nationalgrid

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

December 16, 2020

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
10 King Street, Ogdensburg, New York
Annual Groundwater Monitoring Report

Dear Mr. Deyette:

Enclosed for your review is the Annual Groundwater Monitoring Report for the NG Ogdensburg MGP Site, for 2020.

Groundwater and Environmental Service, Inc., (GES) OM&M contractor for National Grid, conducts all long-term OM&M activities at the site. Semi-annual site inspections were conducted in 2020 (June, July, and October). The site is generally in good shape and in compliance. There were detection of BTEX and/or PAHs in all thirteen 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 Ogdensburg, Former MGP Site
10 King Street, Ogdensburg, NY 13669

December 2020

Version 1

Annual Groundwater Monitoring Report

National Grid Ogdensburg, Former MGP Site
10 King Street
Ogdensburg, NY 13669

Prepared for:
National Grid
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Syracuse, NY 13202

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GES Project:
0603220.136690.221

Date:
December 16, 2020

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

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1 Introduction

This Semi-Annual Groundwater Monitoring Report presents results from the activities conducted at the Ogdensburg former manufactured gas plant (MGP) site (the site) located in Ogdensburg, New York (the Site). A site map is presented on Figure 1. The work summarized herein has been conducted in accordance with the approved Site Management Plan (SMP) for the site, dated September 26, 2018.

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 July and October 2020 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 New York State Department of Environmental Conservation (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 addended April 2000 and June 2004.

2.2 Groundwater Well Gauging

The July 14, 2020 and October 1, 2020 groundwater monitoring field activities were conducted by GES. Prior to collecting groundwater samples, static fluid level measurements were collected from MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, MW-14R, MW-15, MW-15RS, MW-17R, MW-19R, and MW-20R. 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. A shallow groundwater potentiometric surface contour map developed based on the groundwater elevation measurements taken on July 14, 2020, is included on Figure 2.

Groundwater generally flows to the north from the Site toward the St. Lawrence River. Groundwater elevations ranged from 248.40 feet above sea level (asl; well MW-15) to 256.42 feet asl (well MW-10R). 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 13 monitoring wells on July 14, 2020 and October 1, 2020 (including MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, MW-14R, MW-15, MW-15RS, MW-17R, MW-19R, and MW-20R). 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 Figure 3. The Data Usability Summary Report (DUSR) is included in Appendix C.

There were BTEX and/or PAH detections in all the monitoring wells sampled during the July and October 2020 sampling event. In July 2020, BTEX, acenapthene, benzo(a)anthracene, 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 monitoring wells MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, MW-15, and MW-15RS during the July 2020 event. In October 2020, BTEX, benzo(a)anthracene, 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 monitoring wells MW-2(R), MW-5R(R), MW-8R, MW-9, MW-10R, MW-11, MW-12R, and MW-15RS in October 2020.

3 Semi-Annual Site-Wide Inspections

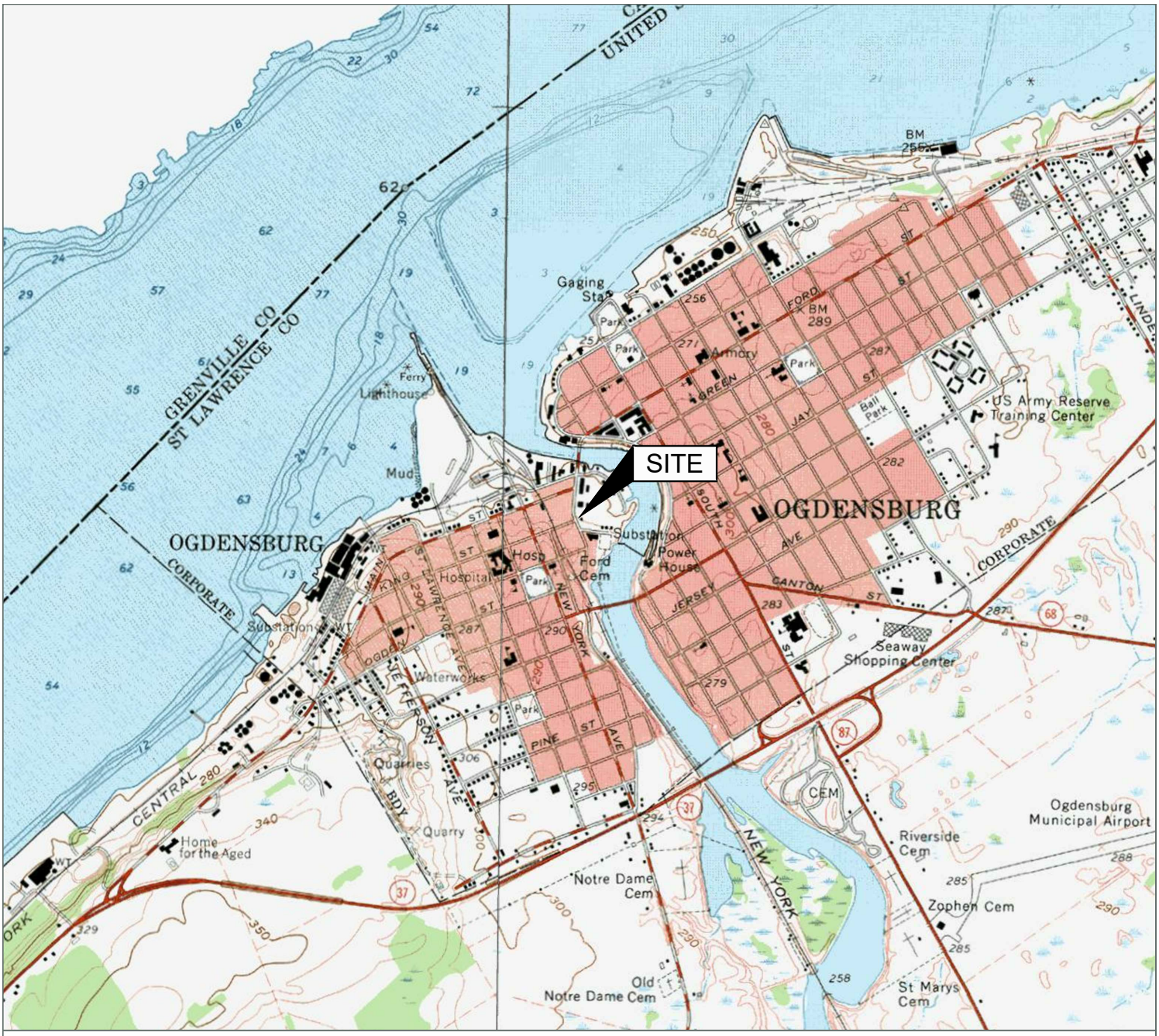
The semi-annual site-wide inspections were conducted on June 23, July 14, and October 1, 2020. The Site Inspection Forms are presented in Appendix A. In general, the Site is in compliance.

4 Recommendations

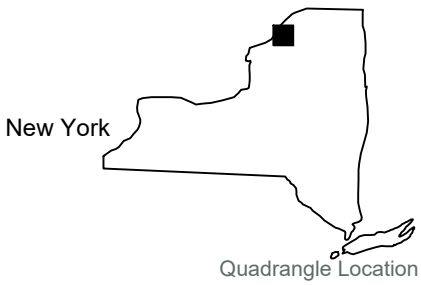
4.1 Recommendations

At this time, National Grid recommends continuing the annual monitoring activities. The next annual groundwater sampling event would be in the spring 2021. 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, 1963
Ogdensburg East, New York
Contour Interval = 10'



Site Location Map

National Grid
10 King Street
Ogdensburg, New York

Drawn
W.G.S.
Designed

Approved

Date
8/13/20
Figure
1

Scale In Feet
0 2000

Groundwater & Environmental Services, Inc.

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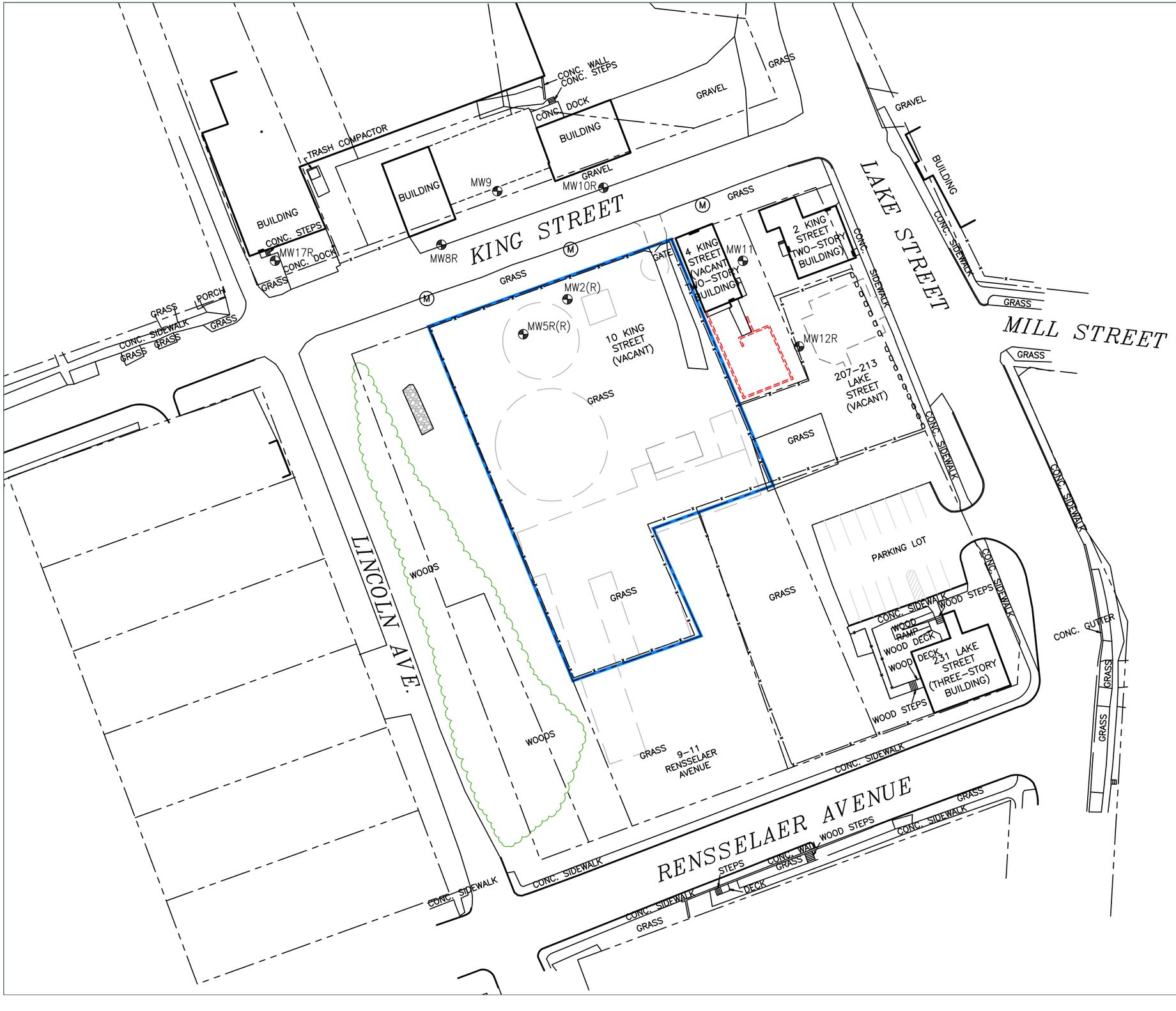

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Site Map

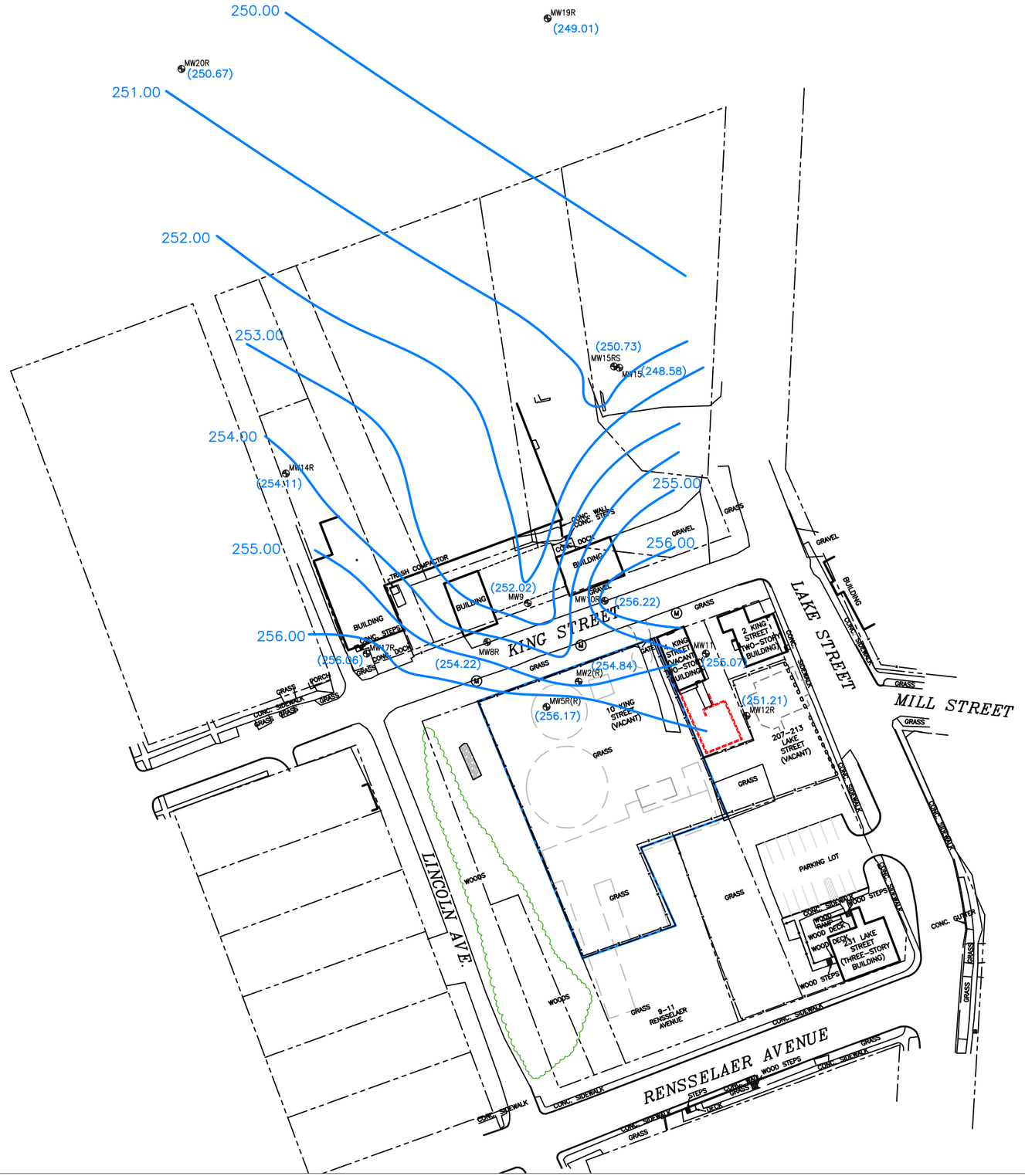
National Grid
10 King Street
Ogdensburg, New York

Drawn W.G.S.
Designed
Approved

Date 8/13/20
Figure 2

Scale In Feet
0 60

Groundwater & Environmental Services, Inc.



LEGEND

- PROPERTY BOUNDARY
- FENCE
- UTILITY MANHOLE
- MONITORING WELL
- (256.22) GROUNDWATER ELEVATION (feet)
- NOT SAMPLED

NOTE:

MW12R AND MW15 WERE NOT USED TO GENERATE GROUNDWATER CONTOURS.

Groundwater Contour Map
June 23, 2020

National Grid
10 King Street
Ogdensburg, New York

Drawn
W.G.S.
Designed

Approved

Date
11/19/20
Figure
3

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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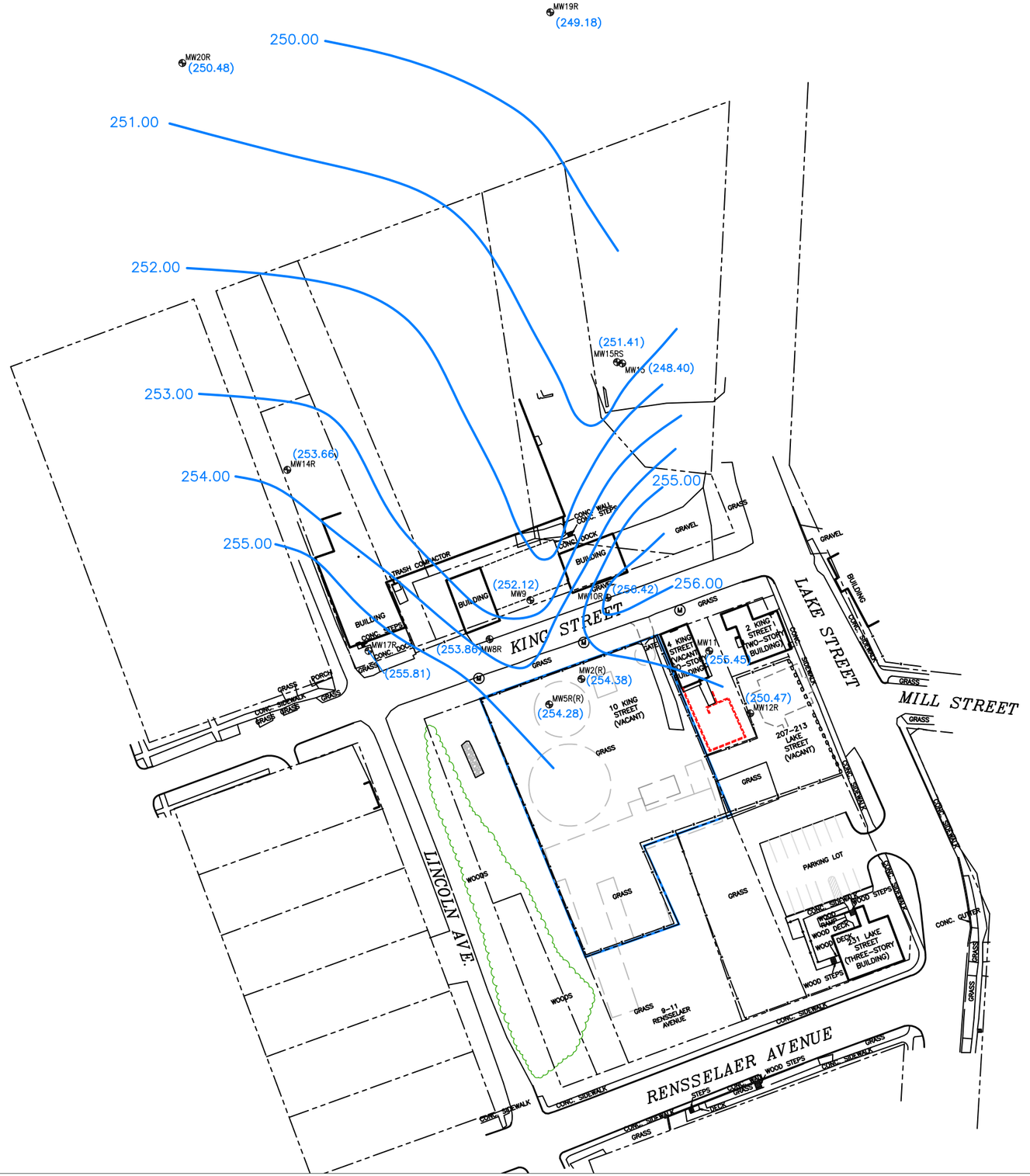

LEGEND

- PROPERTY BOUNDARY
- FENCE
- UTILITY MANHOLE
- MONITORING WELL
- (256.42) GROUNDWATER ELEVATION (feet)
- NOT SAMPLED

NOTE:

MW12R AND MW15 WERE NOT USED TO GENERATE GROUNDWATER CONTOURS.

Groundwater Contour Map
July 14, 2020

National Grid
10 King Street
Ogdensburg, New York

Drawn W.G.S.
Designed
Approved

Date 11/19/20
Figure 4

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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LEGEND

— — —	PROPERTY BOUNDARY
— x —	FENCE
Ⓜ	UTILITY MANHOLE
⊕	MONITORING WELL
MW2(R)	WELL IDENTIFICATION
254.38	GROUNDWATER ELEVATION (feet)
100	BTEX CONCENTRATION (ug/L)
263	PAHs CONCENTRATION (ug/L)
240	CYANIDE CONCENTRATION (ug/L)
ug/L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
PAHs	POLYCYCLIC AROMATIC HYDROCARBONS
ND	NOT DETECTED

Groundwater Monitoring Map
July 14, 2020

National Grid
10 King Street
Ogdensburg, New York

Drawn
W.G.S.
Designed

Approved

Date
9/15/20
Figure
5

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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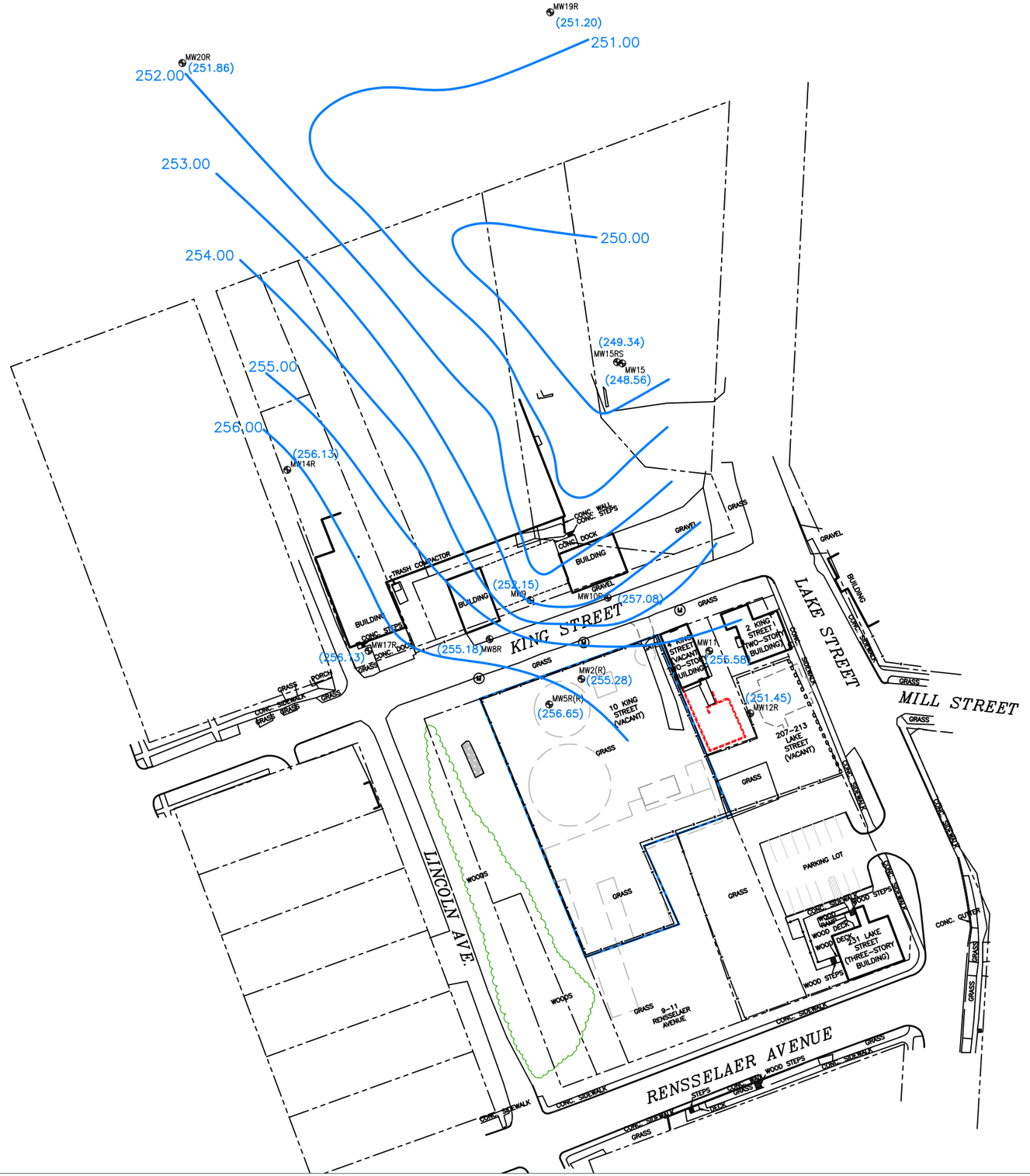

LEGEND

- PROPERTY BOUNDARY
- FENCE
- UTILITY MANHOLE
- MONITORING WELL
- (257.08) GROUNDWATER ELEVATION (feet)
- NOT SAMPLED

NOTE:

MW10R, MW12R AND MW15 WERE NOT USED TO GENERATE GROUNDWATER CONTOURS.

Groundwater Contour Map
October 1, 2020

National Grid
10 King Street
Ogdensburg, New York

Drawn W.G.S.
Designed
Approved

Date 11/19/20
Figure 6

Scale In Feet
0 100

Groundwater & Environmental Services, Inc.

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LEGEND

— — — —	PROPERTY BOUNDARY
—— x ——	FENCE
Ⓜ	UTILITY MANHOLE
⊕	MONITORING WELL
MW2(R)	WELL IDENTIFICATION
255.28	GROUNDWATER ELEVATION (feet)
83.1	BTEX CONCENTRATION (ug/L)
318.2	PAHs CONCENTRATION (ug/L)
4,100	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 1, 2020

National Grid
10 King Street
Ogdensburg, New York

Drawn
W.G.S.
Designed

Approved

Date
11/19/20
Figure
7

Scale In Feet
0 100

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 (06/23/20)	Groundwater Elevation (06/23/20)	Depth To Water (07/14/20)	Groundwater Elevation (07/14/20)	Depth To Water (10/01/20)	Groundwater Elevation (10/01/20)
MW-2(R)	Flushmount; PVC; 2-inch	259.20	6.35	252.85	4.00 - 7.00	4.36	254.84	4.82	254.38	3.92	255.28
MW-5R(R)	Flushmount; PVC; 2-inch	259.40	24.30	235.10	13.00 - 23.00	3.23	256.17	5.12	254.28	2.75	256.65
MW-8R	Flushmount; PVC; 2-inch	257.38	20.92	236.46	11.00 - 21.00	3.16	254.22	3.52	253.86	2.20	255.18
MW-9	Flushmount; PVC; 2-inch	257.00	6.35	250.65	3.00 - 7.00	4.98	252.02	4.88	252.12	4.85	252.15
MW-10R	Flushmount; PVC; 2-inch	257.58	22.50	235.08	11.75 - 21.75	1.36	256.22	1.16	256.42	0.50	257.08
MW-11	Flushmount; PVC; 2-inch	259.07	6.51	252.56	3.10 - 7.10	4.00	255.07	3.62	255.45	3.49	255.58
MW-12R	Flushmount; PVC; 2-inch	260.79	21.40	239.39	10.00 - 20.00	9.58	251.21	10.32	250.47	9.34	251.45
MW-14R	Flushmount; PVC; 2-inch	256.13	50.80	205.33	39.00 - 49.00	2.02	254.11	2.47	253.66	0.00	256.13
MW-15	Flushmount; PVC; 2-inch	256.62	9.04	247.58	4.50 - 9.50	8.04	248.58	8.22	248.40	8.06	248.56
MW-15RS	Flushmount; PVC; 2-inch	257.74	23.65	234.09	14.00 - 24.00	7.01	250.73	7.33	250.41	8.40	249.34
MW-17R	Flushmount; PVC; 2-inch	263.29	26.90	236.39	14.86 - 24.86	7.23	256.06	7.48	255.81	7.16	256.13
MW-19R	Flushmount; PVC; 2-inch	255.52	38.05	217.47	28.52 - 38.52	6.51	249.01	6.34	249.18	4.32	251.20
MW-20R	Flushmount; PVC; 2-inch	251.86	28.40	223.46	18.20 - 28.20	1.19	250.67	1.38	250.48	0.00	251.86

Table 2

Groundwater Analytical Data

MW-2(R)

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/23/14	10/20/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	**61**	**120**	**55.4**	**44.3**
Ethylbenzene	5	µg/L	ND	3	1.5	1.6
Toluene	5	µg/L	**29**	**44**	**22.4**	**19.4**
Total Xylenes	5	µg/L	**23**	**36**	**20.7**	**17.8**
SVOCs						
Acenaphthene	20	µg/L	1.8 J	4 J	3.5	3.0
Acenaphthylene	- -	µg/L	7.7	18	16.2	12.6
Anthracene	50	µg/L	1.7 J	3 J	2.6	1.8
Benzo(a)anthracene	0.002	µg/L	**3.3**	ND	**0.13**	**0.37**
Benzo(a)pyrene	ND	µg/L	**2.8**	ND	ND	0.38
Benzo(b)fluoranthene	0.002	µg/L	**3.5**	ND	ND	**0.50**
Benzo(g,h,i)perylene	- -	µg/L	1.6 J	ND	ND	0.23
Benzo(k)fluoranthene	0.002	µg/L	**1.4 J**	ND	ND	**0.17**
Chrysene	0.002	µg/L	**2.6**	ND	ND	**0.29**
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	6.9	ND	1.2	1.3
Fluorene	50	µg/L	2.3	7	6.2	5.2
Indeno(1,2,3-cd)pyrene	0.002	µg/L	**1.4 J**	ND	ND	**0.23**
2-Methylnapthalene	- -	µg/L	5.8	20	17.9	17.1
Naphthalene	10	µg/L	**120**	**270**	**210**	**270**
Phenanthrene	50	µg/L	4.1	6	5.0	4.1
Pyrene	50	µg/L	5.4	ND	0.74	0.92
Inorganics						
Cyanide, Total	200	µg/L	**900**	**530**	**240**	**4100**

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(R)

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/22/14	10/20/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	**130**	**440**	**392**	**354**
Ethylbenzene	5	µg/L	**7.0**	**26**	**27.3**	**24.3**
Toluene	5	µg/L	3.0	**70**	**82.6**	**65.0**
Total Xylenes	5	µg/L	**6.4**	**53**	**78.9**	**58.7**
SVOCs						
Acenaphthene	20	µg/L	9.8	**71**	**44.9**	**38.8**
Acenaphthylene	- -	µg/L	6.6	40	31.9	24.6
Anthracene	50	µg/L	0.50 J	8	4.9	3.1
Benzo(a)anthracene	0.002	µg/L	ND	ND	**0.11**	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	6	4.2	2.4
Fluorene	50	µg/L	4.7	48	28.4	23.8
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	6	10.3	7.9
Naphthalene	10	µg/L	4.1	**210**	**248**	**315**
Phenanthrene	50	µg/L	2.6	41	25.2	20.7
Pyrene	50	µg/L	ND	5	3.5	2.1
Inorganics						
Cyanide, Total	200	µg/L	10	55	55	49

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-8R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/24/14	10/19/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	**550**	**800**	**1,300**	**576**
Ethylbenzene	5	µg/L	**13**	**14**	**66.2**	**13.6**
Toluene	5	µg/L	**10**	**20**	**75.2**	**9.2**
Total Xylenes	5	µg/L	**19**	**27**	**132**	**18.0**
SVOCs						
Acenaphthene	20	µg/L	5.6	10	16.2	7.6
Acenaphthylene	- -	µg/L	6.7	10	23.4	5.4
Anthracene	50	µg/L	0.94 J	0.9	2.9	0.68
Benzo(a)anthracene	0.002	µg/L	ND	ND	**0.48**	**0.48**
Benzo(a)pyrene	ND	µg/L	ND	ND	0.28	0.36
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	**0.31**	**0.38**
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	0.10	0.13
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	**0.10**	**0.18**
Chrysene	0.002	µg/L	**0.39 J**	ND	**0.28**	**0.32**
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	1.5 J	0.7	2.5	1.2
Fluorene	50	µg/L	4.40	7	15.6	4.5
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	**0.10**	**0.14**
2-Methylnapthalene	- -	µg/L	3.7	3	15.0	2.5
Naphthalene	10	µg/L	**33**	**51**	**333**	**37.9**
Phenanthrene	50	µg/L	2.7	2	9.2	1.7
Pyrene	50	µg/L	1.1 J	0.5	1.8	0.97
Inorganics						
Cyanide, Total	200	µg/L	59	**320**	54	58

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-9

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/24/14	10/19/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	**280**	**340**	**283**	**228**
Ethylbenzene	5	µg/L	**120**	**140**	**112**	**107**
Toluene	5	µg/L	**170**	**85**	**50.8**	**16.3**
Total Xylenes	5	µg/L	**250**	**180**	**91.7**	**52.1**
SVOCs						
Acenaphthene	20	µg/L	**76**	**48**	**30.2**	**55.5**
Acenaphthylene	- -	µg/L	29	17	8.6	11.0
Anthracene	50	µg/L	11	8	2.6	11.4
Benzo(a)anthracene	0.002	µg/L	ND	**2**	**0.21**	**5.80**
Benzo(a)pyrene	ND	µg/L	ND	1	ND	4.4
Benzo(b)fluoranthene	0.002	µg/L	ND	**1**	ND	4.8
Benzo(g,h,i)perylene	- -	µg/L	ND	0.4 J	ND	1.5
Benzo(k)fluoranthene	0.002	µg/L	ND	**0.5 J**	ND	1.8
Chrysene	0.002	µg/L	ND	**1**	**0.13**	**4.30**
Dibenz(a,h)anthracene	- -	µg/L	ND	0.2 J	ND	0.46
Fluoranthene	50	µg/L	6.0	8	2.2	19.2
Fluorene	50	µg/L	**56**	38	19.0	36.1
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	**1**	ND	1.5
2-Methylnapthalene	- -	µg/L	14	1	ND	ND
Naphthalene	10	µg/L	**450**	**72**	**18.1**	**9.1**
Phenanthrene	50	µg/L	**51**	36	9.7	25.2
Pyrene	50	µg/L	3.5	5	1.2	12.7
Inorganics						
Cyanide, Total	200	µg/L	**410**	**1,300**	**1,000**	**1,500**

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-10R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/23/14	10/19/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	**1,700 J**	**1,400**	**1,360**	**1,540**
Ethylbenzene	5	µg/L	**25 J**	**100**	**122**	**124**
Toluene	5	µg/L	3.1	**94**	**230**	**201**
Total Xylenes	5	µg/L	**15**	**65**	**161**	**150**
SVOCs						
Acenaphthene	20	µg/L	9.6	**24**	16.8	**25.3**
Acenaphthylene	- -	µg/L	6.0	23	22.7	27.5
Anthracene	50	µg/L	ND	0.5	0.80	0.89
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	0.11	0.11
Fluorene	50	µg/L	3.9	11	8.1	11.4
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	1	3.6	4.8
Naphthalene	10	µg/L	**20 J**	**140**	**296**	486
Phenanthrene	50	µg/L	1.3 J	2	1.6	2.4
Pyrene	50	µg/L	ND	ND	ND	ND
Inorganics						
Cyanide, Total	200	µg/L	**420**	190	63	62

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-11

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/25/14	10/18/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND
SVOCs						
Acenaphthene	20	µg/L	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	0.11	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	0.14	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	0.13	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	ND	0.19	ND
Naphthalene	10	µg/L	ND	ND	0.87	0.36
Phenanthrene	50	µg/L	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND
Inorganics						
Cyanide, Total	200	µg/L	**250**	**310**	160	**270**

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-12R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/24/14	10/18/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	**2,600**	**2,900**	**1,420**	**2,440**
Ethylbenzene	5	µg/L	**130**	**110**	**67.6**	**86.7**
Toluene	5	µg/L	**7.4**	**15**	**5.8**	**13.8**
Total Xylenes	5	µg/L	**49**	**83**	**27.8**	**58.1**
SVOCs						
Acenaphthene	20	µg/L	3.4	4	**104**	1.2
Acenaphthylene	- -	µg/L	4.8	7	1.9	1.5
Anthracene	50	µg/L	ND	ND	ND	0.098
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND
Fluorene	50	µg/L	ND	0.3 J	0.24	0.2
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	ND	ND	ND
Naphthalene	10	µg/L	**31**	**92**	6.1	**19.7**
Phenanthrene	50	µg/L	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND
Inorganics						
Cyanide, Total	200	µg/L	190	37	62	33

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-14R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/25/14	10/18/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	**3.0**	**48**	1.0	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND
SVOCs						
Acenaphthene	20	µg/L	ND	ND	0.12	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	ND	0.14	ND
Naphthalene	10	µg/L	ND	ND	0.96	ND
Phenanthrene	50	µg/L	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND
Inorganics						
Cyanide, Total	200	µg/L	ND	ND	ND	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-15

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/24/14	10/19/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND
SVOCs						
Acenaphthene	20	µg/L	ND	ND	0.15	ND
Acenaphthylene	- -	µg/L	ND	ND	0.18	ND
Anthracene	50	µg/L	ND	ND	0.12	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	**0.28**	ND
Benzo(a)pyrene	ND	µg/L	ND	0.2 J	0.27	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	**0.2 J**	**0.29**	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	0.2 J	0.13	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	**0.11**	ND
Chrysene	0.002	µg/L	ND	ND	**0.19**	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	0.2 J	ND	ND
Fluoranthene	50	µg/L	ND	ND	0.45	ND
Fluorene	50	µg/L	ND	0.3 J	0.13	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	**0.12**	ND
2-Methylnapthalene	- -	µg/L	ND	ND	0.2	ND
Naphthalene	10	µg/L	ND	ND	1.0	0.27
Phenanthrene	50	µg/L	ND	0.1 J	0.28	ND
Pyrene	50	µg/L	0.35 J	0.3 J	0.4	ND
Inorganics						
Cyanide, Total	200	µg/L	ND	ND	15	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-15RS

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/22/14	10/19/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	**750**	**170**	**4.8**	**9.7**
Ethylbenzene	5	µg/L	ND	ND	ND	ND
Toluene	5	µg/L	0.54 J	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND
SVOCs						
Acenaphthene	20	µg/L	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	ND	0.14	ND
Naphthalene	10	µg/L	ND	ND	0.85	0.52
Phenanthrene	50	µg/L	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND
Inorganics						
Cyanide, Total	200	µg/L	160	64	67	41

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-17R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/25/14	10/18/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND
SVOCs						
Acenaphthene	20	µg/L	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	ND	ND	ND
Naphthalene	10	µg/L	ND	ND	0.13	0.37
Phenanthrene	50	µg/L	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND
Inorganics						
Cyanide, Total	200	µg/L	ND	ND	ND	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-17R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/25/14	10/18/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND
SVOCs						
Acenaphthene	20	µg/L	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	ND	ND	ND
Naphthalene	10	µg/L	ND	ND	0.30	0.12
Phenanthrene	50	µg/L	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND
Inorganics						
Cyanide, Total	200	µg/L	ND	ND	ND	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-20R

	NYSDEC TOGS 1.1.1 Guidance Values	Units	09/25/14	10/18/17	07/14/20	10/01/20
BTEX						
Benzene	1	µg/L	ND	ND	ND	ND
Ethylbenzene	5	µg/L	ND	ND	ND	ND
Toluene	5	µg/L	ND	ND	ND	ND
Total Xylenes	5	µg/L	ND	ND	ND	ND
SVOCs						
Acenaphthene	20	µg/L	ND	ND	ND	ND
Acenaphthylene	- -	µg/L	ND	ND	ND	ND
Anthracene	50	µg/L	ND	ND	ND	ND
Benzo(a)anthracene	0.002	µg/L	ND	ND	ND	ND
Benzo(a)pyrene	ND	µg/L	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Benzo(g,h,i)perylene	- -	µg/L	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	µg/L	ND	ND	ND	ND
Chrysene	0.002	µg/L	ND	ND	ND	ND
Dibenz(a,h)anthracene	- -	µg/L	ND	ND	ND	ND
Fluoranthene	50	µg/L	ND	ND	ND	ND
Fluorene	50	µg/L	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	ND	ND	ND
2-Methylnapthalene	- -	µg/L	ND	ND	0.14	ND
Naphthalene	10	µg/L	ND	ND	0.89	0.21
Phenanthrene	50	µg/L	ND	ND	ND	ND
Pyrene	50	µg/L	ND	ND	ND	ND
Inorganics						
Cyanide, Total	200	µg/L	ND	ND	ND	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

Appendix A – Field Inspection Reports

Site Management Plan Inspection Form
Ogdensburg (King Street)
Non-Owned Former MGP Site
Ogdensburg, New York
NYSDEC Site No. V00479

Date: 10/1/2020 Time: 8:30
Technician: KL Weather: Cloudy 53

Site Wide			
Any repairs, maintenace or corrective actions since the last inspection?	YES	NO	COMMENTS:
Are the requirements of the Site Management Plan being met?	YES	NO	COMMENTS:
Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction?	YES	NO	COMMENTS:

Site Wide - SLG Responsible to Maintain			
Perimeter Fence and Gates intact?	YES	NO	COMMENTS:
Have the lawns been mowed?	YES	NO	COMMENTS:

Soil Cover System			
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:
Any other conditions affecting the thickness or the integrity of the soil cover system?	YES	NO	COMMENTS:

NG Owned Property on Lake Street - Not part of the SMP				
Any repairs, maintenace or corrective actions since the last inspection?	YES		NO	COMMENTS:
Have the lawns been mowed?	YES		NO	COMMENTS:
Conditon of the sidewalks?	GOOD	FAIR	POOR	COMMENTS:
Condition of the site trees?	GOOD	FAIR	POOR	COMMENTS:
Are the boulders in place?	YES		NO	COMMENTS:

Miscellaneous				
Evidence of Trespassing	YES		NO	COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Site Monitoring Wells		
Well ID.	***Location Secure***	
MW-2(R)	YES	NO
MW-5R(R)	YES	NO
MW-8R	YES	NO
MW-9	YES	NO
MW-10R	YES	NO
MW-11	YES	NO
MW-12R	YES	NO
MW-14R	YES	NO
MW-15	YES	NO
MW-15RS	YES	NO
MW-17R	YES	NO
MW-19R	YES	NO
MW-20R	YES	NO

General Comments:

Site Management Plan Inspection Form
Ogdensburg (King Street)
Non-Owned Former MGP Site
Ogdensburg, New York
NYSDEC Site No. V00479

Date: 7/14/2020 Time: 9:00
Technician: AJ Weather: Sunny 72

Site Wide			
Any repairs, maintenace or corrective actions since the last inspection?	YES	NO	COMMENTS:
Are the requirements of the Site Management Plan being met?	YES	NO	COMMENTS:
Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction?	YES	NO	COMMENTS:

Site Wide - SLG Responsible to Maintain			
Perimeter Fence and Gates intact?	YES	NO	COMMENTS:
Have the lawns been mowed?	YES	NO	COMMENTS:

Soil Cover System			
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:
Any other conditions affecting the thickness or the integrity of the soil cover system?	YES	NO	COMMENTS:

NG Owned Property on Lake Street - Not part of the SMP				
Any repairs, maintenace or corrective actions since the last inspection?	YES		NO	COMMENTS:
Have the lawns been mowed?	YES		NO	COMMENTS:
Conditon of the sidewalks?	GOOD	FAIR	POOR	COMMENTS:
Condition of the site trees?	GOOD	FAIR	POOR	COMMENTS:
Are the boulders in place?	YES		NO	COMMENTS:

Miscellaneous				
Evidence of Trespassing	YES		NO	COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Site Monitoring Wells		
Well ID.	***Location Secure***	
MW-2(R)	YES	NO
MW-5R(R)	YES	NO
MW-8R	YES	NO
MW-9	YES	NO
MW-10R	YES	NO
MW-11	YES	NO
MW-12R	YES	NO
MW-14R	YES	NO
MW-15	YES	NO
MW-15RS	YES	NO
MW-17R	YES	NO
MW-19R	YES	NO
MW-20R	YES	NO

General Comments:

Site Management Plan Inspection Form
Ogdensburg (King Street)
Non-Owned Former MGP Site
Ogdensburg, New York

Date: 6/23/2020 Time: 8:30
Technician: KL/BH Weather: Sunny 70

Soil Cover System			
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:

Site Wide				
Any repairs, maintenace or corrective actions since the last inspection?	YES		NO	COMMENTS:
Have the lawns been mowed?	YES		NO	COMMENTS:
Conditon of the asphalt pavement	GOOD	FAIR	POOR	COMMENTS: Lake St
Conditon of the sidewalks?	GOOD	FAIR	POOR	COMMENTS: Lake St
Condition of the site trees?	GOOD	FAIR	POOR	COMMENTS: Lake St
Are the requirements of the Site Management Plan being met?	YES		NO	COMMENTS:
Any signs/evidence of use of the Site in a manner inconsistent with the deed restriction?	YES		NO	COMMENTS:
Are there any needed changes?	YES		NO	COMMENTS:
Are the site records complete and up to date?	YES		NO	COMMENTS:

Miscellaneous				
Evidence of Trespassing	YES		NO	COMMENTS:
Litter	NONE	MINOR	SIGNIFICANT	COMMENTS:

Site Monitoring Wells		
Well ID.	***Location Secure***	
MW-2(R)	YES	NO
MW-5R(R)	YES	NO
MW-8R	YES	NO
MW-9	YES	NO
MW-10R	YES	NO
MW-11	YES	NO
MW-12R	YES	NO
MW-14R	YES	NO
MW-15	YES	NO
MW-15RS	YES	NO
MW-17R	YES	NO
MW-19R	YES	NO
MW-20R	YES	NO

General Comments:

Hinge missing on St. Lawrence Gate.
Fenceline needs to be sprayed?
Rear of fence overgrown.
Installed GES MC-2 lock on gate.
Installed GES MC-2 locks on wells.
New well manways needed for MW-8R, MW-9R and MW-10R

Do we need NG Signs??

Appendix B – Well Sampling Field Data

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: AS
Date: 7/14/20
Job Number: 0603123-136690-221
Weather:
Well Id. **MW-2(R)**
Time In: 1020 Time Out: 1115

Well Information

		TOC	Other
Depth to Water:	(feet)	4.82	
Depth to Bottom:	(feet)	6.35	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	1.53	
Volume of Water in Well:	(gal)	0.9	
Three Well Volumes:	(gal)	2.7	

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:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	1.0 (gal)				

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)
1025	5.62	21.41	9.01	-239	0.621	36.3	1.72	0.399
1030	5.85	22.97	7.52	-206	0579	69.4	1.04	0372
1035	6.20	22.81	7.51	-267	0.508	53.3	0.85	0363
1040	6.25	22.70	9.32	-285	0.591	47.8	3.66	0377
1045	6.28	22.76	10.51	-233	0.677	37.2	6.48	0.429
1050	6.29	23.34	10.55	-214	0.810	22.3	6.42	0515
1055	6.28	24.25	10.75	-218	0.910	14.2	6.16	0.581

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-2(R)-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1100 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: AS
Job Number: 0603123-136690-221
Well Id. **MW-5R(R)**

Date: 7/14/26
Weather: 72°F, sunny
Time In: 0930 Time Out: 1015

Well Information

		TOC	Other
Depth to Water:	(feet)	5.12	
Depth to Bottom:	(feet)	24.30	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	19.18	
Volume of Water in Well:	(gal)	3.0	
Three Well Volumes:	(gal)	9.0	

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: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 3 (gal)
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)
0935	6.15	20.50	8.35	-83	0.592	40.6	3.69	0.379
0940	6.79	19.73	8.86	-140	0.590	31.1	2.83	0.378
0945	7.05	18.65	9.60	-245	0.598	17.1	1.62	0.382
0950	7.32	18.57	9.84	-287	0.619	10.9	1.38	0.396
0955	7.46	18.77	9.92	-286	0.636	7.2	1.19	0.407
1000	7.60	19.12	9.97	-290	0.646	5.4	1.05	0.413
1005	7.68	19.58	10.00	-291	0.647	4.9	0.96	0.414

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-5R(R)-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1010 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: BA
Job Number: 0603123-136690-221
Well Id. **MW-8R**

Date: 07/14/20
Weather: 73°F, sunny
Time In: 0920 Time Out: 1010

Well Information

		TOC	Other
Depth to Water:	(feet)	3.52	
Depth to Bottom:	(feet)	20.92	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	17.40	
Volume of Water in Well:	(gal)	2.78	
Three Well Volumes:	(gal)	8.34	

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: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 2 (gal)

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)
0930	3.86	21.53	7.12	-63	0.561	2.0	5.90	0.361
0935	4.32	18.63	7.02	-305	0.578	0.9	3.67	0.368
0940	4.68	18.03	7.07	-333	0.578	2.8	2.39	0.369
0945	4.91	19.74	7.04	-341	0.564	3.8	1.89	0.360
0950	5.28	17.29	7.12	-349	0.592	8.4	1.72	0.378
0955	5.70	17.14	7.11	-349	0.590	0.0	1.57	0.378
1000	6.03	16.84	7.06	-351	0.591	0.0	1.45	0.379

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

MW-8R-MS-0720 **MW-8R-MSD-0720**

Sample ID: **MW-8R-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1000 MS/MSD? Yes [X] No [ ]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: AS
Date: 7/14/20
Job Number: 0603123-136690-221
Weather: 79°F, partly cloudy
Well Id. **MW-9**
Time In: 1350 Time Out: 1435

Well Information

		TOC	Other
Depth to Water:	(feet)	4.88	
Depth to Bottom:	(feet)	6.35	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	1.47	
Volume of Water in Well:	(gal)	0.23	
Three Well Volumes:	(gal)	0.7	

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: 200 (ml/min)					
Duration of Pumping: 30 (min)					
Total Volume Removed: (gal)					

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)
1355	5.30	21.08	9.59	-301	0.740	119	1.21	0.459
1400	5.39	22.96	8.22	-229	1.05	378	1.46	0.670
1405	5.42	22.62	7.47	-251	1.05	174	0.50	0.671
1410	5.30	23.08	7.18	-278	1.08	81.4	0.28	0690
1415	5.55	23.70	7.09	-298	1.08	48.4	0.24	0692
1420	5.55	24.00	7.08	-312	1.06	41.1	0.20	0.680
1425	5.60	24.19	7.09	-322	1.06	34.1	0.18	0.677

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-9-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1430 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: AS
Job Number: 0603123-136690-221
Well Id. **MW-10R**

Date: 7/14/20
Weather: 79°F, partly cloudy
Time In: 1300 Time Out: 1345

Well Information

		TOC	Other
Depth to Water:	(feet)	1.14	
Depth to Bottom:	(feet)	22.50	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	20.99	
Volume of Water in Well:	(gal)	3.3	
Three Well Volumes:	(gal)	9.9	

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:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	3.0 (gal)				

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)
1305	2.31	24.76	8.67	-373	0.408	160	0.39	0.264
1310	2.64	22.63	10.28	-390	0.454	546	0.49	0.293
1315	2.98	21.88	10.77	-381	0.514	263	0.50	0.328
1320	3.37	20.48	10.71	-373	0.549	65.2	0.48	0.350
1325	3.55	20.27	10.51	-364	0.574	29.6	0.446	0.367
1330	3.75	20.01	10.39	-362	0.579	20.7	0.44	0.371
1335	3.90	19.65	10.32	-361	0.570	10.9	0.43	0.365

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

FD-0720
Sample ID: **MW-10R-0720** Duplicate? Yes [X] No [ ]
Sample Time: 1340 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: AS
Job Number: 0603123-136690-221
Well Id. **MW-11**

Date: 7/14/20
Weather: 75°F, sunny
Time In: 1120 Time Out: 1205

Well Information

		TOC	Other
Depth to Water:	(feet)	3.62	
Depth to Bottom:	(feet)	6.51	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	2.89	
Volume of Water in Well:	(gal)	0.46	
Three Well Volumes:	(gal)	1.3	

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: 200 (ml/min)					
Duration of Pumping: 30 (min)					
Total Volume Removed: 1.0 (gal)					

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)
1125	3.91	23.53	9.97	-240	1.05	64.8	3.95	0.664
1130	3.75	22.59	8.35	-217	1.17	977	1.10	0.750
1135	3.72	21.92	7.54	-172	1.23	493	0.62	0.784
1140	3.73	20.39	6.74	-136	1.26	154	0.65	0.806
1145	3.75	20.09	6.46	-134	1.26	140	0.64	0.807
1150	3.76	19.54	6.55	-131	1.27	113	0.62	0.810
1155	3.77	19.23	6.50	-131	1.28	90.3	0.58	0.819

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-11-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1200 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: AS
Job Number: 0603123-136690-221
Well Id. **MW-12R**

Date: 7/14/20
Weather: 77°F, partly cloudy
Time In: 1210 Time Out: 1255

Well Information

		TOC	Other
Depth to Water:	(feet)	10.32	
Depth to Bottom:	(feet)	21.40	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	11.08	
Volume of Water in Well:	(gal)	1.77	
Three Well Volumes:	(gal)	5.3	

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:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	2.0 (gal)				

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)
1215	10.86	22.30	6.78	-173	0.579	111	0.67	0.647
1220	11.19	24.34	7.30	-257	0.533	597	0.60	0.351
1225	11.79	24.31	7.50	-311	0.434	560	0.33	0.284
1230	12.22	25.96	7.59	-332	0.405	262	0.29	0.264
1235	12.55	25.81	7.62	-341	0.402	149	0.30	0.261
1240	12.89	25.75	7.65	-351	0.403	83.0	0.31	0.262
1245	13.20	25.97	7.64	-357	0.401	58.5	0.32	0.261

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-12R-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1250 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: ~~BH~~

Job Number: 0603123-136690-221

Well Id. **MW-14R**

Date: 07/14/20

Weather: 75°F, sunny

Time In: 1055 Time Out: 1135

Well Information

		TOC	Other
Depth to Water:	(feet)	2.47	
Depth to Bottom:	(feet)	50.80	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	48.33	
Volume of Water in Well:	(gal)	7.8	
Three Well Volumes:	(gal)	23.4	

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:	200 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	2 (gal)				

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)
1100	~~2.8~~ 2.65	22.82	7.33	-282	0.480	0.3	1.19	0.309
1105	2.78	22.23	7.30	-304	0.471	0.2	0.99	0.306
1110	2.86	21.85	7.28	-311	0.469	0.0	0.93	0.305
1115	2.92	21.48	7.25	-316	0.469	0.0	0.89	0.304
1120	2.94	21.36	7.24	-317	0.467	0.0	0.89	0.305
1125	2.95	20.01	7.21	-317	0.478	0.0	0.91	0.309
1130	2.97	20.58	7.28	-322	0.469	0.0	0.87	0.305

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-14R-0720** Duplicate? Yes [ ] No [X]

Sample Time: 1130 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: BA
Job Number: 0603123-136690-221
Well Id. **MW-15**

Date: 07/14/20
Weather: 80°F, sunny
Time In: 1310 Time Out: 1350

Well Information

		TOC	Other
Depth to Water:	(feet)	8.22	
Depth to Bottom:	(feet)	9.04	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	0.82	
Volume of Water in Well:	(gal)	0.13	
Three Well Volumes:	(gal)	0.39	

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: Low water, sampled early

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: 120 (ml/min)
Duration of Pumping: 25 (min)
Total Volume Removed: 0.75 (gal)

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)
1315	8.25	26.92	6.56	-92	0.685	0.0	2.19	0.443
1320	8.32	26.80	6.49	-102	0.721	1000	1.42	0.476
1325	8.39	26.46	6.40	-118	0.768	998	0.86	0.490
1330	8.45	26.55	6.36	-127	0.763	635	0.82	0.488
1335	8.50	24.91	6.34	-132	0.810	960	0.65	0.519
1340	8.54	24.69	6.35	-131	0.821	1000	1.03	0.525

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-15-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1340 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: SH
Job Number: 0603123-136690-221
Well Id. **MW-15RS**

Date: 07/14/20
Weather: 78°F, overcast
Time In: 1350 Time Out: 1430

Well Information

		TOC	Other
Depth to Water:	(feet)	7.33	
Depth to Bottom:	(feet)	23.65	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	16.32	
Volume of Water in Well:	(gal)	0.65	
Three Well Volumes:	(gal)	1.95	

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" [X] 2" [ ] Other:
Comments: Diameter too small for probe & tubing simultaneously.

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:	120 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	1.0 (gal)				

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)
1355		23.42	6.74	-330	0.719	25.1	1.19	0.461
1400		23.10	6.69	-321	0.702	21.0	1.12	0.454
1405		22.96	6.67	-301	0.694	18.4	1.17	0.443
1410		22.72	6.66	-296	0.681	19.1	1.25	0.436
1415		22.19	6.60	-295	0.740	15.6	1.18	0.489
1420		21.64	6.63	-311	0.824	13.2	0.91	0.521
1425		21.16	6.70	-320	0.887	10.5	0.76	0.569

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-15RS-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1425 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: BA
Job Number: 0603123-136690-221
Well Id. **MW-17R**

Date: 07/14/20
Weather: 75°F, sunny
Time In: 1010 Time Out: 1050

Well Information

		TOC	Other
Depth to Water:	(feet)	7.48	
Depth to Bottom:	(feet)	26.90	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	19.42	
Volume of Water in Well:	(gal)	3.1	
Three Well Volumes:	(gal)	9.3	

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: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 2 (gal)
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)
1015	7.67	19.62	7.17	-298	0.819	18.3	1.89	0.525
1020	8.05	16.45	7.09	-291	0.862	8.7	1.60	0.552
1025	8.11	15.87	6.92	-276	0.870	2.6	1.37	0.556
1030	8.76	16.08	6.86	-273	0.866	0.6	1.30	0.554
1035	9.01	16.04	6.84	-273	0.865	0.0	1.26	0.553
1040	9.17	15.86	6.80	-271	0.866	0.0	1.21	0.555
1045	9.39	15.74	6.78	-270	0.865	0.0	1.18	0.552

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-17R-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1045 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical
Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: BJA
Job Number: 0603123-136690-221
Well Id. **MW-19R**

Date: 07/14/20
Weather: 80°F, Sunny
Time In: 1225 Time Out: 1305

Well Information

		TOC	Other
Depth to Water:	(feet)	6.34	
Depth to Bottom:	(feet)	38.05	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	31.71	
Volume of Water in Well:	(gal)	5.1	
Three Well Volumes:	(gal)	15.3	

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: 200 (ml/min)
Duration of Pumping: 30 (min)
Total Volume Removed: 2 (gal)
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)
1230	6.46	22.96	7.33	-230	0.370	14.8	1.43	0.234
1235	7.32	23.26	7.32	-241	0.263	6.6	0.83	0.171
1240	8.01	22.25	7.28	-243	0.270	7.2	0.81	0.176
1245	8.77	21.88	7.27	-243	0.273	4.1	0.79	0.178
1250	9.52	21.74	7.26	-243	0.275	2.1	0.77	0.179
1255	10.29	21.04	7.25	-243	0.282	9.8	0.79	0.183
1300	10.98	21.68	7.23	-242	0.281	4.0	0.77	0.182

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-19R-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1300 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: BH
Job Number: 0603123-136690-221
Well Id. **MW-20R**

Date: 07/14/20
Weather: 78°F, sunny
Time In: 1140 Time Out: 1220

Well Information

		TOC	Other
Depth to Water:	(feet)	1.38	
Depth to Bottom:	(feet)	28.40	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	27.02	
Volume of Water in Well:	(gal)	4.3	
Three Well Volumes:	(gal)	12.9	

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

		Bailer	Peristaltic	Grundfos Pump
Purging Method:		[ ]	[X]	[ ]
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 [ ] 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)
1145	1.91	24.75	7.40	-252	0.494	7.2	1.72	0.321
1150	1.93	23.43	7.32	-247	0.484	3.7	1.02	0.318
1155	2.60	22.64	7.19	-254	0.496	6.0	0.84	0.322
1200 ~~1160~~	3.38	22.83	7.17	-255	0.498	7.2	0.82	0.323
1205	4.02	23.19	7.16	-255	0.497	5.1	0.83	0.323
1210	4.69	23.35	7.15	-255	0.495	4.0	0.83	0.322
1215	5.12	22.98	7.14	-254	0.496	3.3	0.83	0.321

Sampling Information:

EPA SW-846 Method 8270	SVOC PAH's	2 - 1 liter 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-20R-0720** Duplicate? Yes [ ] No [X]
Sample Time: 1215 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

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 - Ogdensburg King Street Ogdensburg, NY	
Project Number: 0603123-136690-221-1106	

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 | L | | | | OH | SC | VI | OTHER___

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	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Filtered (Y/N)	Requested Analysis: BTEX (8260C)	SVOCs (PAHs) (8270D)	Cyanide, Total (9012B)	Pace Project Number / Lab I.D.
1	MW-2(R)-0720	WT	G			7/14/20	1100		7	2		HN	3	1					3	2	1	
2	MW-5R(R)-0720	WT	G				1010		7	2		HN	3	1					3	2	1	
3	MW-8R-0720	WT	G				1000		7	2		HN	3	1					3	2	1	
4	MW-8R-MS-0720	WT	G				1000		7	2		HN	3	1					3	2	1	
5	MW-8R-MSD-0720	WT	G				1000		7	2		HN	3	1					3	2	1	
6	MW-9-0720	WT	G				1430		7	2		HN	3	1					3	2	1	
7	MW-10R-0720	WT	G				1340		7	2		HN	3	1					3	2	1	
8	MW-11-0720	WT	G				1200		7	2		HN	3	1					3	2	1	
9	MW-12R-0720	WT	G				1250		7	2		HN	3	1					3	2	1	
10	MW-14R-0720	WT	G				1130		7	2		HN	3	1					3	2	1	
11	MW-15-0720	WT	G				1340		7	2		HN	3	1					3	2	1	
12	MW-15RS-0720	WT	G				1425		7	2		HN	3	1					3	2	1	
13	MW-17R-0720	WT	G				1045		7	2		HN	3	1					3	2	1	
14	MW-19R-0720	WT	G				1300		7	2		HN	3	1					3	2	1	
15	MW-20R-0720	WT	G				1215		7	2		HN	3	1					3	2	1	
16	FD-0720	WT	G						7	2		HN	3	1					3	2	1	
17	Trip Blanks	WT	G						2				3						3			

Additional Comments:

SAMPLES WILL ARRIVE IN [#] COOLERS.

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

SPECIFIC EDD NAME:

NGOgdensburg-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] GES	7/14/20	1800	GES Fridge	7/14/20	1800

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: | DATE Signed (MM / DD / YY)

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

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: KL GE
Job Number: 0603208-136690-221
Well Id. **MW-2(R)**

Date: 10/1/20
Weather: Sunny 70
Time In: 13:40 Time Out: 14:40

Well Information

		TOC	Other
Depth to Water:	(feet)	3.92	
Depth to Bottom:	(feet)	6.35	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	2.43	
Volume of Water in Well:	(gal)	0.38	
Three Well Volumes:	(gal)	1.14	

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 [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)
13:45	5.25	17.18	7.04	-330	0.780	40.5	0.79	0.493
13:50	5.40	16.18	7.31	-311	0.703	27.4	4.62	0.450
13:55	5.98	16.97	6.55	-369	0.673	23.3	4.64	0.427
14:00								
14:05		SAMPLE	EARLY	GOING	DRY			
14:10								
14:15								

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-2(R)-1020** Duplicate? Yes [ ] No [X]
Sample Time: 13:55 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: VL GH
Date: 10/1/20
Job Number: 0603200-136690-221
Weather: Sunny 70
Well Id. **MW-5R(R)**
Time In: 14:20 Time Out: 14:45

Well Information

		TOC	Other
Depth to Water:	(feet)	2.75	
Depth to Bottom:	(feet)	24.30	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	21.55	
Volume of Water in Well:	(gal)	3.44	
Three Well Volumes:	(gal)	10.34	

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)
14:05	4.29	16.70	9.48	-412	0.903	49.5	0.86	0.581
14:10	5.71	16.18	9.55	-416	0.933	34.7	0.73	0.598
14:15	6.57	16.38	9.62	-421	0.923	23.5	0.67	0.590
14:20	7.13	15.85	9.76	-430	0.884	22.8	0.64	0.565
14:25	7.84	15.50	9.97	-438	0.826	20.0	0.69	0.527
14:30	8.19	15.34	10.05	-442	0.777	18.8	0.68	0.496
14:35	8.70	15.25	10.05	-444	0.737	11.8	0.71	0.470

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-5R(R)-1020** Duplicate? Yes [ ] No [X]
Sample Time: 14:40 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: KL GE
Job Number: 0603200-136690-221
Well Id. **MW-8R**

Date: 10/1/20
Weather: PC 60
Time In: 10:30 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	2.20	
Depth to Bottom:	(feet)	20.92	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	18.72	
Volume of Water in Well:	(gal)	2.99	
Three Well Volumes:	(gal)	8.96	

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: Product in Tubing ~2' inside

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)
10:45	2.89	19.82	7.70	-280	0.658	79.0	2.38	0.418
10:50	4.73	18.16	7.42	-360	0.660	53.9	2.04	0.422
10:55	5.23	18.40	7.40	-368	0.658	51.3	2.10	0.421
11:00	6.06	18.32	7.36	-380	0.669	29.0	2.17	0.428
11:05	6.63	18.37	7.34	-386	0.675	30.1	2.18	0.431
11:10	7.26	18.12	7.36	-393	0.678	12.0	2.20	0.433
11:15	7.48	18.18	7.34	-395	0.681	10.1	2.14	0.436
11:20	7.75	18.17	7.33	-397	0.684	9.7	2.14	0.438

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-8R-MS-1020 **MW-8R-MSD-1020**

Sample ID: **MW-8R-1020** Duplicate? Yes [ ] No [X]
Sample Time: 11:20 MS/MSD? Yes [X] No [ ]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: KL GE
Job Number: 0603200-136690-221
Well Id. **MW-9**

Date: 10/1/20
Weather: PC 57
Time In: 09 40 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	4.85	
Depth to Bottom:	(feet)	6.35	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	1.45	
Volume of Water in Well:	(gal)	0.232	
Three Well Volumes:	(gal)	0.696	

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)	~10 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)
~~10:00~~								
10:05	5.85	16.66	8.82	-227	1.32	160	11.14	0.848
10:10	Sampled - Well going dry							
10:15								
10:20								
10:25								
10:30								
10:35								

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-9-1020** Duplicate? Yes [ ] No [X]
Sample Time: ~~09:40~~ 10:10 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: GE
Number: 0603200-136690-221
Well Id. **MW-10R**

Date: 10/1/2020
Weather: clear 50's
Time In: 09:00 Time Out: 09:40

Well Information

		TOC	Other
Depth to Water:	(feet)	0.50	
Depth to Bottom:	(feet)	22.50	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	22.0	
Volume of Water in Well:	(gal)	3.52	
Three Well Volumes:	(gal)	10.56	

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)
09:05	1.37	16.67	7.83	-123	0.596	12.8	1.36	0.374
09:10	2.00	16.58	9.35	-215	0.603	5.9	1.00	0.388
09:15	2.49	16.39	9.77	-273	0.698	3.8	0.83	0.449
09:20	2.85	16.10	9.95	-304	0.743	0.0	0.78	0.476
09:25	3.07	15.94	9.93	-315	0.741	0.0	0.78	0.474
09:30	3.35	15.87	9.94	-330	0.740	0.0	0.80	0.473
09:35	3.54	15.80	9.93	-339	0.739	0.0	0.79	0.473

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-1020
Sample ID: **MW-10R-1020** Duplicate? Yes [X] No [ ]
Sample Time: 09:40 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

mpling Personnel: GE
Job Number: 0603200-136690-221
Well Id. **MW-11**

Date: 10/1/20
Weather: Clear 60's
Time In: 12:45 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	3.49	
Depth to Bottom:	(feet)	6.51	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	3.02	
Volume of Water in Well:	(gal)	0.49	
Three Well Volumes:	(gal)	1.44	

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)				
Total Volume Removed:	(gal)				

Did well go dry? Yes [ ] No [ ]

iba 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)
12:55	3.77	15.48	7.72	-346	1.31	20.2	1.52	0.857
13:00	3.79	15.07	7.20	-325	1.54	17.4	0.98	0.987
13:05	3.80	14.89	7.02	-320	1.57	16.4	0.89	1.01
13:10	3.82	14.77	6.89	-318	1.58	14.9	0.81	1.01
13:15	3.83	14.80	6.85	-317	1.58	14.7	0.79	1.01
13:20	3.84	14.70	6.80	-317	1.59	12.4	0.78	1.01
13:25	3.84	14.65	6.77	-316	1.59	21.1	0.74	1.02

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 [ ]

nple ID: **MW-11-1020** Duplicate? Yes [ ] No [X]
Sample Time: 13:30 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: KL GB
Job Number: 0603200-136690-221
Well Id. **MW-12R**

Date: 10/1/22
Weather: clear 60's
Time In: 12:00 Time Out: 12:40

Well Information

		TOC	Other
Depth to Water:	(feet)	9.34	
Depth to Bottom:	(feet)	21.40	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	12.06	
Volume of Water in Well:	(gal)	1.92	
Three Well Volumes:	(gal)	5.76	

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)	7			

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

iba 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)
1200	11.07	19.02	7.78	-416	0.536	17.8	1.84	0.343
1205	12.27	18.48	7.67	-426	0.537	10.6	1.88	0.344
1210	13.05	18.26	7.64	-427	0.540	7.4	1.88	0.346
1215	13.77	18.14	7.64	-429	0.540	8.1	1.88	0.346
1220	14.35	18.06	7.62	-428	0.544	7.4	1.86	0.348
1225	14.44	17.95	7.60	-434	0.553	7.9	1.83	0.354
1230	16.48	17.95	7.59	-431	0.551	7.0	1.77	0.352

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 [ ]

nple ID: **MW-12R-1020** Duplicate? Yes [ ] No [X]
Sample Time: 12:35 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

mpling Personnel: LIAM MAHER
Date: 10-1-20
Job Number: 0603200-136690-221
Weather: Cloudy 65°
Well Id. **MW-14R**
Time In: 1035 Time Out: 1120

Well Information

		TOC	Other
Depth to Water:	(feet)	TOC	
Depth to Bottom:	(feet)	50.80	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	50.80	
Volume of Water in Well:	(gal)	8.12	
Three Well Volumes:	(gal)	24.38	

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

iba 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)
1040	TOC	13.06	7.68	-246	.657	0.0	6.68	.420
1045	TOC	12.47	7.68	-294	.643	0.0	1.55	.411
1050	TOC	12.54	7.66	-311	.642	0.0	1.46	.411
1055	TOC	12.54	7.66	-324	.637	0.0	1.34	.408
1100	TOC	12.48	7.82	-343	.638	0.0	1.28	.408
1105	TOC	12.45	7.81	-340	.639	0.0	1.28	.408
1110	TOC	12.42	7.77	-339	.640	0.0	1.28	.407

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 [ ]

nple ID: **MW-14R-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1115 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

mpling Personnel: Liam Walker
Date: 10-1-20
Job Number: 0603200-136690-221
Weather: Cloudy 65
Well Id. **MW-15**
Time In: 1355 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	8.06	
Depth to Bottom:	(feet)	9.04	
Depth to Product:	(feet)	ND	
Length of Water Column:	(feet)	.98	
Volume of Water in Well:	(gal)	.15	
Three Well Volumes:	(gal)	.47	

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 [X] No [ ]

iba 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)
1400	8.27	16.76	7.13	-265	1.22	1000	4.23	.782
1405	8.34	16.55	7.03	-266	1.22	520	2.20	.782
1410	8.39	16.26	6.97	-266	1.22	309	1.65	.782
1415	8.45	16.13	6.94	-264	1.22	87.8	1.42	.779
1420	8.51	16.47	6.80	-251	1.20	110	1.87	.768
1425	8.60	16.34	6.91	-252	1.22	875	2.30	.783
1430	8.73	15.82	6.75	-248	1.21	186	2.03	.775

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 [ ]

ıple ID: **MW-15-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1445 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes: Well Run DRY @ 30 min - AWAIT recharge + collect sample

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Lillian Mahar
Date: 10-1-20
Job Number: 0603200-136690-221
Weather: Cloudy 65°
Well Id. **MW-15RS**
Time In: 1310 Time Out: 1355

Well Information

		TOC	Other
Depth to Water:	(feet)	8.90	
Depth to Bottom:	(feet)	23.65	
Depth to Product:	(feet)	ND	
Length of Water Column:	(feet)	15.25	
Volume of Water in Well:	(gal)	2.61	
Three Well Volumes:	(gal)	1.83	

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" [X] 2" [ ] 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)	1.0			

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

iba 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)
1315	8.88	14.91	7.44	-321	1.26	16.1	5.33	.813
1320	9.22	14.83	7.38	-344	1.28	13.4	2.86	.818
1325	9.79	14.63	7.41	-362	1.28	5.9	1.63	.823
1330	10.56	14.72	7.42	-367	1.31	1.2	1.31	.839
1335	11.19	14.73	7.40	-367	1.34	.7	1.18	.857
1340	12.47	14.74	7.42	-369	1.34	0.0	1.21	.857
1345	13.90	14.79	7.40	-371	1.34	0.0	1.24	.858

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-15RS-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1350 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: LIAM WALKER
Job Number: 0603200-136690-221
Well Id. **MW-17R**

Date: 10-1-20
Weather: OVERCAST 60°
Time In: 0900 Time Out: 1020

Well Information

		TOC	Other
Depth to Water:	(feet)	7.16	
Depth to Bottom:	(feet)	26.90	
Depth to Product:	(feet)	ND	
Length of Water Column:	(feet)	19.74	
Volume of Water in Well:	(gal)	3.15	
Three Well Volumes:	(gal)	9.47	

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)	35			
Total Volume Removed:	(gal)	1.0			

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

iba 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)
0935	8.04	14.59	6.76	-117	1.07	15.5	3.72	.682
0940	8.72	14.40	6.96	-161	1.04	9.1	1.78	.665
0945	8.96	14.53	7.11	-175	1.03	9.3	1.53	.662
0950	9.23	14.38	7.10	-179	1.03	7.8	1.25	.662
0955	9.42	14.45	7.20	-184	1.03	8.2	1.03	.658
1000	9.49	14.60	7.28	-195	1.03	8.8	1.05	.659
1005	9.56	14.63	7.30	-199	1.03	9.0	1.04	.657
1010	9.61	14.72	7.31	-206	1.02	8.7	1.02	.658

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-17R-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1015 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: CHAD WALKER
Job Number: 0603200-136690-221
Well Id. **MW-19R**

Date: 10-1-20
Weather: Cloudy - 65°
Time In: 1220 Time Out: 1305

Well Information

		TOC	Other
Depth to Water:	(feet)	4.32	
Depth to Bottom:	(feet)	38.05	
Depth to Product:	(feet)	ND	
Length of Water Column:	(feet)	~~5.39~~	33.73
Volume of Water in Well:	(gal)	5.39	
Three Well Volumes:	(gal)	16.19	

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)	1.0			

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)
1225	5.95	14.97	7.99	-214	.503	0.0	2.25	.323
1230	7.61	15.52	8.20	-251	.501	0.0	1.50	.321
1235	8.90	15.28	8.24	-259	.512	0.0	1.24	.328
1240	9.94	15.02	8.27	-256	.503	0.0	1.11	.322
1245	11.35	14.96	7.99	-227	.472	0.0	.97	.306
1250	12.06	14.95	7.99	-222	.472	0.0	.98	.301
1255	12.49	14.97	7.98	-217	.470	0.0	.98	.298

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-19R-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1300 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Laboratory: Pace Analytical Greensburg, PA

Comments/Notes:

National Grid
King Street Non-Owned Former MGP Site
Ogdensburg, New York

Sampling Personnel: Liam Walker
Job Number: 0603200-136690-221
Well Id. **MW-20R**

Date: 10.1.20
Weather: Cloudy 65°
Time In: 1130 Time Out: 1215

Well Information

		TOC	Other
Depth to Water:	(feet)	TOC	
Depth to Bottom:	(feet)	28.40	
Depth to Product:	(feet)	ND	
Length of Water Column:	(feet)	28.40	
Volume of Water in Well:	(gal)	4.54	
Three Well Volumes:	(gal)	13.63	

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)	1.0			

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	1.59	15.01	7.69	-206	.668	17.9	2.88	.427
1140	2.91	15.07	7.56	-201	.664	1.8	1.27	.425
1145	3.62	15.25	7.46	-196	.662	1.8	1.21	.425
1150	4.25	15.26	7.59	-204	.663	.3	1.15	.425
1155	4.75	15.17	7.61	-205	.663	.3	1.08	.424
1200	5.41	15.42	7.63	-207	.661	0.0	1.04	.423
1205	5.69	15.49	7.62	-203	.662	0.0	1.01	.423

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-20R-1020** Duplicate? Yes [ ] No [X]
Sample Time: 1210 MS/MSD? Yes [ ] No [X]

Shipped: Pace Courier Pickup [X]
Ship to Pace [ ]

Comments/Notes:

Laboratory: Pace Analytical Greensburg, PA

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

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: 5 Technology Place, Suite 4	Report To: Tim Beaumont (GES) tbeaumont@gesonline.com	Company Name: Groundwater & Environmental Services, Inc.
East Syracuse, New York 13057		Address: 5 Technology Place, Suite 4, 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 - Ogdensburg King Street Ogdensburg, NY	Pace Project Manager: Rachel Christner
Requested Due Date/TAT: Standard	Project Number: 0603200-136890-221-1106	Pace Profile #: **Semi-Annual GWS**

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER________

SITE LOCATION: ☐ GA ☐ IL ☐ ☐ ☐ ☐ 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

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	COMPOSITE START TIME	GRAB DATE	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-2(R)-1020	WT	G	[redacted]		10/1/20	13:55		7	2		1	3	1				3	2	1	
2	MW-5R(R)-1020	WT	G				14:40		7	2		1	3	1				3	2	1	
3	MW-8R-1020	WT	G				11:20		7	2		1	3	1				3	2	1	
4	MW-8R-MS-1020	WT	G				11:20		7	2		1	3	1				3	2	1	
5	MW-8R-MSD-1020	WT	G				11:20		7	2		1	3	1				3	2	1	
6	MW-9-1020	WT	G			(circled)	~~09:40~~ 10:10		7	2		1	3	1				3	2	1	
7	MW-10R-1020	WT	G				09:40		7	2		1	3	1				3	2	1	
8	MW-11-1020	WT	G				13:30		7	2		1	3	1				3	2	1	
9	MW-12R-1020	WT	G				12:35		7	2		1	3	1				3	2	1	
10	MW-14R-1020	WT	G				11:15		7	2		1	3	1				3	2	1	
11	MW-15-1020	WT	G				14:45		7	2		1	3	1				3	2	1	
12	MW-15RS-1020	WT	G				13:50		7	2		1	3	1				3	2	1	
13	MW-17R-1020	WT	G				10:15		7	2		1	3	1				3	2	1	
14	MW-19R-1020	WT	G				13:40		7	2		1	3	1				3	2	1	
15	MW-20R-1020	WT	G				12:10		7	2		1	3	1				3	2	1	
16	FD-1020	WT	G				09:40		7	2		1	3	1				3	2	1	
17	Trip Blanks	WT	G				15:00		2				3					3			

Additional Comments:

SAMPLES WILL ARRIVE IN # 2 COOLERS.

Please send reports to: dshay@gesonline.com, tbeaumont@gesonline.com

NERegion@gesonline.com, ges@equisonline.com

SPECIFIC EDD NAME:

NGOgdensburg-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
[illegible]	10/1/20	15:30					Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
						Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: [illegible]

SIGNATURE of SAMPLER: [illegible] DATE Signed (MM/DD/YY): 10/1/20

Appendix C – Data Usability Summary Report

Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201
Blacksburg, VA 24060

T. 800.662.5067

August 13, 2020

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

RE: Data Usability Summary Report for National Grid - Ogdensburg: Data Packages Pace Analytical Job No. **30372824**

Review has been completed for the data packages generated by Pace Analytical that pertain to monitoring well samples collected during the July 2020 sampling event at the National Grid Ogdensburg site. Thirteen aqueous samples, 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). One trip blank was analyzed for volatiles with the samples. The trip blank is used to determine if there is BTEX contamination caused by transporting the samples.

Analytical methodologies are those of the USEPA 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.

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times for groundwater and instrumental tune fragmentations are within acceptance ranges. Surrogate and internal standard recoveries are within required limits. Calibrations standards show acceptable responses within analytical protocol and validation action limits. An MS/MSD was analyzed using **MW-8R** as the matrix. All QC elements fell within project criteria. The blind field duplicate correlations of **MW-10R** were within the project specification of ≤25%.

PAHs by EPA8270D/NYSDEC ASP

Holding times were met. Instrumental tune fragmentations are within acceptance ranges. Blanks no above RL concentrations, with the exception of low concentrations of 2-methylnaphthalene and naphthalene in the method blank. Sample locations that reported positively detected concentrations less than 5x the concentration in the blank cannot be attributed to the sampling location, and must be qualified as unreliable/unusable. This occurred in the following samples:

- MW-11, MW-14R, MW15RS, MW-20R for both naphthalene and 2-methylnaphthalene
- MW-17R, MW-19R for naphthalene only

Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines. that Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 Method 8270D. Although sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair, and the results cannot be considered accurate for the following samples:

- FD-0720 (Lab ID: 30372824014)
- MW-12R-0720 (Lab ID: 30372824007)
- MW-5R(R)-0720 (Lab ID: 30372824002)

The field duplicate (FD) was collected at location MW-10R. Whereas the original sample at MW-10R was quantitated with sufficient resolution, the FD sample does not require qualification, as it agrees with the concentrations in the original sample. MW-12R and MW-5R are qualified as estimated non-detect.

The laboratory control spike recoveries and precision indicate the method is within laboratory control. Matrix spike and matrix spike recoveries were within laboratory specified criteria, with the exception of 2-methylnpthalene and fluorene. The original concentrations of these two analytes were > 4x the spiking concentrations, so accuracy cannot be determined from the spike recovery, and, therefore, no qualifications were required. The blind field duplicate correlations of **MW-10R** were within project specification of RPD ≤ 25%.

Surrogate Terphenyl d-14 was low for sample MW-15.

1 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 - Ogdensburg Kin
Pace Project No.: 30372824

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30372824001	**MW-2(R)-0720**	Water	07/14/20 11:00	07/16/20 09:30
30372824002	**MW-5R(R)-0720**	Water	07/14/20 10:10	07/16/20 09:30
30372824003	**MW-8R-0720**	Water	07/14/20 10:00	07/16/20 09:30
30372824004	**MW-9-0720**	Water	07/14/20 14:30	07/16/20 09:30
30372824005	**MW-10R-0720**	Water	07/14/20 13:40	07/16/20 09:30
30372824006	**MW-11-0720**	Water	07/14/20 12:00	07/16/20 09:30
30372824007	**MW-12R-0720**	Water	07/14/20 12:50	07/16/20 09:30
30372824008	**MW-14R-0720**	Water	07/14/20 11:30	07/16/20 09:30
30372824009	**MW-15-0720**	Water	07/14/20 13:40	07/16/20 09:30
30372824010	**MW-15RS-0720**	Water	07/14/20 14:25	07/16/20 09:30
30372824011	**MW-17R-0720**	Water	07/14/20 10:45	07/16/20 09:30
30372824012	**MW-19R-0720**	Water	07/14/20 13:00	07/16/20 09:30
30372824013	**MW-20R-0720**	Water	07/14/20 12:15	07/16/20 09:30
30372824014	**FD-0720**	Water	07/14/20 00:01	07/16/20 09:30
30372824015	**Trip Blanks**	Water	07/14/20 00:01	07/16/20 09:30

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

PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30372824

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: July 28, 2020

General Information:
14 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.

ip: Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 Method 8270D. Whereas sample results included are reported as individual isomers, the lab and the customer must recognize them as an isomeric pair.
- FD-0720 (Lab ID: 30372824014)
- MW-12R-0720 (Lab ID: 30372824007)
- MW-5R(R)-0720 (Lab ID: 30372824002)

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.

QC Batch: 405747

SR: Surrogate recovery was below laboratory control limits. Results may be biased low.
- MW-15-0720 (Lab ID: 30372824009)
  - Terphenyl-d14 (S)

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

QC Batch: 405747

B: Analyte was detected in the associated method blank.
- BLANK for HBN 405747 [OEXT/416 (Lab ID: 1963756)
  - 2-Methylnaphthalene
  - Naphthalene

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

PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30372824

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: July 28, 2020

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: 405747

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30372824003

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

- MS (Lab ID: 1963758)
  - 2-Methylnaphthalene
- MSD (Lab ID: 1963759)
  - Fluorene

Additional Comments:

Analyte Comments:

QC Batch: 405747

1c: This sample was re-extracted past the method required holding time. Surrogate recovery in the re-extract was acceptable and the re-extract results were comparable to the original results. The original, in hold, results are reported.

- MW-15-0720 (Lab ID: 30372824009)
  - Terphenyl-d14 (S)

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

PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30372824

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: July 28, 2020

General Information:
15 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: 406825

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

Additional Comments:

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

PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30372824

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: July 28, 2020

General Information:
14 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.

Additional Comments:

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 14, 2020

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

RE: Data Usability Summary Report for National Grid - Ogdensburg: Data Packages Pace Analytical Job No. **30372824**

Review has been completed for the data packages generated by Pace Analytical that pertain to monitoring well samples collected during the July 2020 sampling event at the National Grid Ogdensburg site. Twelve aqueous samples, 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 polycyclic aromatic hydrocarbons (PAHs). One trip blank was analyzed for volatiles with the samples. The trip blank is used to determine if there is BTEX contamination caused by transporting the samples.

Analytical methodologies are those of the USEPA 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
- 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.

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times for groundwater and instrumental tune fragmentations are within acceptance ranges. Surrogate and internal standard recoveries are within required limits. Calibrations standards show acceptable responses within analytical protocol and validation action limits. An MS/MSD was analyzed using **MW-8R** as the matrix. All QC elements fell within project criteria. The blind field duplicate correlations of **MW-10R** were within the project specification of ≤25%.

Cyanide by EPA 9012A/NYDESC 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-2R. The original concentration was > 4x that of the spike, so the out-of-specification recovery does not indicate an issue with method efficacy. The blind field duplicate correlations of **MW-10R** were within project criteria. No data was qualified.

PAHs by EPA8270D/NYSDEC ASP

Holding times were met. Instrumental tune fragmentations are within acceptance ranges. Blanks no above RL concentrations, with the exception of low concentrations of naphthalene in the method blank. Sample locations that reported positively detected concentrations less than 5x the concentration in the blank cannot be attributed to the sampling location, and must be qualified as unreliable/unusable. This occurred in the following samples:

- MW-11. MW15, MW-17R, MW-19R, and MW-20R

Surrogates were within specification for all samples. Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

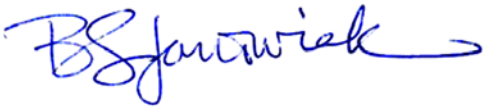
The laboratory control spike recoveries and precision indicate the method is within laboratory control. Matrix spike and matrix spike recoveries were within laboratory specified criteria. The blind field duplicate correlations of **MW-10R** were within project specification of RPD ≤ 25%.

1 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, NRCC Certified

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(724)850-5600

SAMPLE SUMMARY

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30385450

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30385450001	**MW-2(R)-1020**	Water	10/01/20 13:55	10/03/20 09:45
30385450002	**MW-5(R)-1020**	Water	10/01/20 14:40	10/03/20 09:45
30385450003	**MW-8R-1020**	Water	10/01/20 11:20	10/03/20 09:45
30385450004	**MW-8R-MS-1020**	Water	10/01/20 11:20	10/03/20 09:45
30385450005	**MW-8R-MSD-1020**	Water	10/01/20 11:20	10/03/20 09:45
30385450006	**MW-9-1020**	Water	10/01/20 10:10	10/03/20 09:45
30385450007	**MW-10R-1020**	Water	10/01/20 09:40	10/03/20 09:45
30385450008	**MW-11-1020**	Water	10/01/20 13:30	10/03/20 09:45
30385450009	**MW-12R-1020**	Water	10/01/20 12:35	10/03/20 09:45
30385450010	**MW-14R-1020**	Water	10/01/20 11:15	10/03/20 09:45
30385450011	**MW-15-1020**	Water	10/01/20 14:45	10/03/20 09:45
30385450012	**MW-15RS-1020**	Water	10/01/20 13:50	10/03/20 09:45
30385450013	**MW-17R-1020**	Water	10/01/20 10:15	10/03/20 09:45
30385450014	**MW-19R-1020**	Water	10/01/20 13:00	10/03/20 09:45
30385450015	**MW-20R-1020**	Water	10/01/20 12:10	10/03/20 09:45
30385450016	**FD-1020**	Water	10/01/20 09:40	10/03/20 09:45
30385450017	**TRIP BLANKS**	Water	10/01/20 15:00	10/03/20 09:45

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PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30385450

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 13, 2020

General Information:
16 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.

QC Batch: 417519

B: Analyte was detected in the associated method blank.
- BLANK for HBN 417519 [OEXT/422 (Lab ID: 2018572)
  - Naphthalene

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: 417519

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30385450003

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
- MSD (Lab ID: 2018575)
  - Acenaphthylene

Additional Comments:

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30385450

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 13, 2020

General Information:
17 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:

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PROJECT NARRATIVE

Project: National Grid - Ogdensburg Kin
Pace Project No.: 30385450

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 13, 2020

General Information:
16 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: 417172

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30385450001,30385450003

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

- MS (Lab ID: 2016972)
  - Cyanide
- MSD (Lab ID: 2016973)
  - Cyanide

Additional Comments:

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