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

December 30, 2021

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
1 East Street, Ilion, New York
Annual Groundwater Monitoring Report

Dear Mr. Deyette:

Enclosed for your review is the Annual Groundwater Monitoring Report for the NG Ilion Former MGP Site, for 2021.

Groundwater and Environmental Service, Inc., (GES) contractor for National Grid, conducts all long-term monitoring and sampling activities at the site. Quarterly site inspections were conducted in 2021 (January, April, July, and October). The site is generally in good shape and in compliance. There were detections in several of the wells during the April and October 2021 sampling events that exceeded the regulatory criteria.

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 Ilion Former MGP Site
1 East Street, Ilion, NY 13357

December 2021

Version 1

Annual Groundwater Monitoring Report

National Grid Ilion Former MGP Site
1 East Street
Ilion, NY 13357

Prepared for:
National Grid
300 Erie Boulevard West, C-1
Syracuse, NY 13202

Prepared by:
Groundwater & Environmental Services, Inc.
6780 Northern Boulevard, Suite 100
East Syracuse, NY 13057
TEL: 800-220-3069
www.gesonline.com

GES Project:
0603275.133570.221

Date:
December 30, 2021

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

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1 Introduction

This Annual Groundwater Monitoring Report presents results from the activities conducted at the Ilion (East Street and State Street) former non-owned manufactured gas plant (MGP) site (the Site) located in Ilion, New York (Site #6-22-019). A site location map is presented on Figure 1, and a site map is presented as Figure 2. All work summarized herein has been conducted in accordance with the approved Site Management Plan (SMP) for the property, dated October 22, 2018, prepared for and submitted to the New York State Department of Environmental Conservation (NYSDEC) by Arcadis.

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

2 Semi-Annual Groundwater Monitoring

2.1 Objectives

The objectives of the April 2021, and October 2021 groundwater monitoring activities were to:

- Obtain groundwater elevation data from monitoring wells in the vicinity of the site to evaluate groundwater flow direction, 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 April 22, 2021, and October 21, 2021 groundwater monitoring field activities were conducted by GES. Prior to collecting groundwater samples, static fluid level measurements were collected from MW-02R, MW-03, MW-06, MW-07, W-08R, and MW-13. 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. Table 1 also includes groundwater elevation measurements obtained during previous groundwater monitoring events, and is depicted on Figures 3 and 5.

Groundwater generally flows to the north from the Site toward the Mohawk River. Groundwater elevations ranged from 385.42 feet above sea level (asl; well MW-03) to 386.49 feet asl (well MW-08R). 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 six (6) monitoring wells on April 22, 2021, and October 21, 2021 (including MW-02R, MW-03, MW-06, MW-07, MW-08R, and MW-13). 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), as well as 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 Figures 4, and 6. The Data Usability Summary Report (DUSR) is included in Appendix C.

There were BTEX and/or PAH detections in all the monitoring wells sampled in April 2021 and October 2021, with the exception of MW-06, MW-08, and MW-13 in April and October 2021 and MW-03 in October 2021. In April 2021, BTEX, acenaphthene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, indeno(1,2,3-cd)pyrene, and naphthalene were detected above the regulatory criteria in one or more samples. Cyanide was detected in MW-02R, MW-06, MW-07, MW-08R, and MW-13 in April 2021. In October 2021, BTEX and acenaphthene were detected above the regulatory criteria in one or more samples. Cyanide was detected in MW-02R MW-07, and MW-08R during the October 2021 sampling event.

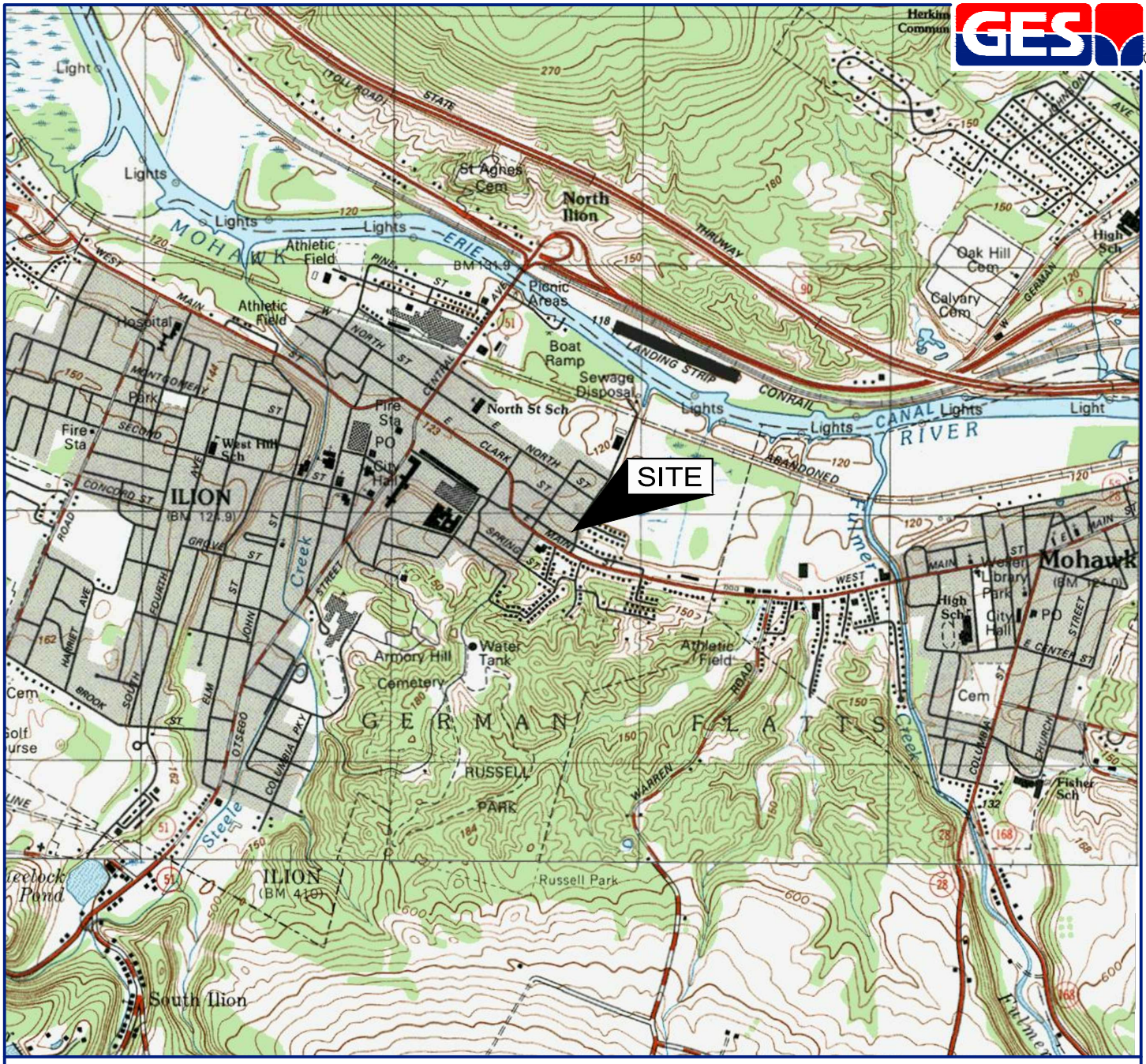
3 Quarterly Site-Wide Inspections

The quarterly site-wide inspections were completed on January 14, April 22, July 1, and October 21, 2021. 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 semi-annual monitoring activities. The next semi-annual groundwater sampling event would be in April 2022. Semi-annual site-wide inspections are required; however, for internal security purposes, National Grid will continue to conduct quarterly site-wide inspections.

Figures



SOURCE: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE 1982
ILION, NEW YORK
CONTOUR INTERVAL = 6 METERS

QUADRANGLE LOCATION

DRAFTED BY: W.G.S.	SITE LOCATION MAP
CHECKED BY:	NATIONAL GRID 1 EAST AVENUE AND STATE STREET ILION, NEW YORK
REVIEWED BY:	Groundwater & Environmental Services, Inc. 5 TECHNOLOGY PLACE, SUITE 4, EAST SYRACUSE, NY 13057
NORTH	SCALE IN FEET: 0 — 2000 / DATE: 11-28-16 / FIGURE: 1

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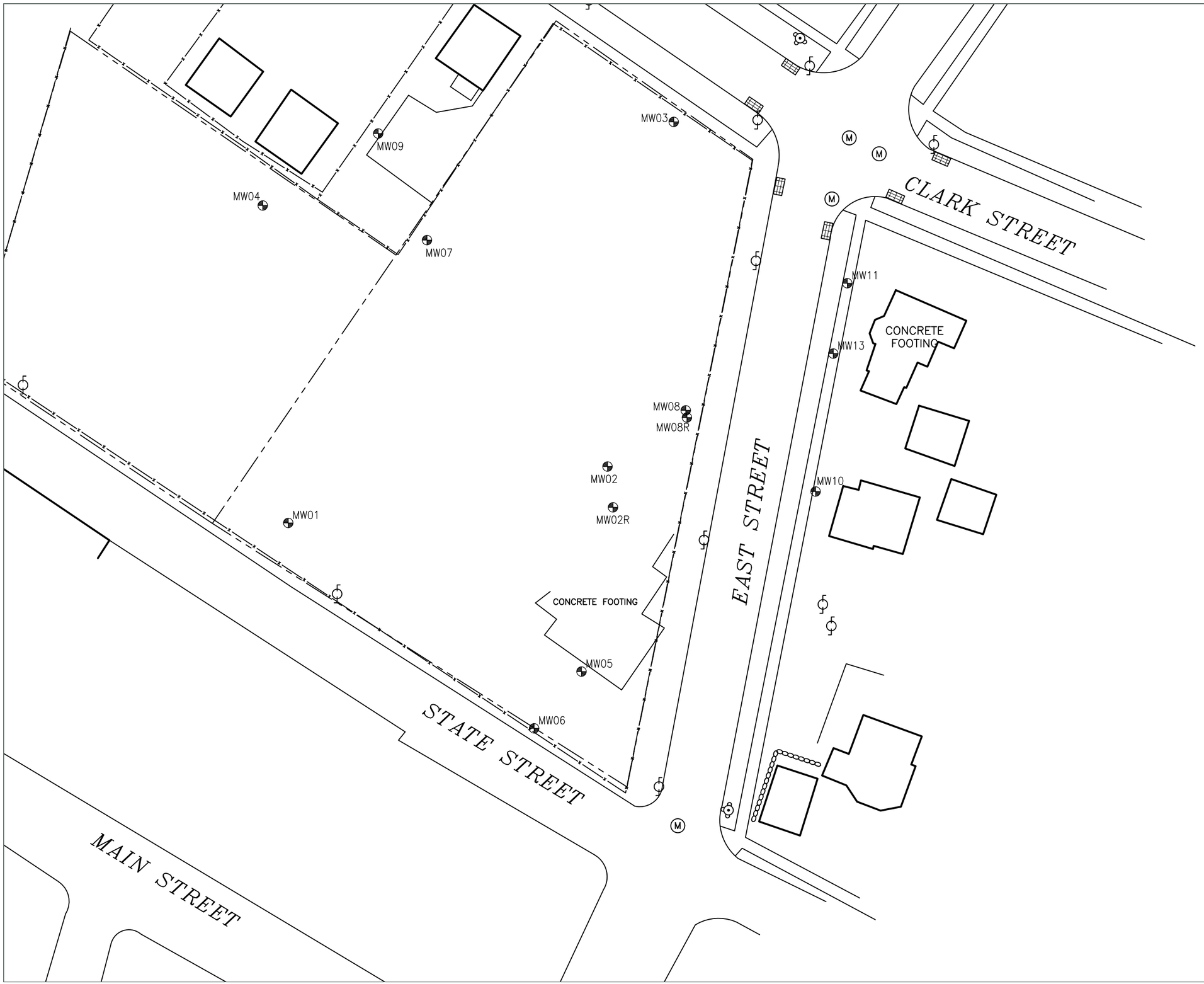

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STONE RETAINING WALL
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- UTILITY POLE
- MONITORING WELL

Site Map

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn
W.G.S.
Designed

Approved

Date
9/21/20
Figure
2

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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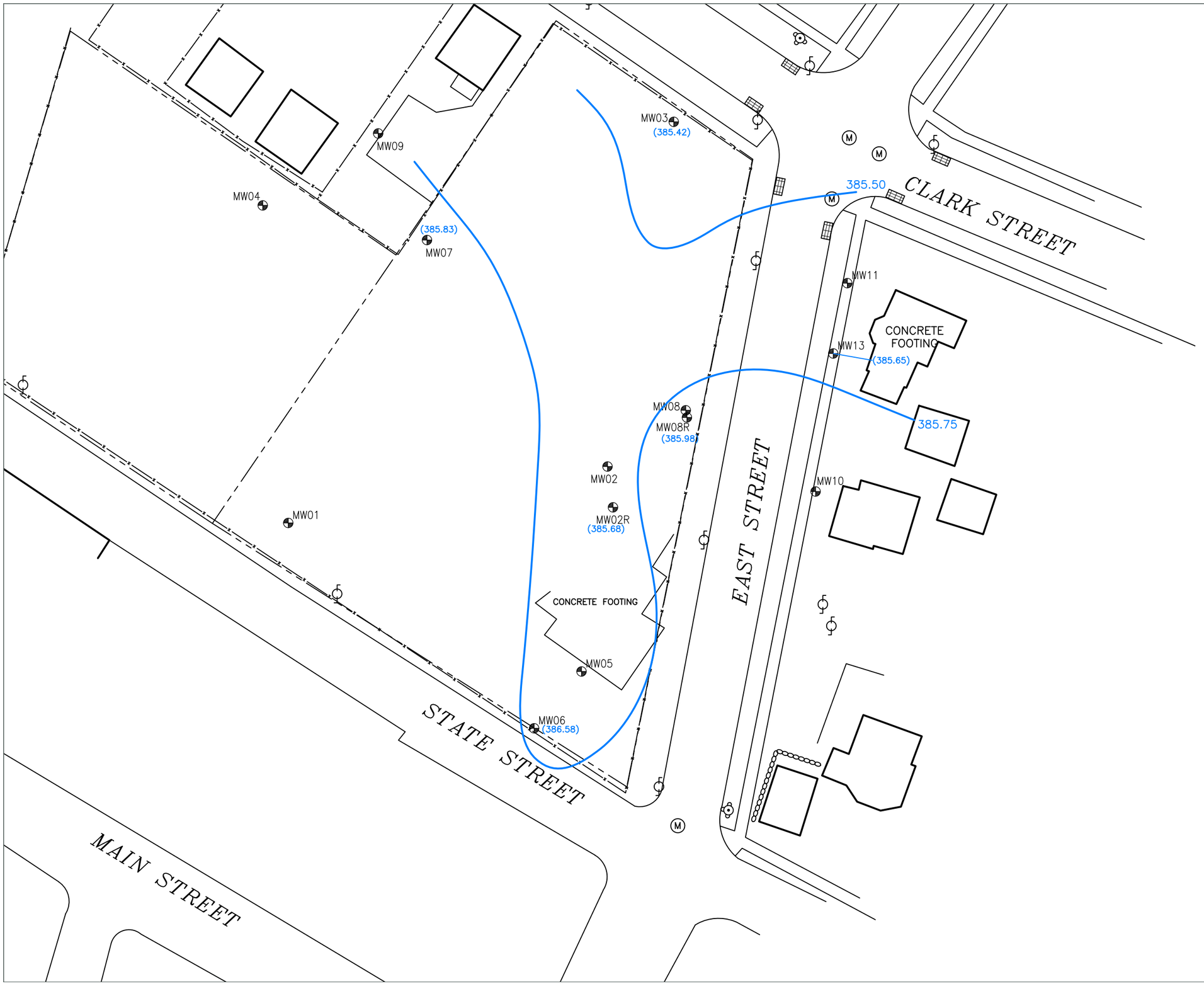

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STONE RETAINING WALL
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- UTILITY POLE
- MONITORING WELL
- (386.58) GROUNDWATER ELEVATION (feet)
- GROUNDWATER CONTOUR (feet)

Groundwater Contour Map
April 22, 2021

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn W.G.S.
Designed
Approved

Date 11/9/21
Figure 3

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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LEGEND

— — —	PROPERTY BOUNDARY
— x —	FENCE
	STONE RETAINING WALL
	CATCH BASIN
M	UTILITY MANHOLE
	FIRE HYDRANT
	UTILITY POLE
	MONITORING WELL
MW02R	WELL IDENTIFICATION
385.68	GROUNDWATER ELEVATION (feet)
1,197.6	BTEX CONCENTRATION (ug/L)
1,260.0	TOTAL PAHs CONCENTRATION (ug/L)
1,900	CYANIDE CONCENTRATION (ug/L)
ug/L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
PAHs	POLYCYCLIC AROMATIC HYDROCARBONS
ND	NOT DETECTED

Groundwater Monitoring Map
April 22, 2021

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn W.G.S.
Designed
Approved

Date 12/17/21
Figure 4

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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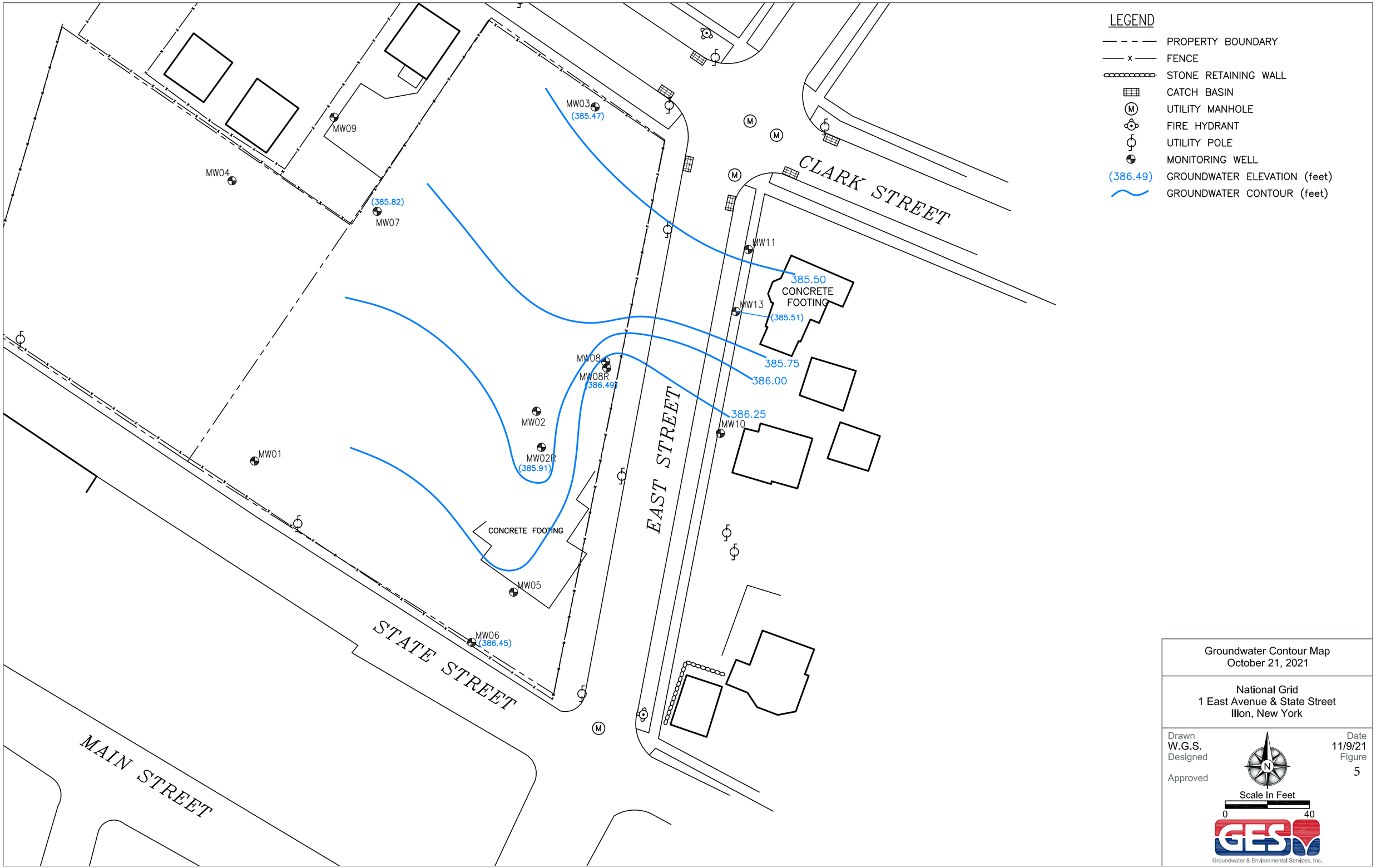

LEGEND

- PROPERTY BOUNDARY
- FENCE
- STONE RETAINING WALL
- CATCH BASIN
- UTILITY MANHOLE
- FIRE HYDRANT
- UTILITY POLE
- MONITORING WELL
- (386.49) GROUNDWATER ELEVATION (feet)
- GROUNDWATER CONTOUR (feet)

Groundwater Contour Map
October 21, 2021

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn W.G.S.
Designed
Approved

Date 11/9/21
Figure 5

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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LEGEND

— — —	PROPERTY BOUNDARY
— x —	FENCE
	STONE RETAINING WALL
	CATCH BASIN
M	UTILITY MANHOLE
	FIRE HYDRANT
	UTILITY POLE
	MONITORING WELL
MW02R 385.91 1,464 82.18 570	WELL IDENTIFICATION GROUNDWATER ELEVATION (feet) BTEX CONCENTRATION (ug/L) TOTAL PAHs CONCENTRATION (ug/L) CYANIDE CONCENTRATION (ug/L)
ug/L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
PAHs	POLYCYCLIC AROMATIC HYDROCARBONS
ND	NOT DETECTED

Groundwater Monitoring Map
October 21, 2021

National Grid
1 East Avenue & State Street
Ilion, New York

Drawn W.G.S.
Designed
Approved

Date 11/9/21
Figure 6

Scale In Feet
0 40

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 (10/05/17)	Groundwater Elevation (10/05/17)	Depth To Water (10/25/19)	Groundwater Elevation (1025/19)	Depth To Water (05/07/20)	Groundwater Elevation (05/07/20)	Depth To Water (10/12/20)	Groundwater Elevation (10/12/20)	Depth To Water (4/22/21)	Groundwater Elevation (4/22/21)	Depth To Water (10/21/21)	Groundwater Elevation (10/21/21)
MW-02R	Flushmount; PVC; 2-inch	398.43	18.0	380.43	8.0 - 18.0	14.15	384.28	10.83	387.60	12.12	386.31	12.82	385.61	12.75	385.68	12.52	385.91
MW-03	Flushmount; PVC; 2-inch	391.44	28.0	363.44	15.0 - 25.0	7.13	384.31	4.95	386.49	5.90	385.54	5.95	385.49	6.02	385.42	5.97	385.47
MW-06	Flushmount; PVC; 2-inch	404.21	28.0	376.21	15.0 - 25.0	19.00	385.21	16.43	387.78	16.96	387.25	17.59	386.62	17.63	386.58	17.76	386.45
MW-07	Flushmount; PVC; 2-inch	394.54	18.4	376.14	8.4 - 18.4	10.18	384.36	7.23	387.31	8.31	386.23	8.75	385.79	8.71	385.83	8.72	385.82
MW-08R	Flushmount; PVC; 2-inch	396.00	20.0	376.00	10.0 - 20.0	11.73	384.27	9.46	386.54	9.91	386.09	10.01	385.99	10.02	385.98	9.51	386.49
MW-13	Flushmount; PVC; 2-inch	392.20	24.0	368.20	14.0 - 24.0	7.95	384.25	5.52	386.68	6.43	385.77	6.54	385.66	6.55	385.65	6.69	385.51

Table 2

Groundwater Analytical Data
MW-02R

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20	04/22/21	10/21/21
BTEX Compounds								
Benzene	µg/L	1	**1.3**	**186**	**551**	**632**	**708**	**819**
Ethylbenzene	µg/L	5	ND (<1.0)	**32.8**	**81.1**	**103**	**125**	**150**
Xylenes, Total	µg/L	5	ND (<1.0)	**48.8**	**162**	**253**	**288**	**151**
Toluene	µg/L	5	ND (<1.0)	**9.1**	**42.7**	**43.7**	**76.6**	**344**
PAHs								
Acenaphthene	µg/L	20	2.4	**24.3**	**20.4**	**38.3**	**61.6**	**57.3**
Acenaphthylene	µg/L	NC	1.5	7.5	10.3	19.4	33.7	9.9
Anthracene	µg/L	50	ND (<1.0)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	0.15
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Chrysene	µg/L	0.002	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.05)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Fluoranthene	µg/L	50	0.0982 J	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	0.15
Fluorene	µg/L	50	1.08	4.0	4.4	9.0	14.1	14.0
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<1.0)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
2-Methylnaphthalene	µg/L	NC	ND (<1.0)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Naphthalene	µg/L	10	0.285	**133**	**257**	**515**	**1,140**	ND (<0.096)
Phenanthrene	µg/L	50	0.554	0.94	2.7	6.7	10.6	0.68
Pyrene	µg/L	50	ND (<1.0)	ND (<0.098)	ND (<0.10)	ND (<0.98)	ND (<0.98)	ND (<0.096)
Cyanide								
Cyanide	µg/L	200	150 J	**1,600**	**3,900**	**4,100**	**1,900**	**570**

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-03

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20	04/22/21	10/21/21
BTEX Compounds								
Benzene	µg/L	1	ND (<0.5)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylenes, Total	µg/L	5	ND (<1.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs								
Acenaphthene	µg/L	20	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Acenaphthylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Anthracene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Chrysene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Fluoranthene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Fluorene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Naphthalene	µg/L	10	ND (<0.10)	ND (<0.099)	0.61	0.24	0.47	ND (<0.097)
Phenanthrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Pyrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.099)	ND (<0.097)
Cyanide								
Cyanide	µg/L	200	10 J	ND (<10)	ND (<10)	ND (<10)	ND (<10)	ND (<10)

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-06

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20	04/22/21	10/21/21
BTEX Compounds								
Benzene	µg/L	1	ND (<0.5)	ND (<1.0)	**4.5**	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylenes, Total	µg/L	5	ND (<1.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs								
Acenaphthene	µg/L	20	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Acenaphthylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Anthracene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Chrysene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Fluoranthene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Fluorene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Naphthalene	µg/L	10	ND (<0.10)	ND (<0.099)	1.2	0.22	ND (<0.10)	ND (<0.097)
Phenanthrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Pyrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.10)	ND (<0.097)
Cyanide								
Cyanide	µg/L	200	10 J	ND (<10)	ND (<10)	ND (<10)	150	ND (<10)

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-07

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20	04/22/21	10/21/21
BTEX Compounds								
Benzene	µg/L	1	**3.1**	ND (<1.0)	**2.8**	**17.2**	**1.5**	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.5	ND (<1.0)	ND (<1.0)
Xylenes, Total	µg/L	5	2.2	ND (<3.0)	ND (<3.0)	**7.1**	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs								
Acenaphthene	µg/L	20	ND (<0.10)	ND (<0.099)	0.11	0.78	0.11	0.44
Acenaphthylene	µg/L	NC	0.498	0.16	ND (<0.11)	1.7	0.18	0.25
Anthracene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	0.17	0.24	ND (<0.098)
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.099)	**0.47**	ND (<0.098)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.099)	**0.12**	ND (<0.099)	**0.46**	ND (<0.098)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	**0.12**	ND (<0.099)	**0.62**	ND (<0.098)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)	0.22	ND (<0.098)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)	**0.59**	ND (<0.098)
Chrysene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)	**0.34**	ND (<0.098)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)	ND(<0.10)	ND (<0.098)
Fluoranthene	µg/L	50	ND (<0.10)	0.10	0.22	0.14	0.96	0.12
Fluorene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	0.18	0.15	0.18
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.099)	**0.21**	ND (<0.098)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	0.23	ND(<0.10)	ND (<0.098)
Naphthalene	µg/L	10	3.23	ND (<0.099)	0.47	29.7	0.33	ND (<0.098)
Phenanthrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	0.17	0.80	ND (<0.098)
Pyrene	µg/L	50	ND (<0.10)	ND (<0.099)	0.18	ND (<0.099)	0.75	ND (<0.098)
Cyanide								
Cyanide	µg/L	200	**290 J**	ND (<10)	**2,300**	**1,800**	**740**	200

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-08R

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/06/17	10/24/19	05/27/20	10/12/20	04/22/21	10/21/21
BTEX Compounds								
Benzene	µg/L	1	**4.1**	**1.5**	**3.3**	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	3.6	ND (<1.0)	1.8	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylenes, Total	µg/L	5	1.5	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	0.38 J	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs								
Acenaphthene	µg/L	20	2.46	3.2	0.25	1.2	ND (<0.11)	ND (<0.099)
Acenaphthylene	µg/L	NC	9.24	7.8	0.79	2.9	ND (<0.11)	ND (<0.099)
Anthracene	µg/L	50	0.214	0.14	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Benzo(a)anthracene	µg/L	0.002	**0.167**	**0.16**	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Benzo(a)pyrene	µg/L	0.002	**0.18**	**0.15**	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Benzo(b)fluoranthene	µg/L	0.002	**0.18**	**0.18**	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Chrysene	µg/L	0.002	**0.155**	**0.13**	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Fluoranthene	µg/L	50	0.514	0.55	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Fluorene	µg/L	50	4.62	4.5	ND (<0.11)	0.88	ND (<0.11)	ND (<0.099)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.098)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Naphthalene	µg/L	10	0.845	0.14	1.0	0.4	ND (<0.11)	ND (<0.099)
Phenanthrene	µg/L	50	2.26	0.27	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Pyrene	µg/L	50	0.421	0.37	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.099)
Cyanide								
Cyanide	µg/L	200	**430 J**	**1,200**	**890**	**560**	170	**250**

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 2

Groundwater Analytical Data
MW-13

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/05/17	10/24/19	05/27/20	10/12/20	04/22/21	10/21/21
BTEX Compounds								
Benzene	µg/L	1	ND (<0.5)	ND (<1.0)	**1.4**	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylenes, Total	µg/L	5	ND (<1.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs								
Acenaphthene	µg/L	20	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Acenaphthylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Anthracene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Benzo(a)anthracene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Benzo(a)pyrene	µg/L	0.002	ND (<0.05)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Chrysene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Fluoranthene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Fluorene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
2-Methylnaphthalene	µg/L	NC	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Naphthalene	µg/L	10	ND (<0.10)	ND (<0.099)	0.63	ND (<0.095)	ND (<0.11)	ND (<0.097)
Phenanthrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Pyrene	µg/L	50	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.095)	ND (<0.11)	ND (<0.097)
Cyanide								
Cyanide	µg/L	200	10 J	ND (<10)	ND (<10)	ND (<10)	46.0	ND (<10)

AWQS = Ambient Water Quality Standards
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Appendix A – Field Inspection Reports

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 10/21/2021 Time: 8:00
Technician: KL Weather: Partly Cloudy 55

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:
Someone ran into the fence on the East State Street site. Bend 1 pole. Site is secure.
Brady Fence had made the repairs.

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 7/1/2021 Time: 11:30
Technician: KL Weather: Partly Cloudy 73

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS: see below
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:
Someone ran into the fence on the East State Street site. Bend 1 pole. Site is secure. Will get Brady Fence to make repair.

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 4/22/2021 Time: 8:30
Technician: PL Weather: Snow 35

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS: cleaned up litter

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Field Inspection Report
Former MGP Site
Ilion, New York

Date: 1/14/2021 Time: 8:00
Technician: AJ Weather: Cloudy 29

Site Controls				
Fence Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Front Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Rear Man Gate Condition	GOOD	FAIR	DAMAGED	COMMENTS:
Padlock-NG	OPERATIONAL	NON-OPERATIONAL		COMMENTS:

General Site Conditions				
Condition of Parking area	GOOD	FAIR	POOR	COMMENTS:
Evidence of any Intrusive Activities	NONE	MINOR	SIGNIFICANT	COMMENTS:
Vegetative Growth	GOOD	FAIR	POOR	COMMENTS:
Conditions of the Site Trees	GOOD	FAIR	POOR	COMMENTS:
Agricultural or Vegetable Gardens	YES	NO		COMMENTS:
Site Been Mowed	YES	NO		COMMENTS:
Evidence of Vandalism	YES	NO		COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Is the site being used in a manner inconsistant with Environmental Easement? Yes | No

Site Monitoring Wells		
Well ID.	**Location Secure**	
MW-02R	Yes	No
MW-03	Yes	No
MW-06	Yes	No
MW-07	Yes	No
MW-08R	Yes	No
MW-13	Yes	No

General Comments:

Appendix B – Well Sampling Field Data

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:

Company: GES - Syracuse	
Address: 5 Technology Place, Suite 4	
East Syracuse, New York 13057	
Email To: dshay@gesonline.com	
Phone: 800.220.3069 x4051	Fax: None
Requested Due Date/TAT: Standard	

Section B
Required Project Information:

Report To: Devin Shay (GES) dshay@gesonline.com
Report To: Tim Beaumont (GES) tbeaumont@gesonline.com
Purchase Order No.:
Project Name: National Grid - Ilion East Street, Ilion NY
Project Number: 0603200-133570-221-1106

Section C
Invoice Information:

Attention: Accounts Payable via email at ges-invoices@gesonline.com
Company Name: Groundwater & Environmental Services, Inc.
Address: 5 Technology Place, Suite 4, East Syracuse, NY 13057
Pace Quote Reference:
Pace Project Manager: Rachel Christner
Pace Profile #: **Semi-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

ITEM #	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.
1	MW-02R-0421	WT	G			4/22/21	0935		6	2			3	1				3	2	1	
2	MW-03-0421	WT	G			↓	1205		6	2			3	1				3	2	1	
3	MW-06-0421	WT	G				1025		6	2			3	1				3	2	1	
4	MW-06-MS-0421	WT	G				1025		6	2			3	1				3	2	1	
5	MW-06-MSD-0421	WT	G				1025		6	2			3	1				3	2	1	
6	MW-07-0421	WT	G				1120		6	2			3	1				3	2	1	
7	MW-08R-0421	WT	G				1250		6	2			3	1				3	2	1	
8	MW-13-0421	WT	G				1355		6	2			3	1				3	2	1	
9	FD-0421	WT	G						6	2			3	1				3	2	1	
10	Trip Blanks	WT	G						3				3					3			
11																					
12																					
13																					

Additional Comments:

SAMPLES WILL ARRIVE IN # ____ COOLERS.

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Peter Lyon	4/22/21	1547	[illegible]	4/22/21	1547	

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:

NGIlion-labnumber.28351.EQEDD.zip

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Peter E. Lyon
SIGNATURE of SAMPLER: Peter E. Lyon
DATE Signed (MM/DD/YY): 04/22/21

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

National Grid
First Street
Ilion, New York

Semi-Annual Groundwater Sampling Event
April 22, 2021
PL

Well ID	Sample?	Well Size	DTW	DTP	DTB	Comments
MW-02R	Yes	2"	12.75	–	18.30	Field Duplicate
MW-03	Yes	2"	6.02	–	27.25	~~Field Duplicate~~
MW-06	Yes	2"	17.63	–	28.60	MS/MSD
MW-07	Yes	2"	8.71	–	16.87	
MW-08R	Yes	2"	10.02	–	20.20	
MW-13	Yes	2"	6.55	–	23.82	

DTW *-depth to water*

DTP *-depth to product*

DTB *-depth to bottom*

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lyon
Job Number: 0603200-133570-221
Well Id. **MW-02R**

Date: 4/22/21
Weather: 34° Sun/Snow
Time In: 0900 Time Out: 0950

Well Information

		TOC	Other
Depth to Water:	(feet)	12.75	
Depth to Bottom:	(feet)	18.30	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	5.55	
Volume of Water in Well:	(gal)	.88	
Three Well Volumes:	(gal)	2.66	

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)	200				
Duration of Pumping: (min)	50				
Total Volume Removed: (gal)	1				

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)
0905	13.12	8.65	7.22	-115	1.02	13.1	.93	.653
0910	13.40	8.43	7.18	-118	1.02	21.1	0.00	.653
0915	13.82	8.30	7.18	-120	1.01	26.9	0.00	.647
0920	14.42	8.35	7.18	-122	1.01	31.6	0.00	.643
0925	14.53	8.26	7.19	-122	1.01	18.0	0.00	.646
0930	14.78	8.33	7.19	-121	1.01	14.5	0.00	.645
0935	15.21	8.38	7.18	-119	1.01	10.1	0.00	.644

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 [ ]

FD-0421
Sample ID: **MW-02R-0421** Duplicate? Yes [X] No [ ]
Sample Time: 0935 MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lyon
Job Number: 0603200-133570-221
Well Id. **MW-03**

Date: 4/22/21
Weather: Sun/snow 34°
Time In: 1130 Time Out: 1210

Well Information

		TOC	Other
Depth to Water:	(feet)	6.02	
Depth to Bottom:	(feet)	27.25	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	21.23	
Volume of Water in Well:	(gal)	3.39	
Three Well Volumes:	(gal)	10.19	

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)	1			

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)
1135	6.05	9.15	8.56	-70	1.09	5.2	0.00	.694
1140	6.02	9.31	8.51	-54	1.08	2.4	0.00	.689
1145	6.03	9.25	8.12	-39	1.07	2.8	0.00	.688
1150	6.03	9.18	8.25	-28	1.08	2.7	0.00	.688
1155	6.03	9.19	8.05	-21	1.07	2.3	0.00	.685
1200	6.03	9.20	7.94	-15	1.07	2.1	0.00	.686
1205	6.03	9.23	7.89	-10	1.07	2.0	0.00	.684

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 100 ml 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-03-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1205 MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lyon
Date: 4/22/21
Job Number: 0603200-133570-221
Weather: Sunny 34°
Well Id. **MW-06**
Time In: 0952 Time Out: 1045

Well Information

		TOC	Other
Depth to Water:	(feet)	17.63	
Depth to Bottom:	(feet)	28.60	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	10.97	
Volume of Water in Well:	(gal)	1.75	
Three Well Volumes:	(gal)	5.26	

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)	1			

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)
0955	17.73	8.20	7.91	-107	1.03	9.8	0.00	.660
1000	17.71	8.58	8.24	-90	1.17	3.3	0.00	.750
1005	17.72	8.90	8.35	-69	1.35	2.6	0.00	.869
1010	17.72	8.97	8.22	-52	1.43	2.0	0.00	.916
1015	17.73	9.20	8.12	-44	1.42	2.0	0.00	.909
1020	17.73	9.31	7.26	-39	1.48	1.8	0.00	.974
1025	17.73	9.36	7.37	-32	1.59	1.5	0.00	1.01

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	6 - 100 ml ambers	Yes [X] No [ ]
EPA SW-846 Method 8260	VOC's BTEX	9 - 40 ml vials	Yes [X] No [ ]
EPA SW-846 Method 9012	Total Cyanide	3 - 250 ml plastic	Yes [X] No [ ]

Sample ID: **MW-06-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1025 MS/MSD? Yes [X] No [ ]

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

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lyon
Date: 4/22/21
Job Number: 0603200-133570-221
Weather: Sun/snow 34°
Well Id. **MW-07**
Time In: 1048 Time Out: 1130

Well Information

		TOC	Other
Depth to Water:	(feet)	8.71	
Depth to Bottom:	(feet)	16.87	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	8.16	
Volume of Water in Well:	(gal)	1.30	
Three Well Volumes:	(gal)	3.91	

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)	1			

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)
1050	9.29	8.42	8.13	-29	1.06	660	0.00	.659
1055	9.99	8.38	8.10	-38	1.00	750	0.00	.643
1100	10.16	8.25	7.95	-48	1.09	445	0.00	.697
1105	10.32	8.13	7.44	-55	1.21	191	0.00	.777
1110	10.40	8.12	7.30	-58	1.33	35.8	0.00	.854
1115	10.43	8.16	7.55	-60	1.39	27.5	0.00	.889
1120	10.43	8.20	7.82	-61	1.41	537	0.00	.904

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 100 ml 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-07-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1120 MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lyon
Job Number: 0603200-133570-221
Well Id. **MW-08R**

Date: 4/22/21
Weather: Sunny 36°
Time In: 1215 Time Out: 1300

Well Information

		TOC	Other
Depth to Water:	(feet)	10.02	
Depth to Bottom:	(feet)	20.20	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	10.18	
Volume of Water in Well:	(gal)	1.62	
Three Well Volumes:	(gal)	4.88	

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)	1			

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)
1220	10.95	8.40	8.13	47	.838	44.0	8.87	.536
1225	11.61	8.44	7.89	98	.827	27.4	8.70	.529
1230	12.25	8.16	7.76	140	.825	39.4	7.24	.528
1235	12.57	8.29	7.63	145	.824	27.7	6.30	.527
1240	12.96	8.37	7.55	175	.823	20.0	4.89	.526
1245	13.21	8.33	7.51	203	.821	61.4	4.79	.526
1250	13.54	8.43	7.49	217	.819	23.6	5.74	.524

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

Sample ID: **MW-08R-0421** Duplicate? Yes [ ] No [X]
Sample Time: 1250 MS/MSD? Yes [ ] No [X]

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

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lyon
Job Number: 0603200-133570-221
Well Id. **MW-13**

Date: 4/22/21
Weather: Cloudy 35°
Time In: 1320 Time Out: 1400

Well Information

		TOC	Other
Depth to Water:	(feet)	6.55	
Depth to Bottom:	(feet)	23.82	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	17.27	
Volume of Water in Well:	(gal)	2.76	
Three Well Volumes:	(gal)	8.28	

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)	1			

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)
1325	6.98	9.63	7.37	218	1.43	21.8	0.00	.915
1330	7.00	9.92	7.34	198	1.52	13.9	0.00	.972
1335	7.00	9.91	7.39	179	1.52	10.5	0.00	.970
1340	7.00	10.00	7.37	166	1.52	6.6	0.00	.971
1345	7.00	9.97	7.36	155	1.52	5.9	0.00	.972
1350	7.00	10.04	7.22	145	1.53	4.5	0.00	.977
1355	7.00	9.98	7.29	141	1.52	4.0	0.00	.978

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

Sample ID: **MW-13-0421**
Sample Time: 1355
Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

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

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

Pace Analytical™
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: GES - Syracuse	Report To: Devin Shay (GES) dshay@gesonline.com	Attention: Accounts Payable via email at ges-invoices@gesonline.com
Address: 6780 Northern Blvd, Suite 100	Report To: Tim Beaumont (GES) tbeaumont@gesonline.com	Company Name: Groundwater & Environmental Services, Inc.
East Syracuse, New York 13057		Address: 6780 Northern Blvd, Suite 100, East Syracuse, NY 13057
Email To: dshay@gesonline.com	Purchase Order No.:	Pace Quote Reference:
Phone: 800.220.3069 x4051 / Fax: None	Project Name: National Grid - Ilion East Street, Ilion NY	Pace Project Manager: Rachel Christner
Requested Due Date/TAT: Standard	Project Number: 0603275-133570-221-1106	Pace Profile #: Semi-Annual GWS

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER____

SITE LOCATION ☐ GA ☐ ☐ ☐ NC ☐ OH ☐ SC ☐ ☐ 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

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AR
OTHER	OT
TISSUE	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED GRAB DATE	COLLECTED 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.
1	MW-02R-1021	WT	G	[redacted]	[redacted]	10/21/21	10:15		6	2			3	1				3	2	1	
2	MW-03-1021	WT	G	[redacted]	[redacted]	↓	10:40		6	2			3	1				3	2	1	
3	MW-06-1021	WT	G	[redacted]	[redacted]	↓	11:30		6	2			3	1				3	2	1	
4	MW-06-MS-1021	WT	G	[redacted]	[redacted]	↓	11:30		6	2			3	1				3	2	1	
5	MW-06-MSD-1021	WT	G	[redacted]	[redacted]	↓	11:30		6	2			3	1				3	2	1	
6	MW-07-1021	WT	G	[redacted]	[redacted]	↓	10:00		6	2			3	1				3	2	1	
7	MW-08R-1021	WT	G	[redacted]	[redacted]	↓	11:05		6	2			3	1				3	2	1	
8	MW-13-1021	WT	G	[redacted]	[redacted]	↓	11:50		6	2			3	1				3	2	1	
9	FD-1021	WT	G	[redacted]	[redacted]	↓	—		6	2			3	1				3	2	1	
10	Trip Blanks	WT	G	[redacted]	[redacted]	↓			3				3					3			
11				[redacted]	[redacted]																
12				[redacted]	[redacted]																
13				[redacted]	[redacted]																

Additional Comments:

SAMPLES WILL ARRIVE IN [#] COOLERS.

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:

NGIlion-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature]	10/21/21	12:45			

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

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: KEVIN LEO

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 10/21/21

Well ID	Sample?	Well Size	DTW	DTP	DTB	Comments
MW-02R	Yes	2"	12.52		18.30	Field Duplicate
MW-03	Yes	2"	5.97		27.25	
MW-06	Yes	2"	17.76		28.60	MS/MSD
MW-07	Yes	2"	8.72		16.87	
MW-08R	Yes	2"	9.51		20.20	
MW-13	Yes	2"	10.69		23.82	

***DTW** -depth to water*

***DTP** -depth to product*

***DTB** -depth to bottom*

National Grid
East Street, Ilion New York

Sampling Personnel: VL
Job Number: 0603275-133570-221
Well Id. **MW-03**

Date: 10/21/21
Weather: PC 58
Time In: 10:05 Time Out: 10:45

Well Information

		TOC	Other
Depth to Water:	(feet)	5.97	
Depth to Bottom:	(feet)	27.25	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	21.28	
Volume of Water in Well:	(gal)	3.40	
Three Well Volumes:	(gal)	10.21	

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)
10:10	6.05	14.82	6.66	-109	1.65	109	9.50	1.04
10:15	6.10	14.80	6.61	-123	1.26	51.0	9.37	0.801
10:20	6.10	14.53	6.55	-114	1.20	12.3	9.21	0.765
10:25	6.10	14.33	6.37	-89	1.19	6.5	8.86	0.756
10:30	6.10	14.25	6.35	-63	1.19	3.5	8.55	0.756
10:35	6.10	14.33	6.37	-50	1.18	2.2	8.15	0.754
10:40	6.10	14.40	6.41	-36	1.17	1.9	7.84	0.753

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 100 ml 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-03-1021** Duplicate? Yes [ ] No [X]
Sample Time: 10:40 MS/MSD? Yes [ ] No [X]

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

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
East Street, Ilion New York

Sampling Personnel: K
Job Number: 0603275-133570-221
Well Id. **MW-06**

Date: 10/21/21
Weather: PC 60
Time In: 10:45 Time Out: 11:45

Well Information

		TOC	Other
Depth to Water:	(feet)	17.76	
Depth to Bottom:	(feet)	28.60	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	10.84	
Volume of Water in Well:	(gal)	1.73	
Three Well Volumes:	(gal)	5.20	

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)
11:10	17.82	14.91	6.56	-87	1.18	25.7	6.84	0.756
11:05	17.85	15.15	6.71	-100	1.18	5.4	6.06	0.756
11:10	17.85	15.11	6.74	-84	1.22	2.0	5.78	0.781
11:15	17.85	14.90	6.75	-68	1.28	0.8	5.37	0.816
11:20	17.85	14.90	6.79	-56	1.29	0.3	4.90	0.828
11:25	17.85	14.93	6.82	-48	1.31	0.4	4.54	0.844
11:30	17.85	14.88	6.84	-45	1.32	0.4	4.32	0.847

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

MW-06-MS-1021 **MW-06-MSD-1021**
Sample ID: **MW-06-1021** Duplicate? Yes [ ] No [X]
Sample Time: 11:30 MS/MSD? Yes [X] No [ ]

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

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
East Street, Ilion New York

Sampling Personnel: KC
Job Number: 0603275-133570-221
Well Id. **MW-07**

Date: 10/21/21
Weather: PC 50
Time In: 09:15 Time Out: 10:05

Well Information

		TOC	Other
Depth to Water:	(feet)	8.72	
Depth to Bottom:	(feet)	16.87	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	8.15	
Volume of Water in Well:	(gal)	1.30	
Three Well Volumes:	(gal)	3.91	

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)
09:30	8.95	12.80	6.15	95	0.001	146	10.83	0.000
09:35	9.50	12.99	5.71	68	0.001	144	10.19	0.000
09:40	9.84	14.19	6.66	-112	1.40	217	1.34	0.904
09:45	10.02	14.45	6.79	-117	1.56	143	1.03	0.999
09:50	10.09	14.60	6.89	-120	1.67	181	0.79	1.07
09:55	10.14	14.61	6.85	-119	1.69	185	0.77	1.08
10:00	10.20	14.66	6.87	-117	1.69	179	0.72	1.08

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 100 ml 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-07-1021** Duplicate? Yes [ ] No [X]
Sample Time: 10:00 MS/MSD? Yes [ ] No [X]

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

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lapa
Job Number: 0603275-133570-221
Well Id. **MW-02R**

Date: 10/21/21
Weather: Sunny
Time In: 0944 Time Out: 1020

Well Information

		TOC	Other
Depth to Water:	(feet)	12.52	
Depth to Bottom:	(feet)	18.30	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	5.78	
Volume of Water in Well:	(gal)	.92	
Three Well Volumes:	(gal)	2.77	

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)
0945	12.72	15.07	6.91	-122	1.17	22.4	1.13	.742
0950	12.89	14.91	6.78	-127	1.17	19.2	0.88	.749
0955	13.02	14.97	6.69	-127	1.17	21.4	0.87	.751
1000	13.18	15.17	6.66	-130	1.18	19.6	0.89	.756
1005	13.31	15.28	6.64	-133	1.19	15.7	0.90	.759
1010	13.49	15.35	6.64	-136	1.19	25.5	0.92	.764
1015	13.68	15.25	6.63	-137	1.16	32.1	0.44	.743

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 [ ]

FD-1021

Sample ID: **MW-02R-1021** Duplicate? Yes [X] No [ ]
Sample Time: 1015 MS/MSD? Yes [ ] No [X]

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

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lyon
Job Number: 0603275-133570-221
Well Id. **MW-08R**

Date: 10/21/21
Weather: 60 Sunny
Time In: 1030 Time Out: 1110

Well Information

		TOC	Other
Depth to Water:	(feet)	9.51	
Depth to Bottom:	(feet)	20.20	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	10.69	
Volume of Water in Well:	(gal)	1.71	
Three Well Volumes:	(gal)	5.13	

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)
1035	10.32	16.01	6.84	114	1.10	52.6	4.26	.701
1040	10.75	15.93	6.78	205	1.11	36.8	4.11	.710
1045	10.35	16.02	6.78	241	1.11	27.0	3.98	.714
1050	11.34	16.03	6.77	252	1.11	22.4	3.91	.711
1055	11.59	16.03	6.77	259	1.10	19.0	3.84	.704
1100	11.84	16.01	6.77	261	.995	12.0	3.95	.635
1105	11.96	16.02	6.75	265	.995	16.2	4.09	.637

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

Sample ID: **MW-08R-1021** Duplicate? Yes [ ] No [X]
Sample Time: 1105 MS/MSD? Yes [ ] No [X]

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

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
East Street, Ilion New York

Sampling Personnel: Peter Lyon
Job Number: 0603275-133570-221
Well Id. **MW-13**

Date: 10/21/21
Weather: 60° Cloudy
Time In: 1117 Time Out: 1155

Well Information

		TOC	Other
Depth to Water:	(feet)	6.69	
Depth to Bottom:	(feet)	23.82	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	17.13	
Volume of Water in Well:	(gal)	2.74	
Three Well Volumes:	(gal)	8.22	

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)
1120	6.87	16.90	6.97	130	1.53	19.4	1.18	.985
1125	6.89	15.91	6.91	113	1.58	14.7	0.49	1.01
1130	6.87	15.73	6.90	102	1.59	13.8	0.42	1.02
1135	6.86	15.79	6.89	95	1.59	12.6	0.38	1.02
1140	6.85	15.72	6.88	91	1.60	12.4	0.35	1.02
1145	6.84	15.82	6.87	88	1.60	12.5	0.35	1.03
1150	6.84	15.83	6.87	88	1.60	12.7	0.36	1.02

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

Sample ID: **MW-13-1021** Duplicate? Yes [ ] No [X]
Sample Time: 1150 MS/MSD? Yes [ ] No [X]

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

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

Appendix C – Data Usability Summary Report

Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201
Blacksburg, VA 24060

T. 800.662.5067

December 22, 2021

Devin Shay
Groundwater & Environmental Services, Syracuse
5 Technology Place, Suite 4
East Syracuse, NY 13057

RE: Data Usability Summary Report for National Grid- Ilion, East Ave.: Data Package Pace Analytical Job No. 30417109

Review has been completed for the data packages generated by Pace Analytical that pertain to monitoring well samples collected during the April 2021 sampling events at the National Grid Ilion, East Avenue site. Six aqueous samples, a matrix spike/matrix spike duplicate pair, a trip blank and a field duplicate were collected from the main site. These samples were processed for volatile organic compounds benzene, toluene, ethylbenzene and xylenes (BTEX), cyanide and polynuclear aromatic hydrocarbons (PAHs).

Analytical methodologies are those of the USEPA SW846 with additional requirements of the NYSDEC ASP.

Complete NYSDEC Category B deliverables were included in the laboratory data package and all information required for validation of the data is present. This usability report is generated from review of the summary form information, and review of associated QC raw data. The reported summary forms have been reviewed for application of validation qualifiers, using guidance from the National Grid generic QAPP, USEPA Region 2 validation SOPs, the USEPA National Functional Guidelines for Data Review, and professional judgment, as affects the usability of the data. The following items were reviewed:

- 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
- Instrument MDLs
- Sample Quantitation and Identification

All of the items were determined to be acceptable for use after the DUSR level review, with the exception of data qualified as “R” (rejected) in **Table 1**. Positive VOC data in sample MW-02R was not confirmed in the duplicate sample and should not be considered representative of the sampling location. Data qualified as estimated “J” can be used with caution for most decision making purposes.

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

Table 1 – Data Qualifications

Sample ID	Qualifier	Analyte	Reason for qualification
MW-02R-0420	R	Benzene Ethylbenzene Toluene Xylene (Total) m&p-Xylenethrene o-Xylene	Positive blank contamination
	J	Acenaphthene Acenaphthylene Fluorene Naphthalene	RPD exceeds maximum
MW-03-0421	J-	Cyanide	Low MS/MSD

J: estimated detect with an unknown bias
R: data rejected

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times for groundwater and effluent samples and instrumental tune fragmentations were within acceptance ranges. Blanks were free of contamination. Surrogate and internal standard recoveries were within required limits. Calibrations standards show acceptable responses within analytical protocol and validation action limits. An MS/MSD was analyzed using **MW-06** as the matrix. All QC elements associated with the MS/MSD fell within project criteria. The blind field duplicate correlations between **MW-02R-0421** and the duplicate failed. The VOC concentrations in this location are typically high, as was reported for this sample, however the duplicate reported ND which does not correlate with the historic data. As a result the detections in MW-02R are qualified as rejected and unusable.

Table 2: Precision Calculations PAHs

Compound	MW-02R	FD	RPD
Benzene	708	ND	NC/R
Ethylbenzene	125	ND	NC/R
Toluene	76.6	ND	NC/R
Xylene (Total)	288	ND	NC/R
m&p-Xylenethrene	187	ND	NC/R
o-Xylene	101	ND	NC/R

µg/L-microgram per liter RPD - relative percent difference
NC: Not calculated – concentration not confirmed

PAHs by EPA8270D/NYSDEC ASP

Holding times were met. Blanks show no contamination. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

The method blank associated with the 2021 data reported no detections above reporting level. For the April 2021 sampling event, **MW-02R-0421** and **FD-0421** were diluted due to the presence of a non-target analyte. Reporting limits are elevated.

Surrogate recoveries were within criteria.

The laboratory control spike recoveries and precision indicate the methods were within laboratory control.

An MS/MSD was analyzed using **MW-06** as the matrix for the April 2021 sampling event. The matrix spike/matrix spike duplicate recoveries and relative percent differences were within laboratory-provided limits.

The blind field duplicate correlations of **MW-02R-0421 and FD-0421**were calculated. The RPDs between **MW-02R 2020** and the duplicate are tabulated below, only one compound had calculated variance within EPA criteria (<30%).

Table 1: Precision Calculations PAHs

Compound	MW-02R	FD	RPD
Acenaphthene	61.6	41.4	39.2
Acenaphthylene	33.7	22	42.0
Fluorene	14.1	9.6	38.0
Naphthalene	1140	609	60.7
Phenanthrene	10.6	8.1	26.7

µg/L-microgram per liter RPD - relative percent difference

Cyanide by EPA 9012B /NYSDEC ASP

Holding times were met. Blanks show no contamination. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

The laboratory control spike recoveries and precision indicate the method is within laboratory control. An MS/MSDs were analyzed using MW-06-0421 and a sample unassociated with the site. The recovery for cyanide was low for the MW-06-0421, and the compound is qualified as estimated with a possible low bias in the sample.

The blind field duplicate correlations of MW-02R were within project criteria.

Table 4: Precision Calculations Cyanide

Compound	MW-02R	FD	RPD
Cyanide	1.9	1.9	0

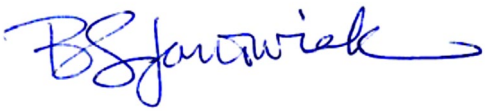
µg/L-microgram per liter RPD - relative percent difference
NC: Not calculated – concentration unreliable/too low

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.

Sincerely,



Bonnie Janowiak, Ph.D.
Senior Chemist

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

SAMPLE SUMMARY

Project: National Grid - Ilion East, NY
Pace Project No.: 30417109

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30417109001	**MW-02R-0421**	Water	04/22/21 09:55	04/23/21 09:45
30417109002	**MW-03-0421**	Water	04/22/21 12:05	04/23/21 09:45
30417109003	**MW-06-0421**	Water	04/22/21 10:25	04/23/21 09:45
30417109004	**MW-06-MS-0421**	Water	04/22/21 10:25	04/23/21 09:45
30417109005	**MW-06-MSD-0421**	Water	04/22/21 10:25	04/23/21 09:45
30417109006	**MW-07-0421**	Water	04/22/21 11:20	04/23/21 09:45
30417109007	**MW-08R-0421**	Water	04/22/21 12:50	04/23/21 09:45
30417109008	**MW-13-0421**	Water	04/22/21 13:55	04/23/21 09:45
30417109009	**FD-0421**	Water	04/22/21 00:00	04/23/21 09:45
30417109010	**Trip Blanks**	Water	04/22/21 00:00	04/23/21 09:45

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

PROJECT NARRATIVE

Project: National Grid - Ilion East, NY
Pace Project No.: 30417109

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: May 07, 2021

General Information:
9 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.

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.

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.

Additional Comments:

Analyte Comments:

QC Batch: 445533

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

- FD-0421 (Lab ID: 30417109009)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Anthracene
  - Benzo(k)fluoranthene

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

PROJECT NARRATIVE

Project: National Grid - Ilion East, NY
Pace Project No.: 30417109

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: May 07, 2021

Analyte Comments:

QC Batch: 445533

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

- FD-0421 (Lab ID: 30417109009)
  - 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-02R-0421 (Lab ID: 30417109001)
  - 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 - Ilion East, NY
Pace Project No.: 30417109

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: May 07, 2021

General Information:
10 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.

Additional Comments:

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

PROJECT NARRATIVE

Project: National Grid - Ilion East, NY
Pace Project No.: 30417109

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: May 07, 2021

General Information:
9 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: 445528

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30416862009,30417109002

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

- MS (Lab ID: 2150601)
  - Cyanide
- MS (Lab ID: 2150624)
  - Cyanide
- MSD (Lab ID: 2150602)
  - Cyanide
- MSD (Lab ID: 2150625)
  - Cyanide

QC Batch: 445531

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30417109003

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

- MS (Lab ID: 2150626)
  - Cyanide
- MSD (Lab ID: 2150627)
  - Cyanide

R1: RPD value was outside control limits.

- MSD (Lab ID: 2150627)
  - Cyanide

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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

PROJECT NARRATIVE

Project: National Grid - Ilion East, NY
Pace Project No.: 30417109

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: May 07, 2021

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

Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201
Blacksburg, VA 24060

T. 800.662.5067

December 22, 2021

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

RE: Data Usability Summary Report for National Grid- Ilion, East Ave.: Data Package Pace Analytical Job No. 30447620

Review has been completed for the data packages generated by Pace Analytical that pertain to monitoring well samples collected during the October 2021 sampling events at the National Grid Ilion, East Avenue site. Six aqueous samples, a matrix spike/matrix spike duplicate pair, a trip blank and a field duplicate were collected from the main site. These samples were processed for volatile organic compounds benzene, toluene, ethylbenzene and xylenes (BTEX), cyanide and polynuclear aromatic hydrocarbons (PAHs).

Analytical methodologies are those of the USEPA SW846 with additional requirements of the NYSDEC ASP.

Complete NYSDEC Category B deliverables were included in the laboratory data package and all information required for validation of the data is present. This usability report is generated from review of the summary form information, and review of associated QC raw data. The reported summary forms have been reviewed for application of validation qualifiers, using guidance from the National Grid generic QAPP, USEPA Region 2 validation SOPs, the USEPA National Functional Guidelines for Data Review, and professional judgment, as affects the usability of the data. The following items were reviewed:

- 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
- Instrument MDLs
- Sample Quantitation and Identification
-

All of the items were determined to be acceptable for the DUSR level review. In summary, sample results are usable.

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

Table 1 – Data Qualifications

Sample ID	Qualifier	Analyte	Reason for qualification
All samples	J-/UJ-	PAHs	Extracted one day beyond hold time. Data is usable and the bias is likely small
MW-06R	J-	Cyanide	Low MS recovery
MW-02R	J	Acenaphthylene and Phenanthrene	RPD>30%

J-/UJ-: estimated detect/estimated non-detect with a possible low bias
R: data rejected

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times for groundwater and effluent samples and instrumental tune fragmentations were within acceptance ranges. Blanks were free of contamination. Surrogate and internal standard recoveries were within required limits. Calibrations standards show acceptable responses within analytical protocol and validation action limits. An MS/MSD was analyzed using **MW-06-1021** as the matrix. All QC elements associated with the MS/MSD fell within project criteria. The blind field duplicate correlations between **MW-02R-1021** and the duplicate passed criteria, and no qualifications were required.

Table 2: Precision Calculations *VOCs*

Compound	MW-02R	FD	RPD
Benzene	819	825	0.7
Ethylbenzene	150	144	4.1
Toluene	151	148	2.0
Xylene (Total)	344	335	2.7
m&p-Xylenes	223	217	2.7
o-Xylene	121	118	2.5

µg/L-microgram per liter RPD - relative percent difference

PAHs by EPA8270D/NYSDEC ASP

Holding times for extraction were not met; the samples were extracted approximately 24 hours outside of hold time. PAHs are recalcitrant to degradation, and although the data is qualified per EPA guidance, the data is usable, and the possible low bias does not significantly impact the data. Blanks show no contamination. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

The method blank associated with the 2021 data reported no detections above reporting level. For the October 2021sampling event, **FD-1021** was diluted due to the presence of a non-target analyte. Reporting limits are elevated.

Surrogate recoveries were within criteria.

The laboratory control spike recoveries and precision indicate the methods were within laboratory control.

There was an MS/MSD analyzed using **MW-06-1021** as the matrix for the October 2021 sampling event. The matrix spike/matrix spike duplicate recoveries and relative percent differences were within laboratory-provided limits.

The blind field duplicate correlations of **MW-02R-1021** and **FD-1021** were calculated. The RPDs between **MW-02R-1021** and the duplicate are tabulated below, highlighted compounds had calculated variance outside EPA criteria (<30%).

Table 1: Precision Calculations PAHs

Compound	MW-02R	FD	RPD % (maximum 30%)
Acenaphthene	57.3	63.6	10.4
Acenaphthylene	9.9	16.2	48.3
Anthracene	0.15	ND	NC
Fluoranthene	0.15	ND	NC
Fluorene	14.0	17.3	21.1
Phenanthrene	0.68	2.9	124

µg/L-microgram per liter RPD - relative percent difference NC: Not calculated – concentration not confirmed
ND: not detected

Cyanide by EPA 9012B /NYSDEC ASP

Holding times were met. Blanks show no contamination. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

The within criteria recoveries and precision of the laboratory control spike indicate the method is within laboratory control. There was an MS/MSD analyzed using **MW-06-1021** as the matrix for the October 2021 sampling event. The recovery for cyanide was low for the **MW-06-1021** matrix spikes, and the compound is qualified as estimated with a possible low bias in the samples.

The blind field duplicate correlations of MW-02R-1021 were within project criteria.

Table *4*: Precision Calculations Cyanide

Compound	MW-02R	FD	RPD
Cyanide	0.57	0.48	17.1

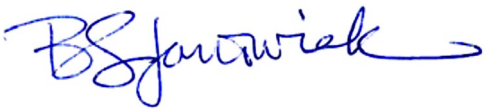
µg/L-microgram per liter RPD - relative percent difference

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.

Sincerely,



Bonnie Janowiak, Ph.D.
Senior Chemist

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

SAMPLE SUMMARY

Project: National Grid - Ilion, NY
Pace Project No.: 30447620

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30447620001	**MW-02R-1021**	Water	10/21/21 10:15	10/22/21 09:30
30447620002	**MW-03-1021**	Water	10/21/21 10:40	10/22/21 09:30
30447620003	**MW-06-1021**	Water	10/21/21 11:30	10/22/21 09:30
30447620004	**MW-06-MS-1021**	Water	10/21/21 11:30	10/22/21 09:30
30447620005	**MW-06-MSD-1021**	Water	10/21/21 11:30	10/22/21 09:30
30447620006	**MW-07-1021**	Water	10/21/21 10:00	10/22/21 09:30
30447620007	**MW-08R-1021**	Water	10/21/21 11:05	10/22/21 09:30
30447620008	**MW-13-1021**	Water	10/21/21 11:50	10/22/21 09:30
30447620009	**FD-1021**	Water	10/21/21 00:01	10/22/21 09:30
30447620010	**Trip Blanks**	Water	10/21/21 00:01	10/22/21 09:30

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

PROJECT NARRATIVE

Project: National Grid - Ilion, NY
Pace Project No.: 30447620

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: November 05, 2021

General Information:
9 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.

ED: Due to the extract's physical characteristics, the analysis was performed at dilution.
- FD-1021 (Lab ID: 30447620009)

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.
- FD-1021 (Lab ID: 30447620009)
- MW-02R-1021 (Lab ID: 30447620001)
- MW-03-1021 (Lab ID: 30447620002)
- MW-06-1021 (Lab ID: 30447620003)
- MW-06-MS-1021 (Lab ID: 30447620004)
- MW-06-MSD-1021 (Lab ID: 30447620005)
- MW-07-1021 (Lab ID: 30447620006)
- MW-08R-1021 (Lab ID: 30447620007)
- MW-13-1021 (Lab ID: 30447620008)

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.

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.

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

PROJECT NARRATIVE

Project: National Grid - Ilion, NY
Pace Project No.: 30447620

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: November 05, 2021

Additional Comments:

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

PROJECT NARRATIVE

Project: National Grid - Ilion, NY
Pace Project No.: 30447620

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: November 05, 2021

General Information:
10 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.

Additional Comments:

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

PROJECT NARRATIVE

Project: National Grid - Ilion, NY
Pace Project No.: 30447620

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: November 05, 2021

General Information:
9 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: 470401

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30446758003,30447620003

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

- MS (Lab ID: 2271020)
  - Cyanide
- MS (Lab ID: 2271022)
  - Cyanide
- MSD (Lab ID: 2271021)
  - Cyanide

Additional Comments:

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