

August 6, 2024

Mr. John Miller  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau C  
625 Broadway  
Albany, NY 12233-7013

**Re: National Grid Hudson Water Street Site  
Hudson, New York  
2024 Groundwater Monitoring Report**

Dear Mr. Miller:

Attached for your information is the 2024 Groundwater Monitoring Report detailing the annual groundwater monitoring event and OM&M activities conducted from July 1, 2023, to June 30, 2024, at the National Grid Hudson (Water Street) Site. Site activities were conducted in accordance with the NYSDEC-approved OM&M Plan (BBL/ARCADIS; January 2007) and the *Static Water Level Evaluation and Ground Water Monitoring Program Recommendation Memorandum* letter (dated August 15, 2007).

The groundwater quality has been steadily improving over the years based on the number and extent of chemical detections in the monitoring wells. Based on the annual groundwater sampling analysis report in 2024, MW-11 had detections of BTEX [totaling 13.6 µg/L]. No other detections of any compounds analyzed were noted in the remaining wells.

Please contact me at 315-247-6490 if you have any questions.

Sincerely,

for SPS

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



National Grid

# 2024 Groundwater Monitoring Report



National Grid Hudson Water Street Site  
Water Street between Ferry Street and Broad Street  
Hudson, NY 12534

August 2024

Version 1







## **2024 Groundwater Monitoring Report**

National Grid Hudson Water Street Site  
Water Street between Ferry Street & Broad Street  
Hudson, NY 12534

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GES Project:  
0603340.125340.221

Date:  
August 6, 2024

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Devin T. Shay, PG  
Program Manager / Principal Hydrogeologist





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## Acronyms

AWQS	Ambient Water Quality Standards	OM&M	Operation, Maintenance, and Monitoring
BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes	OU	Operable Unit
DNAPL	Dense Non-Aqueous Phase Liquid	Pace	Pace Analytical Services, LLC
DUSR	Data Usability Summary Report	PAH	Polycyclic Aromatic Hydrocarbons
GES	Groundwater & Environmental Services, Inc.	POTW	Publically Owned Treatment Works
gpm	Gallons per Minute	QA/QC	Quality Assurance / Quality Control
IRM	Interim Remedial Measures	ROD	Record of Decision
LNAPL	Light Non-Aqueous Phase Liquid	SMP	Site Management Plan
MGP	Manufactured Gas Plant	USEPA	United States Environmental Protection Agency
NYSDEC	New York State Department of Environmental Conservation	WPCF	Water Pollution Control Facility



# 1 Introduction

## 1.1 Overview

Groundwater & Environmental Services, Inc. (GES) has prepared this 2024 Groundwater Monitoring Report (covering July 1, 2023 – June 30, 2024) for the Hudson (Water Street) Site, Hudson, New York. This annual report includes the requirements associated with the operation, maintenance, and monitoring of the Remedial Action Plan (RAP) at Operable Unit (OU) 1 of the Hudson (Water Street) Former Manufactured Gas Plant (MGP) Site located in Hudson, New York. Please refer to the *Operation, Maintenance, and Monitoring Plan* (OM&M Plan), dated January 2007, and the CDM Smith memorandum dated July 30, 2007, for well monitoring, groundwater sampling, site inspection requirements, and associated detailed site conditions and groundwater flow pattern documentation.

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 surface cap, riverbank protection, security fencing, steel sheeting retaining wall, and the groundwater monitoring wells.
- Annual groundwater level measurements.
- Annual dense non-aqueous phase liquid (DNAPL) monitoring and collection, if necessary.
- Annual groundwater sampling, analysis and data validation. Water samples are submitted to Eurofins Environmental Testing (Eurofins) for laboratory analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX) and naphthalene for comparison to New York State Department of Environmental Conservation (NYSDEC) Ambient Water Quality Standards (AWQS).
- Any site maintenance that comes about as a result of the quarterly inspections.

## 1.2 Site Description

The Hudson (Water Street) Former Manufactured Gas Plant Site located in Hudson, New York is comprised of approximately two acres of land and is owned by the City of Hudson (refer to **Figure 1 – Site Location Map** and **Figure 2 – Groundwater Elevation Map**). The remedial action plan in place at the site was substantially completed in December 2006 and the OM&M Plan was finalized in January 2007 to provide a method for monitoring its effectiveness.

The objective of the post-construction groundwater monitoring task within the OM&M plan is to characterize post-remedy groundwater flow patterns and assess the quality of shallow groundwater as it leaves the site. Groundwater samples are analyzed for BTEX and naphthalene.



## 2 Quarterly Site Inspections and Groundwater Monitoring Activities

### 2.1 Quarterly Site Inspections

GES conducted quarterly site inspections during this reporting period. These quarterly inspections include checking the surface cap, riverbank protection, security fencing, steel sheeting retaining wall, and the groundwater monitoring wells.

In general, the Site is in good condition and in compliance.

**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 2**. In general, site groundwater flows radially outward from the former gas holder area toward the Hudson River, consistent with past groundwater elevation data.

### 2.3 Annual DNAPL Monitoring and Collection

Annual DNAPL monitoring was conducted at RW-1, RW-2, and CW-01A. No DNAPL product was recovered in any of the wells. No odors were noted. Annual DNAPL monitoring and recovery tables are included as part of **Attachment B**. To date, no DNAPL has been recovered from these passive wells.

### 2.4 Groundwater Well Sampling and Analysis

Groundwater samples were collected from monitoring wells MW-03, MW-05, MW-06 and MW-11 on June 20, 2024. 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 **Attachment B**.

Four aqueous field samples, a field duplicate, and trip blank were analyzed for BTEX (USEPA Method 8260C) and naphthalene. The samples were analyzed by Eurofins in accordance with the NYSDEC Analytical Services Protocol. Analytical results are summarized in **Table 1**. The Analytical Lab Report and Data Usability Summary Report are presented in **Appendix C**.

### 2.5 Site Maintenance

Site inspections during this reporting period indicated no maintenance was required on site. Photographs from quarterly site visits are included in **Attachment D**.





### 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.
- Annual static water level measurements show that the groundwater direction is radially outward from the former gas holder area.
- Annual DNAPL monitoring indicated no collectable product.
- MW-11 had a total BTEX concentration of 13.6 micrograms per liter ( $\mu\text{g/L}$ ). This is the only well with a detected concentration of any parameter analyzed. Reference **Table 1** for historical data.

#### 3.2 Recommendations

It is recommended that all OM&M activities continue, with the next report due in July 2025.

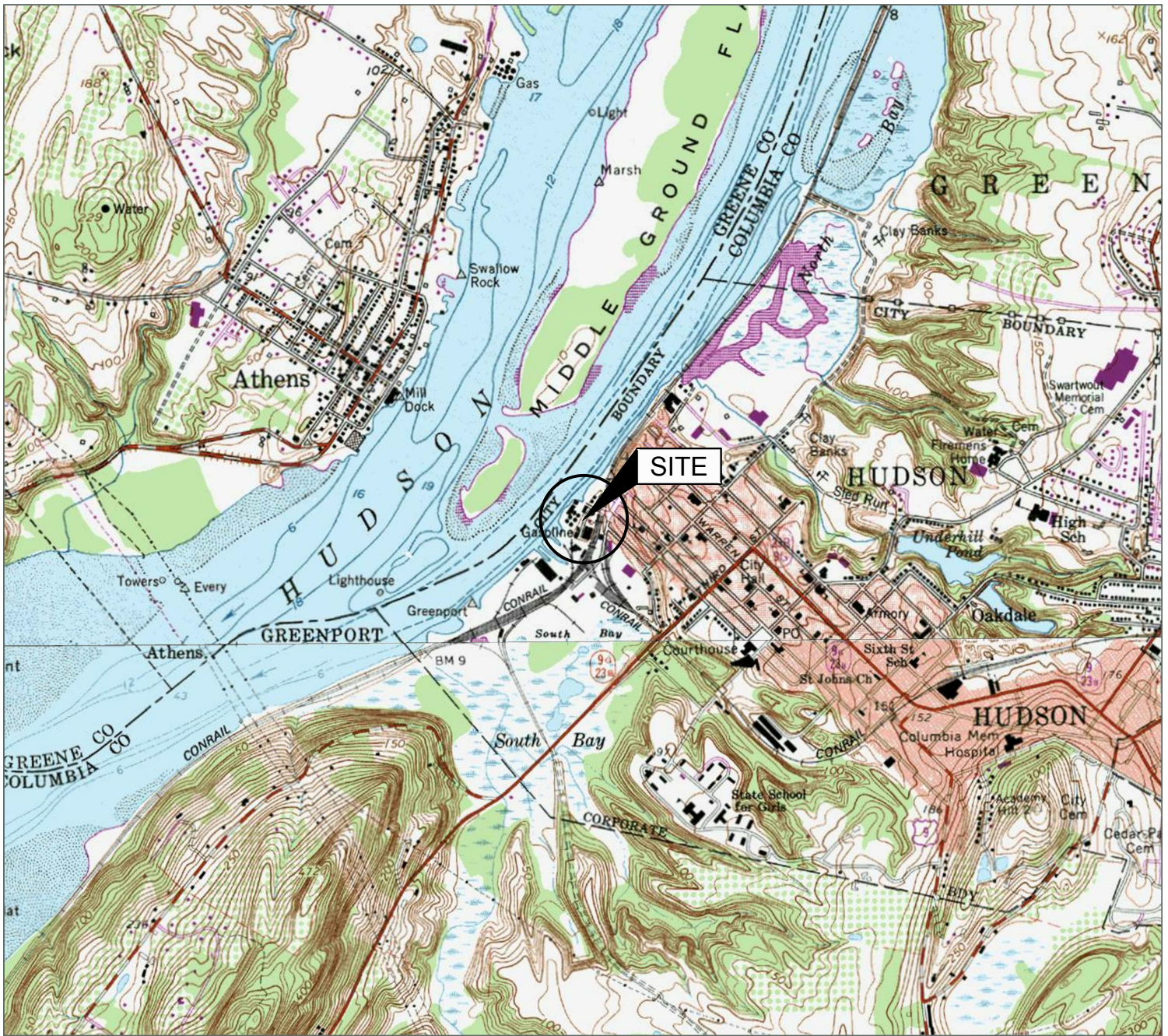




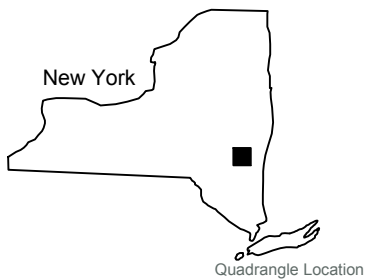
## Figures

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Source:  
USGS 7.5 Minute Series  
Topographic Quadrangle, 1980  
Hudson North, New York  
Contour Interval = 10'



### Site Location Map

National Grid  
Water Street  
Hudson, New York

Drawn  
W.G.S.  
Designed  
Approved



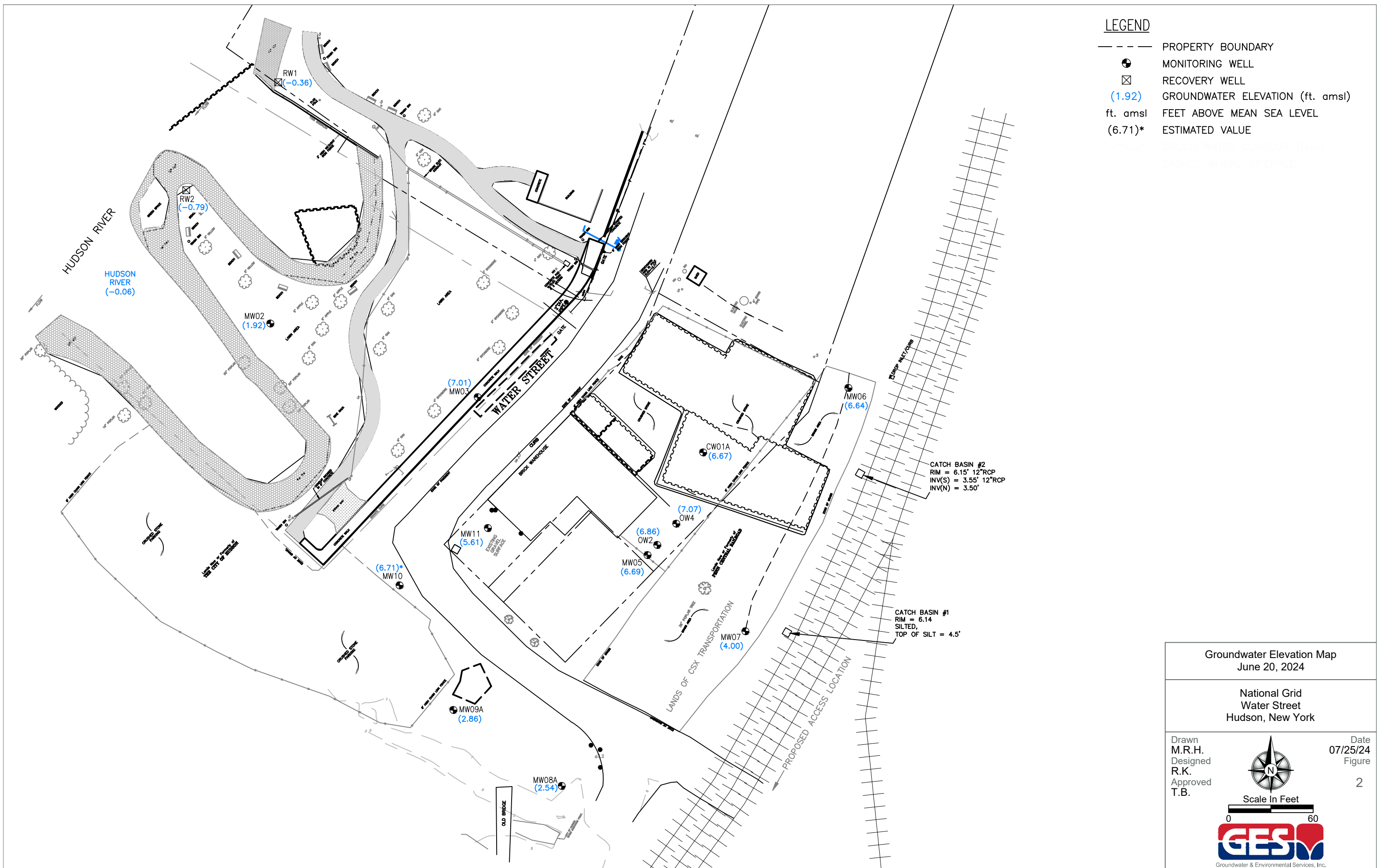
Scale In Feet



Groundwater & Environmental Services, Inc.

Date  
7/6/18  
Figure  
1









## Tables

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Table 1  
Groundwater Analytical Data  
MW-03

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	06/01/09	06/02/10	06/07/11	06/12/12	06/11/13	06/09/14	06/02/15	06/06/16	06/22/17	06/14/18	06/13/19	06/24/20	06/17/21	06/16/22	06/22/23	06/20/24
Benzene	5	1	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Toluene	1000	5	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	700	5	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylene (total)	10000	5	3	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Naphthalene	N/A	10	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<4.0)	ND (<1.0)	ND (<1.0)

All values reported in µg/L.  
NYSDEC = New York State Department of Environmental Conservation  
AWQS = Ambient Water Quality Standards  
ND (<#) = Not detected above laboratory reporting limits (indicated by #)  
NR = Not Reported  
**Bolded** = values indicate exceedance of the NYSDEC AWQS





Table 1  
Groundwater Analytical Data  
MW-05

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	06/01/09	06/02/10	06/07/11	06/12/12	06/11/13	06/09/14	06/02/15	06/06/16	06/22/17	06/14/18	06/13/19	06/24/20	06/17/21	06/16/22	06/22/23	06/20/24
Benzene	5	1	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Toluene	1000	5	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	700	5	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylene (total)	10000	5	3	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Naphthalene	N/A	10	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<4.0)	ND (<1.0)	ND (<1.0)

All values reported in µg/L.  
NYSDEC = New York State Department of Environmental Conservation  
AWQS = Ambient Water Quality Standards  
ND (<#) = Not detected above laboratory reporting limits (indicated by #)  
NR = Not Reported  
**Bolded** = values indicate exceedance of the NYSDEC AWQS





Table 1  
Groundwater Analytical Data  
MW-06

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	06/01/09	06/02/10	06/07/11	06/12/12	06/11/13	06/09/14	06/02/15	06/06/16	06/22/17	06/14/18	06/13/19	06/24/20	06/17/21	06/16/22	06/22/23	06/20/24
Benzene	5	1	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Toluene	1000	5	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	700	5	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Xylene (total)	10000	5	3	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)
Naphthalene	N/A	10	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<4.0)	ND (<1.0)	ND (<1.0)

All values reported in µg/L.  
NYSDEC = New York State Department of Environmental Conservation  
AWQS = Ambient Water Quality Standards  
ND (<#) = Not detected above laboratory reporting limits (indicated by #)  
NR = Not Reported  
**Bolded** = values indicate exceedance of the NYSDEC AWQS





Table 1  
Groundwater Analytical Data  
MW-11

Parameter	EPA - Maximum Allowable (µg/L)	NYSDEC AWQS (µg/L)	Reporting Level (µg/L)	06/01/09	06/02/10	06/07/11	06/12/12	06/11/13	06/09/14	06/02/15	06/06/16	06/22/17	06/14/18	06/13/19	06/24/20	06/17/21	06/16/22	06/22/23	06/20/24
Benzene	5	1	1	4.6	12	3	2.9	ND (<1.0)	1.9	ND (<4.0)	5.8	2.6	21.7	4.3	15.6	2.1	8.5	2.9	6.7
Toluene	1000	5	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<4.0)	ND (<4.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<2.0)
Ethylbenzene	700	5	1	4.9	12	7	1.8	ND (<1.0)	1.1	ND (<4.0)	ND (<4.0)	ND (<1.0)	10.4	2.5	6.6	ND (<1.0)	3.1	2.3	3.9
Xylene (total)	10000	5	3	ND (<2.0)	4.6	3.3	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<8.0)	ND (<8.0)	ND (<3.0)	4.5	ND (<3.0)	4.1	ND (<3.0)	5.9	ND (<3.0)	3.0
Naphthalene	N/A	10	1	ND (<1.0)	2.6	2.5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<4.0)	ND (<4.0)	ND (<2.0)	3.3	ND (<2.0)	4.7	ND (<2.0)	ND (<4.0)	ND (<1.0)	2.1

All values reported in µg/L.  
NYSDEC = New York State Department of Environmental Conservation  
AWQS = Ambient Water Quality Standards  
ND (<#) = Not detected above laboratory reporting limits (indicated by #)  
NR = Not Reported  
**Bolded** = values indicate exceedance of the NYSDEC AWQS



**Table 2**  
**Water Level Elevations**

Well ID.	Water Level Elevation (feet amsl)									
	06/11/07	06/20/07	06/26/07	07/24/07	08/14/07	08/19/07	09/13/07	12/01/07	03/10/08	06/10/08
<b>MW-02</b>	1.73	1.95	0.95	1.79	1.96	1.77	1.72	1.23	1.32	1.77
<b>MW-03</b>	6.66	6.72	5.28	6.87	7.10	6.96	6.60	6.59	6.91	6.71
<b>MW-05</b>	6.67	6.97	5.70	6.82	7.02	6.87	6.90	7.12	6.99	6.88
<b>MW-06</b>	6.29	6.64	6.32	6.35	6.47	6.30	6.24	6.16	5.81	6.29
<b>MW-07</b>	3.84	4.09	3.86	3.54	3.56	3.39	3.65	4.76	6.09	3.84
<b>MW-08A</b>	2.89	3.46	2.51	2.62	2.74	2.52	2.61	2.88	3.52	2.80
<b>MW-09A</b>	2.92	3.15	2.84	3.11	3.25	3.25	3.13	2.85	2.86	2.95
<b>MW-10*</b>	6.99	7.08	6.52	7.57	6.49	6.31	7.17	6.59	7.94	6.42
<b>MW-11</b>	6.77	6.76	6.45	6.63	6.21	6.04	6.80	7.15	8.71	6.82
<b>OW-2</b>	6.93	7.10	5.88	6.97	7.12	6.99	7.25	7.22	7.10	7.00
<b>OW-4</b>	7.14	7.33	6.66	7.18	7.32	7.16	7.24	7.38	7.31	7.21
<b>Hudson River</b>	0.84	2.19	0.54	0.49	-0.86	1.29	-0.21	-0.74	-0.51	2.39
<b>CW-01A</b>	7.55	n/a	n/a	n/a	n/a	n/a	8.02	7.67	8.89	7.97
<b>RW-1</b>	1.49	n/a	n/a	n/a	n/a	n/a	1.05	0.17	0.99	2.27
<b>RW-2</b>	0.96	n/a	n/a	n/a	n/a	n/a	0.85	-0.54	-0.14	2.40

Notes:

\* = Estimated elevation; well paved over during surveying but uncovered presently and can be monitored  
amsl = Above Mean Sea Level



**Table 2**  
**Water Level Elevations**

Well ID.	Water Level Elevation (feet amsl)									
	09/16/08	12/03/08	03/04/09	06/01/09	09/09/09	12/14/09	03/08/10	06/02/10	09/14/10	12/01/10
MW-02	1.70	1.36	0.54	1.90	1.92	1.75	1.17	1.98	1.97	1.59
MW-03	7.01	6.83	6.07	6.77	7.49	7.02	6.67	6.97	7.05	6.91
MW-05	7.48	7.39	6.47	6.65	7.63	7.40	6.92	6.81	7.37	7.18
MW-06	6.57	6.24	5.39	6.36	6.79	6.36	5.78	6.22	6.00	6.20
MW-07	4.41	4.92	4.27	4.05	4.67	4.94	5.19	3.83	3.64	4.29
MW-08A	2.94	2.91	2.36	2.75	2.76	2.91	3.31	2.61	1.54	1.96
MW-09A	3.17	2.80	2.22	2.90	3.17	3.02	2.75	2.88	3.20	2.98
MW-10*	6.94	6.31	5.36	5.72	6.79	7.89	5.77	5.75	6.91	5.92
MW-11	7.22	7.75	7.17	6.80	6.71	7.65	8.09	6.27	5.85	6.87
OW-2	7.62	7.45	6.57	6.78	7.82	7.47	7.02	6.90	7.00	7.25
OW-4	7.70	7.52	6.76	7.06	7.89	7.60	7.19	7.11	7.16	7.43
Hudson River	1.57	-0.87	1.79	1.03	0.61	-0.23	-0.81	1.49	2.54	3.53
CW-01A	8.02	8.26	7.87	7.67	7.40	8.27	8.67	6.65	7.92	n/a
RW-1	0.77	0.24	1.11	1.51	0.14	-0.05	0.44	1.87	2.23	3.92
RW-2	0.78	-0.66	1.77	1.19	0.48	-0.39	-0.80	1.61	2.54	3.46

Notes:

\* = Estimated elevation; well paved over during surveying but uncovered presently and can be monitored  
amsl = Above Mean Sea Level



**Table 2**  
**Water Level Elevations**

Well ID.	Water Level Elevation (feet amsl)									
	03/09/11	06/07/11	09/13/11	11/15/11	03/19/12	06/12/12	09/17/12	12/03/12	03/06/13	06/11/13
<b>MW-02</b>	0.67	2.50	3.43	1.75	1.08	2.03	1.68	1.34	1.00	2.30
<b>MW-03</b>	6.05	7.27	8.44	7.69	6.65	6.97	7.35	6.70	6.65	7.15
<b>MW-05</b>	6.35	6.92	7.82	7.85	6.74	6.77	7.12	7.07	6.62	6.89
<b>MW-06</b>	5.42	6.64	7.45	6.54	5.64	6.39	6.56	6.04	5.65	6.84
<b>MW-07</b>	5.86	4.02	5.71	4.51	4.17	3.84	4.28	4.12	4.64	5.22
<b>MW-08A</b>	3.66	2.83	4.10	2.86	2.51	2.71	2.84	2.66	2.76	4.01
<b>MW-09A</b>	2.40	3.05	4.10	3.17	2.52	3.00	3.00	2.68	2.50	3.25
<b>MW-10*</b>	5.91	5.81	6.58	6.47	5.27	5.79	6.23	5.38	5.07	5.56
<b>MW-11</b>	8.75	6.57	7.84	6.87	6.84	6.50	6.69	6.65	6.87	8.89
<b>OW-2</b>	6.44	7.17	8.02	8.03	6.82	6.87	7.32	7.28	6.72	7.06
<b>OW-4</b>	6.71	7.46	8.26	7.94	7.00	7.12	7.51	7.26	6.91	7.38
<b>Hudson River</b>	0.57	0.87	3.25	-1.21	2.48	1.99	-1.39	0.00	2.89	1.69
<b>CW-01A</b>	n/a	n/a	8.60	7.49	7.61	7.45	7.62	7.07	8.15	9.25
<b>RW-1</b>	1.33	1.67	3.06	-0.39	2.09	1.50	-0.61	0.92	2.27	2.31
<b>RW-2</b>	0.78	1.06	2.38	-1.00	2.46	1.93	-1.11	0.06	2.84	1.76

Notes:

\* = Estimated elevation; well paved over during surveying but uncovered presently and can be monitored  
amsl = Above Mean Sea Level



**Table 2**  
**Water Level Elevations**

Well ID.	Water Level Elevation (feet amsl)															
	09/16/13	12/10/13	03/09/14	06/09/14	09/08/14	12/01/14	06/02/15	06/06/16	06/22/17	06/14/18	06/13/19	06/24/20	06/17/21	06/16/22	06/22/23	06/20/24
<b>MW-02</b>	1.77	2.05	n/a	2.17	1.70	1.17	1.61	2.03	2.33	2.30	2.40	2.49	2.15	2.09	2.07	1.92
<b>MW-03</b>	7.05	6.57	6.24	7.04	6.95	6.90	6.67	7.77	7.44	6.17	6.72	6.89	7.29	7.02	6.76	7.01
<b>MW-05</b>	6.92	6.57	6.39	6.67	6.75	6.92	6.37	6.62	6.99	6.37	6.62	6.47	6.71	6.63	6.39	6.69
<b>MW-06</b>	6.38	6.58	5.38	6.64	6.29	6.27	6.34	6.24	7.10	6.39	6.29	6.17	6.81	6.60	6.00	6.64
<b>MW-07</b>	3.70	4.07	3.65	3.96	3.73	4.61	3.97	4.02	4.44	3.69	4.20	3.61	4.04	3.89	3.61	4.00
<b>MW-08A</b>	2.65	2.86	2.90	2.84	2.58	3.06	2.86	2.96	3.04	2.96	2.92	2.63	2.76	2.84	2.63	2.54
<b>MW-09A</b>	2.97	2.83	2.28	2.82	2.92	2.95	2.60	3.05	2.98	3.00	2.60	2.56	2.45	3.02	2.88	2.86
<b>MW-10*</b>	5.67	5.29	4.75	6.47	6.79	6.27	6.18	6.49	5.71	5.54	5.79	6.81	6.66	7.88	6.69	6.71
<b>MW-11</b>	6.11	6.99	7.47	6.52	5.74	7.70	7.10	6.75	7.09	6.02	6.63	5.85	6.43	6.20	5.41	5.61
<b>OW-2</b>	7.07	6.56	6.41	6.82	6.82	7.02	6.52	6.72	7.04	6.54	6.87	6.49	6.93	6.80	6.45	6.86
<b>OW-4</b>	7.20	6.81	6.56	7.14	7.01	7.18	6.74	6.91	7.32	6.80	7.04	8.69	7.20	7.02	6.53	7.07
<b>Hudson River</b>	1.69	0.87	n/a	1.49	1.51	2.29	1.87	0.49	1.85	-1.46	2.67	-4.46	0.39	-0.96	0.26	-0.06
<b>CW-01A</b>	6.89	8.09	n/a	7.27	5.99	8.54	8.15	8.23	8.02	6.62	7.17	5.77	7.31	7.24	5.59	6.67
<b>RW-1</b>	1.09	1.37	1.14	1.05	1.07	1.81	1.24	0.43	0.50	0.59	2.16	0.74	1.85	2.10	1.04	-0.36
<b>RW-2</b>	1.56	0.96	0.11	1.38	1.66	2.21	1.76	0.36	0.64	-0.94	2.52	-0.64	0.91	-0.54	0.83	-0.79

Notes:

- \* = Estimated elevation; well paved over during surveying but uncovered presently and can be monitored.  
amsl = Above Mean Sea Level





## Appendix A – Quarterly Inspection Forms

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**Site Inspection**  
**Hudson-Water Street**  
**Operable Unit 1**  
**Hudson, New York**

Date: 9/13/2023  
 Technician: PL

Time: 11:00  
 Weather: Rain 65

<b>Surface Cover Areas</b>			
Excessive Settlement Observed	YES	NO	COMMENTS:
Cracks or Potholes Observed	YES	NO	
Depressions and/or Rutting Observed	YES	NO	
Exposed Subbase Materials Observed	YES	NO	

<b>Erosion Controls (Rip-Rap or Sod)</b>			
Exposed or Damaged Geotextile layer(s) Observed	YES	NO	COMMENTS:
Excessive Settlement Observed	YES	NO	
Stressed Vegetation Observed	YES	NO	

<b>Steel Sheetpile Retaining Wall</b>			
Settlement of Wall	YES	NO	COMMENTS:
Subsidence or Cracking of Soils Behind the Wall	YES	NO	
Cracking or Separation of Wall Joints	YES	NO	

<b>Trees, Shrubs and other Planting Materials</b>			
Strong Growth Observed	YES	NO	COMMENTS:

<b>Surface Water Quality</b>					
Sheens Observed On:	Rip-Rap	NONE	MINOR	SIGNIFICANT	COMMENTS:
	Sheetpile Wall	NONE	MINOR	SIGNIFICANT	
	Other Water Surfaces	NONE	MINOR	SIGNIFICANT	

<b>Site Monitoring Wells</b>		
<b>Well ID.</b>	<b>Location Secure</b>	
MW-02	YES	NO
MW-03	YES	NO
MW-05	YES	NO
MW-06	YES	NO
MW-07	YES	NO
MW-08A	YES	NO
MW-09A	YES	NO
MW-10	YES	NO
MW-11	YES	NO
OW-2	YES	NO
OW-4	YES	NO
CW-01A	YES	NO
RW-1	YES	NO
RW-2	YES	NO

**General Comments:**



**Site Inspection**  
**Hudson-Water Street**  
**Operable Unit 1**  
**Hudson, New York**

Date: 12/14/2023  
 Technician: KL

Time: 13:00  
 Weather: Sunny 31

<b>Surface Cover Areas</b>			
Excessive Settlement Observed	YES	NO	COMMENTS:
Cracks or Potholes Observed	YES	NO	
Depressions and/or Rutting Observed	YES	NO	
Exposed Subbase Materials Observed	YES	NO	

<b>Erosion Controls (Rip-Rap or Sod)</b>			
Exposed or Damaged Geotextile layer(s) Observed	YES	NO	COMMENTS:
Excessive Settlement Observed	YES	NO	
Stressed Vegetation Observed	YES	NO	

<b>Steel Sheetpile Retaining Wall</b>			
Settlement of Wall	YES	NO	COMMENTS:
Subsidence or Cracking of Soils Behind the Wall	YES	NO	
Cracking or Separation of Wall Joints	YES	NO	

<b>Trees, Shrubs and other Planting Materials</b>			
Strong Growth Observed	YES	NO	COMMENTS:

<b>Surface Water Quality</b>					
Sheens Observed On:	Rip-Rap	NONE	MINOR	SIGNIFICANT	COMMENTS:
	Sheetpile Wall	NONE	MINOR	SIGNIFICANT	
	Other Water Surfaces	NONE	MINOR	SIGNIFICANT	

<b>Site Monitoring Wells</b>		
<b>Well ID.</b>	<b>Location Secure</b>	
MW-02	YES	NO
MW-03	YES	NO
MW-05	YES	NO
MW-06	YES	NO
MW-07	YES	NO
MW-08A	YES	NO
MW-09A	YES	NO
MW-10	YES	NO
MW-11	YES	NO
OW-2	YES	NO
OW-4	YES	NO
CW-01A	YES	NO
RW-1	YES	NO
RW-2	YES	NO

**General Comments:**



**Site Inspection**  
**Hudson-Water Street**  
**Operable Unit 1**  
**Hudson, New York**

Date: 3/28/2024  
Technician: Kevin Leo

Time: 12:15  
Weather: Cloudy 46

Surface Cover Areas		
Excessive Settlement Observed	No	COMMENTS:
Cracks or Potholes Observed	No	COMMENTS:
Depressions and/or Rutting Observed	No	COMMENTS:
Exposed Subbase Materials Observed	No	COMMENTS:

Erosion Controls (Rip-Rap or Sod)		
Exposed or Damaged Geotextile layer(s) Observed	No	COMMENTS:
Excessive Settlement Observed	No	COMMENTS:
Stressed Vegetation Observed	No	COMMENTS:

Steel Sheetpile Retaining Wall		
Settlement of Wall	No	COMMENTS:
Subsidence or Cracking of Soils Behind the Wall	No	COMMENTS:
Cracking or Separation of Wall Joints	No	COMMENTS:

Trees, Shrubs and other Planting Materials		
Strong Growth Observed	Yes	COMMENTS:

Surface Water Quality			
Sheens Observed On:	Rip-Rap	None	COMMENTS:
	Sheetpile Wall	None	COMMENTS:
	Other Water Surfaces	None	COMMENTS:

Site Monitoring Wells	
Well ID.	Location Secure
MW-02	Yes
MW-03	Yes
MW-05	Yes
MW-06	Yes
MW-07	Yes
MW-08A	Yes
MW-09A	Yes
MW-10	Yes
MW-11	Yes
OW-2	Yes
OW-4	Yes
CW-01A	Yes
RW-1	Yes
RW-2	Yes

**General Comments:**



**Site Inspection**  
**Hudson-Water Street**  
**Operable Unit 1**  
**Hudson, New York**

Date: 6/4/2024  
Technician: Kevin Leo

Time: 12:30  
Weather: Sunny 80

<b>Surface Cover Areas</b>		
Excessive Settlement Observed	No	COMMENTS:
Cracks or Potholes Observed	No	COMMENTS:
Depressions and/or Rutting Observed	No	COMMENTS:
Exposed Subbase Materials Observed	No	COMMENTS:

<b>Erosion Controls (Rip-Rap or Sod)</b>		
Exposed or Damaged Geotextile layer(s) Observed	No	COMMENTS:
Excessive Settlement Observed	No	COMMENTS:
Stressed Vegetation Observed	No	COMMENTS:

<b>Steel Sheetpile Retaining Wall</b>		
Settlement of Wall	No	COMMENTS:
Subsidence or Cracking of Soils Behind the Wall	No	COMMENTS:
Cracking or Separation of Wall Joints	No	COMMENTS:

<b>Trees, Shrubs and other Planting Materials</b>		
Strong Growth Observed	Yes	COMMENTS:

<b>Surface Water Quality</b>			
Sheens Observed On:	Rip-Rap	None	COMMENTS:
	Sheetpile Wall	None	COMMENTS:
	Other Water Surfaces	None	COMMENTS:

<b>Site Monitoring Wells</b>	
<b>Well ID.</b>	<b>Location Secure</b>
MW-02	Yes
MW-03	Yes
MW-05	Yes
MW-06	Yes
MW-07	Yes
MW-08A	Yes
MW-09A	Yes
MW-10	Yes
MW-11	Yes
OW-2	Yes
OW-4	Yes
CW-01A	Yes
RW-1	Yes
RW-2	Yes

**General Comments:**

Site inspection with Steve Stucker

June 4, 2024



**Site Inspection**  
**Hudson-Water Street**  
**Operable Unit 1**  
**Hudson, New York**

Date: 6/20/2024  
Technician: Kevin Leo

Time: 09:00  
Weather: Sunny 80

Surface Cover Areas		
Excessive Settlement Observed	No	COMMENTS:
Cracks or Potholes Observed	No	COMMENTS:
Depressions and/or Rutting Observed	No	COMMENTS:
Exposed Subbase Materials Observed	No	COMMENTS:

Erosion Controls (Rip-Rap or Sod)		
Exposed or Damaged Geotextile layer(s) Observed	No	COMMENTS:
Excessive Settlement Observed	No	COMMENTS:
Stressed Vegetation Observed	No	COMMENTS:

Steel Sheetpile Retaining Wall		
Settlement of Wall	No	COMMENTS:
Subsidence or Cracking of Soils Behind the Wall	No	COMMENTS:
Cracking or Separation of Wall Joints	No	COMMENTS:

Trees, Shrubs and other Planting Materials		
Strong Growth Observed	No	COMMENTS:

Surface Water Quality			
Sheens Observed On:	Rip-Rap	None	COMMENTS:
	Sheetpile Wall	None	COMMENTS:
	Other Water Surfaces	None	COMMENTS:

Site Monitoring Wells	
Well ID.	Location Secure
MW-02	Yes
MW-03	Yes
MW-05	Yes
MW-06	Yes
MW-07	Yes
MW-08A	Yes
MW-09A	Yes
MW-10	Yes
MW-11	Yes
OW-2	Yes
OW-4	Yes
CW-01A	Yes
RW-1	Yes
RW-2	Yes

**General Comments:**





## Appendix B – Well Sampling Field Data

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National Grid  
Water Street-Operable Unit 1  
Hudson, New York

Annual Groundwater Sampling  
June 20, 2024  
KL/PL

Well ID.	Sample?	Well Size	Well Material	Stickup-Flush	DTP	DTW	DTB	Sump ?	Comments
MW-02	No	2"	PVC	Flush		4.18	20.50	No	
MW-03	Yes	2"	PVC	Flush		1.96	25.50	No	
MW-05	Yes	2"	PVC	Stickup		5.88	28.10	No	Field Duplicate
MW-06	Yes	2"	PVC	Stickup		5.20	26.10	Yes	MS/MSD
MW-07	No	2"	PVC	Stickup		4.94	24.55	Yes	
MW-08A	No	2"	PVC	Flush		3.82	25.85	No	
MW-09A	No	2"	PVC	Stickup		5.54	25.07	Yes	
MW-10	No	2"	PVC	Flush		1.98	28.70	Yes	
MW-11	Yes	2"	PVC	Flush		3.96	8.10	Yes	
OW-2	No	2"	PVC	Stickup		5.96	27.55	Yes	
OW-4	No	2"	PVC	Stickup		5.59	28.05	Yes	
Hudson River	No					5.35	N/C	No	Chiseled square adjacent to the 8th railing post on top of the sheetpile wall.
CW-01A	No	4"	Steel	Flush		3.00	30.90	Yes	
RW-1	No	4"	PVC	Flush		5.45	26.50	Yes	
RW-2	No	4"	PVC	Flush		5.75	22.35	Yes	



National Grid  
Water Street, Hudson, New York

Sampling Personnel: KL  
Job Number: 0603400-125340-221  
Well Id. **MW-03**

Date: 6/20/2024  
Weather: sunny 85  
Time In: 1050 Time Out:

Well Information			
		TOC	Other
Depth to Water:	(feet)	1.96	
Depth to Product:	(feet)	NP	
Depth to Bottom:	(feet)	25.50	
Length of Water Column:	(feet)	23.54	
Volume of Water in Well:	(gal)	3.76	
Three Well Volumes:	(gal)	11.28	

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			
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 type="checkbox"/>	Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>
Average Pumping Rate:	(ml/min)	200	
Duration of Pumping:	(min)	30	
Total Volume Removed:	(gal)	2	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=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1100	3.03	22.02	6.74	-86	1	11.9	..27	0.638
1105	5.15	21.4	6.66	-94	0.992	7.9	0	0.635
1110	7.83	19.06	6.65	-98	1.03	6.8	0	0.661
1115	9.44	18.92	6.65	-100	1.03	7.1	0	0.656
1120	11.7	18.78	6.65	-101	1.04	7.7	0	0.668
1125	13.2	18.56	6.66	-102	1.05	8.5	0	0.671
1130	14.06	18.49	73	-103	1.06	8.1	0	0.675

Sampling Information:			
USEPA SW-846 Method 8260	VOC's BTEX	Including Naphthalene	3 - 40 mL vials
Sample ID: <b>MW-03</b>	Duplicate? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Shipped: Syracuse Service Center <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample Time: <u>1130</u>	MS/MSD? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Fed-Ex <input type="checkbox"/> Courier <input type="checkbox"/>	
Comments/Notes: <u></u>		Laboratory: Eurofins	
		Amherst, NY	



National Grid  
Water Street, Hudson, New York

Sampling Personnel: Peter Lyon  
Job Number: 0603400-125340-221  
Well Id. MW-05

Date: 6/20/2024  
Weather: 82 sunny  
Time In: 1010 Time Out:

Well Information		
	TOC	Other
Depth to Water: (feet)	5.88	
Depth to Product: (feet)	0	
Depth to Bottom: (feet)	28.10	
Length of Water Column: (feet)	22.22	
Volume of Water in Well: (gal)	3.55	
Three Well Volumes: (gal)	10.66	

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		
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 type="checkbox"/> Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>
Average Pumping Rate: (ml/min)	200	
Duration of Pumping: (min)	30	
Total Volume Removed: (gal)	2	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=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1015	7.34	20.67	7.23	-102	0.804	1.6	1.95	0.515
1020	9.49	16.68	7.18	-114	0.857	5.8	0.54	0.549
1025	10.86	15.79	1.17	-116	0.876	1.9	0.42	0.56
1030	12.51	16.09	7.16	-118	0.867	0.1	0.35	0.555
1035	13.32	16.77	7.15	-119	0.865	0.1	0.32	0.554
1040	14.31	17.01	7.15	-119	0.871	0.5	0.3	0.558
1045	15.59	17.18	7.14	-119	0.872	0.8	0.25	0.558

Sampling Information:		
USEPA SW-846 Method 8260	VOC's BTEX Including Naphthalene	6 - 40 mL vials Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Field Duplicate		
Sample ID: MW-05	Duplicate? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Shipped: Syracuse Service Center <input type="checkbox"/>
Sample Time: 1045	MS/MSD? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Fed-Ex <input type="checkbox"/> Courier <input type="checkbox"/>
Comments/Notes:		Laboratory: Eurofins Amherst, NY



National Grid  
Water Street, Hudson, New York

Sampling Personnel: Peter Lyon  
Job Number: 0603400-125340-221  
Well Id. MW-06

Date: 6/20/2024  
Weather: 90 clear  
Time In: 1058 Time Out:

Well Information		
	TOC	Other
Depth to Water: (feet)	5.2	
Depth to Product: (feet)	0	
Depth to Bottom: (feet)	26.10	
Length of Water Column: (feet)	20.9	
Volume of Water in Well: (gal)	3.34	
Three Well Volumes: (gal)	10.03	

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		
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 type="checkbox"/> Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>
Average Pumping Rate: (ml/min)	200	
Duration of Pumping: (min)	30	
Total Volume Removed: (gal)	2	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=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1100	7.12	21.86	6.65	72	1.11	4.4	2.67	0.718
1105	8.24	21.02	6.72	62	1.14	2.7	2.6	0.729
1110	9.13	18.11	6.69	-77	1.21	0	0	0.772
1115	10.32	18.13	6.69	-81	1.21	0.3	0	0.772
1120	11.47	18.62	6.7	-83	1.2	0.2	0	0.767
1125	12.57	18.76	6.7	-86	1.19	0.9	0	0.764
1130	13.55	18.64	6.7	-87	1.2	0.5	0	0.767

Sampling Information:		
USEPA SW-846 Method 8260	VOC's BTEX Including Naphthalene	9 - 40 mL vials
MW-06-MS	MW-06-MSD	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample ID: MW-06	Duplicate? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Shipped: Syracuse Service Center <input type="checkbox"/>
Sample Time: 1130	MS/MSD? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Fed-Ex <input type="checkbox"/> Courier <input type="checkbox"/>
Comments/Notes: <input type="text"/>		Laboratory: Eurofins Amherst, NY



National Grid  
Water Street, Hudson, New York

Sampling Personnel: KL  
Job Number: 0603400-125340-221  
Well Id. MW-11

Date: 6/20/2024  
Weather: sunny 81  
Time In: 945 Time Out: 1050

Well Information			
		TOC	Other
Depth to Water:	(feet)	3.96	
Depth to Product:	(feet)	0	
Depth to Bottom:	(feet)	8.10	
Length of Water Column:	(feet)	4.14	
Volume of Water in Well:	(gal)	0.662	
Three Well Volumes:	(gal)	1.98	

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			
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 type="checkbox"/>	Peristaltic <input checked="" type="checkbox"/>	Grundfos Pump <input type="checkbox"/>
Average Pumping Rate:	(ml/min)	200	
Duration of Pumping:	(min)	30	
Total Volume Removed:	(gal)	2	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=1337cu. feet				

Time	DTW (feet)	Temp (°C)	pH	ORP (mV)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	TDS (g/L)
1010	4.05	20.74	7.13	-81	1.32	11.1	3.6	0.84
1015	4.05	18.71	6.91	-88	1.24	0.5	0.21	0.794
1020	4.05	18.02	6.86	-93	1.21	0.6	0	0.777
1025	4.05	17.97	6.83	-93	1.24	1.1	0	0.795
1030	4.05	17.89	6.81	-92	1.29	1.1	0	0.826
1035	4.05	17.96	6.79	-91	1.33	1.3	0	0.852
1040	4.05	17.74	6.76	-89	1.36	1.5	0	0.87

Sampling Information:			
USEPA SW-846 Method 8260	VOC's BTEX	Including Naphthalene	3 - 40 mL vials
Sample ID: <u>MW-11</u>	Duplicate? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Shipped: Syracuse Service Center <input checked="" type="checkbox"/>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Sample Time: <u>1040</u>	MS/MSD? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Fed-Ex <input type="checkbox"/> Courier <input type="checkbox"/>	
Comments/Notes: <input type="text"/>		Laboratory: Eurofins	
		Amherst, NY	



**Site Inspection**  
**Hudson-Water Street**  
**Operable Unit 1**  
**Hudson, New York**

Date: 6/20/2024  
Technician: Kevin Leo

Time: 09:00  
Weather: Sunny 80

Surface Cover Areas		
Excessive Settlement Observed	No	COMMENTS:
Cracks or Potholes Observed	No	COMMENTS:
Depressions and/or Rutting Observed	No	COMMENTS:
Exposed Subbase Materials Observed	No	COMMENTS:

Erosion Controls (Rip-Rap or Sod)		
Exposed or Damaged Geotextile layer(s) Observed	No	COMMENTS:
Excessive Settlement Observed	No	COMMENTS:
Stressed Vegetation Observed	No	COMMENTS:

Steel Sheetpile Retaining Wall		
Settlement of Wall	No	COMMENTS:
Subsidence or Cracking of Soils Behind the Wall	No	COMMENTS:
Cracking or Separation of Wall Joints	No	COMMENTS:

Trees, Shrubs and other Planting Materials		
Strong Growth Observed	No	COMMENTS:

Surface Water Quality		
Sheens Observed On:      Rip-Rap	None	COMMENTS:
Sheetpile Wall	None	COMMENTS:
Other Water Surfaces	None	COMMENTS:

Site Monitoring Wells	
Well ID.	Location Secure
MW-02	Yes
MW-03	Yes
MW-05	Yes
MW-06	Yes
MW-07	Yes
MW-08A	Yes
MW-09A	Yes
MW-10	Yes
MW-11	Yes
OW-2	Yes
OW-4	Yes
CW-01A	Yes
RW-1	Yes
RW-2	Yes

**General Comments:**





## Environment Testing

## Syracuse

Ver: 04/02/2024





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

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Groundwater & Environmental Services, Inc.

708 North Main Street, Suite 201  
Blacksburg, VA 24060

T. 800.662.5067

July 22, 2024

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

RE: Data Usability Summary Report for National Grid: Water Street, Hudson, NY Site Data  
Package Eurofins Environment Testing Analytical Job No. **480-221048-1**

Groundwater & Environmental Services, Inc. (GES) reviewed one data package (Laboratory Project Number **480-221048-1**) from Eurofins Environment Testing., for the analysis of groundwater samples collected on June 20, 2024 from monitoring wells located at the National Grid: Water Street, Hudson, NY Site. Four aqueous samples and a field duplicate were analyzed for select volatile organic compounds (VOCs). Methodologies utilized were USEPA SW846 methods 8260C, with additional QC requirements of the NYSDEC ASP.

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

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate and Internal Standard Recoveries
- Matrix Spike Recoveries/Duplicate: ( M S / M S D ) 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 items are determined to be acceptable for the DUSR level review and sample results are usable as reported. No data was qualified.

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. Laboratory – Field Cross Reference**

Lab ID	Sample ID	Comments
480-221048-1	MW-3	
480-221048-2	MW-5	
480-221048-3	MW-6	MS/MSD
480-221048-4	MW-11	
480-221048-5	Field Duplicate	
480-221048-6	Trip Blank	

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

Sample holding times were met and instrumental tune fragmentations were within acceptance ranges. There were no positive detections in the field blank, trip blank, or method blank.

Calibrations standards show acceptable responses within analytical protocol and validation action limits. The blind field duplicate correlations were not calculated for MW-5 and the duplicate sample, as neither sample reported above detection level concentrations.

The MS/MSD recoveries and relative percent differences are within laboratory specification. No qualification was necessary.

MW-11 has elevated reporting limits due to required dilution at the laboratory. Data is valid as reported.

### **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.  
Environmental Chemist, N.R.C.C.  
Principle Chemist  
202 North Main Street  
Kent Square North, Suite 200  
Blacksburg, VA 24060



## **VALIDATION DATA QUALIFIER DEFINITIONS**

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



# **Sample Summaries and Laboratory Case Narratives**



# Sample Summary

Client: Groundwater & Environmental Services Inc  
Project/Site:

Job ID: 480-221048-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-221048-1	MW-3	Water	06/20/24 11:30	06/21/24 09:30
480-221048-2	MW-5	Water	06/20/24 10:45	06/21/24 09:30
480-221048-3	MW-6	Water	06/20/24 11:30	06/21/24 09:30
480-221048-4	MW-11	Water	06/20/24 10:40	06/21/24 09:30
480-221048-5	Field Duplicate	Water	06/20/24 00:00	06/21/24 09:30
480-221048-6	Trip Blank	Water	06/20/24 12:00	06/21/24 09:30



## Case Narrative

Client: Groundwater & Environmental Services Inc  
Project:

Job ID: 480-221048-1

**Job ID: 480-221048-1**

**Eurofins Buffalo**

### **Job Narrative 480-221048-1**

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

#### **Receipt**

The samples were received on 6/21/2024 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.6°C.

#### **GC/MS VOA**

Method 8260C: The following volatiles sample was diluted due to foaming at the time of purging during the original sample analysis: MW-11 (480-221048-4). Elevated reporting limits (RLs) are provided.

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

Eurofins Buffalo





## Appendix D – Photograph Log

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Site Conditions – December 2023





Site Photo – March 2024





Site Photo – June 2024