

February 10, 2022

Michael Squire  
Division of Environmental Remediation  
New York State Department of Environmental Conservation  
625 Broadway – 11th Floor  
Albany, NY 12233

**Re: National Grid  
Little Falls (Mill Street) Non-Owned Former MGP Site  
Little Falls, New York  
2021 Groundwater and NAPL Monitoring Results  
VCO Index No. D0-0001-0011  
Site No. V00470**

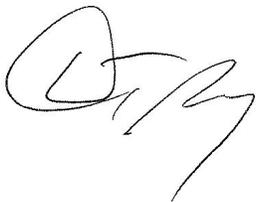
Dear Mr. Squire:

Attached for your information is the 2021 Groundwater Monitoring Report detailing the annual groundwater monitoring event and OM&M activities conducted from January 1, 2021, to December 31, 2021, at the National Grid Little Falls (Mill Street) Site. Site activities were conducted in accordance with the NYSDEC-approved Remedial Action Work Plan (ARCADIS; 2007) and Site Management Plan (ARCADIS; 2011).

The annual groundwater samples were collected on September 9, 2021. The results of this event indicate that the groundwater quality is consistent with previous sampling events.

Please contact me at 315-428-5652 if you have any questions.

Sincerely,



for SPS

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

National Grid

# 2021 Groundwater Monitoring Report



National Grid Little Falls (Mill Street) Site  
575 Mill Street  
Little Falls, NY

February 2022

Version 1





## **2021 Groundwater Monitoring Report**

National Grid Little Falls (Mill Street) Site  
575 Mill Street  
Little Falls, NY

Prepared for:  
National Grid  
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Syracuse, NY 13202

Prepared by:  
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GES Project:  
0603275.125340.221

Date:  
February 10, 2022

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Devin T. Shay, PG  
Program Manager / Principal Hydrogeologist



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## Acronyms

AWQS	Ambient Water Quality Standards
BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes
DUSR	Data Usability Summary Report
FER	Final Engineering Report
GES	Groundwater & Environmental Services, Inc.
MGP	Manufactured Gas Plant
NAPL	Light Non-Aqueous Phase Liquid
NYSDEC	New York State Department of Environmental Conservation
OM&M	Operation, Maintenance, and Monitoring
Pace	Pace Analytical Services, LLC
RAWP	Remedial Action Work Plan
SMP	Site Management Plan
SVOC	Semi-volatile organic compound
TAL	Target Analyte List
TCL	Target Compound List
VOC	Volatile Organic Compound

# 1 Introduction

## 1.1 Overview

Groundwater & Environmental Services, Inc. (GES) has prepared this 2021 Groundwater Monitoring Report (covering January 1, 2021 – December 31, 2021) for the Little Falls (Mill Street) Site, Little Falls, New York. The groundwater and non-aqueous phase liquid (NAPL) monitoring activities described in this letter were completed as part of the post-remedial monitoring activities outlined in the New York State Department of Environmental Conservation- (NYSDEC-) approved Remedial Action Work Plan (RAWP) prepared by ARCADIS of New York, Inc., (ARCADIS, 2007) and the Site Management Plan (SMP) (ARCADIS, 2011). The RAWP was approved in a letter dated March 11, 2008, from Mr. Bernard Franklin of the NYSDEC to Mr. James F. Morgan of National Grid. The SMP was approved in a letter dated May 5, 2011, from the NYSDEC to National Grid.

Groundwater monitoring has been conducted at the Site in order to evaluate the effectiveness of remedial activities previously completed at the Site and to monitor long-term groundwater quality trends. Currently, groundwater sampling at the Former MGP Site is performed on an annual basis.

The following Operation, Maintenance, and Monitoring (OM&M) activities conducted during this reporting period are summarized below:

- Quarterly site inspections, including checks on the Site structures, the exterior cover system, the interior Feldmeier Building concrete slab, riverbank, groundwater monitoring wells, NAPL wells, and storm-water features that could impact the remedy.
- Quarterly groundwater elevation data.
- Annual NAPL monitoring and collection, if necessary.
- Annual groundwater sampling, analysis and data validation. Water samples are submitted to Pace Analytical Services, LLC (Pace) for laboratory analysis of target compound list (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), and target analyte list (TAL) inorganics (including cyanide) for comparison to NYSDEC Ambient Water Quality Standards (AWQS).
- Any site maintenance that comes about as a result of the quarterly inspections.

## 1.2 Site Description

The Little Falls (Mill Street) Former Manufactured Gas Plant Site located in Little Falls, New York is comprised of approximately 6.5 acres of land and is currently owned by Feldmeier (refer to **Figure 1 – Site Location Map** and **Figure 2 – Site Map**). As shown on the figures, the Site is located north of the Mohawk River, east of George Lumber and Building Materials Company (George Lumber), south of East Mill Street, and west of the line of demarcation. The Site is located on the western portion of



the approximately 6.5 acre property and is occupied by a paved parking lot, and the western portion of a tank manufacturing building owned by Feldmeier. Some vegetated areas are present along the margins of the parking lot, and in the area south of the tank manufacturing building along the bank of the Mohawk River.

The remedial action plan in place at the site was substantially completed in August 2009. The Final Engineering Report (FER) was submitted to NYSDEC in October 2019, and written approval from NYSDEC was received on April 1, 2021.



## 2 Quarterly Site Inspections and Groundwater Monitoring Activities

### 2.1 Quarterly Site Inspections

GES conducted quarterly site inspections during this reporting period on March 23, June 30, September 9, and December 8, 2021.

In general, the Site is in good condition and in compliance. The exterior cover system is intact. No visible saw cutting, holes from burrowing animals, or evidence of any other intrusive activities were noted in 2021. The groundwater monitoring wells and NAPL wells are secured and operable.

It should be noted that four (4) piezometers that were part of the SMP requirements to conduct groundwater static level measurements were never located: PZ-102, PZ-103, PZ-105, and PZ-106. It is believed these piezometers have long since been removed or covered during Feldmeier site modifications (i.e., storage shed installation and/or asphalt/gravel road installation). National Grid believes there are ample groundwater wells for obtaining water table measurements and these four piezometers are not necessary. The new storage shed and existing wells were resurveyed in January 2016.

**Attachment A** includes the Quarterly Site Inspection Forms.

### 2.2 Groundwater Well Gauging

Groundwater level measurements are collected at the Site to accomplish the following:

- To determine the general groundwater flow direction on site.

Annual gauging field data is presented in **Table 1**. Based on the September 2021 groundwater level measurements, groundwater in the overburden/shallow bedrock beneath the Site flows to the south (which is consistent with the local groundwater flow direction observed during the RI and previous monitoring events). There is a groundwater depression observed near the Mohawk River near recovery well RW-3, where the groundwater is likely mimicking the drop in the bedrock surface as it approaches the Mohawk River. A potentiometric surface map for overburden/shallow bedrock groundwater developed from the September groundwater elevations is presented on **Figure 3**. Based on the September 2021 groundwater level measurements from the one deep bedrock well at the Site (well MW-101RD), an upward hydraulic gradient exists between the deep bedrock unit and the overburden/shallow rock unit at the Site, indicating that the groundwater from the deep bedrock unit likely discharges to the Mohawk River.

### 2.3 Annual NAPL Monitoring and Collection

Annual NAPL monitoring was conducted at on-site recovery wells RW-1, RW-2, and RW-3, and monitoring wells B-MW-3, FWMW-1, FWMW-2, FWMW-3, FWMW-5, MW-101RD, MW-102R, and MW-103R during each annual monitoring event. NAPL observations were documented on the Site inspection forms as presented in **Appendix A**. A summary of NAPL observations where



NAPL was present from April 2011 through the 2021 monitoring event (including NAPL thickness measured for previous monitoring events) is presented below.

Based on the absence of detected NAPL at recovery wells RW-1, RW-2, RW-3, and monitoring well MW-101RD, no NAPL recovery efforts were attempted during the September 2021 gauging event.

### Presence/Thickness of NAPL (in inches)

Well	Oct 2011	Dec 2011	June 2012	Dec 2012	Aug 2013	Dec 2013	June 2014	Oct 2015	Oct 2016	Oct 2017	Oct 2018	Oct 2019	Sept 2020	Sept 2021
RW-1	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
RW-2	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
RW-3	Trace	Trace	0.12	0.48	0.96	0.96	2.04	NP	NP	NP	Trace	NP	Trace	NP
MW-101RD	NP	NP	NP	NP	NP	Trace	NP	NP	NP	NP	NP	NP	NP	NP

NP – NAPL was not present

## 2.4 Groundwater Well Sampling and Analysis

Groundwater samples were collected from eight (8) monitoring wells B-MW-3, FWMW-1, FWMW-2, FWMW-3, FWMW-5, MW-101RD, MW-102R, and MW-103R, on September 9, 2021. The wells were purged using a peristaltic pump. Field Measurements of pH, conductivity, turbidity, dissolved oxygen, temperature, total dissolved solids and oxidation-reduction potential were recorded using a Horiba U-52 water quality meter during sample collection. Samples were collected once field parameters stabilized. Field monitoring data and the chain-of-custody record are included in **Appendix B**.

Eight aqueous field samples, a field duplicate, and trip blank were analyzed for TCL VOCs, TCL SVOCs, and TAT inorganics. The samples were analyzed by Pace in accordance with the NYSDEC Analytical Services Protocol. The Analytical Lab Report and Data Usability Summary Report are presented in **Appendix C**. Analytical results are summarized in **Table 2**. A BTEX (benzene, toluene, ethylbenzene, xylenes) contour map is shown on **Figure 4**. A naphthalene contour map is shown on **Figure 5**.

VOCs were detected in seven of the eight groundwater monitoring wells that were sampled during the September 2021 groundwater sampling event. There were detections of 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, benzene, chloroform, cis-1,2-Dichloroethene, ethylbenzene, toluene, trans-1,2-Dichloroethene, trichloroethene, vinyl chloride, and xylenes. SVOCs were detected in three of the eight groundwater samples collected. Detections of SVOCs include acenaphthene, anthracene, carbazole, dibenzofuran, fluoranthene, fluorene, phenanthrene, and pyrene.

TAT inorganics were detected in all eight groundwater samples collected in September 2021. Iron concentrations in six of the eight samples exceeded the AWQS criteria. Detections of sodium exceeded in all samples, except in monitoring wells B-MW-3 and FWMW-1. Manganese



exceeded the quality criteria in FMMW-2, MW-101RD, and MW-103R. Nickel was the only inorganic not detected in any of the groundwater samples collected. The analytical results for the inorganics as well as VOCs and SVOCs are summarized on **Table 2**.



### **3 Conclusions and Recommendations**

#### **3.1 Conclusions**

Based on the results of the past year's activities, the following conclusions were made:

- Quarterly site inspections demonstrate that the site is in good condition and in compliance.
- Groundwater beneath the Site appears to flow in a general south direction towards the Mohawk River.
- NAPL was not detected in any monitoring well or recovery well during the September 2021 monitoring event.
- BTEX was detected in FWMW-3, FWMW-5, MW-101RD, MW-102R, and MW-103R. Naphthalene was not detected in any monitoring well. These detections are generally consistent with previous sampling events.

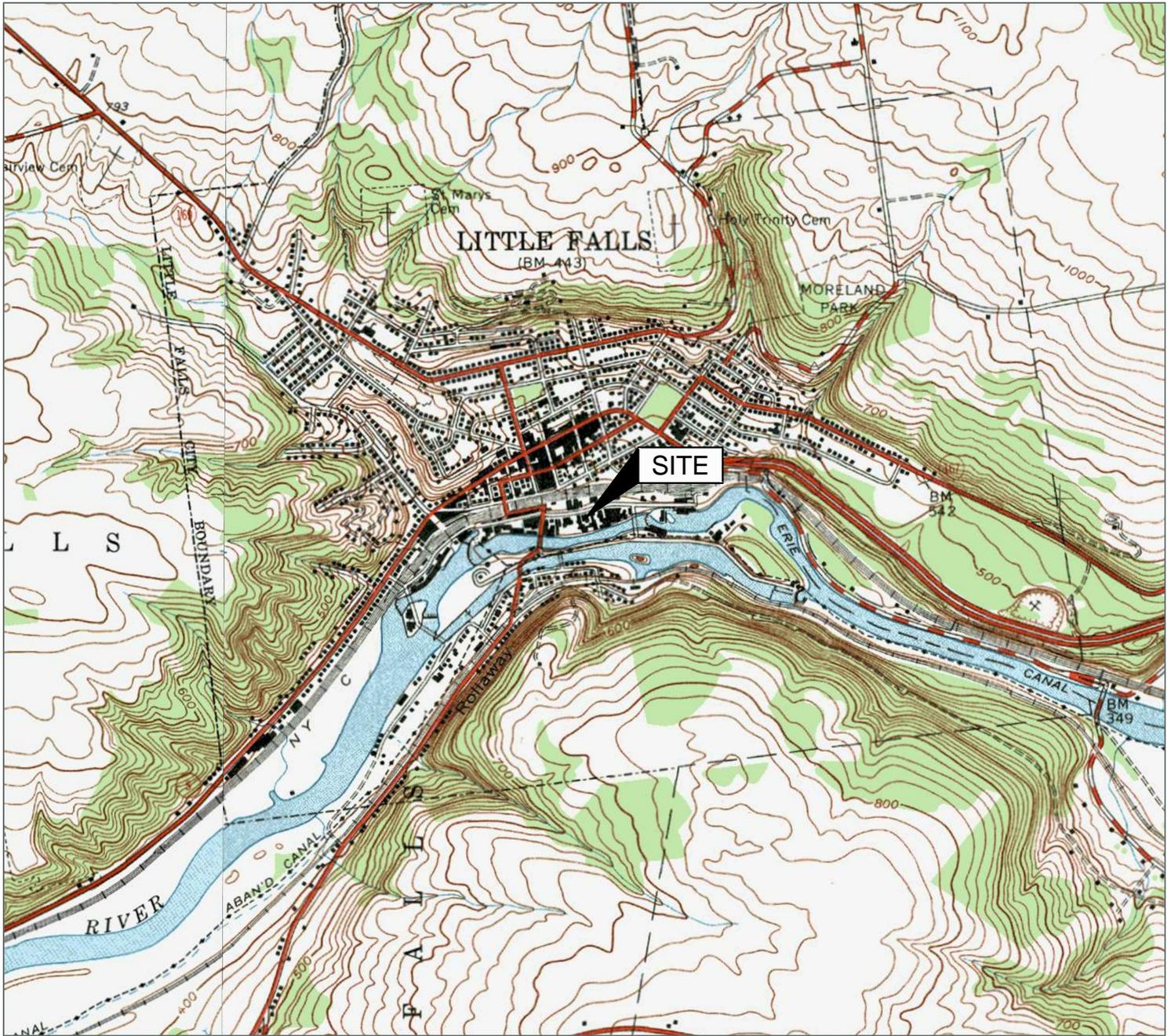
#### **3.2 Recommendations**

It is recommended that all OM&M activities continue, with the next report due in January 2023.

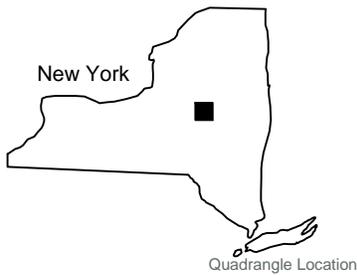


## Figures

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Source:  
 USGS 7.5 Minute Series  
 Topographic Quadrangle, 1943  
 Little Falls, New York  
 Contour Interval = 20'



Site Location Map

National Grid  
 Former MGP Site  
 575 Mill Street  
 Little Falls, New York

Drawn  
 W.G.S.  
 Designed  
 Approved

Date  
 12-27-17  
 Figure  
 1

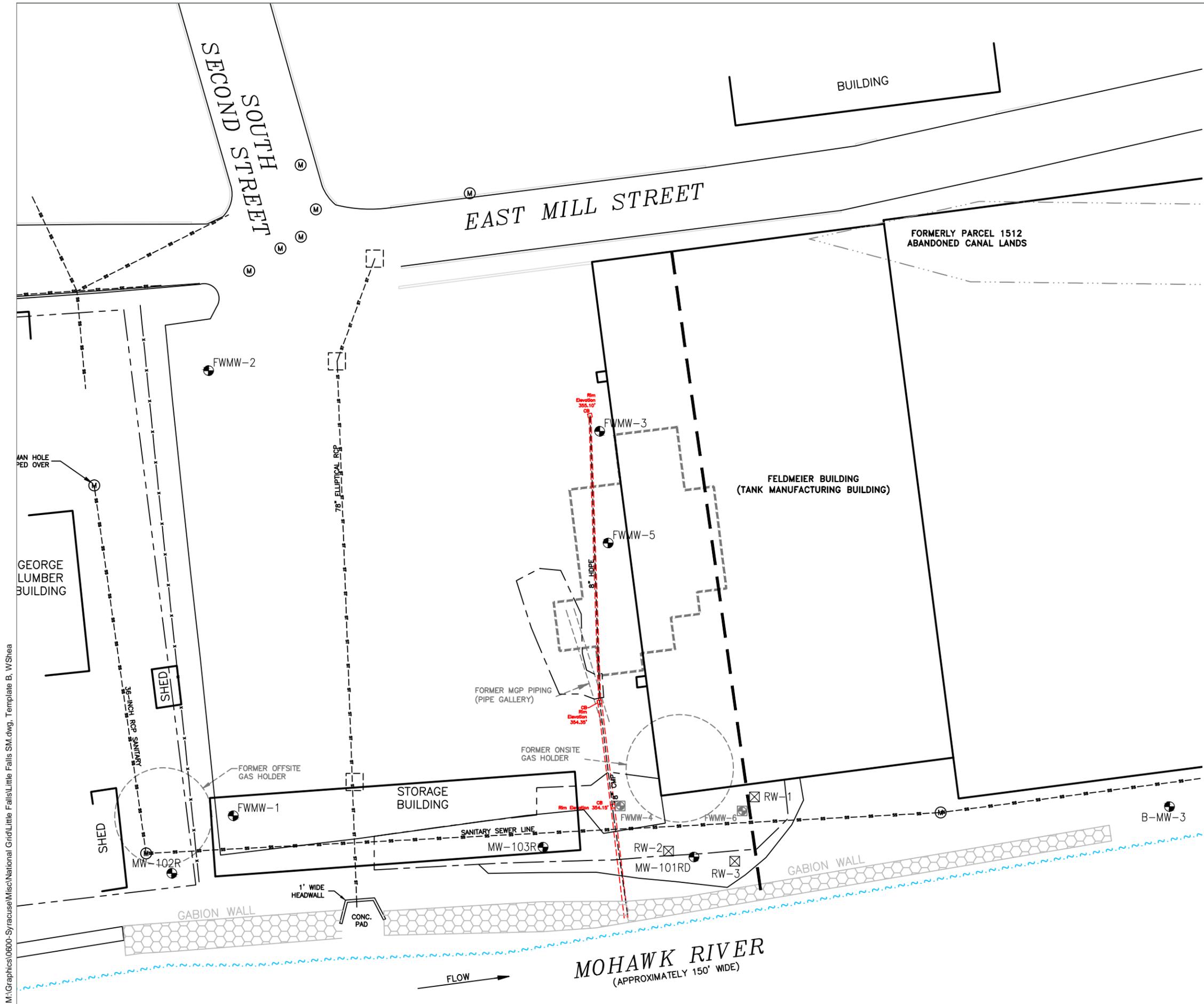


Scale In Feet



Groundwater & Environmental Services, Inc.

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### LEGEND

- PROPERTY BOUNDARY
- x — FENCE
- ~ ~ ~ WATERS EDGE
- (M) UTILITY MANHOLE
- MONITORING WELL
- ⊠ RECOVERY WELL
- ⊞ DESTROYED/ABANDONED WELL
- SS — UNDERGROUND SANITARY SEWER LINE
- ST — UNDERGROUND STORM SEWER LINE

### Site Map

National Grid  
Former MGP Site  
575 Mill Street  
Little Falls, New York

Drawn  
W.G.S.  
Designed  
Approved

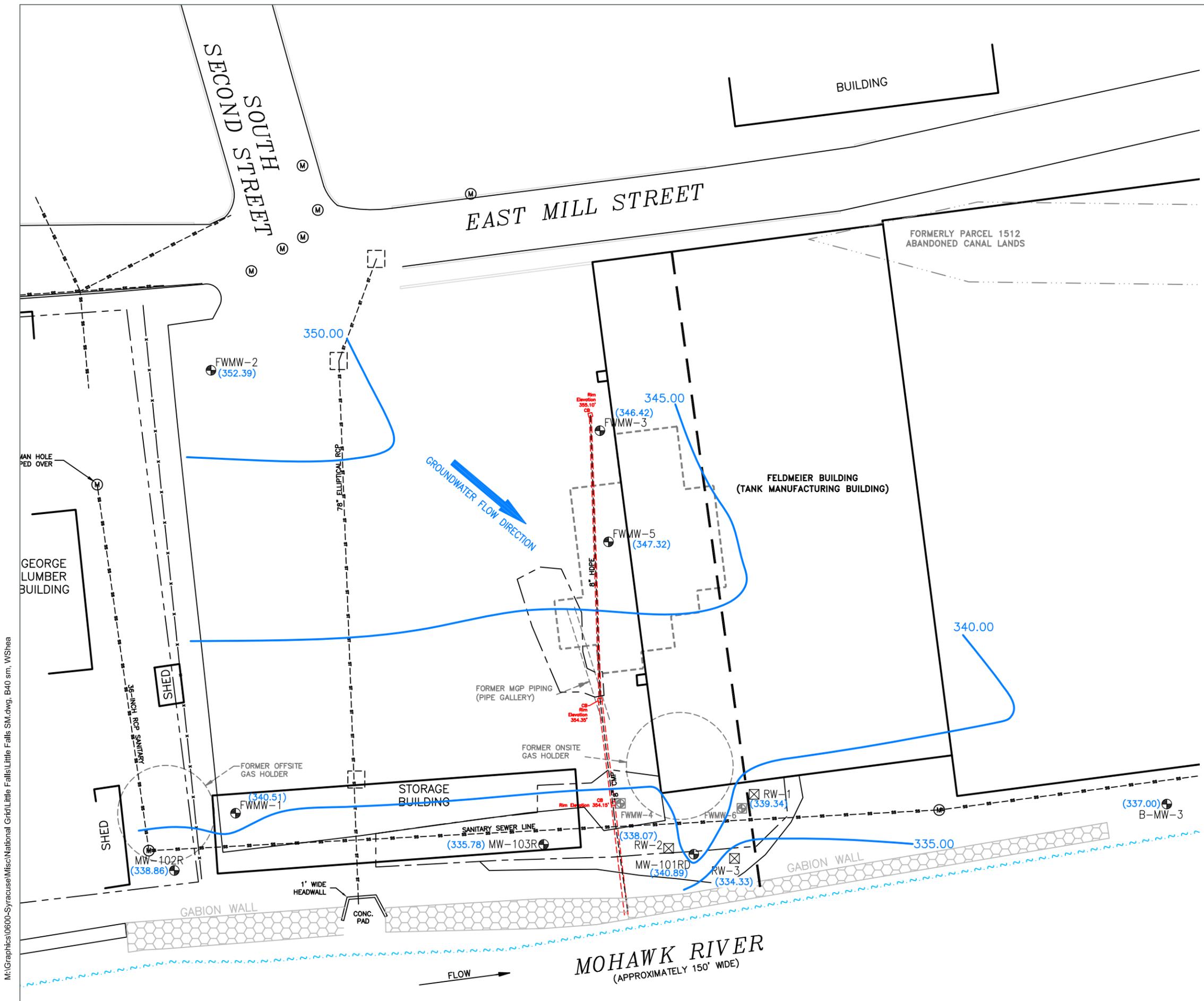
Date  
12-27-17  
Figure  
2



Scale In Feet



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- LEGEND**
- PROPERTY BOUNDARY
  - x — FENCE
  - ~ ~ ~ WATERS EDGE
  - (M) UTILITY MANHOLE
  - ⊕ MONITORING WELL
  - ⊠ RECOVERY WELL
  - ⊞ DESTROYED/ABANDONED WELL
  - ss — UNDERGROUND SANITARY SEWER LINE
  - st — UNDERGROUND STORM SEWER LINE
  - (352.63) GROUNDWATER ELEVATION (feet)
  - ~ ~ ~ GROUNDWATER CONTOUR (FEET)
  - NG NOT GAUGED

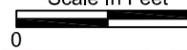
Groundwater Contour Map  
September 9, 2021

National Grid  
Former MGP Site  
575 Mill Street  
Little Falls, New York

Drawn W.G.S.	Date 10/4/21
Designed	Figure 3
Approved	

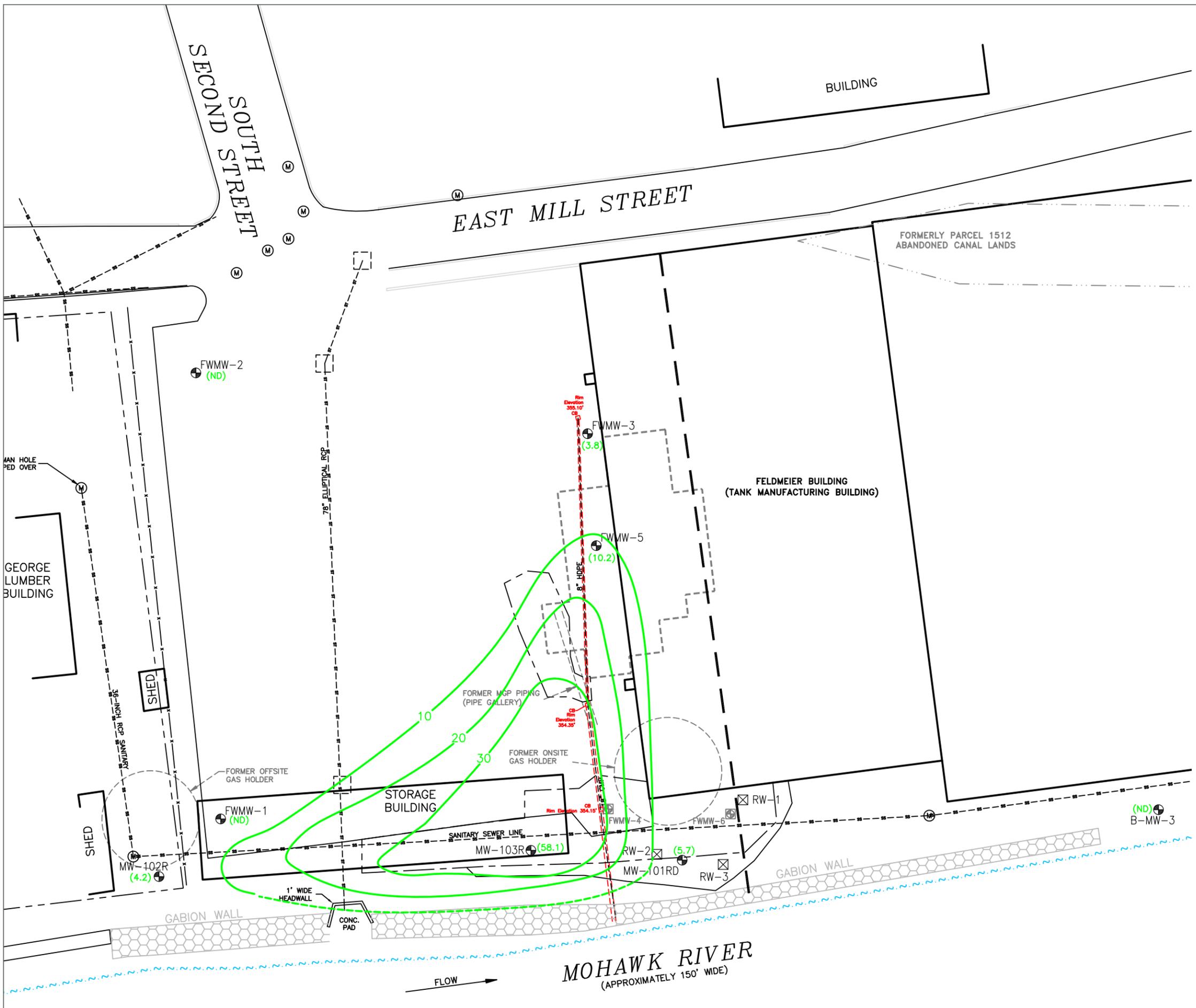


Scale In Feet




Groundwater & Environmental Services, Inc.

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**LEGEND**

---	PROPERTY BOUNDARY
— x —	FENCE
~ ~ ~ ~	WATERS EDGE
(M)	UTILITY MANHOLE
⊕	MONITORING WELL
⊗	RECOVERY WELL
⊖	DESTROYED/ABANDONED WELL
— ss —	UNDERGROUND SANITARY SEWER LINE
— st —	UNDERGROUND STORM SEWER LINE
(58.1)	BTEX CONCENTRATION (ug/L)
— (wavy line) —	BTEX CONTOUR
ug/L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
ND	NOT DETECTED

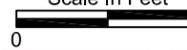
**BTEX Contour Map**  
September 9, 2021

National Grid  
Former MGP Site  
575 Mill Street  
Little Falls, New York

Drawn W.G.S.	Date 10/4/21
Designed	Figure 4
Approved	

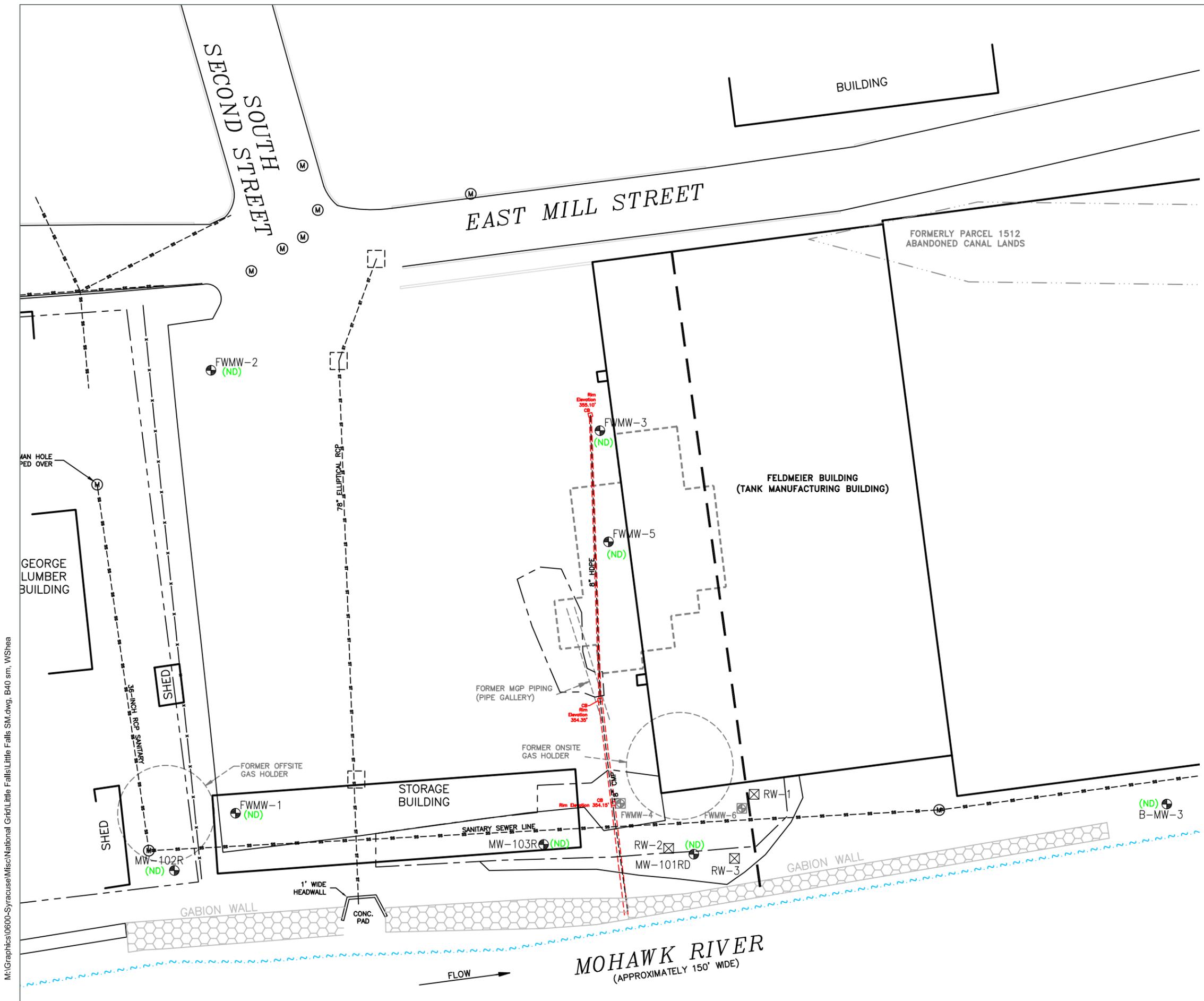


Scale In Feet




Groundwater & Environmental Services, Inc.

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**LEGEND**

- PROPERTY BOUNDARY
- x — FENCE
- ~ ~ ~ WATERS EDGE
- (M) UTILITY MANHOLE
- ⊕ MONITORING WELL
- ⊗ RECOVERY WELL
- ⊗ DESTROYED/ABANDONED WELL
- ss — UNDERGROUND SANITARY SEWER LINE
- st — UNDERGROUND STORM SEWER LINE
- (2.1) NAPHTHALENE CONCENTRATION (ug/L)
- ~ ~ ~ NAPHTHALENE CONTOUR
- ug/L MICROGRAMS PER LITER
- ND NOT DETECTED

Naphthalene Contour Map  
September 9, 2021

National Grid  
Former MGP Site  
575 Mill Street  
Little Falls, New York

Drawn W.G.S.	Date 10/4/21
Designed	Figure 5
Approved	

Scale In Feet  
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Groundwater & Environmental Services, Inc.



## Tables

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**Table 1**  
**Groundwater Elevation Measurements**

Well ID	Top of Casing Elevation (ft. AMSL)	February 2011	April 2011	December 2011	June 2012	December 2012	August 2013	December 2013	December 2014	October 2015	October 2016	October 2017	October 2018	October 2019	September 2020	September 2021
B-MW-3	351.4	NA	NA	336.53	NA	337.17	335.93	335.78	337.06	337.32	337.40	337.35	337.60	337.42	336.40	337.00
FWMW-1	355.58	NA	NA	336.70	NA	336.69	336.72	336.36	338.93	336.71	336.68	336.03	336.68	337.80	339.30	340.51
FWMW-2	361.94	NA	NA	353.00	NA	352.94	352.77	352.89	353.29	352.71	352.42	352.04	352.59	352.63	351.99	352.39
FWMW-3	354.93	NA	NA	346.35	NA	345.32	346.33	346.31	346.33	346.52	346.40	346.43	346.43	346.43	339.93	346.42
FWMW-5	355.09	NA	NA	347.59	NA	348.01	347.54	347.25	348.01	347.95	347.67	347.52	347.94	347.77	346.98	347.32
MW-101RD	351.58	340.58	345.71	341.18	340.78	340.94	340.68	340.77	340.82	340.75	340.83	340.82	341.06	341.32	340.76	340.89
MW-102R	356.1	NA	NA	337.48	NA	337.31	337.55	336.72	337.58	337.15	336.84	336.00	336.80	338.05	347.91	338.86
MW-103R	353.83	NA	NA	336.24	NA	335.83	335.55	335.42	335.55	335.64	335.83	335.97	336.03	335.21	335.78	335.78
RW-1	354.03	339.26	345.33	339.32	339.37	339.34	339.5	339.34	339.35	339.34	NA	339.31	339.33	339.45	339.33	339.34
RW-2	353.3	338.04	345.33	338.12	338.05	347.20	338.11	338.01	338.08	338.09	338.17	338.20	338.00	335.58	334.14	338.07
RW-3	352.41	333.44	340.15	333.98	333.51	333.57	333.41	333.99	333.86	333.69	333.86	333.96	334.06	337.54	334.14	334.33

**Notes:**  
 Elevations reported in feet above mean sea level (ft AMSL). Elevations referenced to National Geodetic Vertical Datum (NGVD) 1988.  
 NA = Not Accessible



**Table 2**  
**Groundwater Analytical Results**  
 September 2021

Constituent	NYSDEC AWQS	Units	B-MW-3	FWMW-1	FWMW-2	FWMW-3	FWMW-5	MW-101RD	MW-102R	MW-103R
<b>VOCs</b>										
1,1,1-Trichloroethane	5	ug/L	ND (<1.0)	56.8	ND (<1.0)	ND (<1.0)				
1,1-Dichloroethane	5	ug/L	ND (<1.0)	84.2	ND (<1.0)	18.3				
1,1-Dichloroethene	5	ug/L	ND (<1.0)	14.3	ND (<1.0)	ND (<1.0)				
Benzene	1	ug/L	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	2.4	1.1	4.2	50.1
Chloroform	7	ug/L	31.1	24.3	ND (<1.0)					
cis-1,2-Dichloroethene	5	ug/L	ND (<1.0)	1,320	2.4	1.2				
Ethylbenzene	5	ug/L	ND (<1.0)	2.4	ND (<1.0)	2.5				
Toluene	5	ug/L	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.0	2.2	ND (<1.0)	ND (<1.0)
trans-1,2-Dichloroethene	5	ug/L	ND (<1.0)	5.9	ND (<1.0)	ND (<1.0)				
Trichloroethene	5	ug/L	ND (<1.0)	10.5	ND (<1.0)	ND (<1.0)				
Vinyl Chloride	2	ug/L	ND (<1.0)	144	ND (<1.0)	ND (<1.0)				
Xylene (Total)	5	ug/L	ND (<3.0)	ND (<3.0)	ND (<3.0)	3.8	6.8	ND (<3.0)	ND (<3.0)	5.5
<b>SVOCs</b>										
Acenaphthene	20	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	4.5	7.4	1.5	ND (<0.99)
Anthracene	50	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	2.9	ND (<0.98)	ND (<0.99)
Benzo(a)anthracene	0.002	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
Benzo(a)pyrene	NA	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
Benzo(b)fluoranthene	0.002	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
Benzo(g,h,i)perylene	NA	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
Benzo(k)fluoranthene	0.002	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
bis(2-Ethylhexyl)phthalate	5	ug/L	ND (<2.5)	ND (<2.5)	ND (<2.5)	ND (<25.3)	ND (<3.0)	ND (<2.6)	ND (<2.5)	ND (<2.5)
Carbazole	NA	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	2.1	ND (<0.98)	ND (<0.99)
Chrysene	0.002	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
Dibenz(a,h)anthracene	NA	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
Dibenzofuran	NA	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	6.0	ND (<0.98)	ND (<0.99)
Fluoranthene	50	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	3.0	ND (<0.98)	ND (<0.99)
Fluorene	50	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	7.6	ND (<0.98)	ND (<0.99)
Indeno(1,2,3-cd)pyrene	0.002	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
Naphthalene	10	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	ND (<1.0)	ND (<0.98)	ND (<0.99)
Phenanthrene	50	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	7.0	ND (<0.98)	ND (<0.99)
Pyrene	50	ug/L	ND (<1.0)	ND (<0.99)	ND (<1.0)	ND (<10.1)	ND (<1.2)	2.2	ND (<0.98)	ND (<0.99)
<b>Metals</b>										
Aluminum	NA	ug/L	ND (<50.0)	ND (<50.0)	101	7,610	1,850	78.2	ND (<50.0)	ND (<50.0)
Barium	1,000	ug/L	16.2	54.0	248	100	64.1	245	108	236
Calcium	NA	ug/L	44,900	52,800	187,000	108,000	132,000	161,000	59,500	196,000
Chromium	50	ug/L	ND (<5.0)	ND (<5.0)	ND (<5.0)	12.0	12.0	ND (<5.0)	ND (<5.0)	ND (<5.0)
Cobalt	NA	ug/L	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	19.6	ND (<5.0)	ND (<5.0)	ND (<5.0)
Copper	200	ug/L	6.6	10.8	ND (<5.0)	17.6	14.0	ND (<5.0)	ND (<5.0)	ND (<5.0)
Iron	300	ug/L	ND (<70.0)	230	16,300	6,050	5,330	1,220	2,150	495
Lead	25	ug/L	ND (<5.0)	ND (<5.0)	ND (<5.0)	10.7	8.3	ND (<5.0)	ND (<5.0)	ND (<5.0)
Magnesium	35,000	ug/L	7,370	9,300	16,300	10,200	16,100	21,200	11,900	26,100
Manganese	300	ug/L	ND (<5.0)	9.6	1,270	194	172	641	298	929
Nickel	100	ug/L	ND (<10.0)							
Potassium	NA	ug/L	644	1,510	6,150	3,940	4,200	8,100	4,260	9,680
Sodium	20,000	ug/L	6,540	12,500	756,000	71,200	79,200	387,000	92,500	443,000
Vanadium	NA	ug/L	ND (<5.0)	ND (<5.0)	ND (<5.0)	15.2	6.0	ND (<5.0)	ND (<5.0)	ND (<5.0)
Zinc	2,000	ug/L	12.3	12.4	14.3	114	67.2	ND (<10.0)	ND (<10.0)	ND (<10.0)
Total Cyanide	200	ug/L	ND (<10.0)	ND (<10.0)	12	95	34	ND (<10.0)	ND (<10.0)	21

AWQS = Ambient Water Quality Standards (from TOGS 1.1.1)  
 NA = NYSDEC AWQS Not Applicable for this Constituent  
 NYSDEC = New York State Department of Environmental Conservation  
 TOGS = Technical and Operational Guidance Series  
**Bolded** = values indicate exceedance of the NYSDEC AWQS



## Appendix A – Quarterly Inspection Forms

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**Field Inspection Report  
Non-Owned Former MGP Site  
Mill Street  
Little Falls, New York**

Date: 12/8/2021  
Technician: KL

Time: 8:30  
Weather: Snow 28

<b>Exterior Cover System</b>			
Soil Intrusion Activities Being Performed	YES	NO	COMMENTS:
Evidence of any Intrusive Activities	YES	NO	COMMENTS:
Evidence of Saw Cutting	YES	NO	COMMENTS:
Evidence of Excavation or Trenching	YES	NO	COMMENTS:
Burrowing Animals	YES	NO	COMMENTS:

<b>Interior Slab (West Side of Feldmeier Building)</b>			
Sub-Slab Activities Being Performed	YES	NO	COMMENTS:
Signs of Sub-Slab Soil Intrusive Activities	YES	NO	COMMENTS:
Evidence of Excavation or Tunneling	YES	NO	COMMENTS:

<b>Site Monitoring Wells</b>		
<b>Well ID.</b>	<b>Location Secure</b>	
<b>B-MW-3</b>	YES	NO
<b>FW-MW-1</b>	YES	NO
<b>FW-MW-2</b>	YES	NO
<b>FW-MW-3</b>	YES	NO
<b>FW-MW-5</b>	YES	NO
<b>MW-101RD</b>	YES	NO
<b>MW-102R</b>	YES	NO
<b>MW-103R</b>	YES	NO
<b>RW-1</b>	YES	NO
<b>RW-2</b>	YES	NO
<b>RW-3</b>	YES	NO

<b>Site DNAPL Recovery Wells</b>				
<b>Well ID.</b>	<b>DTW</b>	<b>DTP</b>	<b>DTB</b>	<b>Thickness</b>
<b>RW-1</b>	N/A	NP	<b>21.95</b>	
<b>RW-2</b>	N/A	NP	<b>19.42</b>	
<b>RW-3</b>	N/A	NP	<b>31.70</b>	

**Levels and Recovery in March and September Only**

**General Comments:**

**Field Inspection Report  
Non-Owned Former MGP Site  
Mill Street  
Little Falls, New York**

Date: 9/9/2021  
Technician: KL

Time: 8:30  
Weather: Cloudy 64

<b>Exterior Cover System</b>			
Soil Intrusion Activities Being Performed	YES	NO	COMMENTS:
Evidence of any Intrusive Activities	YES	NO	COMMENTS:
Evidence of Saw Cutting	YES	NO	COMMENTS:
Evidence of Excavation or Trenching	YES	NO	COMMENTS:
Burrowing Animals	YES	NO	COMMENTS:

<b>Interior Slab (West Side of Feldmeier Building)</b>			
Sub-Slab Activities Being Performed	YES	NO	COMMENTS:
Signs of Sub-Slab Soil Intrusive Activities	YES	NO	COMMENTS:
Evidence of Excavation or Tunneling	YES	NO	COMMENTS:

<b>Site Monitoring Wells</b>		
<b>Well ID.</b>	<b>Location Secure</b>	
<b>B-MW-3</b>	YES	NO
<b>FW-MW-1</b>	YES	NO
<b>FW-MW-2</b>	YES	NO
<b>FW-MW-3</b>	YES	NO
<b>FW-MW-5</b>	YES	NO
<b>MW-101RD</b>	YES	NO
<b>MW-102R</b>	YES	NO
<b>MW-103R</b>	YES	NO
<b>RW-1</b>	YES	NO
<b>RW-2</b>	YES	NO
<b>RW-3</b>	YES	NO

<b>Site DNAPL Recovery Wells</b>				
<b>Well ID.</b>	<b>DTW</b>	<b>DTP</b>	<b>DTB</b>	<b>Thickness</b>
<b>RW-1</b>	14.69	NP	<b>21.95</b>	
<b>RW-2</b>	15.23	NP	<b>19.42</b>	
<b>RW-3</b>	18.08	NP	<b>31.70</b>	

**Levels and Recovery in March and September Only**

**General Comments:**

**Field Inspection Report  
Non-Owned Former MGP Site  
Mill Street  
Little Falls, New York**

Date: 6/30/2021  
Technician: KL

Time: 9:45  
Weather: Partly Cloudy 88

<b>Exterior Cover System</b>			
Soil Intrusion Activities Being Performed	YES	NO	COMMENTS:
Evidence of any Intrusive Activities	YES	NO	COMMENTS:
Evidence of Saw Cutting	YES	NO	COMMENTS:
Evidence of Excavation or Trenching	YES	NO	COMMENTS:
Burrowing Animals	YES	NO	COMMENTS:

<b>Interior Slab (West Side of Feldmeier Building)</b>			
Sub-Slab Activities Being Performed	YES	NO	COMMENTS:
Signs of Sub-Slab Soil Intrusive Activities	YES	NO	COMMENTS:
Evidence of Excavation or Tunneling	YES	NO	COMMENTS:

<b>Site Monitoring Wells</b>		
<b>Well ID.</b>	<b>Location Secure</b>	
<b>B-MW-3</b>	YES	NO
<b>FW-MW-1</b>	YES	NO
<b>FW-MW-2</b>	YES	NO
<b>FW-MW-3</b>	YES	NO
<b>FW-MW-5</b>	YES	NO
<b>MW-101RD</b>	YES	NO
<b>MW-102R</b>	YES	NO
<b>MW-103R</b>	YES	NO
<b>RW-1</b>	YES	NO
<b>RW-2</b>	YES	NO
<b>RW-3</b>	YES	NO

<b>Site DNAPL Recovery Wells</b>				
<b>Well ID.</b>	<b>DTW</b>	<b>DTP</b>	<b>DTB</b>	<b>Thickness</b>
<b>RW-1</b>	n/a	n/a	<b>21.95</b>	
<b>RW-2</b>	n/a	n/a	<b>19.42</b>	
<b>RW-3</b>	n/a	n/a	<b>31.70</b>	

**Levels and Recovery in March and September Only**

**General Comments:**

**Field Inspection Report**  
**Non-Owned Former MGP Site**  
**Mill Street**  
**Little Falls, New York**

Date: 3/23/2021  
 Technician: KL

Time: 8:15  
 Weather: Sunny 37

<b>Exterior Cover System</b>			
Soil Intrusion Activities Being Performed	YES	NO	COMMENTS:
Evidence of any Intrusive Activities	YES	NO	COMMENTS:
Evidence of Saw Cutting	YES	NO	COMMENTS:
Evidence of Excavation or Trenching	YES	NO	COMMENTS:
Burrowing Animals	YES	NO	COMMENTS:

<b>Interior Slab (West Side of Feldmeier Building)</b>			
Sub-Slab Activities Being Performed	YES	NO	COMMENTS:
Signs of Sub-Slab Soil Intrusive Activities	YES	NO	COMMENTS:
Evidence of Excavation or Tunneling	YES	NO	COMMENTS:

<b>Site Monitoring Wells</b>		
<b>Well ID.</b>	<b>Location Secure</b>	
<b>B-MW-3</b>	YES	NO
<b>FW-MW-1</b>	YES	NO
<b>FW-MW-2</b>	YES	NO
<b>FW-MW-3</b>	YES	NO
<b>FW-MW-5</b>	YES	NO
<b>MW-101RD</b>	YES	NO
<b>MW-102R</b>	YES	NO
<b>MW-103R</b>	YES	NO
<b>RW-1</b>	YES	NO
<b>RW-2</b>	YES	NO
<b>RW-3</b>	YES	NO

<b>Site DNAPL Recovery Wells</b>				
<b>Well ID.</b>	<b>DTW</b>	<b>DTP</b>	<b>DTB</b>	<b>Thickness</b>
<b>RW-1</b>	14.63	n/a	<b>21.95</b>	
<b>RW-2</b>	15.23	n/a	<b>19.42</b>	
<b>RW-3</b>	18.35	trace	<b>31.70</b>	trace

**Levels and Recovery in March and September Only**

**General Comments:**

Asphalt breakup by catchbasin between lean-too and long storage barn.



## Appendix B – Well Sampling Field Data

---

Well ID.	Sample?	Well Size	Well Material	Stickup-Flush	DTP	DTW	DTP	DTB	Sump ?	Comments
B-MW-3	Yes	2"	PVC	Flush		14.40		16.14	No	Field Duplicate
FW-MW-1	Yes	2"	PVC	Flush		15.07		23.10	No	
FW-MW-2	Yes	2"	PVC	Flush		9.55		14.63	No	
FW-MW-3	Yes	2"	PVC	Flush		8.51		14.15	No	
FW-MW-5	Yes	2"	PVC	Flush		7.77		11.45	No	
MW-101RD	Yes	2"	PVC	Flush		10.69		51.35	Yes	MS/MSD
MW-102R	Yes	2"	PVC	Flush		17.24		38.42	Yes	
MW-103R	Yes	2"	PVC	Flush		18.05		35.53	Yes	
RW-1	No	4"	PVC	Flush		14.69		21.95	Yes	
RW-2	No	4"	PVC	Flush		15.23		19.42	Yes	
RW-3	No	4"	PVC	Flush		18.08		31.70	Yes	



Sampling Personnel:    K     
Job Number: 0603275-133650-221  
Well Id. **FW-MW-1**

Date: 9/9/21  
Weather: Clear 67  
Time In: 11:40 Time Out: 1230

Well Information		TOC	Other
Depth to Water:	(feet)	<u>15.07</u>	
Depth to Bottom:	(feet)	<u>23.10</u>	
Depth to Product:	(feet)	<u>8</u>	
Length of Water Column:	(feet)	<u>8.03</u>	
Volume of Water in Well:	(gal)	<u>1.28</u>	
Three Well Volumes:	(gal)	<u>3.85</u>	

Well Type:	Flushmount <input checked="" type="checkbox"/>	Stick-Up <input type="checkbox"/>
Well Locked:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Measuring Point Marked:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Well Material:	PVC <input checked="" type="checkbox"/> SS <input type="checkbox"/> Other: <input type="text"/>	
Well Diameter:	1" <input type="checkbox"/> 2" <input checked="" type="checkbox"/> Other: <input type="text"/>	
Comments:	<input type="text"/>	

Purging Information		Conversion Factors				
Purging Method:	Bailer <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/>	gal/ft.	1" ID	2" ID	4" ID	6" ID
Tubing/Bailer Material:	Teflon <input type="checkbox"/> Stainless St. <input type="checkbox"/>	of				
Sampling Method:	Bailer <input checked="" type="checkbox"/> Peristaltic <input checked="" type="checkbox"/>	water	0.04	0.16	0.66	1.47
Average Pumping Rate:	(ml/min) <u>200</u>	1 gallon=3.785L=3785mL=1337cu. feet				
Duration of Pumping:	(min) <u>30</u>					
Total Volume Removed:	(gal) <u>2</u>					
Horiba U-52 Water Quality Meter Used?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Did well go dry? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Time	DTW (feet)	Temp (°C)	pH (S.U.)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
<del>11:50</del>	<del>15.22</del>	<del>15.86</del>	<del>7.41</del>	<del>-117</del>	<del>0.509</del>	<del>232</del>	<del>3.39</del>	<del>0.310</del>
<del>11:55</del>	<del>15.27</del>	<del>15.80</del>	<del>7.34</del>	<del>-102</del>	<del>0.291</del>	<del>61.0</del>	<del>2.48</del>	<del>0.183</del>
<del>12:00</del>	<del>15.27</del>	<del>16.36</del>	<del>7.32</del>	<del>-82</del>	<del>0.263</del>	<del>19.9</del>	<del>3.87</del>	<del>0.171</del>
<del>12:05</del>	<del>15.27</del>	<del>16.39</del>	<del>7.32</del>	<del>-80</del>	<del>0.262</del>	<del>19.6</del>	<del>3.86</del>	<del>0.170</del>
<del>12:10</del>	<del>15.27</del>	<del>16.62</del>	<del>7.32</del>	<del>-70</del>	<del>0.257</del>	<del>13.6</del>	<del>3.57</del>	<del>0.167</del>
<del>12:15</del>	<del>15.27</del>	<del>16.166</del>	<del>7.32</del>	<del>-66</del>	<del>0.257</del>	<del>8.3</del>	<del>3.54</del>	<del>0.167</del>
<del>12:20</del>	<del>15.27</del>	<del>16.67</del>	<del>7.31</del>	<del>-57</del>	<del>0.257</del>	<del>8.0</del>	<del>3.49</del>	<del>0.167</del>

Sampling Information:			
EPA SW-846 Method 8270	SVOC PAH's	Including Total PAH's	2 - 100 ml amber
EPA SW-846 Method 8260	VOC's BTEX	Including Total BTEX	3 - 40 ml vials
EPA SW-846 Method 9012	Total Cyanide		1 - 250 ml plastic
EPA SW-846 Methods 6010/7470	TAL Inorganics		1 - 250 ml plastic

Sample ID: <b>FWMW-1-0921</b>	Duplicate? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Shipped: Fed Ex <input type="checkbox"/>
Sample Time: <u>12:20</u>	MS/MSD? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Pick-up by PACE Courier <input checked="" type="checkbox"/>

Comments/Notes:

Laboratory: PACE Analytical  
Greensburg, PA

Sampling Personnel: Peter Lyon  
Job Number: 0603275-133650-221  
Well Id. FW-MW-2

Date: 9/19/21  
Weather: 68° cloudy  
Time In: 1050 Time Out: 1140

Well Information			TOC	Other
Depth to Water:	(feet)	<u>9.55</u>		
Depth to Bottom:	(feet)	<u>14.63</u>		
Depth to Product:	(feet)	<u>-</u>		
Length of Water Column:	(feet)	<u>5.08</u>		
Volume of Water in Well:	(gal)	<u>.81</u>		
Three Well Volumes:	(gal)	<u>2.43</u>		

Well Type:	Flushmount	<input checked="" type="checkbox"/>	Stick-Up	<input type="checkbox"/>
Well Locked:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Measuring Point Marked:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Well Material:	PVC	<input checked="" type="checkbox"/>	SS	<input type="checkbox"/>
Well Diameter:	1"	<input type="checkbox"/>	2"	<input checked="" type="checkbox"/>
Comments:				

Purging Information				Conversion Factors			
Purging Method:	Bailer	<input type="checkbox"/>	Peristaltic	<input checked="" type="checkbox"/>	Grundfos Pump	<input type="checkbox"/>	
Tubing/Bailer Material:	Teflon	<input type="checkbox"/>	Stainless St.	<input type="checkbox"/>	Polyethylene	<input checked="" type="checkbox"/>	
Sampling Method:	Bailer	<input checked="" type="checkbox"/>	Peristaltic	<input checked="" type="checkbox"/>	Grundfos Pump	<input type="checkbox"/>	
Average Pumping Rate:	(ml/min)	<u>200</u>					
Duration of Pumping:	(min)	<u>30</u>					
Total Volume Removed:	(gal)	<u>2</u>	Did well go dry?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Horiba U-52 Water Quality Meter Used?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>			

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 (S.U.)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
<u>1100</u>	<u>10.98</u>	<u>14.84</u>	<u>6.69</u>	<u>-159</u>	<u>4.47</u>	<u>608</u>	<u>.30</u>	<u>2.86</u>
<u>1105</u>	<u>11.10</u>	<u>15.02</u>	<u>6.73</u>	<u>-161</u>	<u>4.47</u>	<u>562</u>	<u>0.00</u>	<u>2.86</u>
<u>1110</u>	<u>11.20</u>	<u>15.69</u>	<u>6.75</u>	<u>-166</u>	<u>4.46</u>	<u>225</u>	<u>0.00</u>	<u>2.85</u>
<u>1115</u>	<u>11.31</u>	<u>15.09</u>	<u>6.79</u>	<u>-179</u>	<u>4.47</u>	<u>11.2</u>	<u>0.00</u>	<u>2.86</u>
<u>1120</u>	<u>11.39</u>	<u>15.07</u>	<u>6.82</u>	<u>-181</u>	<u>4.48</u>	<u>3.8</u>	<u>0.00</u>	<u>2.87</u>
<u>1125</u>	<u>11.51</u>	<u>15.05</u>	<u>6.84</u>	<u>-181</u>	<u>4.49</u>	<u>1.1</u>	<u>0.00</u>	<u>2.87</u>
<u>1130</u>	<u>11.59</u>	<u>15.09</u>	<u>6.85</u>	<u>-181</u>	<u>4.49</u>	<u>0.7</u>	<u>0.00</u>	<u>2.87</u>

Sampling Information:							
EPA SW-846 Method 8270	SVOC PAH's	Including Total PAH's	2 - 100 ml amber	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
EPA SW-846 Method 8260	VOC's BTEX	Including Total BTEX	3 - 40 ml vials	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
EPA SW-846 Method 9012	Total Cyanide		1 - 250 ml plastic	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
EPA SW-846 Methods 6010/7470	TAL Inorganics		1 - 250 ml plastic	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Sample ID: <u>FWMW-2-0921</u>	Duplicate?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>		
Sample Time: <u>1130</u>	MS/MSD?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>		
Shipped:		Fed Ex	<input type="checkbox"/>	Pick-up by PACE Courier	<input checked="" type="checkbox"/>		
Laboratory:		PACE Analytical Greensburg, PA					
Comments/Notes:							

Sampling Personnel: Peter Lyon  
Job Number: 0603275-133650-221  
Well Id. FW-MW-3

Date: 7/9/21  
Weather: 68° cloudy  
Time In: 1000 Time Out: 1040

Well Information		
	TOC	Other
Depth to Water: (feet)	<u>8.51</u>	
Depth to Bottom: (feet)	<u>14.15</u>	
Depth to Product: (feet)	<u>-</u>	
Length of Water Column: (feet)	<u>5.64</u>	
Volume of Water in Well: (gal)	<u>.90</u>	
Three Well Volumes: (gal)	<u>2.70</u>	

Well Type:	Flushmount <input checked="" type="checkbox"/>	Stick-Up <input type="checkbox"/>
Well Locked:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Measuring Point Marked:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Well Material:	PVC <input checked="" type="checkbox"/> SS <input type="checkbox"/>	Other: _____
Well Diameter:	1" <input type="checkbox"/> 2" <input checked="" type="checkbox"/>	Other: _____
Comments:	_____	

Purging Information		
Purging Method:	Bailer <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>
Tubing/Bailer Material:	Teflon <input type="checkbox"/> Stainless St. <input type="checkbox"/>	Polyethylene <input checked="" type="checkbox"/>
Sampling Method:	Bailer <input checked="" type="checkbox"/> Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>
Average Pumping Rate: (ml/min)	<u>200</u>	
Duration of Pumping: (min)	<u>30</u>	
Total Volume Removed: (gal)	<u>2</u>	Did well go dry? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Horiba U-52 Water Quality Meter Used?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

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=133.7cu. feet				

Time	DTW (feet)	Temp (°C)	pH (S.U.)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
<u>1005</u>	<u>8.92</u>	<u>18.20</u>	<u>6.75</u>	<u>78</u>	<u>.696</u>	<u>0.0</u>	<u>4.32</u>	<u>.455</u>
<u>1010</u>	<u>9.30</u>	<u>17.89</u>	<u>6.60</u>	<u>163</u>	<u>.721</u>	<u>274</u>	<u>2.18</u>	<u>.463</u>
<u>1015</u>	<u>9.66</u>	<u>17.87</u>	<u>6.55</u>	<u>186</u>	<u>.743</u>	<u>74.9</u>	<u>1.17</u>	<u>.476</u>
<u>1020</u>	<u>10.33</u>	<u>17.92</u>	<u>6.58</u>	<u>190</u>	<u>.728</u>	<u>30.9</u>	<u>2.45</u>	<u>.467</u>
<u>1025</u>	<u>10.88</u>	<u>17.33</u>	<u>6.60</u>	<u>146</u>	<u>.756</u>	<u>37.4</u>	<u>1.94</u>	<u>.484</u>
<u>1030</u>	<u>11.42</u>	<u>17.32</u>	<u>6.58</u>	<u>167</u>	<u>.757</u>	<u>32.1</u>	<u>1.91</u>	<u>.486</u>
<u>1035</u>	<u>12.47</u>	<u>17.27</u>	<u>6.62</u>	<u>146</u>	<u>.805</u>	<u>35.0</u>	<u>1.30</u>	<u>.513</u>

Sampling Information:			
EPA SW-846 Method 8270	SVOC PAH's	Including Total PAH's	2 - 100 ml amber Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Method 8260	VOC's BTEX	Including Total BTEX	3 - 40 ml vials Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Method 9012	Total Cyanide		1 - 250 ml plastic Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Methods 6010/7470	TAL Inorganics		1 - 250 ml plastic Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample ID: <u>FWMW-3-1021</u>	Duplicate? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Shipped: Fed Ex <input type="checkbox"/>	
Sample Time: <u>1035</u>	MS/MSD? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Pick-up by PACE Courier <input checked="" type="checkbox"/>	
Comments/Notes:	Laboratory: PACE Analytical Greensburg, PA		

Sampling Personnel: Peter Lyon  
 Job Number: 0603275-133650-221  
 Well Id. FW-MW-5

Date: 9/9/21  
 Weather: 68° cloudy  
 Time In: 0914 Time Out: 0950

Well Information		TOC	Other
Depth to Water:	(feet)	<u>7.77</u>	
Depth to Bottom:	(feet)	<u>11.45</u>	
Depth to Product:	(feet)	<u>-</u>	
Length of Water Column:	(feet)	<u>3.68</u>	
Volume of Water in Well:	(gal)	<u>.58</u>	
Three Well Volumes:	(gal)	<u>1.76</u>	

Well Type:	Flushmount <input checked="" type="checkbox"/>	Stick-Up <input type="checkbox"/>
Well Locked:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Measuring Point Marked:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Well Material:	PVC <input checked="" type="checkbox"/> SS <input type="checkbox"/>	Other: _____
Well Diameter:	1" <input type="checkbox"/> 2" <input checked="" type="checkbox"/>	Other: _____
Comments:	_____	

Purging Information			Conversion Factors			
Purging Method:	Bailer <input type="checkbox"/>	Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>			
Tubing/Bailer Material:	Teflon <input type="checkbox"/>	Stainless St. <input type="checkbox"/>	Polyethylene <input checked="" type="checkbox"/>			
Sampling Method:	Bailer <input checked="" type="checkbox"/>	Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>			
Average Pumping Rate:	(ml/min)	<u>200</u>				
Duration of Pumping:	(min)	<u>30</u>				
Total Volume Removed:	(gal)	<u>2</u>	Did well go dry?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Horiba U-52 Water Quality Meter Used?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

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 (S.U.)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
<u>0915</u>	<u>8.42</u>	<u>17.07</u>	<u>5.68</u>	<u>199</u>	<u>1.76</u>	<u>34.4</u>	<u>2.86</u>	<u>1.12</u>
<u>0920</u>	<u>9.08</u>	<u>17.37</u>	<u>6.40</u>	<u>32</u>	<u>1.23</u>	<u>24.1</u>	<u>1.61</u>	<u>.771</u>
<u>0925</u>	<u>10.16</u>	<u>17.54</u>	<u>6.53</u>	<u>51</u>	<u>.824</u>	<u>17.6</u>	<u>.99</u>	<u>.533</u>
<u>0930</u>	<u>10.21</u>	<u>17.40</u>	<u>6.46</u>	<u>18</u>	<u>1.14</u>	<u>26.6</u>	<u>1.59</u>	<u>.744</u>
<u>0935</u>	<u>10.54</u>	<u>17.42</u>	<u>6.55</u>	<u>11</u>	<u>1.29</u>	<u>27.1</u>	<u>.94</u>	<u>.812</u>
<u>0940</u>	<u>10.78</u>	<u>17.59</u>	<u>6.58</u>	<u>11</u>	<u>.934</u>	<u>21.7</u>	<u>1.25</u>	<u>.593</u>
<u>0945</u>	<u>10.80</u>	<u>17.80</u>	<u>6.60</u>	<u>-8</u>	<u>.857</u>	<u>19.0</u>	<u>1.53</u>	<u>.544</u>

Sampling Information:			
EPA SW-846 Method 8270	SVOC PAH's	Including Total PAH's	2 - 100 ml amber Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Method 8260	VOC's BTEX	Including Total BTEX	3 - 40 ml vials Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Method 9012	Total Cyanide		1 - 250 ml plastic Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Methods 6010/7470	TAL Inorganics		1 - 250 ml plastic Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample ID: <u>FWMW-5-0921</u>	Duplicate? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Shipped: Fed Ex <input type="checkbox"/>	
Sample Time: <u>0945</u>	MS/MSD? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Pick-up by PACE Courier <input checked="" type="checkbox"/>	
Comments/Notes: _____		Laboratory: PACE Analytical Greensburg, PA	

Sampling Personnel: K  
Job Number: 0603275-133650-221  
Well Id. **MW-101RD**

Date: 9/9/21  
Weather: Cloud 64  
Time In: 10:10 Time Out: 10:50

Well Information		TOC	Other
Depth to Water:	(feet)	10.69	
Depth to Bottom:	(feet)	51.35	
Depth to Product:	(feet)		
Length of Water Column:	(feet)	40.46	
Volumes of Water in Well:	(gal)	6.50	
Three Well Volumes:	(gal)	19.51	

Well Type:	Flushmount <input checked="" type="checkbox"/>	Stick-Up <input type="checkbox"/>
Well Locked:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Measuring Point Marked:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Well Material:	PVC <input checked="" type="checkbox"/> SS <input type="checkbox"/>	Other: _____
Well Diameter:	1" <input type="checkbox"/> 2" <input checked="" type="checkbox"/>	Other: _____
Comments:	_____	

Purging Information			Conversion Factors				
Purging Method:	Bailer <input type="checkbox"/>	Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>	1" ID	2" ID	4" ID	6" ID
Tubing/Bailer Material:	Teflon <input type="checkbox"/>	Stainless St. <input type="checkbox"/>	Polyethylene <input checked="" type="checkbox"/>	gal/ft. of water	0.04	0.16	0.66
Sampling Method:	Bailer <input checked="" type="checkbox"/>	Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>	1 gallon=3.785L=3785mL=1337cu. feet			
Average Pumping Rate:	(ml/min)	200	Did well go dry?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>		
Duration of Pumping:	(min)	30	Horiba U-52 Water Quality Meter Used?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Total Volume Removed:	(gal)	2					

Time	DTW (feet)	Temp (°C)	pH (S.U.)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
10:10	10.80	12.53	7.18	91	0.254	88.0	12.96	0.183
10:15	10.87	14.33	7.33	93	0.691	15.9	3.70	0.457
10:20	10.95	13.63	7.17	-107	1.91	22.7	1.37	1.23
10:25	10.97	13.45	7.16	-135	2.12	21.7	1.20	1.36
10:30	10.97	13.28	7.12	-152	2.31	19.9	1.31	1.48
10:35	11.03	13.16	7.11	-159	2.43	18.5	1.37	1.59
10:40	11.06	13.13	7.11	-160	2.49	17.7	1.47	1.60

Sampling Information:			
EPA SW-846 Method 8270	SVOC PAH's	Including Total PAH's	6 - 100 ml amber Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Method 8260	VOC's BTEX	Including Total BTEX	9 - 40 ml vials Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Method 9012	Total Cyanide		3 - 250 ml plastic Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
EPA SW-846 Methods 6010/7470	TAL Inorganics		3 - 250 ml plastic Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample ID: <b>MW-101RD-0921</b>	Duplicate? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Shipped: Fed Ex <input type="checkbox"/>	
Sample Time: <u>10:40</u>	MS/MSD? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Pick-up by PACE Courier <input checked="" type="checkbox"/>	
Comments/Notes: _____		Laboratory: PACE Analytical Greensburg, PA	

Sampling Personnel: Peter Lyon  
Job Number: 0603275-133650-221  
Well Id. MW-102R

Date: 9/9/21  
Weather: 68° Cloudy  
Time In: 11:48 Time Out: 12:30

Well Information			TOC	Other
Depth to Water:	(feet)	<u>17.24</u>		
Depth to Bottom:	(feet)	<u>38.42</u>		
Depth to Product:	(feet)	<u>-</u>		
Length of Water Column:	(feet)	<u>21.18</u>		
Volume of Water in Well:	(gal)	<u>3.38</u>		
Three Well Volumes:	(gal)	<u>10.16</u>		

Well Type:	Flushmount	<input checked="" type="checkbox"/>	Stick-Up	<input type="checkbox"/>
Well Locked:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Measuring Point Marked:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Well Material:	PVC	<input checked="" type="checkbox"/>	SS	<input type="checkbox"/>
Well Diameter:	1"	<input type="checkbox"/>	2"	<input checked="" type="checkbox"/>
Comments:				

Purging Information				Conversion Factors			
Purging Method:	Bailer	<input type="checkbox"/>	Peristaltic	<input checked="" type="checkbox"/>	Grundfos Pump	<input type="checkbox"/>	
Tubing/Bailer Material:	Teflon	<input type="checkbox"/>	Stainless St.	<input type="checkbox"/>	Polyethylene	<input checked="" type="checkbox"/>	
Sampling Method:	Bailer	<input checked="" type="checkbox"/>	Peristaltic	<input checked="" type="checkbox"/>	Grundfos Pump	<input type="checkbox"/>	
Average Pumping Rate:	(ml/min)	<u>200</u>					
Duration of Pumping:	(min)	<u>30</u>					
Total Volume Removed:	(gal)	<u>2</u>	Did well go dry?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Horiba U-52 Water Quality Meter Used?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>			

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 (S.U.)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
<u>1150</u>	<u>17.90</u>	<u>13.90</u>	<u>7.50</u>	<u>-177</u>	<u>2.19</u>	<u>348</u>	<u>1.14</u>	<u>1.41</u>
<u>1155</u>	<u>19.09</u>	<u>12.32</u>	<u>7.18</u>	<u>-183</u>	<u>2.23</u>	<u>0.3</u>	<u>0.00</u>	<u>1.42</u>
<u>1200</u>	<u>19.45</u>	<u>12.49</u>	<u>7.15</u>	<u>-185</u>	<u>2.07</u>	<u>0.0</u>	<u>0.00</u>	<u>1.32</u>
<u>1205</u>	<u>19.79</u>	<u>12.17</u>	<u>7.12</u>	<u>-188</u>	<u>1.28</u>	<u>1.7</u>	<u>0.00</u>	<u>.814</u>
<u>1210</u>	<u>19.86</u>	<u>12.09</u>	<u>7.20</u>	<u>-188</u>	<u>1.11</u>	<u>0.0</u>	<u>0.22</u>	<u>.696</u>
<u>1215</u>	<u>19.93</u>	<u>12.12</u>	<u>7.23</u>	<u>-192</u>	<u>.860</u>	<u>0.0</u>	<u>0.60</u>	<u>.546</u>
<u>1220</u>	<u>19.97</u>	<u>12.07</u>	<u>7.22</u>	<u>-193</u>	<u>.805</u>	<u>0.0</u>	<u>0.00</u>	<u>.515</u>

Sampling Information:							
EPA SW-846 Method 8270	SVOC PAH's	Including Total PAH's	2 - 100 ml amber	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
EPA SW-846 Method 8260	VOC's BTEX	Including Total BTEX	3 - 40 ml vials	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
EPA SW-846 Method 9012	Total Cyanide		1 - 250 ml plastic	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
EPA SW-846 Methods 6010/7470	TAL Inorganics		1 - 250 ml plastic	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Sample ID: <u>MW-102R-0921</u>	Duplicate?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>		
Sample Time: <u>1220</u>	MS/MSD?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>		
Shipped:		Fed Ex	<input type="checkbox"/>	Pick-up by PACE Courier	<input checked="" type="checkbox"/>		
Laboratory:		PACE Analytical Greensburg, PA					

Comments/Notes:

Sampling Personnel: KL  
 Job Number: 0603275-133650-221  
 Well Id. **MW-103R**

Date: 9/9/21  
 Weather: Clear 68  
 Time In: 10:55 Time Out: 11:40

Well Information		TOC	Other
Depth to Water:	(feet)	<u>18.05</u>	
Depth to Bottom:	(feet)	<u>35.53</u>	
Depth to Product:	(feet)		
Length of Water Column:	(feet)	<u>17.46</u>	
Volume of Water in Well:	(gal)	<u>2.79</u>	
Three Well Volumes:	(gal)	<u>8.37</u>	

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

Purging Information		Conversion Factors				
Purging Method:	Bailer <input type="checkbox"/> Peristaltic <input checked="" type="checkbox"/>	gal/ft.	1" ID	2" ID	4" ID	6" ID
Tubing/Bailer Material:	Teflon <input type="checkbox"/> Stainless St. <input type="checkbox"/>	of				
Sampling Method:	Bailer <input checked="" type="checkbox"/> Peristaltic <input checked="" type="checkbox"/>	water	0.04	0.16	0.66	1.47
Average Pumping Rate:	(ml/min) <u>280</u>	1 gallon=3.785L=3785mL=1337cu. feet				
Duration of Pumping:	(min) <u>30</u>					
Total Volume Removed:	(gal) <u>2</u>	Did well go dry? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				
Horiba U-52 Water Quality Meter Used?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

Time	DTW (feet)	Temp (°C)	pH (S.U.)	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
<u>11:00</u>	<u>18.64</u>	<u>14.89</u>	<u>7.05</u>	<u>-158</u>	<u>2.93</u>	<u>20.0</u>	<u>4.04</u>	<u>1.90</u>
<u>11:05</u>	<u>19.52</u>	<u>14.25</u>	<u>7.13</u>	<u>-152</u>	<u>3.11</u>	<u>17.2</u>	<u>2.41</u>	<u>1.99</u>
<u>11:10</u>	<u>20.95</u>	<u>13.70</u>	<u>7.14</u>	<u>-152</u>	<u>3.12</u>	<u>2.1</u>	<u>3.42</u>	<u>2.05</u>
<u>11:15</u>	<u>22.35</u>	<u>13.68</u>	<u>7.16</u>	<u>-148</u>	<u>3.22</u>	<u>0.0</u>	<u>5.00</u>	<u>2.06</u>
<u>11:20</u>	<u>22.87</u>	<u>13.70</u>	<u>7.18</u>	<u>-138</u>	<u>3.23</u>	<u>0.0</u>	<u>4.28</u>	<u>2.06</u>
<u>11:25</u>	<u>25.60</u>	<u>13.71</u>	<u>7.19</u>	<u>-132</u>	<u>3.23</u>	<u>0.0</u>	<u>4.46</u>	<u>2.07</u>
<u>11:30</u>	<u>26.10</u>	<u>13.72</u>	<u>7.19</u>	<u>-131</u>	<u>3.24</u>	<u>0</u>	<u>4.15</u>	<u>2.08</u>

Sampling Information:

EPA SW-846 Method 8270 SVOC PAH's Including Total PAH's 2 - 100 ml amber Yes  No   
 EPA SW-846 Method 8260 VOC's BTEX Including Total BTEX 3 - 40 ml vials Yes  No   
 EPA SW-846 Method 9012 Total Cyanide 1 - 250 ml plastic Yes  No   
 EPA SW-846 Methods 6010/7470 TAL Inorganics 1 - 250 ml plastic Yes  No

Sample ID: MW-103R-0921 Duplicate? Yes  No   
 Sample Time: 11:30 MS/MSD? Yes  No

Shipped: Fed Ex   
 Pick-up by PACE Courier

Laboratory: PACE Analytical  
 Greensburg, PA

Comments/Notes: \_\_\_\_\_





## Appendix C – Data Usability Summary Report and Analytical Data

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February 3, 2022

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

RE: Data Usability Summary Report for National Grid Mill Street, Little Falls, NY Site Data Packages Pace Job No. 30440128

Groundwater & Environmental Services, Inc. (GES) reviewed one data packages (Laboratory Project Number 30440128) Pace Analytical Services, LLC. Greensburg, PA.

This reports detailed the analysis of groundwater samples collected from monitoring wells during on September 9, 2021 at the Little Falls site. Eight aqueous samples and a field duplicate were analyzed for volatile organic compounds (VOCs), polyaromatic hydrocarbons (PAHs), Metals, Mercury, and Cyanide. Methodologies utilized were those of EPA 6010C, EPA 7470A and the USEPA SW846 methods 8260C/8270D/9012, with additional QC requirements of the NYSDEC ASP.

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

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

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

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

In summary, sample results are usable as reported. All quality control passed laboratory and EPA criteria. No data was qualified pursuant to this data validation effort.

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

**Table 1 – Data Qualifications**

Sample ID	Qualifier	Analyte	Reason for qualification
	J	Aluminum	RPD > 30%
	UJ	Mercury	Post digestion spike and MS/MSD recoveries were out of compliance
	J+	Acenaphthylene	High MS/MSD
MW-101RD	UJ-	1,1,2-Trichlorotrifluoroethane Cyclohexane Vinyl Chloride	Low MS/MSD
	UJ-	Methylcyclohexane	Low continuing calibration recovery
	J-	Vinyl Chloride	Low MS/MSD
	J	Sodium	Low Post Digestion Spike Low MS/MSD
	J-	Calcium	Low Post Digestion Spike
FWMW-3	J- (detected) UJ- (non-detected)	All analytes	Dechlorination
B-MW-3 FD	UJ-	Cyanide	Low MS/MSD
All samples	UJ- J-	Methylcyclohexane	Low CCV recovery

### Analytical Anomalies

- Bromomethane was high in the continuing calibration standard, non-detect in all the samples. No data is qualified.
- FWMW-3 for SVOC analysis was diluted due to matrix issues, surrogates were low, but do not reflect method efficacy. No data is qualified.
- Benzo(b)fluoranthene and benzo(k)fluoranthene were separated in the check standard but did not meet the resolution criteria in SW846 Method 8270D. The laboratory reported results as individual isomers, however, for these two compounds, the peak represents an isomeric pair. No data is qualified.
- FWMW-3 required dechlorination. All VOC results are estimated with a possible low bias. Qualifications are noted in Table 1.

### BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Samples were analyzed within hold time and instrumental tune fragmentations were within acceptance ranges. There were no positive detections in the blanks. Surrogate and internal standard recoveries were within required limits with the exception of diluted samples.

Calibrations standards show acceptable responses within analytical protocol and validation action limits with the exception of the following analytes:

Low CCV – impacts all samples – qualified “UJ-, J-“, estimated with a possible low bias:

- Methylcyclohexane – There are no sample detections, all samples are qualified as “UJ-“

High CCV – impacts only samples with positive detections. qualified J+“, estimated with a possible high bias:

- Bromomethane – no qualification; all samples are non-detect

MS/MSD recoveries associated with MW-101RD were generally within criteria. The following compounds had recoveries low out-of-specification:

- Dichlorodifluoromethane
- Vinyl chloride
- 1,1,2-Trichlorotrifluoroethane

The analytes are qualified as noted in **Table 1**.

The MS/MSD RPD associated with MW-101RD was above maximum for Bromomethane. Data is already qualified.

The blind field duplicate correlations of BMW-3-1021, where applicable, fall within guidance limits.

#### *PAHs by EPA8270D/NYSDEC ASP*

Holding times were met. Instrumental tune fragmentations were within acceptance ranges. Surrogate recoveries were within analytical and validation.

Blanks show no contamination with the exception of a low-level detection of di-n-butyl phthalate in the method blank. There were no corresponding detections in the samples and data is unaffected. Calibrations standards show acceptable responses within analytical protocol and validation action limits.

LCS recoveries and RPD were reported within acceptable ranges.

MS/MSD associated with MW-101RD reported multiple high recoveries. Any corresponding detection in the sample is qualified and noted in Table 1. RPDs were within criteria.

The blind field duplicate correlations of BMW-3 -0921, where applicable, fall within guidance limits.

#### *Metals by EPA 6010C/NYDESC ASP*

The matrix spikes of **MW-101RD** recovered high for multiple metal analytes. The original concentrations for many of these analytes was greater than 4x the concentration spiked, and the high recoveries do not indicate an issue with accuracy. The following metals had high recoveries with spike concentrations within the EPA acceptable range. The following analytes are qualified as estimated with a possible high bias:

Sodium had a high MS recovery and a low PDS recovery. Calcium had a low PDS recovery. The data is qualified as estimated with an unknown bias.

The ICP Serial Dilution evaluations were within specification for samples with detections of the target elements above the action limit.

The blind field duplicate correlations of BMW-3-0921, where applicable, fall within guidance limits, with the exception of zinc, where the RPD was 44.3%. Zinc is qualified as estimated with an indeterminate bias.

#### *Total Mercury by 7470A and Total Cyanide by 9012B/ NYSDEC ASP*

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

- Low recovery of cyanide in the MS/MSD prepared from the samples B-MW-3-0921 and FD-0921. Low recoveries indicate a possible low bias.
- High recovery of mercury in the post-digestion spike. There was no mercury reported in the sample. No data was qualified.

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

The blind field duplicate correlations of B-MW-3-0921, where applicable, fall within guidance limits.

#### *Data Package Completeness*

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

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



Bonnie Janowiak, Ph.D.  
Senior Project Chemist  
701 N Main St  
Blacksburg, VA 24060

## VALIDATION DATA QUALIFIER DEFINITIONS

- U** The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
- J** The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- J-** The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
- J+** The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
- UJ** The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
- NJ** The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
- R** The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.

## SAMPLE SUMMARY

Project: National Grid - Little Falls,

Pace Project No.: 30440128

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30440128001	B-MW-3-0921	Water	09/09/21 09:50	09/10/21 09:30
30440128002	FWMW-1-0921	Water	09/09/21 12:20	09/10/21 09:30
30440128003	FWMW-2-0921	Water	09/09/21 11:30	09/10/21 09:30
30440128004	FWMW-3-0921	Water	09/09/21 10:35	09/10/21 09:30
30440128005	FWMW-5-0921	Water	09/09/21 09:35	09/10/21 09:30
30440128006	MW-101RD-0921	Water	09/09/21 10:40	09/10/21 09:30
30440128007	MW-101RD-MS-0921	Water	09/09/21 10:40	09/10/21 09:30
30440128008	MW-101RD-MSD-0921	Water	09/09/21 10:40	09/10/21 09:30
30440128009	MW-102R-0921	Water	09/09/21 12:20	09/10/21 09:30
30440128010	MW-103R-0921	Water	09/09/21 11:30	09/10/21 09:30
30440128011	FD-0921	Water	09/09/21 00:00	09/10/21 09:30
30440128012	TRIP BLANK	Water	09/09/21 00:01	09/10/21 09:30

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: National Grid - Little Falls,

Pace Project No.: 30440128

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**Method:** EPA 8270D

**Description:** 8270D Organics Reduced Volume

**Client:** Groundwater & Environmental Services, Inc. (Syracuse)

**Date:** September 24, 2021

### General Information:

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

ED: Due to the extract's physical characteristics, the analysis was performed at dilution.

- FWMW-3-0921 (Lab ID: 30440128004)

### 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: 464315

S4: Surrogate recovery not evaluated against control limits due to sample dilution.

- FWMW-3-0921 (Lab ID: 30440128004)
  - 2,4,6-Tribromophenol (S)
  - 2-Fluorobiphenyl (S)
  - 2-Fluorophenol (S)
  - Nitrobenzene-d5 (S)
  - Phenol-d6 (S)
  - 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: 464315

B: Analyte was detected in the associated method blank.

- BLANK for HBN 464315 [OEXT/448 (Lab ID: 2241855)
  - Di-n-butylphthalate

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: National Grid - Little Falls,  
Pace Project No.: 30440128

---

**Method:** EPA 8270D  
**Description:** 8270D Organics Reduced Volume  
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)  
**Date:** September 24, 2021

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 464315

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

- LCS (Lab ID: 2241856)
  - 2,4-Dichlorophenol
  - 2,4-Dimethylphenol
  - 2-Methylnaphthalene
  - Hexachlorocyclopentadiene
  - Isophorone
  - N-Nitrosodiphenylamine
  - Naphthalene
  - Pentachlorophenol

### Matrix Spikes:

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

QC Batch: 464315

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30440128006

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

- MS (Lab ID: 2241857)
  - 2,4-Dichlorophenol
  - 2,4-Dimethylphenol
  - Acenaphthylene
  - Biphenyl (Diphenyl)
  - Di-n-butylphthalate
  - Hexachlorocyclopentadiene
  - Naphthalene
- MSD (Lab ID: 2241858)
  - Biphenyl (Diphenyl)
  - Hexachlorocyclopentadiene
  - Naphthalene

### Additional Comments:

Analyte Comments:

QC Batch: 464315

1c: De-Chlorinated

- FWMW-3-0921 (Lab ID: 30440128004)
  - 2,4,6-Trichlorophenol
  - 2,4-Dichlorophenol
  - 2,4-Dimethylphenol
  - 2,4-Dinitrophenol

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## PROJECT NARRATIVE

Project: National Grid - Little Falls,  
Pace Project No.: 30440128

---

**Method:** EPA 8270D  
**Description:** 8270D Organics Reduced Volume  
**Client:** Groundwater & Environmental Services, Inc. (Syracuse)  
**Date:** September 24, 2021

Analyte Comments:

QC Batch: 464315

1c: De-Chlorinated

- FWMW-3-0921 (Lab ID: 30440128004)
  - 2,4-Dinitrotoluene
  - 2,4,5-Trichlorophenol
  - 2,6-Dinitrotoluene
  - 2-Chloronaphthalene
  - 2-Chlorophenol
  - 2-Methylphenol(o-Cresol)
  - 2-Methylnaphthalene
  - 2-Nitroaniline
  - 2-Nitrophenol
  - 3,3'-Dichlorobenzidine
  - 3-Nitroaniline
  - 4,6-Dinitro-2-methylphenol
  - 4-Bromophenylphenyl ether
  - 4-Chloro-3-methylphenol
  - 4-Chloroaniline
  - 4-Chlorophenylphenyl ether
  - 4-Nitroaniline
  - 4-Nitrophenol
  - Acenaphthene
  - Acenaphthylene
  - Acetophenone
  - Anthracene
  - Atrazine
  - Butylbenzylphthalate
  - Benzo(k)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(a)anthracene
  - Benzo(b)fluoranthene
  - Benzo(a)pyrene
  - Biphenyl (Diphenyl)
  - bis(2-Chloroethoxy)methane
  - bis(2-Chloroethyl) ether
  - bis(2-Chloroisopropyl) ether
  - bis(2-Ethylhexyl)phthalate
  - Benzaldehyde
  - Carbazole
  - Chrysene
  - Dibenz(a,h)anthracene
  - Dibenzofuran
  - Dimethylphthalate
  - Di-n-butylphthalate
  - Di-n-octylphthalate

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## PROJECT NARRATIVE

Project: National Grid - Little Falls,

Pace Project No.: 30440128

---

**Method:** EPA 8270D

**Description:** 8270D Organics Reduced Volume

**Client:** Groundwater & Environmental Services, Inc. (Syracuse)

**Date:** September 24, 2021

Analyte Comments:

QC Batch: 464315

1c: De-Chlorinated

- FWMW-3-0921 (Lab ID: 30440128004)
  - Diethylphthalate
  - Fluorene
  - Fluoranthene
  - Hexachloro-1,3-butadiene
  - Hexachlorobenzene
  - Hexachlorocyclopentadiene
  - Hexachloroethane
  - Indeno(1,2,3-cd)pyrene
  - Isophorone
  - Naphthalene
  - N-Nitroso-di-n-propylamine
  - Nitrobenzene
  - N-Nitrosodiphenylamine
  - Phenol
  - Phenanthrene
  - Pentachlorophenol
  - Pyrene

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: National Grid - Little Falls,

Pace Project No.: 30440128

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**Method:** EPA 8260C

**Description:** 8260C MSV

**Client:** Groundwater & Environmental Services, Inc. (Syracuse)

**Date:** September 24, 2021

### General Information:

12 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.

QC Batch: 464566

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- B-MW-3-0921 (Lab ID: 30440128001)
  - Bromomethane
- BLANK (Lab ID: 2243169)
  - Bromomethane
- FD-0921 (Lab ID: 30440128011)
  - Bromomethane
- FWMW-1-0921 (Lab ID: 30440128002)
  - Bromomethane
- FWMW-2-0921 (Lab ID: 30440128003)
  - Bromomethane
- FWMW-3-0921 (Lab ID: 30440128004)
  - Bromomethane
- FWMW-5-0921 (Lab ID: 30440128005)
  - Bromomethane
- LCS (Lab ID: 2243170)
  - Bromomethane
- MS (Lab ID: 2243171)
  - Bromomethane
- MSD (Lab ID: 2243172)
  - Bromomethane
- MW-101RD-0921 (Lab ID: 30440128006)
  - Bromomethane
- MW-101RD-MS-0921 (Lab ID: 30440128007)
  - Bromomethane
- MW-101RD-MSD-0921 (Lab ID: 30440128008)
  - Bromomethane
- MW-102R-0921 (Lab ID: 30440128009)
  - Bromomethane
- MW-103R-0921 (Lab ID: 30440128010)
  - Bromomethane

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: National Grid - Little Falls,

Pace Project No.: 30440128

---

**Method:** EPA 8260C

**Description:** 8260C MSV

**Client:** Groundwater & Environmental Services, Inc. (Syracuse)

**Date:** September 24, 2021

QC Batch: 464566

CH: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.

- TRIP BLANK (Lab ID: 30440128012)
  - Bromomethane

CL: The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased low.

- B-MW-3-0921 (Lab ID: 30440128001)
  - Methylcyclohexane
- BLANK (Lab ID: 2243169)
  - Methylcyclohexane
- FD-0921 (Lab ID: 30440128011)
  - Methylcyclohexane
- FWMW-1-0921 (Lab ID: 30440128002)
  - Methylcyclohexane
- FWMW-2-0921 (Lab ID: 30440128003)
  - Methylcyclohexane
- FWMW-3-0921 (Lab ID: 30440128004)
  - Methylcyclohexane
- FWMW-5-0921 (Lab ID: 30440128005)
  - Methylcyclohexane
- LCS (Lab ID: 2243170)
  - Methylcyclohexane
- MS (Lab ID: 2243171)
  - Methylcyclohexane
- MSD (Lab ID: 2243172)
  - Methylcyclohexane
- MW-101RD-0921 (Lab ID: 30440128006)
  - Methylcyclohexane
- MW-101RD-MS-0921 (Lab ID: 30440128007)
  - Methylcyclohexane
- MW-101RD-MSD-0921 (Lab ID: 30440128008)
  - Methylcyclohexane
- MW-102R-0921 (Lab ID: 30440128009)
  - Methylcyclohexane
- MW-103R-0921 (Lab ID: 30440128010)
  - Methylcyclohexane
- TRIP BLANK (Lab ID: 30440128012)
  - Methylcyclohexane

### 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.

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## PROJECT NARRATIVE

Project: National Grid - Little Falls,

Pace Project No.: 30440128

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**Method:** EPA 8260C

**Description:** 8260C MSV

**Client:** Groundwater & Environmental Services, Inc. (Syracuse)

**Date:** September 24, 2021

**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: 464566

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30440128006

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

- MS (Lab ID: 2243171)
  - 1,1,2-Trichlorotrifluoroethane
  - Cyclohexane
  - Vinyl chloride
- MSD (Lab ID: 2243172)
  - Vinyl chloride

**Additional Comments:**

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## PROJECT NARRATIVE

Project: National Grid - Little Falls,

Pace Project No.: 30440128

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**Method:** EPA 9012B

**Description:** 9012B Cyanide, Total

**Client:** Groundwater & Environmental Services, Inc. (Syracuse)

**Date:** September 24, 2021

**General Information:**

11 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: 464030

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30440128001,30440128011

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

- MS (Lab ID: 2240247)
  - Cyanide
- MSD (Lab ID: 2240243)
  - Cyanide
- MSD (Lab ID: 2240248)
  - Cyanide

**Additional Comments:**

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

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