3.06	79	1.4	1.96
09:20	23.54	13.84	7.15	5	3.12	4.9	0.87	2.00
09:25	24.46	13.01	7.43	-36	3.13	2.1	0.63	1.99
09:30	25.07	12.49	7.42	-55	2.61	6.5	0.67	1.64
09:35	25.46	12.68	7.24	-44	2.19	12.7	0.78	1.39
09:40	26.30	13.23	7.08	-90	2.07	23.8	0.63	1.52
09:45	26.94	13.28	7.08	-129	2.07	40.5	0.63	1.33

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's
EPA SW-846 Method 8260 VOC's BTEX
EPA SW-846 Method 9012 Total Cyanide

6 - 100ml ambers Yes [X] No [ ]
9 - 40 ml vials Yes [X] No [ ]
3 - 250 ml plastic Yes [X] No [ ]

MW-4R-MS-0622 **MW-4R-MSD-0622**

Sample ID: **MW-4R-0622** Duplicate? Yes [ ] No [X]
Sample Time: 09:45 MS/MSD? Yes [X] No [ ]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
Anthony Street, Watertown New York

Sampling Personnel: [illegible]
Job Number: 0603275-136010-221
Well Id. **MW-5R**

Date: 6/8/22
Weather: Sun 45
Time In: 10:00 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	22.23	
Depth to Bottom:	(feet)	44.45	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	22.22	
Volume of Water in Well:	(gal)	3.55	
Three Well Volumes:	(gal)	10.66	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other: ____
Well Diameter: 1" [ ] 2" [X] Other: ____
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	(ml/min)	500			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	2			

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
10:15	22.51	14.31	7.24	-197	1.56	2.6	0.85	0.857
10:20	22.73	11.18	7.40	-205	0.751	0.0	0.44	0.601
10:25	22.78	10.69	7.39	-209	0.867	0.0	0.39	0.554
10:30	22.88	10.53	7.38	-215	0.805	0.0	0.39	0.546
10:35	22.90	10.50	7.45	-232	0.773	0.0	0.39	0.495
10:40	22.95	10.46	7.50	-243	0.763	0.0	0.37	0.498
10:45	22.95	10.38	7.55	-256	0.762	0.0	0.35	0.488

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's
EPA SW-846 Method 8260 VOC's BTEX
EPA SW-846 Method 9012 Total Cyanide

4 - 100 ml ambers Yes [X] No [ ]
6 - 40 ml vials Yes [X] No [ ]
2 - 250 ml plastic Yes [X] No [ ]

Field Duplicate 0622
Sample ID: **MW-5R-0622** Duplicate? Yes [X] No [ ]
Sample Time: 10:45 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
Anthony Street, Watertown New York

Sampling Personnel: Peter Lynn
Job Number: 0603275-136010-221
Well Id. **MW-6R**

Date: 6/8/22
Weather: 67 Sunny
Time In: 1018 Time Out: 1100

Well Information

		TOC	Other
Depth to Water:	(feet)	22.52	
Depth to Bottom:	(feet)	45.00	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	22.48	
Volume of Water in Well:	(gal)	3.59	
Three Well Volumes:	(gal)	10.79	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other: ____
Well Diameter: 1" [ ] 2" [X] Other: ____
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	(ml/min)	200			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	2			

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1020	22.52	14.68	7.39	164	5.09	57.7	2.71	3.21
1025	22.52	13.54	7.36	89	5.26	41.2	0.00	3.32
1030	22.52	12.59	7.38	-52	5.05	18.3	0.00	3.18
1035	22.52	12.39	7.38	-53	4.81	8.9	0.00	3.08
1040	22.52	12.30	7.41	-22	4.37	7.4	0.14	2.78
1045	22.52	12.40	7.47	28	3.41	5.3	2.11	2.18
1050	22.52	12.68	7.50	57	3.13	4.5	3.01	2.00

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's
EPA SW-846 Method 8260 VOC's BTEX
EPA SW-846 Method 9012 Total Cyanide

2 - 100ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-6R-0622** Duplicate? Yes [ ] No [X]
Sample Time: 1050 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
Anthony Street, Watertown New York

Sampling Personnel: Peter Lyon
Job Number: 0603275-136010-221
Well Id. **MW-7R**

Date: 6/8/22
Weather: Cloudy 65°
Time In: 0855 Time Out: 0935

Well Information

		TOC	Other
Depth to Water:	(feet)	21.45	
Depth to Bottom:	(feet)	45.05	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	23.6	
Volume of Water in Well:	(gal)	3.77	
Three Well Volumes:	(gal)	11.32	

Well Type: Flushmount [X] Stick-Up [ ]
Well Locked: Yes [X] No [ ]
Measuring Point Marked: Yes [X] No [ ]
Well Material: PVC [X] SS [ ] Other: ____
Well Diameter: 1" [ ] 2" [X] Other: ____
Comments:

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	
Sampling Method:		Bailer [ ]	Peristaltic [X]	Grundfos Pump [ ]	
Average Pumping Rate:	(ml/min)	200			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	2			

Did well go dry? Yes [ ] No [X]

Horiba U-52 Water Quality Meter Used? Yes [X] No [ ]

Conversion Factors				
gal/ft. of water	1" ID	2" ID	4" ID	6" ID
	0.04	0.16	0.66	1.47
1 gallon=3.785L=3785mL=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
0900	21.46	13.12	6.65	211	4.01	4.4	6.19	2.56
0905	21.47	12.56	6.98	208	4.10	2.5	3.24	2.63
0910	21.46	11.95	7.12	203	4.17	1.4	3.13	2.67
0915	21.46	12.08	7.19	196	4.16	0.5	3.00	2.66
0920	21.46	12.06	7.24	190	4.15	0.4	2.93	~~2.66~~ 2.66
0925	21.46	12.08	7.27	185	4.14	0.7	2.77	2.65
0930	21.46	11.93	7.30	183	4.14	0.8	2.69	2.65

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's
EPA SW-846 Method 8260 VOC's BTEX
EPA SW-846 Method 9012 Total Cyanide

2 - 100ml ambers Yes [X] No [ ]
3 - 40 ml vials Yes [X] No [ ]
1 - 250 ml plastic Yes [X] No [ ]

Sample ID: **MW-7R-0622** Duplicate? Yes [ ] No [X]
Sample Time: 0930 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Drop-off Albany Service Center [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Pace Analytical
www.pacelabs.com

Page: 1 of 1

ion A ired Client Information:	Section B Required Project Information:	Section C Invoice Information:
any: GES - Syracuse	Report To: Devin Shay (GES) dshay@gesonline.com	Attention: Accounts Payable via email at ges-invoices@gesonline.com
ss: 6780 Northern Blvd, Suite 100	Report To: Tim Beaumont (GES) tbeaumont@gesonline.com	Company Name: Groundwater & Environmental Services, Inc
Syracuse, New York 13057		Address: 6780 Northern Blvd, Suite 100, East Syracuse, NY 13057
To: dshay@gesonline.com	Purchase Order No.:	Pace Quote Reference:
. 800.220.3069 Fax: None	Project Name: National Grid - Watertown Anthony St, Watertown NY	Pace Project Manager: Rachel Christner
ested Due Date/TAT: Standard	Project Number: 0603275-136010-221-1106	Pace Profile #: Annual GWS

REGULATORY AGENCY: NPDES, GROUND WATER, DRINKING WATER, UST, RCRA, OTHER

SITE LOCATION: GA, IL, IN, MI, NC, OH, SC, WI, OTHER

Filtered (Y/N)

Requested Analysis:

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	BTEX (8260C)	SVOCs (PAHs) (8270D)	Cyanide, Total (9012B)	Pace Project Number Lab I.D.
MW-1-0622 (struck through)	WT	G	[redacted]		6/8/22			6	2			3	1				3	2	1	
MW-2-0622	WT	G			6/8/22	11:30	K	6	2			3	1				3	2	1	
MW-3-0622 (struck through)	WT	G						6	2			3	1				3	2	1	
MW-3R-0622 (struck through)	WT	G						6	2			3	1				3	2	1	
MW-4R-0622	WT	G				09:45		6	2			3	1				3	2	1	
MW-4R-MS-0622	WT	G				09:45		6	2			3	1				3	2	1	
MW-4R-MSD-0622	WT	G				09:45		6	2			3	1				3	2	1	
MW-5R-0622	WT	G				10:45		6	2			3	1				3	2	1	
MW-6R-0622	WT	G				10:50		6	2			3	1				3	2	1	
MW-7R-0622	WT	G				09:30		6	2			3	1				3	2	1	
FD-0622	WT	G			✓	—	✓	6	2			3	1				3	2	1	
Trip Blanks	WT	G				10:20		2				3					3			
	WT	G																		
	WT	G																		

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	6/8/22	12:20			

nal Comments:

LES WILL ARRIVE IN # 1 COOLERS.

send reports to: dshay@gesonline.com, tbeaumont@gesonline.com
ion@gesonline.com, ges@equisonline.com

FIC EDD NAME:
tertown-labnumber.28351.EQEDD.zip

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: KEVIN LEO
SIGNATURE of SAMPLER: [signature]
DATE Signed (MM/DD/YY): 6/8/22

SAMPLE CONDITIONS

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

Appendix C – Data Usability Summary Report

Groundwater
& Environmental Services, Inc.

701 N Main St. Suite 201 • Blacksburg, Virginia 24060 • (866) 756 0788

January 27, 2023

Devin Shay
Groundwater & Environmental Services, Syracuse
6780 Northern Blvd., Suite 100
East Syracuse, NY 13057.

RE: Data Usability Summary Report for National Grid: Watertown, NY Site Data Package
Pace Analytical Job No. 30496911

Groundwater & Environmental Services, Inc. (GES) reviewed one data package (Laboratory Project Number 30496911) from Pace Analytical Services, LLC in Greensburg, PA., for the analysis of groundwater samples collected on June 8, 2022 from monitoring wells located at the National Grid: Watertown, NY Site. Five aqueous samples and a field duplicate were analyzed for volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), and Cyanide. Methodologies utilized were those of the USEPA SW846 methods 8260C/8270D/9012B, with additional QC requirements of the NYSDEC ASP.

The data were reported as part of a complete full deliverable type B data validation. This usability report is generated from review of the following:

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries/Duplicate: (MS/MSD) Correlations
- Field Duplicate Correlations
- Laboratory Control Sample (LCS)
- Preparation/Calibration Blanks
- Calibration/Low Level Standard Responses
- Instrumental Tunes

The items listed above which show deficiencies were discussed within the text of this narrative.

All of the other items were determined to be acceptable for the DUSR level review.

In addition, method and QC criteria specified in the NYSDEC ASP were implemented. All data are considered valid and acceptable except those analytes that have been qualified as unusable "R" (unreliable).

Table 1. Validation Qualifiers

Sample ID	Qualifier	Analyte	Reason for qualification
MW-4R	J-	Cyanide	Low MS Recovery
	J	Ethylbenzene, Xylene, (Total) and o-Xylene	MS/MSD recovery high
MW-2 MW-4R MW-6R MW-7R	J- (detects) UJ- (non-detects)	All SVOCs except otherwise qualified	Missed hold time
MW-2 MW-4R MW-5R MW-6R MW-7R	J+	Naphthalene	Method blank detection High LCS recovery

In summary, sample results were usable as reported, with qualifications and exceptions listed in Table 1.

The laboratory case narratives and sample identification summary forms are attached to this text, and should be reviewed in conjunction with this report.

BTEX Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times were met and instrumental tune fragmentations were within acceptance ranges.

There were no positive detections in the blanks. Surrogate and internal standard recoveries were within required limits.

Calibration standards show acceptable responses within analytical protocol and validation action limits.

MS/MSD recoveries were high for all analytes except benzene. Relative percent differences (RPD) were within laboratory and EPA criteria. Positive detections of ethylbenzene, xylenes (total), and o-xylene are qualified as estimated with a possible high bias.

The blind field duplicate correlations MW-5R, where applicable, fall below the EPA recommended 30% for aqueous duplicate samples.

PAHs by EPA8270D/NYSDEC ASP

Holding times were met with the exception of the following samples:

- MW-2
- MW-4R
- MW-6R

- MW-7R

Detections in these samples are qualified as estimated with a possible low bias.

Samples were diluted due to high levels of non-target analytes. Elevated reporting limits are used by the laboratory:

- FD-0622
- MW-5R

Instrumental tune fragmentations were within acceptance ranges. Surrogate recoveries were within analytical and validation criteria.

Blanks show no contamination with the following exception:

- Naphthalene was reported in the method blank at 1.4 µg/L.

Compounds that reported naphthalene at less than 5 times the blank are qualified as estimated with a possible high bias.

Calibration standards show acceptable responses within analytical protocol and validation action limits.

LCS recoveries and RPDs were reported within acceptable ranges, with the exception of a high recovery of naphthalene, likely due to the same source as the method blank contamination. All naphthalene detections are qualified as estimated with a possible high bias.

MS/MSD recoveries for naphthalene associated with MW-4R were outside laboratory specifications. This compound is already qualified due to previous blank and LCS non-compliance.

The blind field duplicate correlations MW-5R, where applicable, fall below the EPA recommended 30% for aqueous duplicate samples. The exception to this is a detection of acenaphthylene in the duplicate at 50.2 µg/L where the corresponding analyte in the original was reported as non-detect. The reporting limit in the original sample was above 51.2 µg/L, elevated due to dilution. The data in the field duplicate is not qualified.

Total Cyanide by 9012B/ NYSDEC ASP

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, accuracy and precision, etc., as applicable to each procedure. All were found acceptable for the validated samples, with the flowing exceptions:

- Low recovery of cyanide in the MS and MSD prepared from the sample MW-4R. Low recoveries indicate a possible low bias. Cyanide is qualified as estimated with a possible low bias in MW-4R.

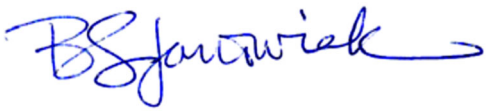
Calibration standard responses were compliant. Blanks show no detections above the reporting limits. The laboratory spikes and duplicates of total cyanide show acceptable recoveries and/or correlations.

The blind field duplicate correlations MW-5R, where applicable, fall below the EPA recommended 30% for aqueous duplicate samples.

Data Package Completeness

Complete NYSDEC Category B deliverables were included in the laboratory data package, all information required for validation of the data is present.

Please do not hesitate to contact me if you have comments or questions regarding this report.



Bonnie Janowiak, Ph.D.
Principal Environmental Chemist, NRCC Certified
701 N Main St
Blacksburg, VA 24060

VALIDATION DATA QUALIFIER DEFINITIONS

U The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.

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

J- The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.

J+ The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.

UJ The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.

NJ The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.

R The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.

Sample Summaries

and

Laboratory Case Narratives

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: National Grid - Watertown, NY
Pace Project No.: 30496911

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30496911001	**MW-2-0622**	Water	06/08/22 11:30	06/09/22 09:40
30496911002	**MW-4R-0622**	Water	06/08/22 09:45	06/09/22 09:40
30496911003	**MW-4R-MS-0622**	Water	06/08/22 09:45	06/09/22 09:40
30496911004	**MW-4R-MSD-0622**	Water	06/08/22 09:45	06/09/22 09:40
30496911005	**MW-5R-0622**	Water	06/08/22 10:45	06/09/22 09:40
30496911006	**MW-6R-0622**	Water	06/08/22 10:50	06/09/22 09:40
30496911007	**MW-7R-0622**	Water	06/08/22 09:30	06/09/22 09:40
30496911008	**FD-0622**	Water	06/08/22 00:00	06/09/22 09:40
30496911009	**Trip Blanks**	Water	06/08/22 10:28	06/09/22 09:40

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: National Grid - Watertown, NY
Pace Project No.: 30496911

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 21, 2022

General Information:
8 samples were analyzed for EPA 8270D by SIM by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H2: Extraction or preparation conducted outside EPA method holding time.
- MW-2-0622 (Lab ID: 30496911001)
- MW-4R-0622 (Lab ID: 30496911002)
- MW-6R-0622 (Lab ID: 30496911006)
- MW-7R-0622 (Lab ID: 30496911007)

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

QC Batch: 511851

B: Analyte was detected in the associated method blank.
- BLANK for HBN 511851 [OEXT/471 (Lab ID: 2480901)
  - Naphthalene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 511851

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- LCS (Lab ID: 2480902)
  - Naphthalene

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: National Grid - Watertown, NY
Pace Project No.: 30496911

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 21, 2022

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 511851

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30496911002

R1: RPD value was outside control limits.

- MSD (Lab ID: 2480904)
  - Naphthalene

QC Batch: 512937

A matrix spike/matrix spike duplicate was not performed due to insufficient sample volume.

Additional Comments:

Analyte Comments:

QC Batch: 511851

D3: Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

- FD-0622 (Lab ID: 30496911008)
  - Fluorene
  - Phenanthrene
- MW-5R-0622 (Lab ID: 30496911005)
  - Acenaphthylene
  - Fluorene
  - Phenanthrene

QC Batch: 512937

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MW-2-0622 (Lab ID: 30496911001)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene

Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: National Grid - Watertown, NY
Pace Project No.: 30496911

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 21, 2022

Analyte Comments:

QC Batch: 512937

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MW-4R-0622 (Lab ID: 30496911002)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene
- MW-6R-0622 (Lab ID: 30496911006)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene
- MW-7R-0622 (Lab ID: 30496911007)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene

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PROJECT NARRATIVE

Project: National Grid - Watertown, NY
Pace Project No.: 30496911

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 21, 2022

Analyte Comments:

QC Batch: 512937

1c: A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

- MW-7R-0622 (Lab ID: 30496911007)
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluorene
  - Fluoranthene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene

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PROJECT NARRATIVE

Project: National Grid - Watertown, NY
Pace Project No.: 30496911

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 21, 2022

General Information:
9 samples were analyzed for EPA 8260C by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 511163

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30496911002

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MS (Lab ID: 2477937)
  - Ethylbenzene
  - Toluene
  - m&p-Xylene
  - o-Xylene

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid - Watertown, NY
Pace Project No.: 30496911

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: June 21, 2022

General Information:
8 samples were analyzed for EPA 9012B by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9012B with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 511848

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30496911002

ML: Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

- MSD (Lab ID: 2480894)
  - Cyanide

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.