nationalgrid

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

May 6, 2025

Mr. Michael Squire
New York State Department of Environmental Conservation
Division of Environmental Remediation, BURC
625 Broadway
Albany, New York 12233-7014

Re: ***National Grid Johnstown Former MGP Site***
NYSDEC Site No. 518020
Johnstown, New York
2025 Periodic Review Report

Dear Mr. Squire:

Enclosed for your review is the 2025 Periodic Review Report (PRR) for the National Grid Johnstown MGP Site. The PRR pertains to the period from April 15, 2024 through April 15, 2025 and includes a brief report and Institutional Controls/Engineering Controls (IC/EC) Certification Form.

Please feel free to contact me at 315.428.5652.

Sincerely,

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

300 Erie Boulevard West, C-1
T: 315-428-5652 ■ F: 315-428-3549 ■ steven.stucker@us.ngrid.com ■ www.nationalgrid.com

I. Introduction

A. **Brief Site Summary** –

An investigation of the Site began in 1997 with a Preliminary Site Assessment (PSA), which found that the Site was impacted with MGP wastes. The site was previously owned by a predecessor company to Niagara Mohawk Power Corporation. A Supplemental PSA was then conducted at the Site in 1998, which was followed by a RI (January 2000) and subsequent remedial measures. Remedial measures are discussed separately below in this section.

A 2009 Supplemental RI was initiated to collect data to address potential residual MGP-related contaminants remaining in groundwater at the Site and to assess hydrogeologic conditions and groundwater quality on the Site. The results of the Supplemental RI were used to formulate potential remedial alternatives for groundwater and residual soil contamination. The Supplemental RI results were evaluated and presented in the 2010 FS Report.

Several IRMs were performed to address the MGP impacts. In 2002 and 2003, the former holders and associated impacted soil were removed. During this IRM, former Holder #2 and the northern half of former Holder #3 were demolished and removed from the Site. Approximately 13,870 cubic yards of soil were excavated and disposed off-site at a NYSDEC-approved facility. Permanent steel sheeting was left in place along the northeastern perimeter of the Site to avoid disturbance of the roadway and to provide containment of residual material left at depth.

Between 2005 and 2006, National Grid provided support to the City of Johnstown for subsurface work associated with the replacement of the North Market Street Bridge across Cayadutta Creek. Approximately 1,413 cubic yards of impacted soil were excavated from within the cofferdam area and disposed off-site at a NYSDEC-approved facility.

In August 2009, the rip-rap area along the bank of Cayadutta Creek that had been restored during the previous IRMs was enhanced to allow for establishment of stream-side vegetation. Post-IRM inspections of the restored Cayadutta Creek bank were conducted in September 2009 and May 2010.

A Record of Decision (ROD) was issued by the NYSDEC, dated March 2010, in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, 6 NYCRR Part 375. Based upon the results of the remedial investigation/feasibility study (RI/FS) for the Site, the interim remedial measures (IRMs) previously completed, and the ROD, the draft Final Engineering Report and Site Management Plan (SMP) were developed and submitted to the NYSDEC in June 2010. The Final Engineering Report, the Final SMP, and the Final Environmental Easement were approval by the NYSDEC in their June 2016 Fact Sheet.

The Final SMP includes:

1) Semi-annual (April & October) site inspection and groundwater level measurements at monitoring wells MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, RMW-1, and the creek surface gauging station (bridge);

2) Semi-annual groundwater sampling/analysis [Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Heavy Metals, and Natural Attenuation

Parameters] for monitoring wells MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, and MW-16 (RMW-1 will not be sampled);

3) Semi-annual reporting (June & December) to NYSDEC.

B. **Remedial Program Effectiveness** – During the reporting period (April 15, 2024 to April 15, 2025), the long-term remedial objectives were met for the site.

C. **Remedial Program Compliance** - The major elements within the Institutional Control/Engineering Control(s) (IC/EC) Plan are in compliance.

D. **Remedial Program Recommendations** - It is recommended that no changes be made to the IC/EC Plan. It is recommended that an annual Project Review Report (PRR) be submitted. The next PRR submittal will cover the period April 15, 2025 to April 15, 2026.

II. Site Overview

A. Site Location and Boundaries –

The Site is located in the City of Johnstown, County of Fulton, New York (Figure 1 presents the site location map) and is identified as Block 14 and Lot 7 on the Johnstown City Tax Map. The Site is an approximate 0.7-acre area bounded by Cayadutta Creek to the north, the Colonial Cemetery to the south, Market Street to the east, and a wooded parcel of property to the west (Figure 2 presents the site plan). The Site is located in a mixed commercial, industrial, and residential area. Currently, National Grid operates a natural gas regulator station at the Site with equipment contained in fenced enclosures along the Site's southern boundary. The rest of the Site is grass covered, including the stream bank adjacent to Cayadutta Creek along the northern boundary of the Site. An embankment exists along the north end of the Site that slopes down to Cayadutta Creek. A chain-link fence exists along the north and west sides of the Site, and a retaining wall runs along the south side of the Site. Access to the Site is from North Market Street to the east.

B. Regulatory History and Remedy Features –

The site was remediated in accordance with Order on Consent Index Number A4-0473-0000, Site Number 518020, which was signed on November 7, 2003.

The "remaining contamination" was investigated during a 2009 Supplemental RI to collect data to address potential residual MGP-related contaminants remaining in groundwater at the Site and to assess hydrogeologic conditions and groundwater quality at the Site. The results of the SRI were used to formulate potential remedial alternatives for contaminated groundwater and residual soil contamination that were evaluated in a 2010 Feasibility Study (FS) report.

In March of 2010, the NYSDEC issued a Record of Decision (ROD) after evaluating the alternatives and selecting the future remedial actions at the Site that focus on MGP-related contamination in soil and groundwater. The overall site remedy selected by NYSDEC is Site Management, which is composed of several elements:

- Installation, maintenance, and monitoring of the Engineering Controls, including a sheet pile wall, a four-inch monitoring/extraction well, and a soil cover system.

- Imposition of an institutional control in the form of an Environmental Easement for the Controlled Property that restricts the use of the site to commercial and industrial use. In addition, the environmental easement will restrict the use of groundwater as a source of potable or process water, and prohibit agriculture or vegetable gardens on the Controlled Property.

- A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan will include monitoring of the groundwater through the existing monitoring well network to assess the performance and effectiveness of the remedy.

- Development and implementation of a Site Management Plan for long-term management of remaining contamination, as required by the Environmental Easement, which includes plans for: (1) institutional and engineering controls, (2) monitoring, (3) operation and maintenance, and (4) reporting.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness

A. Evaluation of Remedy Performance – Quarterly inspections are conducted on the Site features including the groundwater monitoring wells, soil cap, and sheet pile wall. Semi-annual groundwater sampling is conducted at wells MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, and MW-16. The remedy performance has been effective in protecting facility workers and the public.

IV. IC/EC Plan Compliance Report

A. IC/EC Requirements and Compliance

1. IC/EC Controls

The ICs/ECs:

- Sheet Pile Wall: Quarterly site inspection will include the condition of the sheet pile wall. The sheet pile wall is buried and cannot be observed; however, the wall appears to be functioning properly and influencing groundwater flow towards the Cayadutta Creek.

- Soil Cover System: Quarterly site inspection of the cover system will include identification of any damage to the cover.

- Groundwater Monitoring: Semi-Annual low flow groundwater sampling of the following monitoring wells: MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, and MW-16. The condition of these wells is also inspected quarterly.

- Compliance with the property restrictions outlined in the Environmental Easement.

2. **IC/EC Goals -** Each goal is being met and/or working effectively.

3. **IC/EC Corrective Measures –** No deficiencies were noted during the quarterly inspections.

4. **IC/EC Conclusions/Recommendations –** The EC program is in compliance and there are no recommendations for the program at this time.

B. **IC/EC Certification** – Refer to PRR Form- Attachment 1 for the certification.

V. Monitoring Plan Compliance Report – The next Semi-Annual Groundwater Monitoring Report will be submitted by August 15, 2025. The Semi-Annual Groundwater Monitoring Reports for 2024 are included as Attachment 3.

VI. Operation & Maintenance (O&M) Plan Compliance Report – Not Applicable.

VII. Overall PRR Conclusions and Recommendations

A. **Compliance with Site Management Plan (SMP)**

1. **Requirements –** All IC/EC Plan requirements were met during this reporting period.

2. **Exposure Pathways –** There are no new completed exposure pathways resulting in unacceptable risk.

3. **Proposed Plans and Schedule to Meet Compliance –** No plan proposed.

B. **Performance and Effectiveness of the Remedy –** The remedy as described in the Site Management Plan and executed by National Grid has been effective in meeting the program goals.

C. Future PRR Submittals – The frequency of PRR Submittals should remain annual. Therefore, the next PRR reporting period will cover April 15, 2025 through April 15, 2026.

VIII. Additional Guidance – Not needed.

Attachment 1: PRR Certification Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. 518020

Site Name NM - Johnstown MGP

Site Address: 103 N. Market St Zip Code: 12095
City/Town: Johnstown
County: Fulton
Site Acreage: 0.700

Reporting Period: April 15, 2024 to April 15, 2025

	YES	NO
1. Is the information above correct?	X	
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		X
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		X
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		X
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?		X

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial	X	
7. Are all ICs in place and functioning as designed?	X	

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. 518020 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
162.20-14-7	National Grid	Ground Water Use Restriction Landuse Restriction Site Management Plan IC/EC Plan

• Use must be for commercial or industrial
• Compliance with a site management plan
• Groundwater use prohibited
• The potential for vapor intrusion must be evaluated for any buildings developed, and any potential impacts identified must be monitored or mitigated
• Vegetable gardens and farming prohibited
• Periodic Certification of ICs and ECs

Box 4

Description of Engineering Controls

Parcel	Engineering Control
162.20-14-7	Cover System

• Soil Cover
• Sheet Pile Wall
• Monitoring/Extraction Well

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the Engineering Control certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
X	

2. For each Engineering control listed in Box 4, I certify by checking "YES" below that all of the following statements are true:

   (a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
X	

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

_____ _____

Signature of Owner, Remedial Party or Designated Representative Date

IC CERTIFICATIONS
SITE NO. 518020

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gerald Cresap, PE (print name) at 6780 Northern Blvd. Suite 100, East Syracuse, NY (print business address),

am certifying as agent for National Grid (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

STATE OF NEW YORK
GERALD H. CRESAP, JR.
087401
LICENSED PROFESSIONAL ENGINEER

Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

5-6-2025
Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Gerald Creasp, PE (print name) at 6780 Northern Blvd., Suite 100, East Syracuse, NY (print business address),

am certifying as a Qualified Environmental Professional for the agent for National Grid (Owner or Remedial Party)

Signature of Qualified Environmental Professional for the Owner or Remedial Party, Rendering Certification

Stamp (Required for PE)

5-6-2025
Date

Attachment 2: Site Inspection Forms

Site Management Plan Inspection Form
109 North Market Street
Former MGP Site
Johnstown, New York

Date: 7/9/2024 Time: 08:30
Technician: Kevin Leo Weather: PC 78

Vegetation Cap		
Condition of Grass	Good	COMMENTS:
Condition of Site Trees	Good	COMMENTS:
Surface Erosion	None	COMMENTS:
Has the site been maintained/mowed?	Yes	COMMENTS:

Sheet Pile Wall		
Has any construction occurred that may have impacted the sheet pile wall?	No	COMMENTS:

Site Wide		
Does the property continue to be used for commercial and/or industrial uses?	Yes	COMMENTS:
Does the use of groundwater for potable or process water continue to be restricted?	Yes	COMMENTS:
Are agricultural or vegetable gardens present on the property?	No	COMMENTS:
Do the Engineering Controls continue to perform as designed?	Yes	COMMENTS:
Do the Engineering Controls continue to be protective of human health and environment?	Yes	COMMENTS:
Are the requirements of the Site Management Plan being met?	Yes	COMMENTS:
Are the requirements of the Environmental Easement being met?	Yes	COMMENTS:
Since the last inspection has the groundwater been sampled in accordance with the SMP?	No	COMMENTS:
Since the last inspection have there been any changes to the remedial system?	No	COMMENTS:
Are there any needed changes?	No	COMMENTS:
Are the site records complete and up to date?	Yes	COMMENTS:

Miscellaneous		
Evidence of Trespassing	No	COMMENTS:
Litter	None	COMMENTS:

Site Monitoring Wells	
Well ID.	***Location Secure?***
RW-1	Yes
MW-4	Yes
MW-7	Yes
MW-10	Yes
MW-11	Yes
MW-12	Yes
MW-13	Yes
MW-14	Yes
MW-15	Yes
MW-16	Yes

General Comments:

Site Management Plan Inspection Form
109 North Market Street
Former MGP Site
Johnstown, New York

Date: 10/17/2024 Time: 8:30
Technician: KL Weather: Sunny 32

Vegetation Cap				
Condition of Grass	GOOD	FAIR	POOR	COMMENTS:
Condition of Site Trees	GOOD	FAIR	POOR	COMMENTS:
Surface Erosion	NONE	MINOR	SIGNIFICANT	COMMENTS:
Has the site been maintained/mowed?	YES		NO	COMMENTS:

Sheet Pile Wall			
Has any construction occurred that may have impacted the sheet pile wall?	YES	NO	COMMENTS:

Site Wide			
Does the property continue to be used for commercial and/or industrial uses?	YES	NO	COMMENTS:
Does the use of groundwater for potable or process water continue to be restricted?	YES	NO	COMMENTS:
Are agricultural or vegetable gardens present on the property?	YES	NO	COMMENTS:
Do the Engineering Controls continue to perform as designed?	YES	NO	COMMENTS:
Do the Engineering Controls continue to be protective of human health and environment?	YES	NO	COMMENTS:
Are the requirements of the Site Management Plan being met?	YES	NO	COMMENTS:
Are the requirements of the Environmental Easement being met?	YES	NO	COMMENTS:
Since the last inspection has the groundwater been sampled in accordance with the SMP?	YES	NO	COMMENTS:
Since the last inspection have there been any changes to the remedial system?	YES	NO	COMMENTS:
Are there any needed changes?	YES	NO	COMMENTS:
Are the site records complete and up to date?	YES	NO	COMMENTS:

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

Site Monitoring Wells		
Well ID.	***Location Secure***	
RW-1	YES	NO
MW-4	YES	NO
MW-7	YES	NO
MW-10	YES	NO
MW-11	YES	NO
MW-12	YES	NO
MW-13	YES	NO
MW-14	YES	NO
MW-15	YES	NO
MW-16	YES	NO

General Comments:

Site Management Plan Inspection Form
109 North Market Street
Former MGP Site
Johnstown, New York

Date: 1/21/2025 Time: 9:00
Technician: KL Weather: Sunny 7

Vegetation Cap				
Condition of Grass	GOOD	FAIR	POOR	COMMENTS:
Condition of Site Trees	GOOD	FAIR	POOR	COMMENTS:
Surface Erosion	NONE	MINOR	SIGNIFICANT	COMMENTS:
Has the site been maintained/mowed?	YES		NO	COMMENTS: winter

Sheet Pile Wall			
Has any construction occurred that may have impacted the sheet pile wall?	YES	NO	COMMENTS:

Site Wide			
Does the property continue to be used for commercial and/or industrial uses?	YES	NO	COMMENTS:
Does the use of groundwater for potable or process water continue to be restricted?	YES	NO	COMMENTS:
Are agricultural or vegetable gardens present on the property?	YES	NO	COMMENTS:
Do the Engineering Controls continue to perform as designed?	YES	NO	COMMENTS:
Do the Engineering Controls continue to be protective of human health and environment?	YES	NO	COMMENTS:
Are the requirements of the Site Management Plan being met?	YES	NO	COMMENTS:
Are the requirements of the Environmental Easement being met?	YES	NO	COMMENTS:
Since the last inspection has the groundwater been sampled in accordance with the SMP?	YES	NO	COMMENTS:
Since the last inspection have there been any changes to the remedial system?	YES	NO	COMMENTS:
Are there any needed changes?	YES	NO	COMMENTS:
Are the site records complete and up to date?	YES	NO	COMMENTS:

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

Site Monitoring Wells		
Well ID.	***Location Secure***	
RW-1	YES	NO
MW-4	YES	NO
MW-7	YES	NO
MW-10	YES	NO
MW-11	YES	NO
MW-12	YES	NO
MW-13	YES	NO
MW-14	YES	NO
MW-15	YES	NO
MW-16	YES	NO

General Comments:

Site Management Plan Inspection Form
109 North Market Street
Former MGP Site
Johnstown, New York

Date: 4/16/2025 Time: 8:30
Technician: KL Weather: Cloudy 37

Vegetation Cap				
Condition of Grass	GOOD	FAIR	POOR	COMMENTS:
Condition of Site Trees	GOOD	FAIR	POOR	COMMENTS:
Surface Erosion	NONE	MINOR	SIGNIFICANT	COMMENTS:
Has the site been maintained/mowed?	YES		NO	COMMENTS:

Sheet Pile Wall			
Has any construction occurred that may have impacted the sheet pile wall?	YES	NO	COMMENTS:

Site Wide			
Does the property continue to be used for commercial and/or industrial uses?	YES	NO	COMMENTS:
Does the use of groundwater for potable or process water continue to be restricted?	YES	NO	COMMENTS:
Are agricultural or vegetable gardens present on the property?	YES	NO	COMMENTS:
Do the Engineering Controls continue to perform as designed?	YES	NO	COMMENTS:
Do the Engineering Controls continue to be protective of human health and environment?	YES	NO	COMMENTS:
Are the requirements of the Site Management Plan being met?	YES	NO	COMMENTS:
Are the requirements of the Environmental Easement being met?	YES	NO	COMMENTS:
Since the last inspection has the groundwater been sampled in accordance with the SMP?	YES	NO	COMMENTS:
Since the last inspection have there been any changes to the remedial system?	YES	NO	COMMENTS:
Are there any needed changes?	YES	NO	COMMENTS:
Are the site records complete and up to date?	YES	NO	COMMENTS:

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

Site Monitoring Wells		
Well ID.	***Location Secure***	
RW-1	YES	NO
MW-4	YES	NO
MW-7	YES	NO
MW-10	YES	NO
MW-11	YES	NO
MW-12	YES	NO
MW-13	YES	NO
MW-14	YES	NO
MW-15	YES	NO
MW-16	YES	NO

General Comments:

Site Conditions – July 9, 2024

Site Conditions – October 17, 2024

Site Conditions – January 21, 2025

Attachment 3: Semi-Annual Monitoring Reports

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

August 7, 2024

Mr. Michael Squire
Remedial Bureau C, 11th Floor
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7014

Re: Johnstown (N. Market St.)
Former Manufactured Gas Plant Site (MGP)
Site # 518020
Semi-Annual Groundwater Monitoring Report (June 2024)

Dear Mr. Squire:

Enclosed is the Semi-Annual Groundwater Monitoring Report for the Johnstown (N. Market St.) MGP Site located in Johnstown, New York. The report includes the groundwater monitoring results from April 16, 2024.

National Grid acknowledges the NYSDEC Fact sheet dated June 2016 approving the site's environmental remediation construction completion. Long-term OM&M activities are being conducted in accordance with the approved Site Management Plan (SMP) and the site's Environmental Easement.

Please contact me at (315) 247-6490 or Steven.Stucker@NationalGrid.com if you have any questions regarding the report.

Sincerely,

for

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

Cc: Joseph Giordano -National Grid
Nathan Freeman- NYSDOH

National Grid

Semi-Annual Groundwater Monitoring Report

National Grid
109 North Market Street
Johnstown, NY 12095

August 2024

Version 1

Semi-Annual Groundwater Monitoring Report

National Grid Johnstown Site
109 North Market Street
Johnstown, NY 12095

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

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

GES Project:
0603400.120950.221

Date:
August 7, 2024

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

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Figures

Tables

Appendices

Acronyms

bgs	Below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes
COCs	Constituents of Concern
cu. ft.	Cubic feet
DO	Dissolved Oxygen
DTB	Depth to Bottom
DTP	Depth to Product
DTW	Depth to Water
DUSR	Data Usability Summary Report
FS	Feasibility Study
GES	Groundwater & Environmental Services, Inc.
IRMs	Interim Remedial Measures
mg/L	Milligrams per Liter
MGP	Manufactured Gas Plant
MNA	Monitored Natural Attenuation
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation-Reduction Potential
PAHs	Polycyclic Aromatic Hydrocarbons
PSA	Preliminary Site Assessment
QA/QC	Quality Assurance / Quality Control
RI	Remedial Investigation
ROD	Record of Decision
SMP	Site Management Plan
SU	Standard Units
SVOCs	Semi-Volatile Organic Compounds
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds
µg/L	Micrograms per Liter
WQ	Water Quality

1 Introduction

1.1 Overview

This Semi-Annual Groundwater Monitoring Report (the Report) summarizes the results of the April 2024 groundwater sampling event at the Johnstown, New York (N. Market Street) Former Manufactured Gas Plant (MGP) Site (the Site). This Report was developed as part of the long-term groundwater monitoring program on behalf of National Grid.

National Grid has been addressing the Site environmental conditions under an Order on Consent (Index Number D0-0001-9210), dated April 1999, that was entered into by Niagara Mohawk and the New York State Department of Environmental Conservation (NYSDEC). That Order on Consent was for the investigation and remediation of 21 former MGP sites, including the Johnstown (N. Market Street) Site. It was superseded by a new Order on Consent (Index Number A4-0473-0000), dated November 7, 2003. A NYSDEC-approved Supplemental Remedial Investigation (RI) Work Plan was finalized during November 2007, and a Final Supplemental RI Report was submitted to the NYSDEC, dated December 2008. The RI results report and subsequent Feasibility Study were approved in February 2010.

A Record of Decision (ROD) was issued by the NYSDEC, dated March 2010, in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, 6 NYCRR Part 375. Based upon the results of the remedial investigation/feasibility study (RI/FS) for the Site, the interim remedial measures (IRMs) previously completed, and the ROD, the draft Final Engineering Report and Site Management Plan (SMP) were developed and submitted to the NYSDEC in June 2010. The Final Engineering Report, the Final SMP, and the Final Environmental Easement were approved by the NYSDEC in their June 2016 Fact Sheet.

The Final SMP includes:

1. Semi-annual (April & October) site inspection and groundwater level measurements at monitoring wells MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, RMW-1, and the creek surface gauging station (bridge);
2. Semi-annual groundwater sampling/analysis [Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Heavy Metals, and Natural Attenuation Parameters] for monitoring wells MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, and MW-16 (RMW-1 will not be sampled); and
3. Semi-annual reporting to NYSDEC.

1.2 Purpose and Objective

The purpose of this Report is to summarize the groundwater sampling activities and results of the latest event, and to compare the results to previous events. As described in the December 2008 Supplemental RI Report and the subsequent ROD, one of the primary goals is to evaluate whether

or not the groundwater constituents of concern (COCs) concentrations have decreased, in addition to continued assessment of the effectiveness of monitored natural attenuation.

2 Background

2.1 Site Description

The Site is located in the City of Johnstown, County of Fulton, New York (**Figure 1** presents the site location map) and is identified as Block 14 and Lot 7 on the Johnstown City Tax Map. The Site is an approximate 0.7-acre area bounded by the Cayadutta Creek to the north, the Colonial Cemetery to the south, Market Street to the east, and a wooded parcel of property to the west (**Figure 2** presents the site plan). The Site is located in a mixed commercial, industrial, and residential area.

Currently, National Grid operates a natural gas regulator station at the Site with equipment contained in fenced enclosures along the Site's southern boundary. The rest of the Site is grass-covered, including the stream bank adjacent to Cayadutta Creek along the northern boundary of the Site. An embankment exists along the north end of the Site that slopes down to the Cayadutta Creek. A chain-link fence exists along the north and west sides of the Site, and a retaining wall runs along the south side of the Site. Access to the Site is from North Market Street to the east.

The Johnstown Hospital is located south of the Site within one mile, and numerous residences exist to the west and east of the Site. The Johnstown Senior High School and Warren Street Elementary School are located within one mile of the Site to the west.

2.2 Site History

The Johnstown MGP Site was incorporated in March 1857 as the Johnstown Gas Light Company. The company operated a small coal gas plant with a 20,000 cubic foot (cu. ft.) holder (Holder #1), that was constructed in 1859 (see Figure 2 for all Holder locations at the former MGP Site). In 1861, the plant was improved with the addition of a coal shed and a covering for the tank holder. In 1886, the Johnstown and Gloversville Gas Light Corporation was formed, and the company purchased the rights to the Lowe water gas process. The United Gas Improvement Company planned the construction of a water gas plant for the Johnstown and Gloversville franchises.

In 1887, the Site consisted of a tool shop, an office, a coal gasometer, a lime house, a purifier room, a retort house, and a coal shed. Between 1887 and 1918, Holder #2 was located in the western-central part of the Site (exact size unknown). In 1892, a steam generator was constructed adjacent to the coal shed for the Lowe water gas process, and Holder #1 was decommissioned in 1896. In 1898, a 72,000-cu. ft. gas holder (Holder #3) was constructed on the Site. Between 1912 and 1918, the small gas holder (Holder #2) in the western-central area of the Site was removed. In 1929, a gas pipeline from an MGP in Troy, New York, reached Johnstown, and local gas production was only performed on a seasonal (winter) basis until local production of gas ceased in 1931. Niagara Hudson Power Company was the owner of the Site in 1930. By 1948, Holder #3 was decommissioned. In 1950, Niagara Hudson Power was consolidated under the

name Niagara Mohawk Power Company. By 1980, all Site buildings were removed. Currently, National Grid operates a natural gas regulator station at the Site.

2.2.1 Site Assessment and Investigations

An investigation of the Site began in 1997 with a Preliminary Site Assessment (PSA), which found that the Site was impacted with MGP wastes. A Supplemental PSA was conducted at the Site in 1998, followed by a RI in January 2000 and subsequent IRMs. The IRMs are discussed separately within this section.

A 2009 Supplemental RI was initiated to collect data to address potential residual MGP-related contaminants remaining in groundwater at the Site and to assess hydrogeologic conditions and groundwater quality on the Site. The results of the Supplemental RI were used to formulate potential remedial alternatives for groundwater and residual soil contamination. The Supplemental RI results were evaluated and presented in the 2010 Feasibility Study Report.

2.2.2 Interim Remedial Measures Completed

Several IRMs were performed to address the residual MGP impacts. In 2002 and 2003, the former holders and associated impacted soil were removed. During this IRM, former Holder #2 and the northern half of former Holder #3 were demolished and removed from the Site. Approximately 13,870 cubic yards of soil were excavated and disposed of off-site at a NYSDEC-approved facility. Permanent steel sheeting was left in place along the northeastern perimeter of the Site to avoid disturbance of the roadway and to provide containment of residual material left at depth.

Between 2005 and 2006, National Grid provided support to the City of Johnstown for subsurface work associated with the replacement of the North Market Street Bridge across Cayadutta Creek. Approximately 1,413 cubic yards of impacted soil were excavated from within the cofferdam area and disposed of off-site at a NYSDEC-approved facility.

In August 2009, the rip-rap area along the bank of Cayadutta Creek that had been restored during the previous IRMs was enhanced to allow for establishment of stream-side vegetation. Post-IRM inspections of the restored Cayadutta Creek bank were conducted in September 2009 and May 2010.

2.3 Environmental Setting

The Johnstown (N. Market Street) Site slopes northward toward Cayadutta Creek with elevations ranging from 652 to 672 feet (ft.) above sea level. Currently, the Site topography gradually slopes from south to north, becoming increasingly steeper adjacent to the Creek, and is generally covered with either vegetation or stone. Surface drainage is primarily to the north into the creek. Access to the Site is from North Market Street to the east, and the Site is currently used to support the natural gas regulator station operations.

2.3.1 Site Geology

The main units of unconsolidated deposits identified at the Site can be characterized in descending order as fill and native glacial deposits to bedrock. The glacial deposits are of lacustrine origin with glacial tills to the top of shale bedrock (Utica Shale). Bedrock was reached beneath the till in two soil borings explored during the 1998 Supplemental PSA. These stratigraphic units are more specifically described below, based on information obtained from the previous investigations and from the soil borings and monitoring well borings conducted during the 2007/ 2008 SRI.

Site geology includes a layer of disturbed soils (primarily fill) overlying glacial deposits. Based upon on-site soils and monitoring well borings, disturbed soils (including fills) varied in thickness up to 13 ft. and are typically composed of sand, gravel, silt, clay, wood, coal, and anthropogenic materials including ash, cinders, clinkers, brick fragments, wire, and wood chips. Wood chips were identified in three borings (SB-09, SB-12, and MW-8) and are often associated with purifier waste.

A thin layer of peat underlies the disturbed soils in the northern portion of the Site, ranging in thickness from 0.5 ft. to 3 ft., and appears to thicken and dip to the north. Except where it is locally covered by sedimentary deposits such as silts, sands, and clays, the peat, where present, appears to have been the historical ground cover prior to development of the Site.

Underlying the peat, where present, the soil consists of lacustrine deposits composed of silts, sands, and clays. The surface of the lacustrine deposits appears to dip and thin out toward the north. A sand and gravel unit (an outwash deposit of stratified drift) underlies the lacustrine deposits across the Site area. This unit contains varying amounts of silt and clay. These deposits overlie a dense, low-permeability glacial till to bedrock (Shale).

2.3.2 Site Hydrogeology

Groundwater depths on-site are typically in the 10- to 20-foot below ground surface (bgs) range, generally in the glacial deposits below the bottom of the fill material. Groundwater flow is consistently northward through the Site area toward Cayadutta Creek, with the steepest gradient from the center of the Site proximal to former gas holders #2 and #3 to the southern Creek bank (about 0.09 ft./ft.). In comparison, the average hydraulic gradient decreases to a value of approximately 0.05 ft./ft. on the east and west sides of the Site away from the former gas holders. The local groundwater flow is consistent with regional groundwater flow direction. The groundwater flow direction and hydraulic gradients calculated during this monitoring period are also generally consistent with historic data obtained prior to the issuance of the ROD.

3 Monitoring Activities

The long-term semi-annual groundwater monitoring program currently consists of the following elements:

- Semi-Annual Site Inspection including the creek bank protection, vegetative cover, monitoring wells, and security fence.
- Semi-Annual Groundwater Well Gauging of the following wells: RW-1, MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16 (Figure 2 presents the well locations). The creek surface water level is also gauged at one location: SG-1.
- Semi-Annual Groundwater Sampling and Analysis of the following: MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16. Note that recovery well RW-1 is not sampled as part of the program but is inspected for the presence of non-aqueous phase liquids (NAPL).

3.1 Groundwater Gauging and Sampling Procedures

3.1.1 Gauging

Long-term groundwater monitoring includes water level gauging at nine groundwater monitoring wells and one groundwater recovery well using an electronic oil/water interface probe. Depth to bottom of well (DTB), depth to product (DTP), and depth to water (DTW) are to be recorded at each well. Refer to **Table 2** for a summary of the water level measurements from April 2024 as well as previous events. **Appendix A** also presents the field documentation from the April 2024 water gauging event.

No product was present in recovery well RW-1 or the other nine groundwater monitoring wells that were gauged.

A creek surface water level measurement was collected from the Cayadutta Creek Bridge using a water level probe (from the surveyed gauging point at the bridge).

3.1.2 Sampling

Groundwater sampling was performed following low-flow sampling techniques [equivalent to United States Environmental Protection Agency (USEPA) low-flow procedures] using a pressure-driven peristaltic pump. During purging, measurements were collected for the following field parameters: pH, specific conductivity, turbidity, dissolved oxygen (DO), temperature, and oxidation-reduction potential (ORP). A Horiba U-22 was used to collect the field parameter data in a flow-through cell. The monitored field parameters are observed and recorded during low-flow sampling to determine when they have stabilized, and thus when the well has been adequately purged. Field parameter measurements were recorded at approximately 5-minute intervals. The monitoring wells were purged until stabilization of the field parameters (±0.1 Standard Unit (SU) for pH, ±3% for specific conductivity, ±10 millivolts (mV) for ORP, and ±10% for DO) and turbidity was less than 50 Nephalometric Turbidity Units (NTU). Refer to **Attachment A** for the field data.

After stabilization of the field parameters, nine groundwater samples were collected directly from the dedicated tubing into laboratory-supplied sample containers (pre-preserved as required per the analytical method). Quality Assurance/Quality Control (QA/QC) samples included the collection of one field duplicate sample, one matrix spike (MS) sample, one duplicate matrix spike (DMS) sample, and one trip blank sample (VOCs only). Samples were transported to the laboratory, accompanied by the appropriate chain-of-custody documentation. Analytical results were validated.

3.1.3 Natural Attenuation Parameters

The ORP of groundwater may be used as a general indicator of the dominant attenuation processes and the relative tendency of the biological processes to accept or transfer electrons. ORP is dependent on and influences rates of biodegradation. Lower ORP readings indicate reduced conditions and are indicative of anaerobic biologic degradation processes.

The pH of the groundwater affects the presence and activity of microorganisms in the groundwater. The microorganisms may produce either organic acids or carbon dioxide which, when dissolved in water, forms weak carbonic acid. Microorganisms capable of degrading petroleum hydrocarbons are most active with pH values ranging from 6 to 8 SU.

Groundwater temperature affects the solubility of dissolved gases such as oxygen and carbon dioxide as well as the metabolic activity of microorganisms. Oxygen is less soluble in warm water, and groundwater temperatures below approximately 5 degrees Celsius tend to inhibit biodegradation.

DO is the most thermodynamically favored electron acceptor used by microorganisms during the degradation of both natural and anthropogenic organic carbon. An inverse relationship of high hydrocarbon concentrations and low DO concentrations can be used as a key indicator of biodegradation.

Nitrate, if available, may be used as an electron acceptor for anaerobic biodegradation after the depletion of DO [typically considered less than 0.5 milligrams per liter (mg/L)] and is used to biodegrade petroleum hydrocarbons. Lower nitrate concentrations in groundwater within a plume, with respect to higher concentrations in areas upgradient and outside a plume, may be expected.

Ferrous iron is a metabolic byproduct of hydrocarbon degradation. Reducing conditions in nitrogen- and oxygen-depleted groundwater creates an anaerobic environment that causes the reduction of ferric iron (Fe^{3+}) to ferrous iron (Fe^{2+}). Relatively low ferrous iron concentrations may be present in areas where natural attenuation is occurring if free ferrous iron is re-precipitating as sulfides or carbonates.

Sulfate may be used as an electron acceptor after the depletion or use limitation of DO, nitrate, and ferric iron. Lower sulfate concentrations in groundwater within a plume, with respect to higher concentrations in areas upgradient and outside a plume, may be expected.

The production of methane, termed methanogenesis, occurs only in strongly reducing conditions and generally after oxygen, nitrate, and sulfate have been depleted. The presence of methane in

groundwater suggests Benzene, Toluene, Ethylbenzene, Xylene (BTEX) degradation via methanogenesis. Methane is not present in fuels, and therefore its presence at high concentrations relative to areas upgradient and outside a plume is indicative of the biodegradation of petroleum hydrocarbons.

The buffering capacity of groundwater is a function of alkalinity. Typically, alkalinity is primarily due to carbonate alkalinity. The organic acids or carbon dioxide (which produces a weak carbonic acid when dissolved in water) produced by biodegradation solubilize carbonate from the soil. Alkalinity concentrations that are elevated with respect to areas upgradient and outside a plume may be an indication of microbial activity and thus natural attenuation.

Typically, the relationships between BTEX and electron acceptors/metabolic byproduct concentrations (geochemical indicators) indicate potential for biodegradation. The concentrations are dependent on the location (and groundwater conditions) within the plume or outside of the plume limits.

3.2 Groundwater Analytical Results

The groundwater samples were analyzed for BTEX, Polycyclic Aromatic Hydrocarbons (PAHs), lead, total cyanide, and monitored natural attenuation/water quality (MNA/WQ) parameters including alkalinity, chloride, ethane, ethene, ferrous iron, manganese, methane, nitrate, nitrogen, sulfate and sulfide. BTEX, PAHs, and cyanide are constituents commonly associated with former MGP sites. BTEX, PAHs, lead, and cyanide were the primary contaminants detected during previous investigation activities conducted at the Site. The MNA/WQ parameters, as well as field-measured ORP, pH, temperature, and DO, are relevant to establishing whether conditions are favorable for natural attenuation to occur at the Site.

- Refer to Table 3 for the analytical results summary.
- Refer to Appendix A for field data.
- Refer to Appendix B for the data usability summary report (DUSR).

Groundwater analytical results were compared with levels specified in the NYSDEC Division of Water Final Amendment to Water Quality Standards Regulations, effective February 16, 2008 [hereafter referred to as NYSDEC WQ Values]. For groundwater, Class GA values were applied. Class GA waters are defined as fresh groundwater, found in the saturated zone of unconsolidated deposits and consolidated rock or bedrock, which are used as a source of potable water supply.

3.2.1 Site Related Parameters

BTEX - Groundwater samples collected on April 16, 2024, from monitoring wells MW-10, MW-11, MW-13, MW-15, and MW-16 contained concentrations of some or all individual BTEX constituents above their respective NYSDEC WQ Values [1 microgram per liter (µg/L) for benzene and 5 µg/L for other BTEX constituents]. The highest concentrations of BTEX were observed in the groundwater samples collected from monitoring well MW-13. Monitoring well MW-13 is located between former gas holder #2 and #3.

PAHs – PAHs above NYSDEC WQ Values were detected in samples collected on April 16, 2024, from monitoring wells MW-11, and MW-15. Naphthalene (MW-15) has typically been detected at the highest concentration of any PAH.

Cyanide - Concentrations of cyanide were below the NYSDEC WQ Value (0.2 mg/L) in all groundwater samples April 16, 2024.

3.2.2 Monitored Natural Attenuation Parameters

Site-specific levels of the MNA/WQ parameters (geochemical indicators) were compared to known screening values to identify whether the site-specific values are within the ranges known to be suitable for biodegradation. The April 2024 MNA/WQ analytical results for the individual monitoring wells are summarized in **Table 3**. **Figure 4** presents the groundwater data for the key MNA data parameters at their respective locations to assist with the MNA evaluation. Indications of biodegradation of petroleum-related MGP constituents within the plume include low levels of DO, nitrate and sulfate, with generally higher levels of manganese, ferrous iron and methane.

Indicator concentrations detected at monitoring wells identified within source and downgradient areas of the Site were compared to levels detected at upgradient and side gradient monitoring wells exhibiting little or no MGP-related contamination. Generally, indicator concentration levels at a distance from the center of the plume are expected to be significantly lower than levels within the plume. A summary of the MNA/WQ results and associated field indicator parameters are provided below:

- DO and ORP values demonstrate depleted levels of DO and a transformation to more anaerobic or reducing conditions at the former source and downgradient areas relative to side gradient and upgradient areas of the Site. These values suggest that biodegradation of MGP petroleum-related compounds at the source and at downgradient areas are occurring, consuming the available oxygen which produces decreased DO levels.
- The range of ORP levels observed at the source and downgradient area monitoring wells generally indicates reduced aquifer conditions which could be suitable for denitrification, ferric iron reduction, sulfate reduction, and methanogenesis.
- Nitrate concentrations are generally depleted at the former source and downgradient areas of the Site relative to upgradient (MW-4) and side gradient (MW-12) areas, indicating denitrification may be a noteworthy biodegradation process occurring at this time at the source and downgradient areas.

- Ferrous iron concentrations at the former source and downgradient area monitoring wells (MW-7, MW-10, MW-14, MW-15) exhibit higher levels relative to side gradient and upgradient monitoring wells (MW-4, MW-12). The presence of these metabolic by-products downgradient of the source area suggest biodegradation of MGP petroleum-related compounds may be occurring.
- Sulfate concentrations at the former source and downgradient areas are not depleted relative to upgradient and side gradient areas. This observation indicates sulfate reduction is not likely to be a significant biodegradation process at this time at the source and downgradient areas.
- Based on the presence of methane, low DO concentrations, and the reduced ORP levels, methanogenesis is likely an important factor for biodegradation capacity in the source and downgradient areas of the Site.

3.2.3 Natural Attenuation Trending

Previous groundwater sampling data collected since April 2013 (the dataset) were utilized to develop and evaluate the contaminant plume and concentration trends of specific constituents at the Site. Plume size and concentration data are indicative of biodegradation capacity (natural attenuation) at the Site and whether the capacity has reached a limit of effectiveness. In order to determine and evaluate natural attenuation effectiveness, statistical testing was utilized for groundwater data collected from monitoring wells at the Site. The Mann-Kendall test was performed on the dataset to identify potential trends in groundwater concentrations of site contaminants. The Mann-Kendall test is a nonparametric evaluation used to identify a trend in a series, even if there is a seasonal component in the series. The three possible hypotheses are that there is a negative, null, or positive trend. The resultant statistical trend analysis for individual monitoring wells suggests (with 80% and 90% confidence) that total BTEX compounds and the naphthalene plume lifecycle demonstrate either no trend or a decreasing trend throughout the monitoring period. It is worth noting that a failure to reject the null hypothesis (i.e., “no trend”) does not prove that there is no trend; it merely means that the available data is not sufficient to conclude there is a trend. In cases where no trend was determined, a comparison of the dataset to the historical highs and lows was performed to determine if the plume is stable; in every case, this evaluation concluded the plume is stable. The table below depicts general concentration trend analysis results (decreasing, no trend or increasing) at 80% confidence levels for each well and associated constituents during the monitoring period. No trend is indicative of plume stability at well locations with contaminant detections throughout the monitoring period.

Table 1 – Contaminant Trend Analysis

Well ID	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
MW-4	Stable	Stable	Stable	Stable	No Trend
MW-7	Stable	Stable	Stable	Stable	No Trend
MW-10	No Trend	Stable	Stable	Stable	Probably Decreasing
MW-11	Stable	Stable	Stable	Stable	Decreasing
MW-12	Stable	Stable	Stable	Stable	Decreasing
MW-13	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
MW-14	Stable	No Trend	No Trend	No Trend	No Trend
MW-15	Decreasing	Stable	Stable	Stable	Probably Increasing
MW-16	Decreasing	Decreasing	Decreasing	No Trend	Increasing

Isoconcentration contour maps were developed for total BTEX (**Figure 5**) and naphthalene (**Figure 6**) contamination. The figures present locations of the groundwater monitoring wells and plume contours for total BTEX (as compared to the benzene WQ value of 1 µg/L) and naphthalene exceeding the NYSDEC WQ values. Evaluation of the isoconcentration figures suggests that the contaminant plumes were relatively stable to decreasing (smaller footprint with time) within the Site boundary. BTEX constituent plume trends (concentrations above the benzene WQ value of 1 µg/L) have consistently included monitoring wells MW-13, MW-15, and MW-16. Monitoring well MW-11 was added to the BTEX constituent plume trend, which is consistent with the last time it was sampled in April 2015. The naphthalene plume (concentrations above the WQ) currently includes monitoring wells MW-11, MW-15, and MW-16.

4 Conclusions and Recommendations

4.1 Conclusions

4.1.1 Groundwater Levels

The groundwater elevation data indicates groundwater within the Site flows from the south to the north, toward Cayadutta Creek. The groundwater flow direction has been consistent during previous gauging events and with data obtained prior to the ROD. **Figure 3** is a groundwater monitoring map verifying groundwater flow direction.

4.1.2 Site-Related Constituents

The highest concentrations of BTEX constituents and PAH compounds are at wells MW-11, MW-13, MW-15, and MW-16. Site institutional controls continue to be effective and will continue to be monitored semi-annually.

There are minimal concentrations of lead in groundwater samples; however, Cyanide has been detected consistently in most wells.

4.1.3 Natural Attenuation

Plume stability at the Site is an indication that biodegradation capacity likely has not reached its limit of effectiveness. The use of statistical testing has identified the plume trends based on the constituent concentrations were typically either stable or decreasing.

4.2 Recommendations

Based on the results of the April 2024 groundwater sampling and monitoring event and results from previous events, it is recommended to continue the long-term semi-annual site inspection and groundwater monitoring program. The next event will occur in October 2024.

5 References

Borden, Robert C., et. al., "Geochemical Indicators of Intrinsic Bioremediation". Groundwater, Volume 33, Number 2, March/April 1995.

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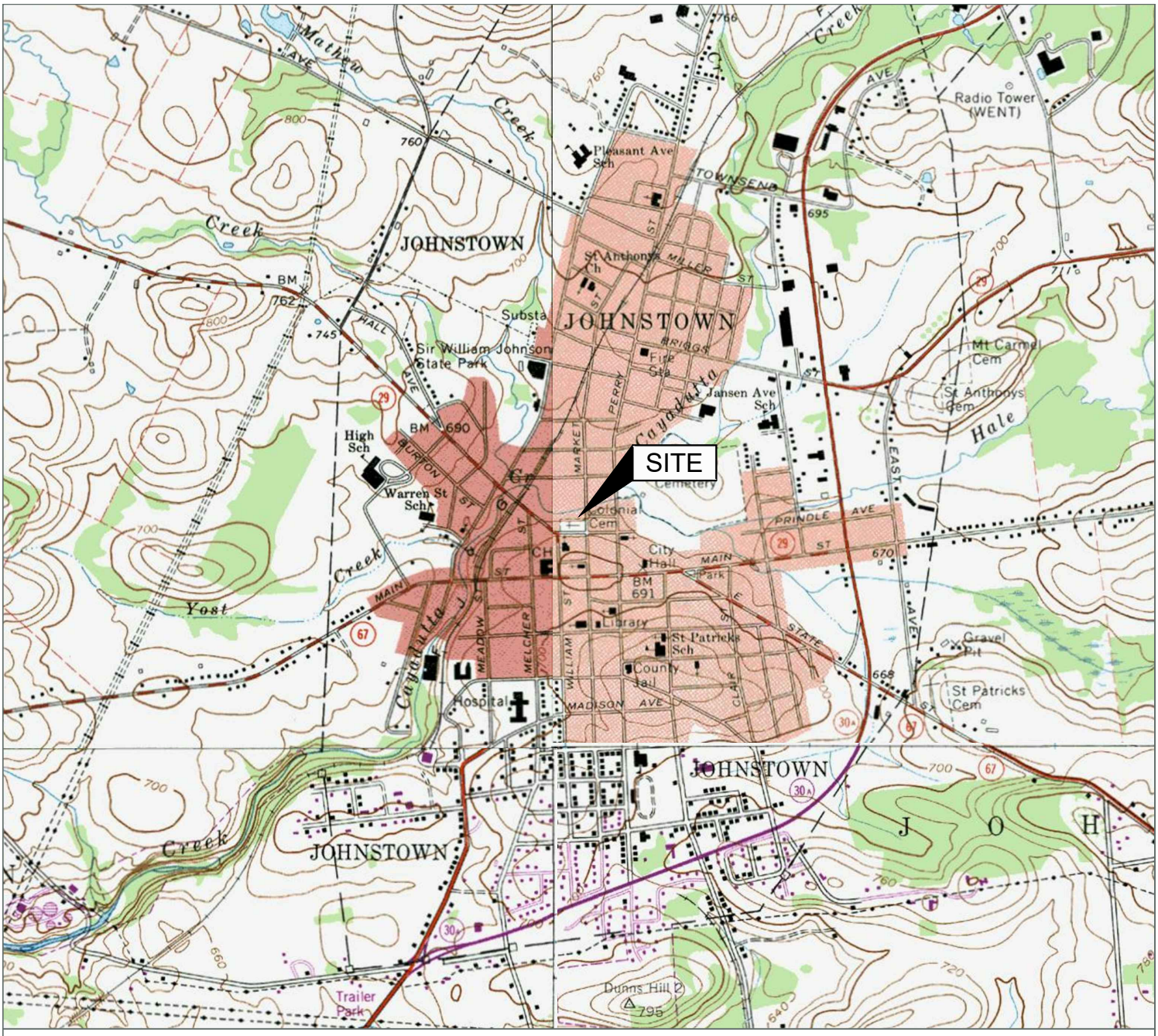
Niagara Mohawk Power Corporation. "Record of Decision for the Johnstown (N. Market Street) Former MGP Site, Johnstown, New York". Niagara Mohawk Power Corporation, March 2010.

Figures



Source:
USGS 7.5 Minute Series
Topographic Quadrangle, 1970
Gloversville, New York
Contour Interval = 20'

Site Location Map

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn
W.G.S.
Designed

Approved

Date
11/15/19
Figure
1

N

Scale In Feet
0 2000

Groundwater & Environmental Services, Inc.

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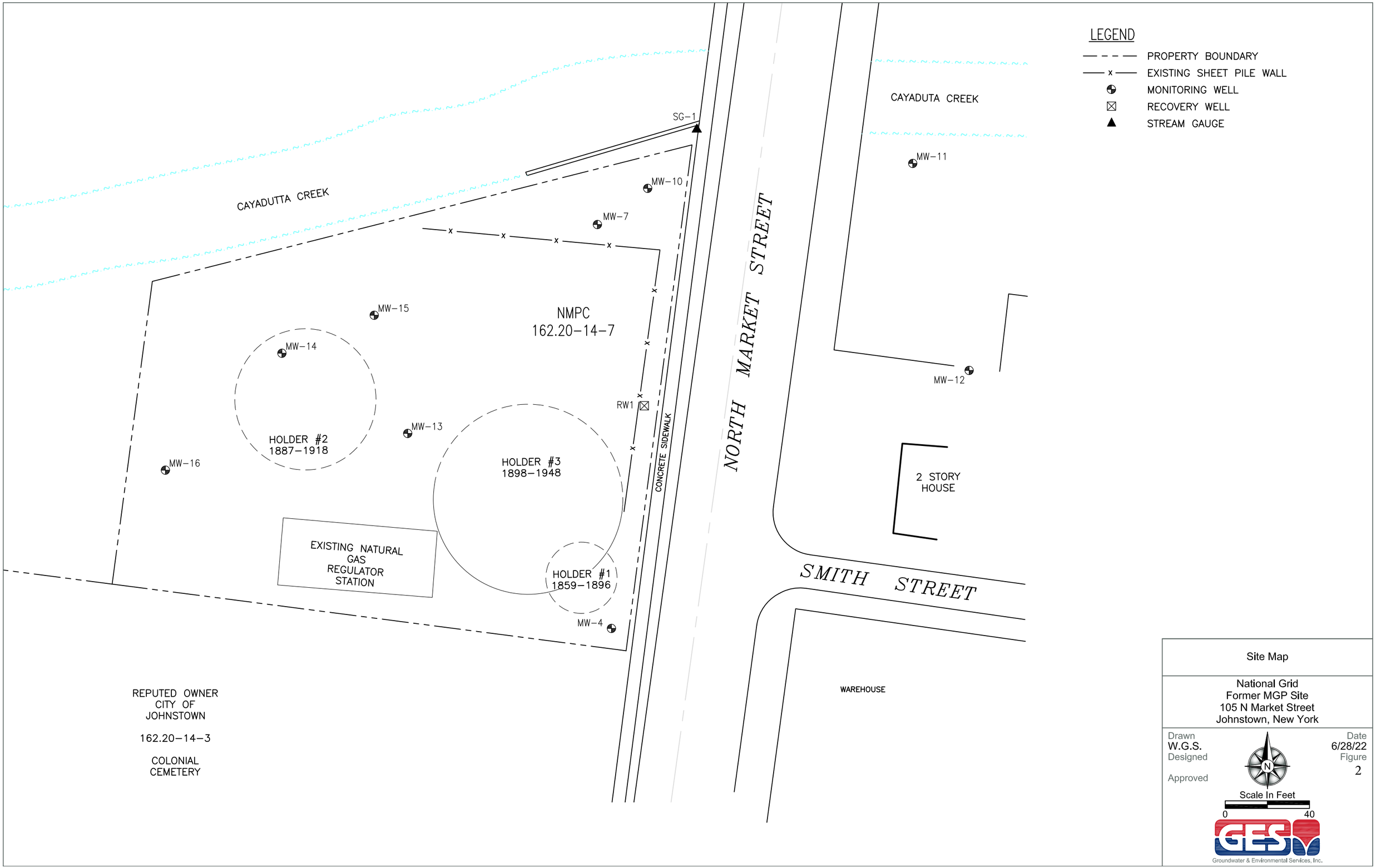

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Site Map

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn
W.G.S.
Designed

Approved

Date
6/28/22
Figure
2

Scale In Feet
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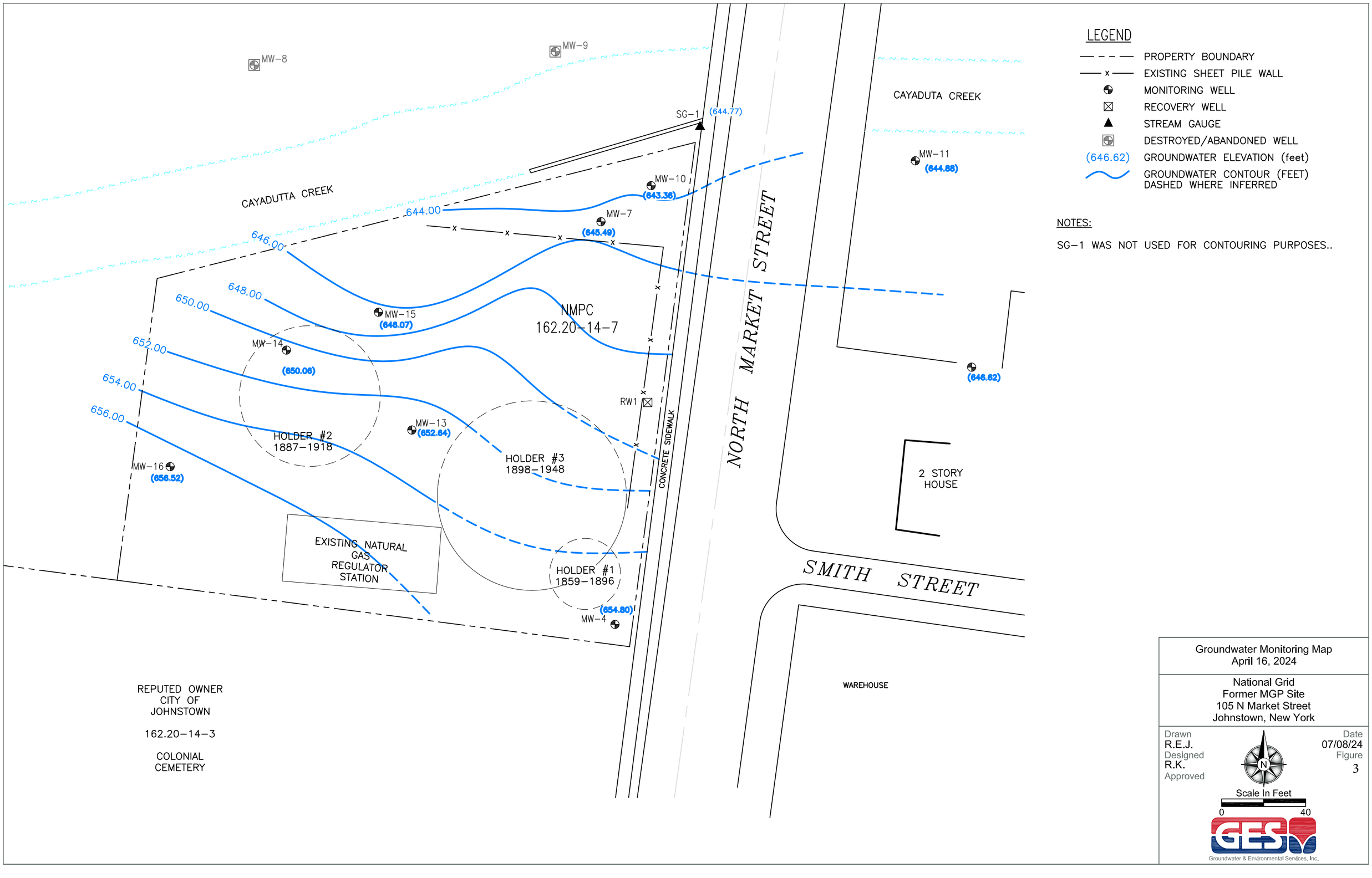
Groundwater & Environmental Services, Inc.



LEGEND

- PROPERTY BOUNDARY
- EXISTING SHEET PILE WALL
- MONITORING WELL
- RECOVERY WELL
- STREAM GAUGE
- DESTROYED/ABANDONED WELL
- (646.62) GROUNDWATER ELEVATION (feet)
- GROUNDWATER CONTOUR (FEET) DASHED WHERE INFERRED

NOTES:

SG-1 WAS NOT USED FOR CONTOURING PURPOSES..

Groundwater Monitoring Map
April 16, 2024

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn R.E.J.
Designed R.K.
Approved

Date 07/08/24
Figure 3

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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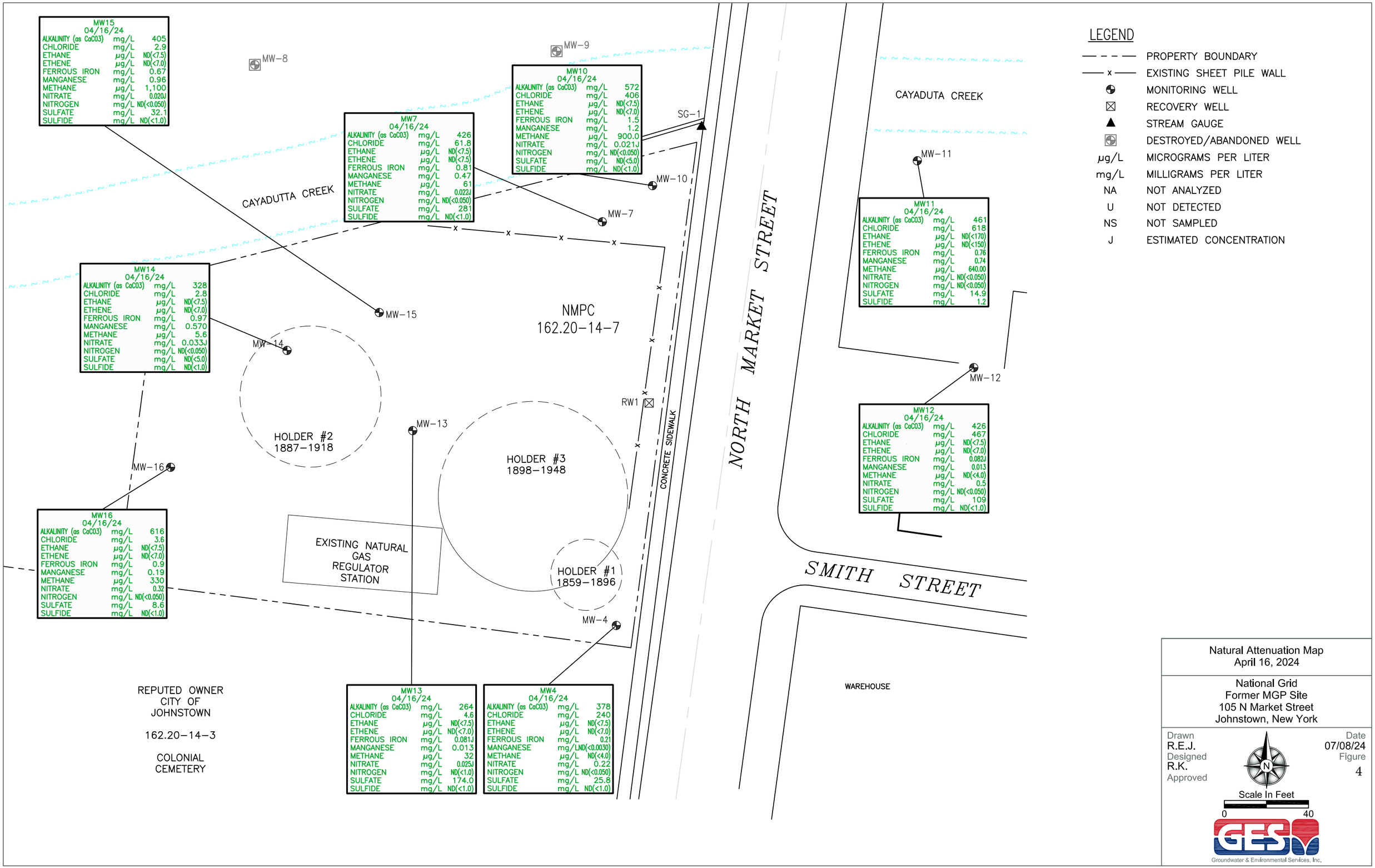

Natural Attenuation Map
April 16, 2024

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn R.E.J.
Designed R.K.
Approved

Date 07/08/24
Figure 4

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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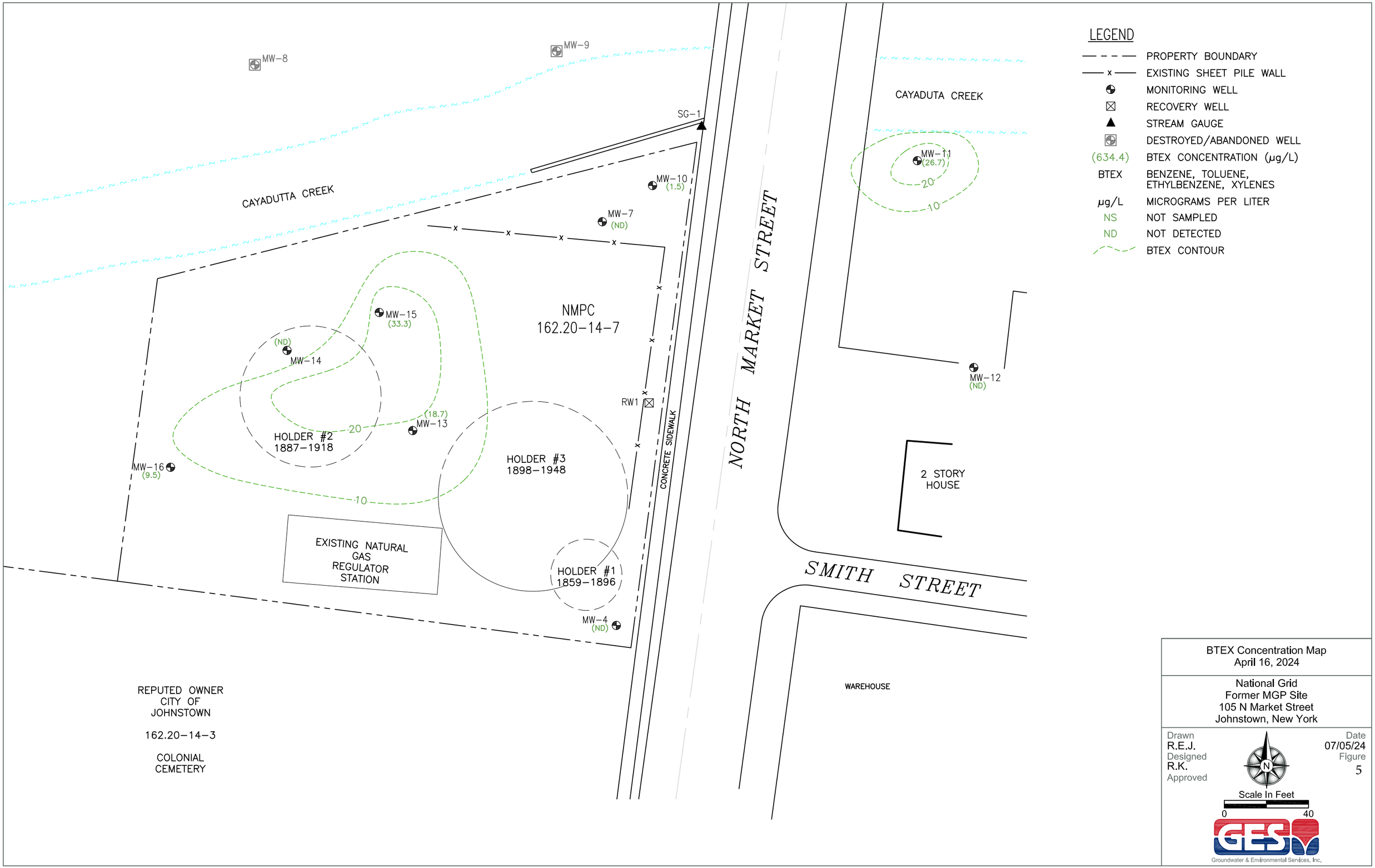

BTEX Concentration Map
April 16, 2024

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn
R.E.J.
Designed
R.K.
Approved

Date
07/05/24
Figure
5

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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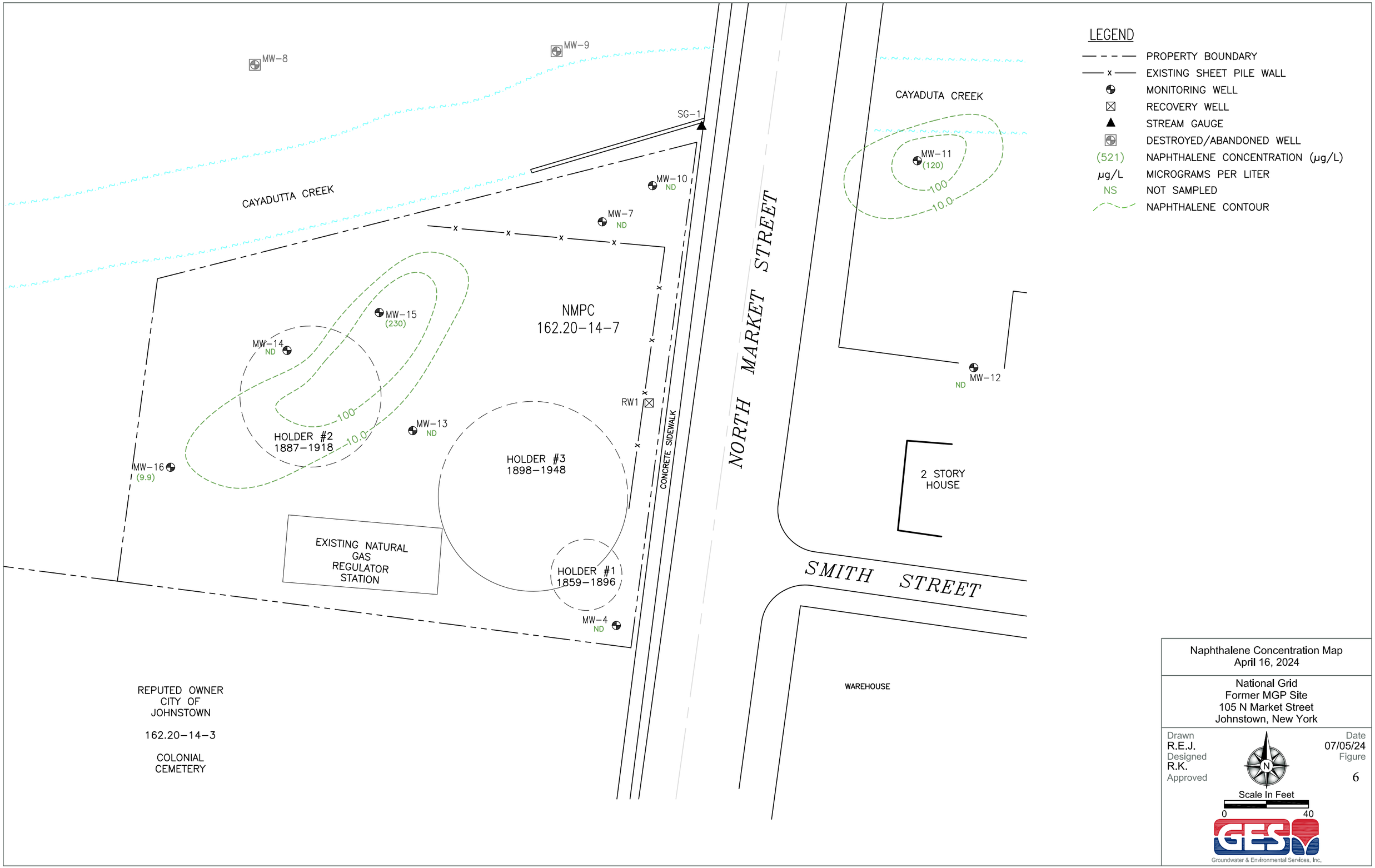

Naphthalene Concentration Map
April 16, 2024

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn
R.E.J.
Designed
R.K.
Approved

Date
07/05/24
Figure
6

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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Tables

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	6/30/2010		9/29/2010		1/5/2011		4/8/2011		6/16/2011		10/13/2011		12/15/2011	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	23.10	653.44	23.41	653.13	22.95	653.59	22.50	654.04	22.04	654.50	21.41	655.13	22.78	653.76
MW-7	659.08	14.25	644.83	13.18	645.90	13.88	645.20	12.87	646.21	13.80	645.28	13.15	645.93	15.45	643.63
MW-10	657.59	14.80	642.79	14.60	642.99	14.75	642.84	14.09	643.50	14.77	642.82	14.11	643.48	14.22	643.37
MW-11	657.29	NM	NM	13.57	643.72	13.59	643.70	12.51	644.78	13.38	643.91	12.95	644.34	12.76	644.53
MW-12	660.08	NM	NM	NM	NM	15.06	645.02	NM	NM	NM	NM	13.61	646.47	14.54	645.54
MW-13	664.89	14.65	650.24	15.22	649.67	14.95	649.94	11.18	653.71	13.99	650.90	11.91	652.98	14.31	650.58
MW-14	663.91	13.50	650.41	14.46	649.45	14.28	649.63	12.86	651.05	13.65	650.26	13.26	650.65	13.65	650.26
MW-15	661.85	16.90	644.95	17.24	644.61	17.68	644.17	15.07	646.78	16.63	645.22	15.95	645.90	16.38	645.47
MW-16	665.57	9.70	655.87	10.19	655.38	12.33	653.24	11.00	654.57	10.50	655.07	9.79	655.78	9.91	655.66
RW-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GAUGE1	659.97	15.07	644.90	20.20	639.77	16.30	643.67	15.75	644.22	16.75	643.22	16.05	643.92	15.62	644.35

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	3/15/2012		10/9/2012		4/18/2013		10/7/2013		4/9/2014		10/13/2014		4/16/2015	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	22.81	653.73	NM	NM	23.97	652.57	23.12	653.42	23.28	653.26	23.28	653.26	22.91	653.63
MW-7	659.08	13.55	645.53	14.17	644.91	13.53	645.55	14.36	644.72	13.71	645.37	14.61	644.47	13.23	645.85
MW-10	657.59	14.18	643.41	15.05	642.54	14.27	643.32	14.44	643.15	14.13	643.46	14.98	642.61	14.15	643.44
MW-11	657.29	12.73	644.56	13.95	643.34	13.01	644.28	13.16	644.13	12.68	644.61	13.71	643.58	12.62	644.67
MW-12	660.08	14.26	645.82	16.36	643.72	14.06	646.02	14.99	645.09	14.41	645.67	15.65	644.43	14.25	645.83
MW-13	664.89	14.98	649.91	16.12	648.77	14.18	650.71	15.08	649.81	14.84	650.05	15.53	649.36	11.34	653.55
MW-14	663.91	15.49	648.42	16.98	646.93	13.14	650.77	14.74	649.17	15.70	648.21	15.02	648.89	13.06	650.85
MW-15	661.85	16.41	645.44	17.85	644.00	16.26	645.59	17.21	644.64	16.67	645.18	17.55	644.30	15.31	646.54
MW-16	665.57	11.56	654.01	10.51	655.06	9.98	655.59	9.85	655.72	9.45	656.12	10.24	655.33	10.48	655.09
RW-1	-	-	-	17.98	-	16.21	-	15.95	-	12.32	-	17.31	-	16.84	-
GAUGE1	659.97	15.69	644.28	NM	NM	19.10	640.87	18.85	641.12	18.85	641.12	20.01	639.96	18.91	641.06

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	10/13/2015		4/6/2016		10/25/2016		4/26/2017		10/11/2017		4/26/2018		10/17/2018	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	23.48	653.06	23.51	653.03	24.03	652.51	21.09	652.19	24.35	652.19	22.48	654.06	23.20	653.34
MW-7	659.08	14.61	644.47	14.19	644.89	15.00	644.08	13.62	645.46	14.83	644.25	12.85	646.23	14.40	644.68
MW-10	657.59	14.95	642.64	14.77	624.82	15.18	642.41	14.37	643.22	15.02	642.57	13.05	644.54	14.60	642.99
MW-11	657.29	-	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-12	660.08	15.62	644.46	14.95	645.13	15.82	644.26	13.55	646.53	15.62	644.46	14.00	646.08	15.10	644.98
MW-13	664.89	14.98	649.91	15.95	648.94	16.32	648.57	13.27	651.62	15.80	649.09	12.98	651.91	14.15	650.74
MW-14	663.91	13.63	650.28	16.81	647.1	16.8	647.11	13.71	650.20	15.88	648.03	13.71	650.20	13.88	650.03
MW-15	661.85	17.23	644.62	17.355	644.3	17.9	643.95	16.05	645.80	17.86	643.99	15.71	646.14	16.70	645.15
MW-16	665.57	9.61	655.96	10.79	654.78	11.11	654.46	9.02	656.55	10.43	655.14	9.52	656.05	9.88	655.69
RW-1	-	13.21	-	13.03	NRP	12.88	NRP	10.6	NRP	17.40	NRP	12.35	NRP	12.38	NRP
GAUGE1	659.97	19.91	640.06	19.76	640.21	18.40	641.57	15.70	644.27	15.46	644.51	14.55	645.42	15.70	644.27

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	4/18/2019		10/16/2019		5/20/2020		10/7/2020		4/14/2021		10/6/2021		4/13/2022	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	22.60	653.94	23.47	653.07	22.11	654.43	24.21	652.33	23.46	653.08	22.99	653.55	22.55	653.99
MW-7	659.08	13.85	645.23	14.73	644.35	15.15	643.93	15.02	644.06	14.31	644.77	13.99	645.09	13.38	645.70
MW-10	657.59	14.50	643.09	15.02	642.57	15.02	642.57	15.15	642.44	14.77	642.82	14.24	643.35	14.12	643.47
MW-11	657.29	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-12	660.08	14.40	645.68	15.54	644.54	14.62	645.46	15.85	644.23	15.29	644.79	14.81	645.27	13.68	646.40
MW-13	664.89	13.07	651.82	14.74	650.15	15.42	649.47	16.05	648.84	14.02	650.87	14.48	650.41	12.18	652.71
MW-14	663.91	13.80	650.11	13.8	650.11	14.23	649.68	16.15	647.76	13.95	649.96	14.21	649.70	13.76	650.15
MW-15	661.85	15.60	646.25	17.05	644.80	16.52	645.33	17.69	644.16	16.61	645.24	16.40	645.45	15.69	646.16
MW-16	665.57	10.39	655.18	9.78	655.79	9.81	655.76	10.93	654.64	9.94	655.63	9.81	655.76	8.84	656.73
RW-1	-	15.22	NRP	13.00	NRP	11.40	NRP	13.83	NRP	12.72	NRP	11.49	NRP	9.28	NRP
GAUGE1	659.97	15.50	644.47	16.28	643.69	16.05	643.92	16.38	643.59	16.73	643.24	16.02	643.95	15.60	644.37

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	10/6/2022		4/19/2023		10/11/2023		4/16/2024	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	24.00	652.54	22.02	654.52	24.62	651.92	21.74	654.80
MW-7	659.08	15.08	644.00	14.05	645.03	14.78	644.30	13.59	645.49
MW-10	657.59	14.99	642.60	14.79	642.80	14.91	642.68	14.23	643.36
MW-11	657.29	NM	-	NM	-	NM	-	12.41	644.88
MW-12	660.08	15.06	645.02	14.17	645.91	15.06	645.02	13.46	646.62
MW-13	664.89	15.63	649.26	13.34	651.55	15.52	649.37	12.25	652.64
MW-14	663.91	14.15	649.76	13.95	649.96	14.73	649.18	13.85	650.06
MW-15	661.85	16.67	645.18	16.90	644.95	17.36	644.49	15.78	646.07
MW-16	665.57	10.31	655.26	9.48	656.09	10.35	655.22	9.05	656.52
RW-1	-	16.30	NRP	10.43	NRP	15.28	NRP	9.42	NRP
GAUGE1	659.97	14.65	645.32	19.31	640.66	15.63	644.34	15.20	644.77

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 3

Groundwater Analytical Data
MW-4

CONSTITUENT	UNITS	NYSDEC AWQS Values	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/14/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
BTEX Compounds																									
Benzene	µg/L	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	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)	ND (<1.0)
m/p-Xylene	µg/L	5	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 (<2.0)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Toluene	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.21	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Acenaphthylene	µg/L	NC	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Anthracene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Benzo(a)pyrene	µg/L	0.000	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Chrysene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Fluoranthene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Fluorene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Naphthalene	µg/L	10	ND (<0.49)	3.2	3.2	2.2	2.2	2.2	ND (<0.51)	0.29	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	2.4	0.17	ND (<0.10)	ND (<0.099)	0.46	0.24	0.17	ND (<5.0)
Phenanthrene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Pyrene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<10)	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<10.0)
Cyanide	mg/L	0.2	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)

AWQS	= Ambient Water Quality Standards
B	= Present in Associated Blank Sample
BTEX	= Benzene, Ethylbenzene, Toluene and Xylene
D	= Diluted Sample
E	= Result exceeded calibration range
F1	= MS and/or MSD Recovery outside acceptance limits.
F2	= MS/MSD RPD above control limits.
J	= Estimated Concentration Value
mg/L	= Milligrams per Liter
NC	= No Criteria
ND (<#)	= Not detected above laboratory reporting limit (indicated by #)
NS	= Not Sampled
NYSDEC	= New York State Department of Environmental Conservation
PAHs	= Polycyclic Aromatic Hydrocarbons
R	= Rejected
µg/L	= Micrograms per Liter
Bolded	= values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-4

CONSTITUENT	UNITS	04/18/13	10/08/13	04/09/14	10/15/14	04/16/15	10/14/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	354	442	398	400	384	412	394	414	392	418	424	424	452	410	360	390	386	500	406	NS	402	436	378
Chloride	mg/L	275	411	304	329	295	365	304	421	377	ND (<300)	233	306	360	260	296	200	315	637	339	NS	425	266	240
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<0.025)	ND (<0.025)	ND (<0.030)	0.037J	ND (<0.16)	ND (<1.0)	0.036 J	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<0.035)	ND (<0.035)	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)
Ferrous Iron	mg/L	ND (<0.1)	0.013	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.14	0.11	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.10	ND (<0.10)	ND (<0.10)	ND (<0.10)	NS	ND (<0.10)	ND (<0.10)	0.21
Manganese	mg/L	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	0.019	0.0031	0.0053	ND (<0.005)	ND (<0.005)	ND (<0.005)	0.0065	ND (<0.005)	0.0318	ND (<0.005)	0.0541	ND (<0.005)	0.0621	ND (<0.005)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.0030)
Methane	µg/L	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	0.32J	0.47J	0.27J	0.29J	ND (<0.30)	ND (<2.5)	ND (<2.5)	ND (<1.00)	ND (<5.00)	ND (<5.00)	3.01 J	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<4.0)
Nitrate	mg/L	2.4	3.5	3.6	2.7	2.9	2.9	3.4	3.2	2.2	3.2	0.69	2.1	3.9	2.7	2.8	2.2	3.9	2.2	2.6	2.2	1.8	1.8	0.22
Nitrogen	mg/L	0.31	0.31	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)	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)	ND (<0.050)
Sulfate	mg/L	64.7	74.7	70.7	50.8	60	60	73.9	60.8	23.0	56.7	50.0	ND (<50.0)	35.8	42.1	23.7	37.0	35.9	51.4	35.1	NS	20.1	38.1	25.8
Sulfide	mg/L	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-7

CONSTITUENT	UNITS	NYSDEC AWQS Values	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/14/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
BTEX Compounds																									
Benzene	µg/L	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	**1.3**	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)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	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)	ND (<1.0)	ND (<1.0)
m/p-Xylene	µg/L	5	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 (<2.0)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	µg/L	5	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)	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	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.3	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)	ND (<1.0)	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	0.10	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.13	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Acenaphthylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	0.20	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	0.10	ND (<0.10)	0.17	0.11	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Anthracene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.12**	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Benzo(a)pyrene	µg/L	0.000	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.11**	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.10**	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Chrysene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.12**	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Fluoranthene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	0.16	ND (<0.10)	0.29	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Fluorene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Naphthalene	µg/L	10	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	5.2	ND (<0.49)	3.0	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.83	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	0.11	ND (<5.0)
Phenanthrene	µg/L	50	0.49	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.14	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Pyrene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	0.26	ND (<0.10)	0.43	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)
Cyanide and Lead																									
Lead	µg/L	25	**33**	7.1	7.1	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	5.6	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	12
Cyanide	mg/L	0.2	**1.4**	**0.4**	0.16	0.13	0.18	0.18	0.18	0.15	0.18	0.16	0.14	0.17	0.129	0.17	ND (<0.010)	**0.35**	0.11	0.13	**0.26**	0.15	0.15	0.14	0.15

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-7

CONSTITUENT	UNITS	04/18/13	10/08/13	04/09/14	10/15/14	04/16/15	10/14/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	324	367	375	392	340	403	395	406	412	380	390	440	370	400	446	430	422	440	404	NS	394	406	426
Chloride	mg/L	114	84	79	62.8	67.7	66.7	66.2	79.4	68.9	64.6	63.6	59.4	63.9	50.9	58.1	56.5	62.6	53.4	83.3	NS	90.0	68.4	61.8
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	0.38J	0.86J	0.20J	0.32J	0.18J	0.13 J	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<0.035)	0.090J	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)
Ferrous Iron	mg/L	ND (<0.1)	0.25	6.24	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.14	0.59	3.7	3.3	2.8	3.2	2.5	2.1	4.3	2.9	0.66	2.3	0.93	NS	3.6	5.7	0.81
Manganese	mg/L	1.1	1.1	0.564	0.49	0.49	0.46	0.53	0.43	0.478	0.476	0.476	0.459	0.487	0.395	0.513	0.420	0.440	0.400	0.307	0.379	0.389	0.401	0.47
Methane	µg/L	40	23	150	82	35	96	17	160	240	120	170	150	140	160	111	30.3	ND (<5.00)	88.2	67.2	NS	19.2	61.4	61
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.14	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.10)	ND (<0.20)	0.11	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.022 J
Nitrogen	mg/L	4.6	1.5	0.16	2	1.1	1.5	1.6	2.2	1.8	1.3	1.7	1.2	1.6	0.11	1.6	ND (<0.10)	1.7	1.7	1.4	1.6	1.4	1.5	ND (<0.050)
Sulfate	mg/L	654	518	540	457	442	533	384	476	396	394	389	331	334	259	307	298	280	321	287	NS	257	281	281
Sulfide	mg/L	1.4	1.4	1.4	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)	2.4	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-10

CONSTITUENT	UNITS	NYSDEC AWQS Values	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
BTEX Compounds																									
Benzene	µg/L	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	**2.3**	ND (<1.0)	ND (<1.0)	**1.9**	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)	**1.5**	ND (<1.0)	**1.5**
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	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)	ND (<1.0)	ND (<1.0)
m/p-Xylene	µg/L	5	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 (<2.0)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	µg/L	5	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)	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	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	2	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)	ND (<1.0)	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	2.2	1.1	0.8	ND (<0.48)	0.63	ND (<0.50)	ND (<0.50)	1.4	0.72	1.6	0.53	1.7	1.4	1.8	0.52	1.9	2.0	1.6	1.5	2.2	1.9	2.2	2.6 J
Acenaphthylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	0.18	0.16	0.18	0.11	0.22	0.22	0.27	ND (<0.095)	0.43	0.38	0.27	0.24	0.29	0.25	0.29	ND (<5.0)
Anthracene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.14	0.14	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.11**	ND (<0.099)	ND (<0.10)	ND (<0.11)	**0.13**	**0.15**	ND (<0.095)	**0.63**	**0.61**	**0.16**	**0.20**	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Benzo(a)pyrene	µg/L	0.002	**0.55**	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.10**	ND (<0.099)	ND (<0.10)	ND (<0.11)	**0.12**	**0.15**	ND (<0.095)	**0.56**	**0.67**	**0.16**	**0.16**	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	**0.86**	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.17**	ND (<0.099)	ND (<0.10)	ND (<0.11)	**0.13**	**0.15**	ND (<0.095)	**0.65**	**0.89**	**0.23**	**0.24**	ND (<0.10)	**0.11**	ND (<0.11)	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.24	0.32	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.15**	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	**0.25**	**0.85**	**0.19**	**0.22**	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Chrysene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.099**	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	**0.12**	ND (<0.095)	**0.53**	**0.51**	ND (<0.11)	0.17	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	1.1	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	ND (<0.099)	0.11	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Fluoranthene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	0.10	0.16	ND (<0.099)	ND (<0.10)	ND (<0.11)	0.18	0.22	ND (<0.095)	0.78	0.78	0.18	0.24	ND (<0.10)	0.11	ND (<0.11)	ND (<5.0)
Fluorene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.21	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	**0.23**	**0.30**	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Naphthalene	µg/L	10	0.7	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	7.9	ND (<0.50)	0.23	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.49	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	0.95	ND (<5.0)
Phenanthrene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.18	0.20	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)
Pyrene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	0.15	0.20	ND (<0.099)	ND (<0.10)	0.13	0.22	0.27	ND (<0.095)	0.97	0.90	0.26	0.30	0.14	0.15	0.14	ND (<5.0)
Cyanide and Lead																									
Lead	µg/L	25	8.4	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<5.0)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	6.0	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	24
Cyanide	mg/L	0.2	0.1	0.11	0.081	0.10	0.098	0.010	0.085	0.081	0.13	0.10	0.12	0.079	0.114	0.093	0.097	0.10	0.060	0.066	0.097	0.078	0.12	0.072	0.13

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-10

CONSTITUENT	UNITS	04/18/13	10/08/13	04/09/14	10/15/14	04/16/15	10/13/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	584	552	566	548	512	581	586	660	628	616	606	650	550	640	624	502	524	650	612	640	586	614	572
Chloride	mg/L	286	265	470	664	698	1060	893	784	390	427	419	709	440	566	314	472	945	768	816	751	970	823	406
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	0.16J	0.33J	0.20J	0.24J	0.42J	0.29 J	0.34 J	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<0.035)	0.12J	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)
Ferrous Iron	mg/L	ND (<0.10)	0.12	6.06	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.11	1.0	4.2	4.7	3.2	4.8	2.6	2.2	5.3	1.2	1.1	3.2	2.0	5.9	4.3	11.5	1.5
Manganese	mg/L	1.2	0.75	1.07	1.3	1.3	1.6	1.2	1.2	1.020	1.030	0.882	0.994	0.946	1.15	0.953	0.771	1.09	1.040	1.150	1.24	1.16	1.47	1.2
Methane	µg/L	32	28	110	130	63	82	56	420	300	330	470	680	460	1300	390	451	ND (<5.00)	780	594	NS	482	63.1	900.0
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.11	ND (<0.05)	0.12	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.50)	ND (<0.10)	ND (<0.20)	ND (<0.50)	ND (<0.10)	0.14	0.41	0.021 J
Nitrogen	mg/L	6.1	4.1	4.8	6.2	5.6	6.3	4	6.5	5.1	3.8	3.3	4.5	4	ND (<1.0)	2.5	1.0	4.0	4.7	3.8	3.6	3.9	4.5	ND (<0.050)
Sulfate	mg/L	174	171	153	89.7	167	53.9	44.4	56.6	148	38.2	ND (<100)	23.0	59.4	20.9	55.2	23.9	7.8	9.7	12.3	4.6	12.4	5.0	ND (<5.0)
Sulfide	mg/L	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)	ND (<1.0)	3.4	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-11

CONSTITUENT	UNITS	NYSDEC AWQS Values	03/14/12	10/09/12	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/14/15 to 10/11/23*	04/16/24
BTEX Compounds											
Benzene	µg/L	1	**7.9**	**12**	**3.5**	**8.1**	**10**	**22**	**7.3**	NS	**16**
Ethylbenzene	µg/L	5	3.5	ND (<1.0)	1.2	3.8	**5.1**	**7.8**	3	NS	**6.4**
m/p-Xylene	µg/L	5	1.4J	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	2.1	ND (<2.0)	NS	1.3 J
o-Xylene	µg/L	5	1.2	ND (<1.0)	ND (<1.0)	1.6	2.1	2.6	1.5	NS	1.7
Toluene	µg/L	5	0.69J	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.1	1.9	ND (<1.0)	NS	1.3
PAHs											
Acenaphthene	µg/L	20	**100**	**140 E**	**97**	**110**	**120**	**110**	**59**	NS	**210**
Acenaphthylene	µg/L	NC	210	160 E	120	170	110	150	56	NS	130
Anthracene	µg/L	50	11	23	13	28	13	16	4.2	NS	11 J
Benzo(a)anthracene	µg/L	0.002	**5.2 B**	**3.8**	ND (<0.002)	**8.3**	**3.2**	**4.8**	**1.9**	NS	ND (<25)
Benzo(a)pyrene	µg/L	0.002	**2.3J**	**2.7**	**3.3**	**8.5**	**2.8**	**4.7**	**0.84**	NS	ND (<25)
Benzo(b)fluoranthene	µg/L	0.002	**1.8J**	**1.7**	ND (<0.002)	ND (<0.002)	ND (<0.002)	**4.6**	**0.68**	NS	ND (<25)
Benzo(g,h,i)perylene	µg/L	NC	1.3J	1	1	3.4	ND (<0.002)	1.8	ND (<0.002)	NS	ND (<25)
Benzo(k)fluoranthene	µg/L	0.002	**1.2J**	**1.6**	ND (<0.002)	ND (<0.002)	ND (<0.002)	**2.1**	ND (<0.002)	NS	ND (<25)
Chrysene	µg/L	0.002	ND (<5.1)	**3.4**	**4.4**	**10**	**5.4**	**7.6**	**0.99**	NS	**1.7 J**
Dibenzo(a,h)anthracene	µg/L	NC	ND (<5.1)	ND (<5.1)	ND (<5.1)	ND (<5.1)	ND (<5.1)	ND (<0.47)	ND (<0.47)	NS	ND (<25)
Fluoranthene	µg/L	50	12	24	14	28	12	16	5.4	NS	13 J
Fluorene	µg/L	50	**62**	**92**	**62**	**70**	31	44	16	NS	**69**
Indeno(1,2,3-cd)pyrene	µg/L	0.002	**0.69J**	**1.6**	ND (<0.002)	ND (<0.002)	ND (<0.002)	**1.2**	ND (<0.002)	NS	ND (<25)
Naphthalene	µg/L	10	**140**	**110**	**50**	**87**	ND (<10)	**51**	2.3	NS	**120**
Phenanthrene	µg/L	50	**91**	**170**	**80**	**130**	5.8	**62**	1.5	NS	**82**
Pyrene	µg/L	50	16	28	18	34	17	20	4.2	NS	15 J
Cyanide and Lead											
Lead	µg/L	25	4.6J	ND (<5.0)	ND (<5.0)	5.9	ND (<5.0)	0.014	ND (<5.0)	NS	**46**
Cyanide	mg/L	0.2	0.012	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.018	0.021	0.012	NS	0.020

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
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F1 = MS and/or MSD Recovery outside acceptance limits.
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NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

* = Monitoring well is inaccessible due to debris and was not sampled during this time period

Table 3

Groundwater Analytical Data
MW-11

CONSTITUENT	UNITS	03/14/12	10/09/12	04/18/13	10/08/13	04/09/14	10/15/14	04/16/15	10/14/15 to 10/11/23*	04/16/24
MNA/WQ Parameters										
Alkalinity (as CaCO3)	mg/L	R	623	507	573	465	457	428	NS	461
Chloride	mg/L	321	350	202	295	454	364	314	NS	618
Ethane	µg/L	ND (<15)	ND (<380)	ND (<380)	ND (<380)	ND (<380)	ND (<7.5)	ND (<7.5)	NS	ND (<170)
Ethene	µg/L	ND (<15)	ND (<350)	ND (<350)	ND (<350)	ND (<350)	ND (<7.0)	ND (<7.0)	NS	ND (<150)
Ferrous Iron	mg/L	ND (<0.1)	0.5	0.18	0.22	0.29	ND (<0.1)	ND (<0.1)	NS	0.76
Manganese	mg/L	0.47	0.95	0.95	0.55	0.56	0.56	0.25	NS	0.74
Methane	µg/L	160	520	12	25	120	180	13	NS	640.00
Nitrate	mg/L	0.092	ND (<0.050)	0.79	0.32	0.32	0.059	0.28	NS	ND (<0.050)
Nitrogen	mg/L	1.3	1.4	0.58	0.64	0.57	1.2	0.26	NS	ND (<0.050)
Sulfate	mg/L	8.5 B	16.9	112	94.1	58	44.3	82.9	NS	14.9
Sulfide	mg/L	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.8	ND (<1.0)	NS	1.2

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality
* = Monitoring well is inaccessible due to debris and was not sampled during this time period

Table 3

Groundwater Analytical Data
MW-12

CONSTITUENT	UNITS	NYSDEC AWQS Values	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/14/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
BTEX Compounds																									
Benzene	µg/L	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)	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	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
m/p-Xylene	µg/L	5	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 (<2.0)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	µg/L	5	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)	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	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	ND (<0.2)	1.1	1.1	ND (<0.48)	ND (<0.48)	ND (<0.47)	ND (<0.51)	0.11	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<011)	ND (<0.097)	ND (<0.096)	ND (<0.11)	ND (<0.099)	0.11	ND (<0.098)	ND (<0.10)	ND (<5.0)
Acenaphthylene	µg/L	NC	ND (<0.2)	ND (<0.2)	ND (<0.2)	0.63	ND (<0.2)	ND (<0.47)	ND (<0.51)	4.4	ND (<0.097)	0.30	0.39	0.82	ND (<0.11)	1.0	0.1	0.61	0.41	0.14	0.21	2.5	0.27	0.40	ND (<5.0)
Anthracene	µg/L	50	ND (<0.2)	1.1	1.1	0.88	ND (<0.2)	0.73	ND (<0.51)	1.4	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.099	ND (<0.11)	ND (<0.097)	ND (<0.096)	ND (<0.11)	1.4	1.5	0.31	0.22	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	**0.83**	**3**	**0.66**	**1.5**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**2.1**	**0.11**	**0.14**	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.24**	**0.34**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.49**	**5.4**	**0.77**	**0.67**	ND (<5.0)
Benzo(a)pyrene	µg/L	0.002	**1**	**3.6**	**0.92**	**1.8**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**2.8**	**0.11**	**0.16**	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.3**	**0.41**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.46**	**6.7**	**0.97**	**0.87**	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	**0.91**	**3.4**	**0.71**	**2.1**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**2.3**	**0.13**	**0.19**	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.24**	**0.34**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.49**	**6.8**	**0.85**	**0.8**	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.49)	ND (<0.49)	0.51	0.74	ND (<0.49)	ND (<0.47)	ND (<0.51)	1.6	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.15	0.21	ND (<0.097)	ND (<0.096)	ND (<0.11)	0.27	3.8	0.41	0.41	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.49)	**0.83**	ND (<0.49)	**0.74**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**0.94**	**0.11**	**0.16**	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.11)	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.45**	**6.0**	**0.74**	**0.55**	ND (<5.0)
Chrysene	µg/L	0.002	**1**	**3**	ND (<0.49)	**1.5**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**1.9**	ND (<0.097)	**0.11**	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.19**	**0.22**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.72**	**3.9**	**0.50**	**0.51**	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.52)	ND (<0.52)	ND (<0.52)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<0.51)	0.29	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.11)	ND (<0.097)	ND (<0.096)	ND (<0.11)	ND (<0.099)	0.92	ND (<0.098)	ND (<0.10)	ND (<5.0)
Fluoranthene	µg/L	50	1.4	4.3	0.87	2.00	ND (<0.49)	ND (<0.47)	0.52	3.9	**0.11**	**0.17**	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.33	0.43	ND (<0.097)	ND (<0.096)	ND (<0.11)	0.72	6.8	0.87	0.73	ND (<5.0)
Fluorene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<0.51)	0.51	ND (<0.097)	ND (<0.10)	ND (<0.099)	0.13	ND (<0.11)	ND (<0.097)	ND (<0.11)	0.12	ND (<0.096)	ND (<0.11)	ND (<0.099)	0.21	ND (<0.098)	ND (<0.10)	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.49)	**1.2**	ND (<0.49)	**0.51**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**1.2**	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.11**	**0.17**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.20**	**3.0**	**0.34**	**0.34**	ND (<5.0)
Naphthalene	µg/L	10	2.5	0.99	ND (<0.52)	1.6	ND (<0.49)	1.9	ND (<0.51)	0.96	ND (<0.097)	0.15	ND (<0.099)	ND (<0.11)	ND (<0.11)	1.8	ND (<0.11)	0.97	ND (<0.096)	ND (<0.11)	ND (<0.099)	0.15	ND (<0.098)	0.71	ND (<5.0)
Phenanthrene	µg/L	50	1.1	3.6	0.61	2	ND (<0.49)	ND (<0.47)	ND (<0.51)	3.5	ND (<0.097)	0.14	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.23	0.34	0.14	ND (<0.096)	ND (<0.11)	0.62	4.7	0.64	0.57	ND (<5.0)
Pyrene	µg/L	50	2.4	5.8	1.3	2.8	ND (<0.49)	ND (<0.47)	0.64	5.4	0.17	0.24	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.49	0.61	ND (<0.097)	ND (<0.096)	ND (<0.11)	1.0	9.6	1.3	1.1	ND (<5.0)
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	**29**	ND (<5.0)	0.018	ND (<0.49)	ND (<10)	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<0.02)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<10)
Cyanide	mg/L	0.2	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.013	ND (<0.49)	ND (<0.01)	ND (<0.01)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.011	0.011	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.0060 J

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-12

CONSTITUENT	UNITS	04/18/13	10/08/13	04/09/14	10/15/14	04/16/15	10/14/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	391	415	329	414	368	401	415	436	466	366	456	430	416	400	380	360	430	512	356	NS	418	392	426
Chloride	mg/L	123	662	150	493	139	591	276	556	152	587	345	757	334	490	267	633	391	879	141	NS	805	1,250	467
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	0.47J	ND (<0.025)	ND (<0.030)	ND (<0.030)	ND (<0.16)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<0.035)	ND (<0.035)	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)
Ferrous Iron	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.11	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	NS	ND (<0.10)	ND (<0.10)	0.082 J
Manganese	mg/L	0.19	2.1	0.36	1.2	0.16	0.039	0.062	0.202	0.0201	0.0399	0.0113	0.0152	0.0153	0.0636	0.0386	0.0074	ND (<0.005)	ND (<0.015)	0.0157	0.272	0.0396	0.0385	0.013
Methane	µg/L	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	1.95	0.24J	0.27J	1.0J	0.35J	ND (<2.5)	ND (<2.5)	ND (<0.10)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<4.0)
Nitrate	mg/L	2.5	4.8	1.4	3.7	1.4	2.5	3.3	2.9	5.1	3.6	0.84	5.6	4.3	ND (<0.10)	5.9	2.5	3	4.4	2.7	3.2	5.3	5.2	0.5
Nitrogen	mg/L	0.24	2.4	0.44	0.61	0.61	ND (<0.2)	ND (<0.2)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	5.1	ND (<1.0)	3.9	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.050)
Sulfate	mg/L	73.5	115	51.6	73.5	54.8	70.2	93.7	56.0	115	53.7	70.3	66.8	53.9	55.1	77.2	48.3	65.9	64.1	39.9	NS	101	54	109
Sulfide	mg/L	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)	ND (<1.0)	1.6	ND (<1.0)	ND (<1.0)	1.0	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-13

CONSTITUENT	UNITS	NYSDEC AWQS Values	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
BTEX Compounds																									
Benzene	µg/L	1	**490**	**400**	**200**	**300**	**17**	**360**	**300**	**348**	**15.5**	**363**	**11.6**	**32.8**	**16.9**	**328**	**126**	**268**	**11.7**	**187**	**7.1**	**113**	**5.9**	**171**	**5.2**
Ethylbenzene	µg/L	5	**600**	**320**	**200**	**340**	**17**	**190**	**270**	**366**	**7.4**	**210**	4.8	**23.3**	**12.4**	**230**	**85.6**	**193**	4.5	**164**	**5.1**	**104**	1.5	**148**	2.1
m/p-Xylene	µg/L	5	**730**	**420**	**250**	**480**	**24**	**270**	**360**	**467**	**12.1**	**257**	**8.6**	**34.8**	**16.6**	**229**	**89.5**	**179**	**8.7**	**152**	5.0	**96.2**	2.7	**122**	4.8
o-Xylene	µg/L	5	**320**	**190**	**120**	**210**	**16**	**120**	**150**	**203**	**8.4**	**117**	**9.3**	**18.6**	**9.7**	**112**	**48.6**	**90.7**	**5.5**	**74.2**	4.0	**53.6**	3.6	**60.4**	5.0
Toluene	µg/L	5	**710**	**440**	**270**	**430**	**17**	**320**	**410**	**552**	**7.6**	**332**	3.9	**25.1**	**11.1**	**288**	**95.7**	**279**	**5.8**	**158**	3.9	**84.2**	1.3	**133**	1.6
PAHs																									
Acenaphthene	µg/L	20	**130**	**77**	**71**	**130**	ND (<4.9)	**65 E**	**130**	**225**	0.34	**78.4**	0.16	4.3	6.8	**141**	4.6	**124**	0.35	**106**	5.6	**143**	ND (<0.096)	**245**	0.60 J
Acenaphthylene	µg/L	NC	430	350	22	450	ND (<4.9)	77 E	220	267	1.2	122	0.61	6.4	6.7	57.0	0.78	43.4	0.89	10.5	1.4	68.4	0.14	24.5	ND (<5.0)
Anthracene	µg/L	50	ND (<47)	ND (<47)	6.9	14	ND (<4.9)	9.2 F1 F2	10	19.2	0.55	7.2	0.25	0.73	0.82	7.3	0.15	5.1	0.33	6.1	0.15	6.7	ND (<0.096)	6.5	0.35 J
Benzo(a)anthracene	µg/L	0.002	ND (<47)	ND (<47)	ND (<47)	**1.9**	ND (<0.001)	**0.59 F2**	ND (<9.7)	**6.7**	**0.93**	**1.7**	**0.30**	**0.22**	**0.14**	**0.79**	**0.18**	**0.51**	**0.38**	**0.98**	ND (<0.098)	**0.98**	ND (<0.096)	**0.56**	ND (<5.0)
Benzo(a)pyrene	µg/L	0.002	ND (<47)	ND (<47)	ND (<47)	**1.6**	ND (<0.001)	ND (<0.49)	ND (<9.7)	**6.5**	**1.0**	**1.3**	**0.40**	**0.20**	ND (<0.10)	**0.58**	**0.20**	**0.31**	**0.82**	**0.87**	ND (<0.098)	**1.1**	**0.11**	**0.31**	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	ND (<47)	ND (<47)	ND (<47)	**2.8**	ND (<0.001)	ND (<0.49)	ND (<9.7)	**6.2**	**1.2**	**1.6**	**0.47**	**0.22**	**0.12**	**0.49**	**0.17**	**0.27**	**0.83**	**0.97**	ND (<0.098)	**1.2**	**0.10**	**0.33**	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<47)	ND (<47)	ND (<47)	0.6	ND (<0.001)	ND (<0.49)	ND (<9.7)	3.3	0.55	ND (<0.98)	0.21	ND (<0.099)	ND (<0.10)	0.23	ND (<0.10)	0.13	0.45	0.42	ND (<0.098)	0.59	ND (<0.096)	0.11	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<47)	ND (<47)	ND (<47)	**0.53**	ND (<0.001)	ND (<0.49)	ND (<9.7)	**2.5**	**1.1**	**1.3**	**0.35**	**0.20**	**0.11**	**0.21**	ND (<0.10)	**0.11**	**0.79**	**0.84**	ND (<0.098)	**1.1**	ND (<0.096)	**0.27**	ND (<5.0)
Chrysene	µg/L	0.002	ND (<47)	ND (<47)	ND (<47)	**1.8**	ND (<0.001)	**0.50 F1 F2**	ND (<9.7)	**6.1**	**0.81**	**1.3**	**0.22**	**0.20**	ND (<0.10)	**0.64**	**0.13**	**0.38**	**0.34**	**0.62**	ND (<0.098)	**0.75**	ND (<0.096)	**0.34**	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<47)	ND (<47)	ND (<47)	ND (<0.47)	ND (<0.001)	ND (<0.49)	ND (<9.7)	0.85	0.13	ND (<0.98)	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.098)	0.11	ND (<0.11)	ND (<0.098)	0.16	ND (<0.096)	ND (<0.099)	ND (<5.0)
Fluoranthene	µg/L	50	ND (<47)	ND (<47)	6.1	8.2	ND (<4.9)	5.5 F2	ND (<9.7)	17.8	1.9	5.4	0.51	0.77	0.66	4.6	1.3	4.0	0.58	4.4	0.27	5.4	ND (<0.096)	4.7	ND (<5.0)
Fluorene	µg/L	50	**93**	**68**	30	**94J**	ND (<4.9)	43 F1 F2	**55**	**74.8**	0.46	37.9	0.19	2.6	3.7	45.7	0.16	33.2	0.27	42.5	0.89	44.5	ND (<0.096)	50.8	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<47)	ND (<47)	ND (<47)	**0.48**	ND (<0.001)	ND (<0.49)	ND (<9.7)	**2.7**	**0.42**	ND (<0.98)	**0.17**	ND (<0.099)	ND (<0.10)	**0.19**	ND (<0.10)	**0.11**	**0.34**	**0.34**	ND (<0.098)	**0.49**	ND (<0.096)	**0.10**	ND (<5.0)
Naphthalene	µg/L	10	**7100**	**3700**	ND (<10)	**4200**	ND (<4.9)	**350 E**	**170**	**5560**	0.96	**1880**	0.45	0.31	0.14	**9,700**	0.19	**2,190**	0.76	1.6	0.16	**586**	ND (<0.096)	**521**	ND (<5.0)
Phenanthrene	µg/L	50	**73**	**61**	ND (<50)	**70**	ND (<4.9)	31 F1	ND (<9.7)	**78.3**	1.5	32.8	0.60	0.37	2.40	39.8	0.14	31	0.76	24.0	ND (<0.098)	17.2	ND (<0.096)	39.7	ND (<5.0)
Pyrene	µg/L	50	ND (<47)	ND (<47)	7.2	9.7	ND (<4.9)	5.8 F2	ND (<9.7)	ND (<52.1)	1.7	6.0	0.54	0.78	0.63	4.8	0.86	4.1	0.71	4.6	0.13	5.6	ND (<0.096)	4.7	ND (<5.0)
Cyanide and Lead																									
Lead	µg/L	25	7.8	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<4.9)	ND (<10)	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<0.10)
Cyanide	mg/L	0.2	**0.32**	**0.26**	0.17	**0.24**	0.11	**0.22 F1**	**0.29**	**0.23**	0.070	**0.20**	0.062	0.10	0.09	0.16	0.11	0.16	0.050	0.095	0.096	0.14	0.046	0.100	0.060

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control l
J = Estimated Concentration Valu
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-13

CONSTITUENT	UNITS	04/18/13	10/08/13	04/09/14	10/15/14	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
MNA/WQ Parameters																							
Alkalinity (as CaCO3)	mg/L	218	187	176	255	283 F1	311	364	234	308	226	280	230	380	268	320	232	350	304	350	297	336	264
Chloride	mg/L	20.4	7.3	9.2	17.3	11.2	9.8	11.4	3.4	7.6	92.7	31.6	8.4	19.5	9.3	6.9	11.8	8.4	ND (<3.0)	6.7	15.8	8.3	4.6
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	1.2	ND (<0.025)	0.88J	ND (<0.030)	0.22J	0.11 J	0.74 J	ND (<1.00)	ND (<5.0)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.5)	3.3	ND (<0.035)	2.3	ND (<0.10)	0.46J	0.19 J	2.1	ND (<1.00)	2.34 J	ND (<5.00)	1.26 J	ND (<1.00)	NS	ND (<1.00)	1.02	ND (<7.0)
Ferrous Iron	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<1.0)	0.18	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.15	ND (<0.10)	ND (<0.10)	0.13	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.11	0.081 J
Manganese	mg/L	0.11	0.088	0.14	0.031	0.064	ND (<7.5)	0.0938	0.0417	0.0705	0.0570	0.0619	0.0298	0.0710	0.0446	0.0709	0.0601	0.0859	0.034	0.062	0.0202	0.0822	0.013
Methane	µg/L	36	15	74	ND (<4.0)	110	50	280	0.34J	190	12	73	41	250	84.7	218	ND (<5.00)	111	25.5	NS	10.9	169	32
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.05	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<0.50)	ND (<1.0)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.025 J
Nitrogen	mg/L	1.8	1.2	2.1	0.62	1.4	1.2	1.3	ND (<1.0)	2.1	ND (<1.0)	4.5	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<1.0)	2.3	ND (<1.0)	ND (<100)	ND (<1.0)	ND (<1.0)	1.1	ND (<1.0)
Sulfate	mg/L	82.3	15.5	15.5	ND (<5.0)	ND (<5.0)	ND (<5.0)	18.3	16.0	42.3	20.4	28.6	26.1	23.4	10.8	17.3	32.1	8.6	25.1	8.4	13.4	3.4	174.0
Sulfide	mg/L	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	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)	1.6	1.0	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-14

CONSTITUENT	UNITS	NYSDEC AWQS Values	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
BTEX Compounds																									
Benzene	µg/L	1	ND (<1.0)	**1.3**	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.54)	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)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.54)	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)	ND (<1.0)
m/p-Xylene	µg/L	5	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<0.54)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.54)	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)	ND (<1.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.54)	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)	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	ND (<0.48)	2.2	0.5	2.00	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.19	ND (<0.096)	1.7	ND (<0.099)	ND (<0.099)	ND (<0.10)	0.18	0.8	0.2	ND (<0.10)	0.20	ND (<0.10)	0.23	ND (<0.099)	ND (<0.099)	ND (<5.0)
Acenaphthylene	µg/L	NC	ND (<0.48)	2.5	ND (<0.48)	2.9	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.99	0.25	4.1	0.19	0.34	0.26	0.71	8.4	1.2	0.38	1.6	0.21	0.49	0.37	0.29	ND (<5.0)
Anthracene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	0.5	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.25	0.096	0.29	ND (<0.099)	0.15	0.11	0.11	3.5	0.6	0.16	0.62	ND (<0.10)	0.19	0.14	0.16	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	ND (<0.48)	**0.62**	1	**1.9**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.28**	**0.13**	**0.26**	**0.11**	ND (<0.099)	ND (<0.10)	ND (<0.096)	**19.8**	**2.1**	**0.51**	**3.5**	ND (<0.10)	ND (<0.10)	**0.63**	**0.13**	ND (<5.0)
Benzo(a)pyrene	µg/L	0.002	ND (<0.48)	**0.65**	**1.3**	**2.4**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.32**	**0.12**	**0.29**	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	**24.8**	**2.6**	**0.66**	**3.9**	ND (<0.10)	ND (<0.10)	**0.72**	**0.15**	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.48)	**0.79**	**1.2**	**3.8**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.55**	**0.21**	**0.47**	**0.14**	ND (<0.099)	**0.7**	ND (<0.096)	**26.1**	**2.8**	**0.87**	**5.4**	ND (<0.10)	ND (<0.10)	**0.91**	**0.19**	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.48)	ND (<0.48)	0.95	1.3	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.29	0.11	0.24	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	17.5	1.9	0.54	2.7	ND (<0.10)	ND (<0.10)	0.44	0.11	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	**0.83**	**1.1**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.47**	**0.18**	**0.40**	**0.11**	ND (<0.099)	**0.14**	ND (<0.096)	**8.5**	**1.0**	**0.84**	**4.7**	ND (<0.10)	ND (<0.10)	**0.80**	**0.16**	ND (<5.0)
Chrysene	µg/L	0.002	ND (<0.48)	**0.69**	**1.2**	**2.1**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.27**	**0.13**	**0.24**	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	**17.0**	**1.9**	**0.51**	**2.7**	ND (<0.10)	ND (<0.10)	**0.45**	ND (<0.099)	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<0.52)	ND (<0.54)	ND (<0.10)	ND (<0.096)	ND (<0.099)	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	4.5	0.4	0.13	0.59	ND (<0.10)	ND (<0.10)	ND (<0.099)	ND (<0.099)	ND (<5.0)
Fluoranthene	µg/L	50	ND (<0.48)	1.2	1.5	3.2	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.45	0.17	0.55	0.13	ND (<0.099)	0.14	0.098	29.0	3.0	0.71	4.5	ND (<0.10)	ND (<0.10)	0.77	0.18	ND (<5.0)
Fluorene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.14	ND (<0.096)	0.21	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	1.3	0.2	ND (<0.10)	0.26	ND (<0.10)	0.14	ND (<0.099)	ND (<0.099)	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.48)	ND (<0.48)	**0.63**	**0.95**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.21**	ND (<0.096)	**0.18**	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	**14.4**	**1.5**	**0.40**	**2.2**	ND (<0.10)	ND (<0.10)	**0.36**	ND (<0.099)	ND (<5.0)
Naphthalene	µg/L	10	1.7	0.48	ND (<0.48)	1.1	ND (<0.47)	ND (<0.52)	ND (<0.54)	5.2	ND (<0.096)	4.2	ND (<0.099)	ND (<0.099)	ND (<0.10)	0.72	0.86	1.10	ND (<0.10)	0.18	ND (<0.10)	ND (<0.10)	ND (<0.099)	1.4	ND (<5.0)
Phenanthrene	µg/L	50	ND (<0.48)	0.67	0.63	1.4	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.22	ND (<0.096)	0.17	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	9.8	1.0	0.25	1.5	ND (<0.10)	ND (<0.10)	0.22	ND (<0.099)	ND (<5.0)
Pyrene	µg/L	50	ND (<0.48)	1.5	2.4	5.0	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.68	0.28	0.74	0.20	ND (<0.099)	0.22	0.12	47.0	5.0	1.2	7.3	ND (<0.10)	ND (<0.10)	1.2	0.27	0.52 J
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	15	ND (<5.0)	0.031	ND (<0.01)	ND (<0.01)	ND (<10)	**33.3**	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	**256**	**50.2**	7.5	90.9	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	**150**
Cyanide	mg/L	0.2	0.1	0.2	**0.9**	0.2	0.091	0.120	**0.88**	**0.67**	0.079	**0.25**	0.062	0.11	0.0838	0.11	0.12	**0.42**	0.057	0.072	0.14	0.13	0.076	0.10	0.070

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
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NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-14

CONSTITUENT	UNITS	04/18/13	10/08/13	04/09/14	10/15/14	10/13/14	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
MNA/WQ Parameters																							
Alkalinity (as CaCO3)	mg/L	417	456	483	372	445	507	520	380	404	392	450	384	380	342	400	364	392	392	NS	310	384	328
Chloride	mg/L	2	7.6	28.5	3.9	10.7	27.4	18.0	3.5	6.6	ND (<3.0)	3.2	3.5	ND (<3.0)	ND (<3.0)	6.7	6.9	4.5	ND (<3.0)	NS	3.4	5.2	2.8
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	0.17J	ND (<0.025)	0.13J	ND (<0.030)	ND (<0.16)	ND (<1.0)	ND (<1.0)	1.57	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.5)	ND (<0.035)	ND (<0.035)	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)
Ferrous Iron	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.11	0.55	0.22	0.93	0.47	0.30	0.39	0.12	1.90	2.1	0.44	1.4	0.38	NS	0.177	1.4	0.97
Manganese	mg/L	0.008	0.25	1	0.019	0.011	ND (<7.5)	0.768	0.0262	0.416	0.201	0.0121	0.0208	0.051	3.79	0.940	0.268	4.29	0.203	0.0845	1.0	0.116	0.570
Methane	µg/L	ND (<1.0)	8.6	140	ND (<4.0)	ND (<4.0)	31	140	19	120	1.7J	1.4J	ND (<2.5)	19	1,020	ND (<5.00)	6.54	4.01 J	6.99	NS	7.40	13.3	5.6
Nitrate	mg/L	0.8	ND (<0.05)	ND (<0.05)	0.87	0.16	ND (<0.05)	ND (<0.10)	0.29	ND (<0.10)	ND (<0.10)	0.59	0.4	ND (<1.0)	ND (<1.0)	ND (<0.50)	0.6	0.28	0.21	ND (<0.10)	0.36	0.21	0.033 J
Nitrogen	mg/L	0.54	0.68	1.5	0.22	0.72	1	1.2	ND (<1.0)	ND (<1.0)	1.0	ND (<1.0)	ND (<1.0)	ND (<1.0)	4.2	3.6	1.0	1.8	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.5	ND (<0.050)
Sulfate	mg/L	ND (<5.0)	ND (<5.0)	363	ND (<5.0)	ND (<5.0)	324	153	12.5	52.4	15.2	20.3	ND (<10)	17.7	11.2	102.0	15.1	14.5	25.9	NS	10.6	17.1	ND (<5.0)
Sulfide	mg/L	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)	1.4	1.0	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-15

CONSTITUENT	UNITS	NYSDEC AWQS Values	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
BTEX Compounds																									
Benzene	µg/L	1	**410**	**390**	**210**	**300**	**16**	**350 E**	**330**	**714**	**111**	**373**	**48.7**	**108**	**41.2**	**364**	**55.8**	**271**	**92.7**	**18.7**	**149**	**324**	**91.7**	**139**	**10**
Ethylbenzene	µg/L	5	**75**	**53**	**38**	**74**	1.9	**92**	**110**	**244**	**24.5**	**124**	**10.2**	**45.2**	**15.7**	**135**	**19.4**	**99.9**	**31.0**	**7.9**	**86.7**	**133**	**40.7**	**63.1**	**10**
m/p-Xylene	µg/L	5	**19**	ND (<5.0)	ND (<5.0)	**ND (<10)**	3.2	**8.1**	ND (<8.0)	**13.7**	2.7	**9.4**	ND (<2.0)	2.8	ND (<2.0)	**17.5**	ND (<2.0)	**12.3**	ND (<2.0)	3.4	**21.6**	**10**	4.3	**11.6**	2.3
o-Xylene	µg/L	5	**19**	**16**	**8.5**	**28**	**7.5**	**23**	**21**	**31.7**	**7.3**	**22.8**	3.7	**18.8**	**8.1**	**26.2**	4.6	**23**	4.2	**15.4**	**28.1**	**24.4**	**12.4**	**15.2**	**11**
Toluene	µg/L	5	ND (<5.0)	ND (<5.0)	ND (<5.0)	**5.8**	ND (<1.0)	**7**	ND (<8.0)	**6.1**	1.1	**7.4**	ND (<1.0)	2.9	1.3	**8.5**	1.4	**6.9**	ND (<1.0)	1.1	**11.1**	**5.4**	2.3	4.0	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	**42**	**23**	18	**24**	6.7	16	**23**	**43.1**	10.1	16.3	12.4	**32.7**	12.6	**28.4**	4.7	17.2	**28.3**	**40.3**	16.6	**39.1**	**27.1**	**22**	**36 J**
Acenaphthylene	µg/L	NC	11	6.5	3	3.9	0.59	3.1	ND (<5.1)	2.4	1.5	2.5	1.4	3.9	1.6	1.9	0.66	1.2	2.5	3.7	1.2	1.6	2.2	1.8	ND (<5.0)
Anthracene	µg/L	50	2.6	1.4	0.95	0.81	ND (<0.49)	0.57	ND (<5.1)	1.9	0.36	0.56	0.31	0.55	0.46	0.74	0.25	0.52	0.35	0.82	0.42	0.96	0.46	0.67	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	**0.96**	**0.59**	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	**0.14**	**0.13**	**0.55**	**0.14**	ND (<0.099)	**0.14**	**0.14**	**0.16**	**0.20**	**0.16**	**0.37**	**0.13**	**0.14**	**0.11**	**0.19**	ND (<5.0)
Benzo(a)pyrene	µg/L	0.000	**0.96**	**0.59**	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	**0.10**	**0.58**	**0.11**	ND (<0.099)	**0.12**	ND (<0.097)	**0.18**	**0.20**	**0.13**	**0.37**	ND (<0.11)	ND (<0.099)	ND (<0.10)	**0.19**	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	**0.85**	**0.62**	ND (<0.58)	**0.72**	ND (<0.49)	ND (<0.47)	ND (<5.1)	**0.11**	**0.16**	**0.81**	**0.15**	ND (<0.099)	**0.17**	**0.11**	**0.16**	**0.21**	**0.16**	**0.48**	**0.11**	**0.12**	**0.10**	**0.22**	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.58)	ND (<0.58)	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	ND (<0.098)	0.4	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.097)	0.11	0.12	ND (<0.096)	0.21	ND (<0.11)	ND (<0.099)	ND (<0.10)	0.10	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	**0.72**	ND (<0.58)	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	**0.13**	**0.69**	**0.11**	ND (<0.099)	**0.15**	**0.10**	ND (<0.10)	ND (<0.097)	**0.15**	**0.41**	ND (<0.11)	**0.11**	ND (<0.10)	**0.18**	ND (<5.0)
Chrysene	µg/L	0.002	**1.2**	**0.59**	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	**0.11**	**0.12**	**0.48**	ND (<0.099)	ND (<0.099)	**0.12**	**0.11**	**0.12**	**0.17**	**0.13**	**0.26**	ND (<0.11)	**0.10**	ND (<0.10)	**0.13**	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.58)	ND (<0.58)	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	ND (<0.098)	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.10)	ND (<0.097)	ND (<0.096)	ND (<0.10)	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<5.0)
Fluoranthene	µg/L	50	3.3	1.7	1.1	0.93	ND (<0.49)	0.61	ND (<5.1)	1.2	0.46	1.2	0.34	0.53	0.6	0.89	0.41	0.68	0.52	0.76	0.44	0.79	0.46	0.70	ND (<5.0)
Fluorene	µg/L	50	13	6.1	4.3	5.2	1.2	4.1	5.9	11.8	1.9	4.1	2.4	5.3	3.4	6.6	1.4	4.0	4.4	3.3	2.9	7.9	5.4	5.2	4.4 J
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.58)	ND (<0.58)	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	ND (<0.098)	**0.31**	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.10)	ND (<0.097)	ND (<0.096)	**0.17**	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<5.0)
Naphthalene	µg/L	10	**94**	**13**	**29**	**210**	1.5	**48 E**	**110**	**363**	**34.1**	**69.3**	**16.8**	**138**	**43**	**512**	1.1	**272**	**15.0**	**152**	**242**	**232**	**126**	**138**	**230**
Phenanthrene	µg/L	50	10	5.1	3.4	3.7	ND (<0.49)	2.8	ND (<5.1)	8.5	1.2	2.5	0.99	1.9	1.8	3.7	0.52	2.1	1.2	2.7	1.6	3.7	1.2	2.0	ND (<5.0)
Pyrene	µg/L	50	3.7	2	1.5	1.1	ND (<0.49)	0.69	ND (<5.1)	1.4	0.58	1.6	0.45	0.59	0.73	1.0	0.54	0.83	0.71	1.0	0.57	0.92	0.57	0.84	ND (<5.0)
Cyanide and Lead																									
Lead	µg/L	25	10	ND (<5.0)	ND (<5.0)	0.010	0.010	0.010	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	24
Cyanide	mg/L	0.2	**0.5**	**0.5**	**0.48**	**0.58**	**0.29**	**1**	**1.1**	**1.1**	**0.42**	**1.3**	**0.56**	**0.27**	**0.171**	**0.61**	**0.32**	**0.67**	**0.23**	0.18	**0.23**	**1.1**	**0.29**	**0.25**	0.12

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-15

CONSTITUENT	UNITS	04/18/13	10/08/13	04/09/14	10/15/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	527	585	482	557	480	600	601	676	562	610	616	600	478	590	446	550	534	480	478	600	492	532	405
Chloride	mg/L	39.4	42	44.5	44.2	14.2	49.3	55.7	65.4	25.7	58.0	15.2	15.2	43.9	38	20.3	37.4	24.6	14.0	14.9	82.6	29.1	29.2	2.9
Ethane	µg/L	ND (<380)	ND (<380)	ND (<380)	ND (<380)	ND (<380)	ND (<380)	ND (<75)	6.2	3.2	5.1	2.8	2.1	3.4	5.1	ND (<1.00)	3.53 J	ND (<5.00)	ND (<2.0)	2.02	NS	1.96 J	ND (<10.0)	ND (<7.5)
Ethene	µg/L	ND (<350)	ND (<350)	ND (<350)	ND (<350)	ND (<350)	ND (<350)	ND (<75)	0.038J	0.037J	ND (<0.10)	ND (<0.10)	0.042J	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)
Ferrous Iron	mg/L	0.15	0.18	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.15 HF	ND (<0.1)	8.2	3.0	5.8	3.8	9.2	2.5	3.2	4.2	6.0	8.7	14.8	3.0	7.9	10.7	9.5	0.67
Manganese	mg/L	1	1.1	0.68	1	0.68	0.7	ND (<75)	0.609	0.0639	0.735	0.484	1.56	0.775	0.952	0.312	0.685	0.894	1.27	1.03	0.508	0.724	0.818	0.96
Methane	µg/L	780	580	1,100	2,400	16	1,600	720	3,400	1,900	2,900	640	3,100	1,400	3,600	416	2,400	348	1,020	2,650	NS	1,190	3,250	1,100
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.28	ND (<0.05)	ND (<0.5)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.50)	ND (<0.10)	ND (<0.20)	ND (<2.0)	ND (<0.50)	0.11	ND (<0.10)	0.020 J
Nitrogen	mg/L	3	3.1	3.2	2.9	0.81	3.9	3.4	4.7	2.0	4.4	3.1	1.9	1.4	3.1	1.9	2.0	2.2	1.8	1.9	4.5	1.7	2.6	ND (<0.050)
Sulfate	mg/L	113	139	122	91.1	28.7	78.5	116	67.9	17.7	60.6	39.0	28.4	25.1	65.9	31.9	71.0	46.8	1.8	24.4	122	39.0	57.2	32.1
Sulfide	mg/L	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)	ND (<1.0)	ND (<1.0)	1.6	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-16

CONSTITUENT	UNITS	NYSDEC AWQS Values	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
BTEX Compounds																									
Benzene	µg/L	1	**200**	**150**	**8.7**	**59**	**91**	**40**	**76**	**149**	**5.9**	**143**	**80.6**	**127**	**126**	**143**	**56.6**	**130**	**15.0**	**97.6**	**9.1**	**59.3**	**12.4**	**89.6**	**6.6**
Ethylbenzene	µg/L	5	**150**	**92**	**6.2**	**41**	**68**	**26**	**35**	**134**	**3.1**	**124**	**60.8**	**101**	**91.5**	**118**	**38.7**	**70.4**	2.9	**65.5**	3.8	**40.8**	**5.5**	**60.6**	1.9
m/p-Xylene	µg/L	5	**41**	**23**	ND (<1.0)	ND (<10)	ND (<1.0)	4.9	5	4.9	ND (<2.0)	**9.3**	**6.6**	**8.7**	**9.5**	**9.3**	3.9	2.8	ND (<2.0)	4.1	ND (<2.0)	3.0	ND (<2.0)	**5.4**	ND (<2.0)
o-Xylene	µg/L	5	**56**	**35**	ND (<1.0)	**17**	**24**	**11**	**20**	**32.1**	**1.6**	**38.0**	**21.3**	**32.8**	**31.4**	**34.6**	**12.8**	**22.3**	**6.1**	**21.5**	3.1	**12.6**	**2.2**	**20.0**	1.0
Toluene	µg/L	5	**14**	**9**	ND (<1.0)	**17**	ND (<1.0)	1.4	ND (<2.0)	**2.9**	ND (<1.0)	3.8	2.1	3.8	3.7	4.5	1.5	3.0	ND (<1.0)	2.9	1.6	2.1	ND (<1.0)	3.4	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	**30**	16	ND (<1.0)	**40**	**27**	14	**31**	**54.7**	3.0	**39.5**	**39.1**	**57.8**	**45.2**	**53.3**	14.6	**47.0**	9.9	**55.1**	10.6	**48.1**	12.7	**53.5**	18.0
Acenaphthylene	µg/L	NC	49	ND (<0.48)	ND (<0.48)	31	25	16	27	47.3	1.9	26.2	24.4	30.6	17.6	21.4	5.9	16.0	3.2	19.4	4.9	19.1	4.7	19.5	5.2
Anthracene	µg/L	50	2.8	ND (<0.48)	ND (<0.48)	2.8	1.8	1.2	ND (<2.5)	1.4	0.37	2.2	1.7	2.6	1.8	2.4	0.74	1.7	0.47	2.3	0.48	1.7	0.60	2.3	0.63 J
Benzo(a)anthracene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	**0.10**	**0.11**	**0.11**	**0.13**	**0.12**	**0.11**	**0.13**	ND (<0.10)	**0.23**	ND (<0.098)	**0.19**	ND (<0.098)	**0.13**	ND (<0.10)	**0.16**	ND (<5.0)
Benzo(a)pyrene	µg/L	0.000	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	**0.11**	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.21**	ND (<0.098)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	**0.17**	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	0.11	ND (<0.10)	**0.21**	ND (<0.098)	**0.12**	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	ND (<0.097)	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.14	ND (<0.098)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	**0.15**	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	**0.098**	ND (<0.10)	ND (<0.098)	ND (<0.098)	**0.11**	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)
Chrysene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	**0.098**	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	**0.11**	ND (<0.10)	**0.19**	ND (<0.098)	**0.14**	ND (<0.098)	ND (<0.10)	ND (<0.10)	**0.11**	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	ND (<0.097)	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.098)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)
Fluoranthene	µg/L	50	2	ND (<0.48)	ND (<0.48)	2.7	1.6	1.1	ND (<2.5)	1.8	0.41	2.5	1.9	2.4	1.9	3.0	1.1	2.6	0.47	3.40	0.72	2.2	0.92	3.3	1.2 J
Fluorene	µg/L	50	21	9.1	ND (<0.48)	22	14	7.1	15	22.2	1.1	17.2	17.2	19.5	12.8	24.1	5.3	16.9	1.8	20.5	3.4	16.2	5.1	20.6	6.3
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	ND (<0.097)	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.11**	ND (<0.098)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)
Naphthalene	µg/L	10	**230E**	ND (<0.48)	ND (<0.48)	1.7	4.6	5.1	7.4	4.6	0.16	5.8	**30.9**	9.8	**12.9**	**36.8**	2.2	8.0	1.4	**14.1**	8.3	**16.3**	9.0	**28.3**	9.9
Phenanthrene	µg/L	50	15	ND (<0.48)	ND (<0.48)	18	11	6.7	10	15.9	0.99	15.7	14.1	16.5	11.6	18.4	2.5	13.1	ND (<0.098)	15.4	3.5	13.0	4.1	18.2	5.3
Pyrene	µg/L	50	2	ND (<0.48)	ND (<0.48)	3	1.8	1.2	ND (<2.5)	2.0	0.50	2.7	2.1	2.5	2.1	3.3	1.2	2.9	0.54	3.8	0.80	2.30	1.0	3.7	1.5 J
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	6.1	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	17
Cyanide	mg/L	0.2	0.11	0.11	0.023	**0.25**	**0.24**	**0.24**	**0.25**	**0.26**	**0.21**	**0.26**	**0.23**	**0.26**	0.192	**0.23**	0.19	**0.25**	0.17	0.14	0.14	0.19	0.12	0.20	0.17

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-16

CONSTITUENT	UNITS	04/18/13	10/08/13	04/09/14	10/15/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	530	585	454	595	532	638	615	636	706	630	724	740	560	650	156	670	680	760	546	674	450	674	616
Chloride	mg/L	5.5	5.4	5	6.5	5.8	4.9	5.7	6.8	3.4	6.5	5.6	4.8	11.8	4.8	3.6	5.2	3.6	3.8	ND (<3.0)	5.7	ND (<3.0)	5.7	3.6
Ethane	µg/L	ND (<750)	ND (<750)	ND (<750)	ND (<750)	ND (<75)	ND (<75)	ND (<75)	1.2	0.15J	0.84J	0.82J	0.99J	0.92 J	1.1	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<5.00)	ND (<7.5)
Ethene	µg/L	ND (<700)	ND (<700)	ND (<700)	ND (<700)	ND (<70)	ND (<70)	ND (<75)	0.24J	0.036J	0.16J	0.13J	0.17J	0.15 J	0.20 J	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)
Ferrous Iron	mg/L	ND (<0.1)	0.13	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	2.4	1.2	3.0	3.5	3.1	2.6	1.9	2.8	3.0	0.79	4.7	3.6	7.4	0.30	9.0	0.9
Manganese	mg/L	0.63	0.7	0.22	0.63	0.42	0.33	ND (<75)	0.601	0.522	0.599	0.551	0.592	0.603	0.658	0.373	0.650	0.373	0.646	0.275	0.553	0.125	0.634	0.19
Methane	µg/L	170	150	75	410	160	1100	110	900	180	780	820	830	850	1100	4.95 J	488	ND (<5.00)	500	173	NS	22.1	641	330
Nitrate	mg/L	0.1	ND (<0.05)	0.53	ND (<0.05)	ND (<0.05)	0.37	0.074	ND (<0.10)	0.33	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<0.50)	0.79	ND (<0.10)	0.32
Nitrogen	mg/L	3.6	2.8	2.4	3.3	2.1	1.9	2.6	5.4	2.4	3.2	2.3	3.2	3.4	3.9	2	2.8	2.4	3.9	2.2	3.7	1.0	3.9	ND (<0.050)
Sulfate	mg/L	140	86	ND (<1.0)	107	38.2	22.8	13.3	145	37.8	77.7	111	75.8	79.6	67.7	39	95.7	37.5	56.8	25.9	36.2	28.5	30.2	8.6
Sulfide	mg/L	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)	ND (<1.0)	ND (<1.0)	1.0	ND (<1.0)	1.0	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Appendix A – Field Data

National Grid

109 North Market Street, Johnstown New York

Sampling Personnel: G. Ernst

Job Number: 0603400-120950-221

Well Id. **MW-4**

Date: 4/16/24

Weather: Clear 50°s

Time In: 1055 Time Out: 1215

Well Information

		TOC	Other
Depth to Water:	(feet)	21.74	
Depth to Bottom:	(feet)	27.32	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	5.58	
Volume of Water in Well:	(gal)	0.89	
Three Well Volumes:	(gal)	2.68	

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 ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒
Tubing/Bailer Material:		Teflon ☐	Stainless St. ☐	Polyethylene ☒ other ☐
Sampling Method:		Bailer ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒
Average Pumping Rate:	(ml/min)	200		
Duration of Pumping:	(min)	30		
Total Volume Removed:	(gal)	2		

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ No ☐

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1120	21.86	12.60	7.20	77	1.93	55.4	4.43	1.24
1125	21.86	11.59	7.11	88	1.85	29.8	4.49	1.18
1130	21.87	11.41	7.10	93	1.71	6.5	4.90	1.09
1135	21.87	11.44	7.10	98	1.57	0.4	5.64	1.01
1140	21.87	11.40	7.09	103	1.57	0.0	5.05	1.01
1145	21.87	11.34	7.08	104	1.60	0.0	5.86	1.03
1150	21.87	11.44	7.08	103	1.61	0.0	5.62	1.03
1155	21.87	11.45	7.08	105	1.57	0.0	6.05	1.01

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-4**

Sample Time: 1200

Duplicate? Yes ☐ No ☒

MS/MSD? Yes ☐ No ☒

Shipped: Syracuse Service Center ☐

Fed-Ex ☐ Courier ☐

Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: Peter Lyon
Job Number: 0603400-120950-221
Well Id. **MW-7**

Date: 4/16/24
Weather: Sunny 54°
Time In: 1050 Time Out: 1136

Well Information

		TOC	Other
Depth to Water:	(feet)	13.59	
Depth to Bottom:	(feet)	22.10	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	8.51	
Volume of Water in Well:	(gal)	1.36	
Three Well Volumes:	(gal)	4.08	

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 ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒	
Tubing/Bailer Material:	Teflon ☐	Stainless St. ☐	Polyethylene ☒	other ☒
Sampling Method:	Bailer ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒	
Average Pumping Rate: (ml/min)	200			
Duration of Pumping: (min)	30			
Total Volume Removed: (gal)	2			

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ No ☐

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1055	14.17	11.07	8.32	-2	1.33	374	7.54	0.847
1100	14.39	11.20	8.20	-5	1.31	192	4.57	0.838
1105	14.76	11.02	8.16	-23	1.30	132	1.76	0.834
1110	15.11	10.91	8.12	-34	1.30	80.1	0.36	0.832
1115	15.46	11.09	8.07	-41	1.31	66.1	0.18	0.837
1120	15.83	11.25	7.95	-50	1.31	47.2	0.00	0.839
1125	16.00	11.33	7.92	-55	1.31	40.8	0.00	0.839

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-7**
Sample Time: 1125

Duplicate? Yes ☐ No ☒
MS/MSD? Yes ☐ No ☒

Shipped: Syracuse Service Center ☐
Fed-Ex ☐ Courier ☐
Laboratory: Eurofins Amherst, New York

National Grid

109 North Market Street, Johnstown New York

Sampling Personnel: Peter Lyon

Job Number: 0603400-120950-221

Well Id. **MW-10**

Date: 4/16/24

Weather: Sunny 52°

Time In: 1004 Time Out: 1040

Well Information

		TOC	Other
Depth to Water:	(feet)	14.23	
Depth to Bottom:	(feet)	22.05	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	7.82	
Volume of Water in Well:	(gal)	1.25	
Three Well Volumes:	(gal)	3.75	

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 ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒	
Tubing/Bailer Material:		Teflon ☐	Stainless St. ☐	Polyethylene ☒	other ☐
Sampling Method:		Bailer ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒	
Average Pumping Rate:	(ml/min)	200			
Duration of Pumping:	(min)	36			
Total Volume Removed:	(gal)	7			

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ No ☐

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1005	14.52	9.85	2.42	-73	3.26	31.8	6.53	2.06
1010	14.78	9.55	2.55	-100	2.87	35.6	2.92	1.83
1015	15.16	9.45	2.69	-113	2.57	34.0	0.66	1.64
1020	15.40	9.40	2.75	-118	2.51	25.5	0.19	1.60
1025	15.71	9.38	2.83	-122	2.47	19.3	0.00	1.58
1030	16.00	9.43	2.89	-126	2.44	15.7	0.00	1.56
1035	16.17	9.46	2.91	-127	2.43	14.7	0.00	1.56

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-10**

Sample Time: 1035

Duplicate? Yes ☐ No ☒

MS/MSD? Yes ☐ No ☒

Shipped: Syracuse Service Center ☐

Fed-Ex ☐ Courier ☐

Laboratory: Eurofins Amherst, New York

National Grid

109 North Market Street, Johnstown New York

Sampling Personnel: G. Ernst

Job Number: 0603400-120950-221

Well Id. **MW-11**

Date: 4/16/24

Weather: Clear 50°s

Time In: 0850 Time Out: 0953

Well Information

		TOC	Other
Depth to Water:	(feet)	12.41	
Depth to Bottom:	(feet)	22.90	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	10.49	
Volume of Water in Well:	(gal)	1.68	
Three Well Volumes:	(gal)	5.04	

Well Type: Flushmount [X] Stick-Up [ ]

Well Locked: Yes [X] No [ ]

Measuring Point Marked: Yes [X] No [ ]

Well Material: PVC [X] SS [ ] Other:

Well Diameter: 1" [ ] 2" [X] Other:

Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other
Sampling Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	

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

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

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
0910	12.92	10.63	7.13	-112	2.65	169	1.06	1.72
0915	13.20	10.66	7.15	-134	2.73	83.7	0.58	1.75
0920	13.30	10.43	7.16	-141	2.66	30.9	0.27	1.71
0925	13.38	10.42	7.14	-142	2.67	19.7	0.21	1.71
0930	13.53	10.43	7.13	-143	2.69	19.1	0.13	1.73
0935	13.48	10.52	7.11	-142	2.72	23.1	0.10	1.74
0940	13.51	10.59	7.11	-142	2.74	20.9	0.07	1.75

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-11**

Sample Time: 0945

Duplicate? Yes [ ] No [X]

MS/MSD? Yes [ ] No [X]

Shipped: Syracuse Service Center [ ]

Fed-Ex [ ] Courier [ ]

Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: G. ERNST
Job Number: 0603400-120950-221
Well Id. **MW-12**

Date: 4/16/24
Weather: clear 50°s
Time In: 0955 Time Out: 1055

Well Information

		TOC	Other
Depth to Water:	(feet)	13.46	
Depth to Bottom:	(feet)	22.24	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	8.78	
Volume of Water in Well:	(gal)	1.40	
Three Well Volumes:	(gal)	4.21	

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

Purging Information

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

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

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1010	13.55	11.23	6.88	32	3.20	247	6.80	2.01
1015	13.52	11.26	6.95	51	2.86	70.9	2.82	1.83
1020	13.53	11.25	6.96	60	2.78	41.2	2.75	1.78
1025	13.52	11.26	6.96	68	2.70	20.5	2.61	1.73
1030	13.52	11.23	6.95	74	2.64	15.6	2.66	1.69
1035	13.53	11.22	6.95	80	2.57	9.5	2.69	1.65
1040	13.52	11.22	6.95	80	2.57	9.6	2.75	1.64

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-12**
Sample Time: 1045

Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]
Laboratory: Eurofins Amherst, New York

National Grid

109 North Market Street, Johnstown New York

Sampling Personnel: AJ

Job Number: 0603400-120950-221

Well Id. **MW-13**

Date: 4/16/24

Weather: 46°F, sunny

Time In: 0855 / Time Out: 1020

Well Information

		TOC	Other
Depth to Water:	(feet)	12.25	
Depth to Bottom:	(feet)	22.75	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	10.5	
Volume of Water in Well:	(gal)	1.68	
Three Well Volumes:	(gal)	5.04	

Well Type: Flushmount [X] Stick-Up [ ]

Well Locked: Yes [X] No [ ]

Measuring Point Marked: Yes [X] No [ ]

Well Material: PVC [X] SS [ ] Other:

Well Diameter: 1" [ ] 2" [X] Other:

Comments:

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other [ ]
Sampling Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	

Average Pumping Rate: 200 (ml/min)

Duration of Pumping: 30 (min)

Total Volume Removed: 2.5 (gal)

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

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
0900	12.42	9.06	7.76	-22	0.693	4.3	9.98	0.433
0905	12.50	9.78	7.63	-27	0.590	6.8	5.09	0.378
0910	12.50	9.94	7.64	-27	0.566	6.3	3.92	0.363
0915	12.50	10.15	7.65	-25	0.538	5.0	1.85	0.345
0920	12.50	10.24	7.68	-25	0.527	3.8	1.28	0.338
0925	12.50	10.20	7.77	-29	0.520	3.1	0.86	0.333
0930	12.50	10.14	7.85	-35	0.517	2.4	0.84	0.331

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

MW-13-MS and MW-13-MSD

Sample ID: **MW-13**

Sample Time: 0935

Duplicate? Yes [ ] No [X]

MS/MSD? Yes [X] No [ ]

Shipped: Syracuse Service Center [ ]

Fed-Ex [ ] Courier [ ]

Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: AJ
Job Number: 0603400-120950-221
Well Id. **MW-14**

Date: 4/16/24
Weather: 52°F, sunny
Time In: 1025 Time Out: 1130

Well Information

		TOC	Other
Depth to Water:	(feet)	13.85	
Depth to Bottom:	(feet)	23.55	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	9.70	
Volume of Water in Well:	(gal)	1.55	
Three Well Volumes:	(gal)	4.65	

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

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other [ ]
Sampling Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Average Pumping Rate:	200 (ml/min)			
Duration of Pumping:	30 (min)			
Total Volume Removed:	2.5 (gal)			

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

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1030	14.09	15.62	7.87	136	0.625	920	18.91	0.400
1035	14.18	14.73	7.78	148	0.605	1000	12.49	0.388
1040	14.24	13.51	7.66	200	0.577	1000	6.13	0.376
1045	14.32	12.75	7.59	189	0.565	1000	3.65	0.362
1050	14.48	12.03	7.56	152	0.566	1000	2.48	0.362
1055	14.55	11.72	7.54	124	0.575	1000	1.95	0.368
1100	14.45	11.57	7.54	117	0.580	1000	1.68	0.371

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Field Duplicate
Sample ID: **MW-14**
Sample Time: 1105

Duplicate? Yes [X] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: Pete Lyon
Job Number: 0603400-120950-221
Well Id. **MW-15**

Date: 4/16/24
Weather: Sunny 52°
Time In: 0900 Time Out: 0945

Well Information

		TOC	Other
Depth to Water:	(feet)	15.78	
Depth to Bottom:	(feet)	23.00	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	7.22	
Volume of Water in Well:	(gal)	1.15	
Three Well Volumes:	(gal)	3.46	

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

Purging Information

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

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

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
0910	15.61	9.47	7.81	-123	0.800	149	6.01	0.507
0915	16.65	9.48	8.05	-125	0.793	112	2.61	0.508
0920	16.73	9.44	8.50	-127	0.794	84.5	0.58	0.508
0925	16.78	9.42	8.65	-126	0.797	74.7	0.03	0.511
0930	16.84	9.45	8.75	-125	0.801	61.9	0.00	0.513
0935	16.87	9.49	8.79	-125	0.803	57.4	0.00	0.514
0940	17.00	9.57	8.79	-124	0.805	53.6	0.00	0.515

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-15**
Sample Time: 0940

Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: AJ
Job Number: 0603400-120950-221
Well Id. **MW-16**

Date: 4/16/24
Weather: 54°F, sunny
Time In: 1135 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	9.05	
Depth to Bottom:	(feet)	19.45	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	10.4	
Volume of Water in Well:	(gal)	1.66	
Three Well Volumes:	(gal)	4.9	

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

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other [ ]
Sampling Method:		Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Average Pumping Rate:	200	(ml/min)			
Duration of Pumping:	30	(min)			
Total Volume Removed:	2.85	(gal)			

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

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1140	9.72	10.55	7.48	36	0.808	562	2.46	0.505
1145	10.30	9.11	7.35	-10	1.02	208	4.40	0.656
1150	10.60	8.97	7.24	29	1.02	73.5	6.11	0.655
1155	10.78	9.41	7.14	44	1.04	38.1	5.58	0.665
1200	10.95	9.44	7.07	46	1.04	29.3	4.63	0.667
1205	11.15	9.41	7.05	40	1.05	23.2	3.53	0.671
1210	11.60	9.28	7.04	21	1.06	16.2	2.17	0.677

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-16**
Sample Time: 1215

Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Former MGP Site
Johnstown, New York

Semi-Annual GWS Event

Well ID	Sample?	Well Size?	DTW	DTP	DTB	Comments
RW-1	No	2"	9.42	–	21.50	
MW-4	Yes	2"	21.74		27.32	
MW-7	Yes	2"	13.59		22.10	
MW-10	Yes	2"	14.23	–	22.05	
MW-11	No	2"	12.41		22.90	
MW-12	Yes	2"	13.46		22.24	
MW-13	Yes	2"	12.25	–	22.75	MS/MSD
MW-14	Yes	2"	13.85	–	23.55	Field Duplicate
MW-15	Yes	2"	15.78	–	23.00	
MW-16	Yes	2"	9.05	–	19.45	
Gauge-1 (bridge)	No		15.20	–	19.76	

DTW *-depth to water*
DTP *-depth to product*
DTB *-depth to bottom*
All from top of casing

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Phone (716) 691-7991

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler:	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-192895-40377.1
Client Contact: Tim Beaumont	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Groundwater & Environmental Services Inc	PWSID:			Job #:
Address: 6780 Northern Boulevard Suite 100	Due Date Requested:			
City: East Syracuse	TAT Requested (days):			
State, Zip: NY, 13057	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0603400-120950-221-1106			
Email: tbeaumont@gesonline.com	WO #:			
Project Name: Johnstown Semi-Annual GW Event Desc: Johnstown Semi-Ann	Project #: 48027231			
Site: Johnstown Semi-Annual GWS	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL; B - NaOH; C - Zn Acetate; D - Nitric Acid; E - NaHSO4; F - MeOH; G - Amchlor; H - Ascorbic Acid; I - Ice; J - DI Water; K - EDTA; L - EDA; M - Hexane; N - None; O - AsNaO2; P - Na2O4S; Q - Na2SO3; R - Na2S2O3; S - H2SO4; T - TSP Dodecahydrate; U - Acetone; V - MCAA; W - pH 4-5; Y - Trizma; Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	RSK_175_CO2 - Carbon dioxide	9012B_NP - Cyanide, Total	8270D - PAH Semivolatiles	6010C - Metals (ICP) - Pb & Mn	RSK_175 - Methane, Ethane, Ethene	8260C - BTEX - 8260	SM4500_S2_F - Sulfide	353.2, 353.2_Pres	353.2_Nitrite, D516, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity	3500_FE_D - Ferrous Iron			Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	B	N	D	A	A	CB	S	N	N	N				
MW-4	4/16/24	1200	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-7		1125	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-10		1035	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-11		0945	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-12		1045	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-13		0935	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-13-MS		0935	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-13-MSD		0935	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-14		1105	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-15		0940	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-16		1215	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
Field Duplicate		1200	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
Trip Blank				Water								2									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) CAT B DELIVERY

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by:	Date/Time: 4/16/24 1350	Company GES	Received by:	Date/Time: 4-16-24 1350	Company FEDEX
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 01/16/2019

Appendix B – Data Usability Summary Report

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
6780 Northern Blvd. Suite 100
East Syracuse, NY 13057

RE: Data Usability Summary Report for National Grid: Johnstown, NY Site Data Package Eurofins Analytical Job No. 480-218924-1

Groundwater & Environmental Services, Inc. (GES) reviewed one data package (Laboratory Project Number 480-218924-1) from Eurofins Environment Testing, for the analysis of groundwater samples collected on April 16, 2024 from monitoring wells located at the National Grid: Johnstown, NY Site. Nine aqueous samples and a field duplicate were analyzed for dissolved gases, PAHs, Nitrate-Nitrite, Total Nitrogen, Metals, Alkalinity, Chloride, Ferrous Iron, Cyanide, Sulfide and Sulfate. Methodologies utilized were EPA methodologies 8260C, 8270D, RSK-175, 6010C, 351.2, 353.2, 9012B, ASTM D516-90, 02, SM methodologies Nitrate by calculation, SM 2320B, SM 3500 FE D, SM 4500 Cl- E, and SM 4500 S2 F with additional QC requirements of the NYSDEC ASP.

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

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

The items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review.

In summary, sample results were usable as reported, with exceptions due to poor precision or BS/BSD and MS/MSD recoveries.

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	Date Collected
480-218924-1	MW-4	04/16/24 12:00
480-218924-2	MW-7	04/16/24 11:25
480-218924-3	MW-10	04/16/24 10:35
480-218924-4	MW-11	04/16/24 09:45
480-218924-5	MW-12	04/16/24 10:45
480-218924-6	MW-13	04/16/24 09:35
480-218924-7	MW-14	04/16/24 11:05
480-218924-8	MW-15	04/16/24 09:40
480-218924-9	MW-16	04/16/24 12:15
480-218924-10	Field Duplicate	04/16/24 12:00
480-218924-11	Trip Blank	04/16/24 00:00

Table 2. Validation Qualifiers

Sample ID	Analyte	Qualifier	Reason for qualification
MW-13 MW-14 MW-15 MW-16 Field Dup	Chloride	J+	Method blank detection
MW-13	Benzo(g,h,i)perylene Dibenz(a,h)anthracene Indeno[1,2,3-cd]pyrene	UJ-	MS/MSD low recovery
MW-11	Cyanide	J+	Method blank detection
MW-10 MW-13	Cyanide	J-	Low MS/MSD recovery
Field Dup MW-14	Cyanide	J+	Method blank detection High MS Field Dup
MW-4	Nitrate - Nitrite	U at reported concentration	Method blank detection Concentration >RL Sample concentration< 10x Blank Concentration
MW-7 MW-10 MW-13 MW-14 MW-15 Field Dup	Nitrate - Nitrite	U at RL	Method blank detection Concentration <RL
MW-13	Sulfate Ferrous Iron	J-	Low MS/MSD recovery
MW-14 Field Dup	Nitrogen, Kjeldahl Lead Methane	J	RPD> 30%
All Samples	Ferrous Iron	J	Analyzed outside hold time

In summary, sample results were usable as reported. Qualified data should be used with caution.

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

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times were met and instrumental tune fragmentations were within acceptance ranges. Surrogate and internal standard recoveries were within required limits.

Laboratory and field-generated blanks reported no detections above reporting limit. Calibration standards show acceptable responses within analytical protocol and validation action limits.

The MS/MSD and BS/BSD recoveries were within criteria. Precision calculations showed that the recoveries were consistent, as RPDs were within expected ranges. Precision calculations for LCS/LCSD indicate good reproducibility. Surrogate recovery was within bounds, and LCS recoveries were compliant, and used to determine method efficacy.

PAHs by EPA8270D/NYSDEC ASP

Holding times were met. Instrumental tune fragmentations were within acceptance ranges. Surrogate recoveries were within analytical and validation guidelines, with the exception of p-Terphenyl-d14 recovering near or below the acceptable range in both site samples and laboratory-prepared QC samples. As the low recovery was consistent throughout the batch, it is not a sample matrix issue, but a systemic laboratory issue. As the other two base-neutral surrogates recovered within criteria (>80%), the systemic issue with p-Terphenyl-d14 does not indicate a failure of the method, but of the surrogate itself. No qualifications were assigned based on surrogate recoveries.

Blanks show no contamination.

Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

LC recovered within criteria. No qualifications are required.

The MS/MSD analyzed with the data is associated with the Sample location MW-13. Recoveries were low for benzo(g,h,i)perylene, dibenz(a,h)anthracene, and indeno[1,2,3-cd]pyrene. All the analytes were non-detect in the sample, and the data are qualified as estimated non-detect with a possible low bias.

Lead and Manganese by EPA 6010/NYDESC ASP

Holding times were met. Blank samples show no contamination above the reporting limit. LCS samples recovered within criteria. The matrix spike, post digestion spike, and serial dilutions were performed on MW-13 and recoveries and RPDs all fell within criteria.

There were no qualifications required.

Wet Chemistry Tests 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:

- Ferrous iron has a 15-minute hold time, as such, all laboratory data is derived past hold time.
- Sulfate recovered low in the MS/MSD associated with MW-13. The concentration reported is qualified as possibly biased low (J-).
- Chloride had a low concentration detection in the method blank of 0.508 mg/L.
    - Chloride in MW-13 was less than 10x the blank concentration and is qualified as estimated with a possible high bias (J+)
- Cyanide was detected in the blank below the reporting limit at 0.009 mg/L.
    - Cyanide concentrations in MW-11, Field Duplicate and MW-14 samples are above the RL but less than 10x the blanks and are qualified as estimated with a possible high bias (J+).

    - Below RL cyanide concentrations in MW-12 and MW-13 are qualified as non-detect (U) at the RL of 0.01.
- Cyanide recovered low MS/MSD associated with MW-10. The concentration reported is qualified as possibly biased low (J-).
- Cyanide recovered low MS/MSD associated with MW-13. The concentration reported is qualified as possibly biased low (J-).
- Cyanide recovery in the MS/MSD was high in the field duplicate associated with MW-14. The concentrations reported in the duplicate and original samples are qualified as possibly biased high (J+).
- Alkalinity method blank concentrations were reported below the RL but above the MDL. All sample concentrations were above RL and greater than 10x the blank concentration. No qualification was required.

Calibration standard responses were compliant. Blanks show no detections above the reporting limits.

Ferrous Iron by S<3500-FeD-00/ NYSDEC ASP

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, and accuracy and precision.

- Samples were prepared outside of hold time, and all sample data is qualified as estimated with an indeterminate bias.
- Ferrous Iron recovered low in the MS/MSD associated with MW-16. Data is qualified as estimated with a possible low bias.

All other compliance data were found acceptable for the validated samples.

Calibration standard responses were compliant. Blanks show no detections above the reporting limits.

Total Kjeldahl Nitrogen, Nitrogen as Nitrate/Nitrite by EPA 351.2 & 353.2/NYDESC 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 exception of the following:

- Total Kjeldahl Nitrogen recovered low in the MS associated with the field duplicate of MW-14.
- Total Kjeldahl Nitrogen recovered low in the MS associated with the field duplicate of MW-13.
- Nitrate-Nitrite was detected below the RL but above the MDL in the method blank.
    - Associated site samples with concentrations above the RL but less than 10x the method blank are qualified as estimated with a possible high bias.
    - Associated samples with reported concentrations below the RL are qualified as ND at the RL (U).
    - Non-detect are not qualified. Data is considered ND at the MDL.
- Nitrite as N recovered low in the MS associated with MW-13. Data is previously qualified due to method blank detections.
- Nitrate-Nitrite recovered below 10% in both the MS and the MSD. Re-analysis outside hold time resulted in recoveries that meet quality control criteria. Data is previously qualified due to method blank detections.

Calibration standard responses were compliant.

Dissolved Gases by EPA RSK-175/NYDESC ASP

Analysis was done in two different analytical runs, one with carbon dioxide and the other with methane, ethane, and ethene. For both analyses holding times were met, instrumental tune fragmentations were within acceptance ranges, surrogate recoveries were within analytical and validation guidelines. No dissolved gas blank showed contamination.

All criteria were found acceptable for the validated samples. Calibration standard responses were compliant.

Precision Calculations

Field duplicate correlations for methane were outside project objectives and the data were qualified as estimated.

Data Precision

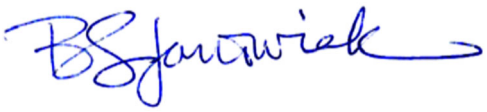
Field Identification	Analyte	Sample Result (µg/L)	Duplicate Result (µg/L)	RPD (%)	Qualified
MW-14/FIELD DUP	Alkalinity	328	330	0.6	A
	Nitrogen, NO2 Plus NO3	Qualified	Qualified	NC	A
	Nitrogen, Kjeldahl	0.94	0.63	39.5	J
	Iron, Ferrous	0.97	1.1	12.6	A
	Chloride	2.8	3.0	6.9	A
	Cyanide	ND at 0.070	ND at 0.072	NC	A
	Lead	0.15	0.11	30.8	J
	Manganese	0.57	0.46	21.4	A
	Carbon Dioxide	2000	2000	0.0	A
	Methane	5.8	8.2	34.3	J
	Pyrene	0.52J	ND	NC	A

A: Acceptable
NC: Not calculated

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., N.R.C.C.
Principal Environmental 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
Job ID: 480-218924-1
Project/Site:

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-218924-1	MW-4	Water	04/16/24 12:00	04/17/24 09:45
480-218924-2	MW-7	Water	04/16/24 11:25	04/17/24 09:45
480-218924-3	MW-10	Water	04/16/24 10:35	04/17/24 09:45
480-218924-4	MW-11	Water	04/16/24 09:45	04/17/24 09:45
480-218924-5	MW-12	Water	04/16/24 10:45	04/17/24 09:45
480-218924-6	MW-13	Water	04/16/24 09:35	04/17/24 09:45
480-218924-7	MW-14	Water	04/16/24 11:05	04/17/24 09:45
480-218924-8	MW-15	Water	04/16/24 09:40	04/17/24 09:45
480-218924-9	MW-16	Water	04/16/24 12:15	04/17/24 09:45
480-218924-10	Field Duplicate	Water	04/16/24 12:00	04/17/24 09:45
480-218924-11	Trip Blank	Water	04/16/24 00:00	04/17/24 09:45

Job Narrative
480-218924-1

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 4/17/2024 9:45 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.4°C, 2.9°C, 3.0°C and 3.3°C.

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

GC/MS Semi VOA
Method 8270D: The following samples were diluted due to color, appearance, and viscosity: MW-11 (480-218924-4) and MW-15 (480-218924-8). Elevated reporting limits (RL) are provided.

Method 8270D: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW-4 (480-218924-1), MW-11 (480-218924-4), MW-13-MS (480-218924-6[MS]), MW-13-MSD (480-218924-6[MSD]), MW-14 (480-218924-7), MW-15 (480-218924-8) and MW-16 (480-218924-9). These results have been reported and qualified.

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

GC VOA
Method RSK_175: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-10 (480-218924-3), MW-11 (480-218924-4) and MW-15 (480-218924-8). 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.

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

General Chemistry
Method 2320B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 480-708349 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 3500_FE_D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-4 (480-218924-1), MW-7 (480-218924-2), MW-10 (480-218924-3), MW-11 (480-218924-4), MW-12 (480-218924-5), MW-13 (480-218924-6), MW-13-MS (480-218924-6[MS]), MW-13-MSD (480-218924-6[MSD]), MW-14 (480-218924-7), MW-15 (480-218924-8), MW-16 (480-218924-9) and Field Duplicate (480-218924-10).

Method 3500_FE_D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 480-708656 were outside control limits: MW-16 (480-218924-9). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method 353.2_Nitrite: The following samples were analyzed outside of analytical holding time due to lab error: MW-4

Job ID: 480-218924-1 (Continued) Eurofins Buffalo

(480-218924-1), MW-7 (480-218924-2), MW-10 (480-218924-3), MW-11 (480-218924-4), MW-12 (480-218924-5), MW-13 (480-218924-6), MW-13-MSD (480-218924-6[MSD]), MW-14 (480-218924-7), MW-15 (480-218924-8), MW-16 (480-218924-9) and Field Duplicate (480-218924-10).

Method 353.2_Pres: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 480-709013 was outside control limits. This is due to auto dilution settings in the seal. This will be modified.

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

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

February 3, 2025

Mr. Michael Squire
Remedial Bureau C, 11th Floor
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7014

Re: Johnstown (N. Market St.)
Former Manufactured Gas Plant Site (MGP)
Site # 518020
Semi-Annual Groundwater Monitoring Report (December 2024)

Dear Mr. Squire:

Enclosed is the Semi-Annual Groundwater Monitoring Report for the Johnstown (N. Market St.) MGP Site located in Johnstown, New York. The report includes the groundwater monitoring results from October 17, 2024.

National Grid acknowledges the NYSDEC Fact sheet dated June 2016 approving the site's environmental remediation construction completion. Long-term OM&M activities are being conducted in accordance with the approved Site Management Plan (SMP) and the site's Environmental Easement.

Please contact me at (315) 247-6490 or Steven.Stucker@NationalGrid.com if you have any questions regarding the report.

Sincerely,

for

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

Cc: Joseph Giordano -National Grid
Nathan Freeman- NYSDOH

National Grid

Semi-Annual Groundwater Monitoring Report

National Grid
109 North Market Street
Johnstown, NY 12095

February 2025

Version 1

Semi-Annual Groundwater Monitoring Report

National Grid Johnstown Site
109 North Market Street
Johnstown, NY 12095

Prepared for:
National Grid
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Syracuse, NY 13202

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

GES Project:
0603500.120950.221

Date:
February 3, 2025

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

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Acronyms

bgs	Below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, and Total Xylenes
COCs	Constituents of Concern
cu. ft.	Cubic feet
DO	Dissolved Oxygen
DTB	Depth to Bottom
DTP	Depth to Product
DTW	Depth to Water
DUSR	Data Usability Summary Report
FS	Feasibility Study
GES	Groundwater & Environmental Services, Inc.
IRMs	Interim Remedial Measures
mg/L	Milligrams per Liter
MGP	Manufactured Gas Plant
MNA	Monitored Natural Attenuation
NYSDEC	New York State Department of Environmental Conservation
ORP	Oxidation-Reduction Potential
PAHs	Polycyclic Aromatic Hydrocarbons
PSA	Preliminary Site Assessment
QA/QC	Quality Assurance / Quality Control
RI	Remedial Investigation
ROD	Record of Decision
SMP	Site Management Plan
SU	Standard Units
SVOCs	Semi-Volatile Organic Compounds
USEPA	United States Environmental Protection Agency
VOCs	Volatile Organic Compounds
µg/L	Micrograms per Liter
WQ	Water Quality

1 Introduction

1.1 Overview

This Semi-Annual Groundwater Monitoring Report (the Report) summarizes the results of the October 2024 groundwater sampling event at the Johnstown, New York (N. Market Street) Former Manufactured Gas Plant (MGP) Site (the Site). This Report was developed as part of the long-term groundwater monitoring program on behalf of National Grid.

National Grid has been addressing the Site environmental conditions under an Order on Consent (Index Number D0-0001-9210), dated April 1999, that was entered into by Niagara Mohawk and the New York State Department of Environmental Conservation (NYSDEC). That Order on Consent was for the investigation and remediation of 21 former MGP sites, including the Johnstown (N. Market Street) Site. It was superseded by a new Order on Consent (Index Number A4-0473-0000), dated November 7, 2003. A NYSDEC-approved Supplemental Remedial Investigation (RI) Work Plan was finalized during November 2007, and a Final Supplemental RI Report was submitted to the NYSDEC, dated December 2008. The RI results report and subsequent Feasibility Study were approved in February 2010.

A Record of Decision (ROD) was issued by the NYSDEC, dated March 2010, in accordance with the requirements of New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York, 6 NYCRR Part 375. Based upon the results of the remedial investigation/feasibility study (RI/FS) for the Site, the interim remedial measures (IRMs) previously completed, and the ROD, the draft Final Engineering Report and Site Management Plan (SMP) were developed and submitted to the NYSDEC in June 2010. The Final Engineering Report, the Final SMP, and the Final Environmental Easement were approved by the NYSDEC in their June 2016 Fact Sheet.

The Final SMP includes:

1. Semi-annual (April & October) site inspection and groundwater level measurements at monitoring wells MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, MW-16, RMW-1, and the creek surface gauging station (bridge);
2. Semi-annual groundwater sampling/analysis [Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), Heavy Metals, and Natural Attenuation Parameters] for monitoring wells MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15, and MW-16 (RMW-1 will not be sampled); and
3. Semi-annual reporting to NYSDEC.

1.2 Purpose and Objective

The purpose of this Report is to summarize the groundwater sampling activities and results of the latest event, and to compare the results to previous events. As described in the December 2008 Supplemental RI Report and the subsequent ROD, one of the primary goals is to evaluate whether

or not the groundwater constituents of concern (COCs) concentrations have decreased, in addition to continued assessment of the effectiveness of monitored natural attenuation.

2 Background

2.1 Site Description

The Site is located in the City of Johnstown, County of Fulton, New York (**Figure 1** presents the site location map) and is identified as Block 14 and Lot 7 on the Johnstown City Tax Map. The Site is an approximate 0.7-acre area bounded by the Cayadutta Creek to the north, the Colonial Cemetery to the south, Market Street to the east, and a wooded parcel of property to the west (**Figure 2** presents the site plan). The Site is located in a mixed commercial, industrial, and residential area.

Currently, National Grid operates a natural gas regulator station at the Site with equipment contained in fenced enclosures along the Site's southern boundary. The rest of the Site is grass-covered, including the stream bank adjacent to Cayadutta Creek along the northern boundary of the Site. An embankment exists along the north end of the Site that slopes down to the Cayadutta Creek. A chain-link fence exists along the north and west sides of the Site, and a retaining wall runs along the south side of the Site. Access to the Site is from North Market Street to the east.

The Johnstown Hospital is located south of the Site within one mile, and numerous residences exist to the west and east of the Site. The Johnstown Senior High School and Warren Street Elementary School are located within one mile of the Site to the west.

2.2 Site History

The Johnstown MGP Site was incorporated in March 1857 as the Johnstown Gas Light Company. The company operated a small coal gas plant with a 20,000 cubic foot (cu. ft.) holder (Holder #1), that was constructed in 1859 (see Figure 2 for all Holder locations at the former MGP Site). In 1861, the plant was improved with the addition of a coal shed and a covering for the tank holder. In 1886, the Johnstown and Gloversville Gas Light Corporation was formed, and the company purchased the rights to the Lowe water gas process. The United Gas Improvement Company planned the construction of a water gas plant for the Johnstown and Gloversville franchises.

In 1887, the Site consisted of a tool shop, an office, a coal gasometer, a lime house, a purifier room, a retort house, and a coal shed. Between 1887 and 1918, Holder #2 was located in the western-central part of the Site (exact size unknown). In 1892, a steam generator was constructed adjacent to the coal shed for the Lowe water gas process, and Holder #1 was decommissioned in 1896. In 1898, a 72,000-cu. ft. gas holder (Holder #3) was constructed on the Site. Between 1912 and 1918, the small gas holder (Holder #2) in the western-central area of the Site was removed. In 1929, a gas pipeline from an MGP in Troy, New York, reached Johnstown, and local gas production was only performed on a seasonal (winter) basis until local production of gas ceased in 1931. Niagara Hudson Power Company was the owner of the Site in 1930. By 1948, Holder #3 was decommissioned. In 1950, Niagara Hudson Power was consolidated under the

name Niagara Mohawk Power Company. By 1980, all Site buildings were removed. Currently, National Grid operates a natural gas regulator station at the Site.

2.2.1 Site Assessment and Investigations

An investigation of the Site began in 1997 with a Preliminary Site Assessment (PSA), which found that the Site was impacted with MGP wastes. A Supplemental PSA was conducted at the Site in 1998, followed by a RI in January 2000 and subsequent IRMs. The IRMs are discussed separately within this section.

A 2009 Supplemental RI was initiated to collect data to address potential residual MGP-related contaminants remaining in groundwater at the Site and to assess hydrogeologic conditions and groundwater quality on the Site. The results of the Supplemental RI were used to formulate potential remedial alternatives for groundwater and residual soil contamination. The Supplemental RI results were evaluated and presented in the 2010 Feasibility Study Report.

2.2.2 Interim Remedial Measures Completed

Several IRMs were performed to address the residual MGP impacts. In 2002 and 2003, the former holders and associated impacted soil were removed. During this IRM, former Holder #2 and the northern half of former Holder #3 were demolished and removed from the Site. Approximately 13,870 cubic yards of soil were excavated and disposed of off-site at a NYSDEC-approved facility. Permanent steel sheeting was left in place along the northeastern perimeter of the Site to avoid disturbance of the roadway and to provide containment of residual material left at depth.

Between 2005 and 2006, National Grid provided support to the City of Johnstown for subsurface work associated with the replacement of the North Market Street Bridge across Cayadutta Creek. Approximately 1,413 cubic yards of impacted soil were excavated from within the cofferdam area and disposed of off-site at a NYSDEC-approved facility.

In August 2009, the rip-rap area along the bank of Cayadutta Creek that had been restored during the previous IRMs was enhanced to allow for establishment of stream-side vegetation. Post-IRM inspections of the restored Cayadutta Creek bank were conducted in September 2009 and May 2010.

2.3 Environmental Setting

The Johnstown (N. Market Street) Site slopes northward toward Cayadutta Creek with elevations ranging from 652 to 672 feet (ft.) above sea level. Currently, the Site topography gradually slopes from south to north, becoming increasingly steeper adjacent to the Creek, and is generally covered with either vegetation or stone. Surface drainage is primarily to the north into the creek. Access to the Site is from North Market Street to the east, and the Site is currently used to support the natural gas regulator station operations.

2.3.1 Site Geology

The main units of unconsolidated deposits identified at the Site can be characterized in descending order as fill and native glacial deposits to bedrock. The glacial deposits are of lacustrine origin with glacial tills to the top of shale bedrock (Utica Shale). Bedrock was reached beneath the till in two soil borings explored during the 1998 Supplemental PSA. These stratigraphic units are more specifically described below, based on information obtained from the previous investigations and from the soil borings and monitoring well borings conducted during the 2007/ 2008 SRI.

Site geology includes a layer of disturbed soils (primarily fill) overlying glacial deposits. Based upon on-site soils and monitoring well borings, disturbed soils (including fills) varied in thickness up to 13 ft. and are typically composed of sand, gravel, silt, clay, wood, coal, and anthropogenic materials including ash, cinders, clinkers, brick fragments, wire, and wood chips. Wood chips were identified in three borings (SB-09, SB-12, and MW-8) and are often associated with purifier waste.

A thin layer of peat underlies the disturbed soils in the northern portion of the Site, ranging in thickness from 0.5 ft. to 3 ft., and appears to thicken and dip to the north. Except where it is locally covered by sedimentary deposits such as silts, sands, and clays, the peat, where present, appears to have been the historical ground cover prior to development of the Site.

Underlying the peat, where present, the soil consists of lacustrine deposits composed of silts, sands, and clays. The surface of the lacustrine deposits appears to dip and thin out toward the north. A sand and gravel unit (an outwash deposit of stratified drift) underlies the lacustrine deposits across the Site area. This unit contains varying amounts of silt and clay. These deposits overlie a dense, low-permeability glacial till to bedrock (Shale).

2.3.2 Site Hydrogeology

Groundwater depths on-site are typically in the 10- to 20-foot below ground surface (bgs) range, generally in the glacial deposits below the bottom of the fill material. Groundwater flow is consistently northward through the Site area toward Cayadutta Creek, with the steepest gradient from the center of the Site proximal to former gas holders #2 and #3 to the southern Creek bank (about 0.09 ft./ft.). In comparison, the average hydraulic gradient decreases to a value of approximately 0.05 ft./ft. on the east and west sides of the Site away from the former gas holders. The local groundwater flow is consistent with regional groundwater flow direction. The groundwater flow direction and hydraulic gradients calculated during this monitoring period are also generally consistent with historic data obtained prior to the issuance of the ROD.

3 Monitoring Activities

The long-term semi-annual groundwater monitoring program currently consists of the following elements:

- Semi-Annual Site Inspection including the creek bank protection, vegetative cover, monitoring wells, and security fence.
- Semi-Annual Groundwater Well Gauging of the following wells: RW-1, MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16 (Figure 2 presents the well locations). The creek surface water level is also gauged at one location: SG-1.
- Semi-Annual Groundwater Sampling and Analysis of the following: MW-4, MW-7, MW-10, MW-11, MW-12, MW-13, MW-14, MW-15 and MW-16. Note that recovery well RW-1 is not sampled as part of the program but is inspected for the presence of non-aqueous phase liquids (NAPL).

3.1 Groundwater Gauging and Sampling Procedures

3.1.1 Gauging

Long-term groundwater monitoring includes water level gauging at nine (9) groundwater monitoring wells and one (1) groundwater recovery well using an electronic oil/water interface probe. Depth to bottom of well (DTB), depth to product (DTP), and depth to water (DTW) are to be recorded at each well. Refer to **Table 2** for a summary of the water level measurements from October 2024 as well as previous events. **Appendix A** also presents the field documentation from the October 2024 water gauging event.

No product was present in recovery well RW-1 or the other nine (9) groundwater monitoring wells that were gauged.

A creek surface water level measurement was collected from the Cayadutta Creek Bridge using a water level probe (from the surveyed gauging point at the bridge).

3.1.2 Sampling

Groundwater sampling was performed following low-flow sampling techniques [equivalent to United States Environmental Protection Agency (USEPA) low-flow procedures] using a pressure-driven peristaltic pump. During purging, measurements were collected for the following field parameters: pH, specific conductivity, turbidity, dissolved oxygen (DO), temperature, and oxidation-reduction potential (ORP). A Horiba U-22 was used to collect the field parameter data in a flow-through cell. The monitored field parameters are observed and recorded during low-flow sampling to determine when they have stabilized, and thus when the well has been adequately purged. Field parameter measurements were recorded at approximately 5-minute intervals. The monitoring wells were purged until stabilization of the field parameters (±0.1 Standard Unit (SU) for pH, ±3% for specific conductivity, ±10 millivolts (mV) for ORP, and ±10% for DO) and turbidity was less than 50 Nephalometric Turbidity Units (NTU). Refer to **Attachment A** for the field data.

After stabilization of the field parameters, nine groundwater samples were collected directly from the dedicated tubing into laboratory-supplied sample containers (pre-preserved as required per the analytical method). Quality Assurance/Quality Control (QA/QC) samples included the collection of one field duplicate sample, one matrix spike (MS) sample, one duplicate matrix spike (DMS) sample, and one trip blank sample (VOCs only). Samples were transported to the laboratory, accompanied by the appropriate chain-of-custody documentation. Analytical results were validated.

3.1.3 Natural Attenuation Parameters

The ORP of groundwater may be used as a general indicator of the dominant attenuation processes and the relative tendency of the biological processes to accept or transfer electrons. ORP is dependent on and influences rates of biodegradation. Lower ORP readings indicate reduced conditions and are indicative of anaerobic biologic degradation processes.

The pH of the groundwater affects the presence and activity of microorganisms in the groundwater. The microorganisms may produce either organic acids or carbon dioxide which, when dissolved in water, forms weak carbonic acid. Microorganisms capable of degrading petroleum hydrocarbons are most active with pH values ranging from 6 to 8 SU.

Groundwater temperature affects the solubility of dissolved gases such as oxygen and carbon dioxide as well as the metabolic activity of microorganisms. Oxygen is less soluble in warm water, and groundwater temperatures below approximately 5 degrees Celsius tend to inhibit biodegradation.

DO is the most thermodynamically favored electron acceptor used by microorganisms during the degradation of both natural and anthropogenic organic carbon. An inverse relationship of high hydrocarbon concentrations and low DO concentrations can be used as a key indicator of biodegradation.

Nitrate, if available, may be used as an electron acceptor for anaerobic biodegradation after the depletion of DO [typically considered less than 0.5 milligrams per liter (mg/L)] and is used to biodegrade petroleum hydrocarbons. Lower nitrate concentrations in groundwater within a plume, with respect to higher concentrations in areas upgradient and outside a plume, may be expected.

Ferrous iron is a metabolic byproduct of hydrocarbon degradation. Reducing conditions in nitrogen- and oxygen-depleted groundwater creates an anaerobic environment that causes the reduction of ferric iron (Fe^{3+}) to ferrous iron (Fe^{2+}). Relatively low ferrous iron concentrations may be present in areas where natural attenuation is occurring if free ferrous iron is re-precipitating as sulfides or carbonates.

Sulfate may be used as an electron acceptor after the depletion or use limitation of DO, nitrate, and ferric iron. Lower sulfate concentrations in groundwater within a plume, with respect to higher concentrations in areas upgradient and outside a plume, may be expected.

The production of methane, termed methanogenesis, occurs only in strongly reducing conditions and generally after oxygen, nitrate, and sulfate have been depleted. The presence of methane in

groundwater suggests Benzene, Toluene, Ethylbenzene, Xylene (BTEX) degradation via methanogenesis. Methane is not present in fuels, and therefore its presence at high concentrations relative to areas upgradient and outside a plume is indicative of the biodegradation of petroleum hydrocarbons.

The buffering capacity of groundwater is a function of alkalinity. Typically, alkalinity is primarily due to carbonate alkalinity. The organic acids or carbon dioxide (which produces a weak carbonic acid when dissolved in water) produced by biodegradation solubilize carbonate from the soil. Alkalinity concentrations that are elevated with respect to areas upgradient and outside a plume may be an indication of microbial activity and thus natural attenuation.

Typically, the relationships between BTEX and electron acceptors/metabolic byproduct concentrations (geochemical indicators) indicate potential for biodegradation. The concentrations are dependent on the location (and groundwater conditions) within the plume or outside of the plume limits.

3.2 Groundwater Analytical Results

The groundwater samples were analyzed for BTEX, Polycyclic Aromatic Hydrocarbons (PAHs), lead, total cyanide, and monitored natural attenuation/water quality (MNA/WQ) parameters including alkalinity, chloride, ethane, ethene, ferrous iron, manganese, methane, nitrate, nitrogen, sulfate and sulfide. BTEX, PAHs, and cyanide are constituents commonly associated with former MGP sites. BTEX, PAHs, lead, and cyanide were the primary contaminants detected during previous investigation activities conducted at the Site. The MNA/WQ parameters, as well as field-measured ORP, pH, temperature, and DO, are relevant to establishing whether conditions are favorable for natural attenuation to occur at the Site.

- Refer to Table 3 for the analytical results summary.
- Refer to Appendix A for field data.
- Refer to Appendix B for the data usability summary report (DUSR).

Groundwater analytical results were compared with levels specified in the NYSDEC Division of Water Final Amendment to Water Quality Standards Regulations, effective February 16, 2008 [hereafter referred to as NYSDEC WQ Values]. For groundwater, Class GA values were applied. Class GA waters are defined as fresh groundwater, found in the saturated zone of unconsolidated deposits and consolidated rock or bedrock, which are used as a source of potable water supply.

3.2.1 Site Related Parameters

BTEX - Groundwater samples collected on October 17, 2024, from monitoring wells MW-11, MW-13, MW-15, and MW-16 contained concentrations of some or all individual BTEX constituents above their respective NYSDEC WQ Values [1 microgram per liter (µg/L) for benzene and 5 µg/L for other BTEX constituents]. The highest concentrations of BTEX were observed in the groundwater samples collected from monitoring well MW-13. Monitoring well MW-13 is located between former gas holder #2 and #3.

PAHs – PAHs above NYSDEC WQ Values were detected in samples collected on October 17, 2024, from monitoring wells MW-11, MW-13, MW-15, and MW-16. Naphthalene (MW-13) has typically been detected at the highest concentration of any PAH.

Cyanide - Concentrations of cyanide were below the NYSDEC WQ Value (0.2 mg/L) in all groundwater samples October 17, 2024, with the exception of MW-14 (0.41 mg/L), MW-15 (0.83 mg/L), and MW-16 (0.22 mg/L).

3.2.2 Monitored Natural Attenuation Parameters

Site-specific levels of the MNA/WQ parameters (geochemical indicators) were compared to known screening values to identify whether the site-specific values are within the ranges known to be suitable for biodegradation. The October 2024 MNA/WQ analytical results for the individual monitoring wells are summarized in **Table 3**. **Figure 4** presents the groundwater data for the key MNA data parameters at their respective locations to assist with the MNA evaluation. Indications of biodegradation of petroleum-related MGP constituents within the plume include low levels of DO, nitrate and sulfate, with generally higher levels of manganese, ferrous iron and methane.

Indicator concentrations detected at monitoring wells identified within source and downgradient areas of the Site were compared to levels detected at upgradient and side gradient monitoring wells exhibiting little or no MGP-related contamination. Generally, indicator concentration levels at a distance from the center of the plume are expected to be significantly lower than levels within the plume. A summary of the MNA/WQ results and associated field indicator parameters are provided below:

- DO and ORP values demonstrate depleted levels of DO and a transformation to more anaerobic or reducing conditions at the former source and downgradient areas relative to side gradient and upgradient areas of the Site. These values suggest that biodegradation of MGP petroleum-related compounds at the source and at downgradient areas are occurring, consuming the available oxygen which produces decreased DO levels.
- The range of ORP levels observed at the source and downgradient area monitoring wells generally indicates reduced aquifer conditions which could be suitable for denitrification, ferric iron reduction, sulfate reduction, and methanogenesis.
- Nitrate concentrations are generally depleted at the former source and downgradient areas of the Site relative to upgradient (MW-4) and side gradient (MW-12) areas, indicating

denitrification may be a noteworthy biodegradation process occurring at this time at the source and downgradient areas.

- Ferrous iron concentrations at the former source and downgradient area monitoring wells (MW-7, MW-10, MW-14, MW-15) exhibit higher levels relative to side gradient and upgradient monitoring wells (MW-4, MW-12). The presence of these metabolic by-products downgradient of the source area suggest biodegradation of MGP petroleum-related compounds may be occurring.
- Sulfate concentrations at the former source and downgradient areas are not depleted relative to upgradient and side gradient areas. This observation indicates sulfate reduction is not likely to be a significant biodegradation process at this time at the source and downgradient areas.
- Based on the presence of methane, low DO concentrations, and the reduced ORP levels, methanogenesis is likely an important factor for biodegradation capacity in the source and downgradient areas of the Site.

3.2.3 Natural Attenuation Trending

Previous groundwater sampling data collected since April 2013 (the dataset) were utilized to develop and evaluate the contaminant plume and concentration trends of specific constituents at the Site. Plume size and concentration data are indicative of biodegradation capacity (natural attenuation) at the Site and whether the capacity has reached a limit of effectiveness. In order to determine and evaluate natural attenuation effectiveness, statistical testing was utilized for groundwater data collected from monitoring wells at the Site. The Mann-Kendall test was performed on the dataset to identify potential trends in groundwater concentrations of site contaminants. The Mann-Kendall test is a nonparametric evaluation used to identify a trend in a series, even if there is a seasonal component in the series. The three possible hypotheses are that there is a negative, null, or positive trend. The resultant statistical trend analysis for individual monitoring wells suggests (with 80% and 90% confidence) that total BTEX compounds and the naphthalene plume lifecycle demonstrate either no trend or a decreasing trend throughout the monitoring period. It is worth noting that a failure to reject the null hypothesis (i.e., “no trend”) does not prove that there is no trend; it merely means that the available data is not sufficient to conclude there is a trend. In cases where no trend was determined, a comparison of the dataset to the historical highs and lows was performed to determine if the plume is stable; in every case, this evaluation concluded the plume is stable. The table below depicts general concentration trend analysis results (decreasing, no trend or increasing) at 80% confidence levels for each well and associated constituents during the monitoring period. No trend is indicative of plume stability at well locations with contaminant detections throughout the monitoring period.

Table 1 – Contaminant Trend Analysis

Well ID	Benzene	Toluene	Ethylbenzene	Total Xylenes	Naphthalene
MW-4	Stable	Stable	Stable	Stable	No Trend
MW-7	Stable	Stable	Stable	Stable	No Trend
MW-10	No Trend	Stable	Stable	Stable	No Trend
MW-11	No Trend	No Trend	Stable	No Trend	Decreasing
MW-12	Stable	Stable	Stable	Stable	No Trend
MW-13	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
MW-14	Stable	No Trend	No Trend	No Trend	No Trend
MW-15	Decreasing	Stable	Stable	Stable	Increasing
MW-16	Probably Decreasing	Decreasing	Decreasing	No Trend	Increasing

Isoconcentration contour maps were developed for total BTEX (**Figure 5**) and naphthalene (**Figure 6**) contamination. The figures present locations of the groundwater monitoring wells and plume contours for total BTEX (as compared to the benzene WQ value of 1 µg/L) and naphthalene exceeding the NYSDEC WQ values. Evaluation of the isoconcentration figures suggests that the contaminant plumes were relatively stable to decreasing (smaller footprint with time) within the Site boundary. BTEX constituent plume trends (concentrations above the benzene WQ value of 1 µg/L) have consistently included monitoring wells MW-11, MW-13, MW-15, and MW-16. The naphthalene plume (concentrations above the WQ) currently includes monitoring wells MW-11, MW-15, and MW-16.

4 Conclusions and Recommendations

4.1 Conclusions

4.1.1 Groundwater Levels

The groundwater elevation data indicates groundwater within the Site flows from the south to the north, toward Cayadutta Creek. The groundwater flow direction has been consistent during previous gauging events and with data obtained prior to the ROD. **Figure 3** is a groundwater monitoring map verifying groundwater flow direction.

4.1.2 Site-Related Constituents

The highest concentrations of BTEX constituents and PAH compounds are at wells MW-11, MW-13, MW-15, and MW-16. Site institutional controls continue to be effective and will continue to be monitored semi-annually.

There are minimal concentrations of lead in groundwater samples; however, Cyanide has been detected consistently in most wells.

4.1.3 Natural Attenuation

Plume stability at the Site is an indication that biodegradation capacity likely has not reached its limit of effectiveness. The use of statistical testing has identified the plume trends based on the constituent concentrations were typically either stable or decreasing. At wells MW-15 and MW-16, the Mann Kendall test indicates that naphthalene is increasing over time, however current groundwater concentrations at each location are consistent with the results obtained over 10 years of monitoring.

4.2 Recommendations

Based on the results of the October 2024 groundwater sampling and monitoring event and results from previous events, it is recommended to continue the long-term semi-annual site inspection and groundwater monitoring program. The next event will occur in April 2025.

5 References

Borden, Robert C., et. al., “Geochemical Indicators of Intrinsic Bioremediation”. Groundwater, Volume 33, Number 2, March/April 1995.

National Grid. “Site Management Plan for the Johnstown (N. Market Street) Former MGP Site, Johnstown, New York”. National Grid, November 2011.

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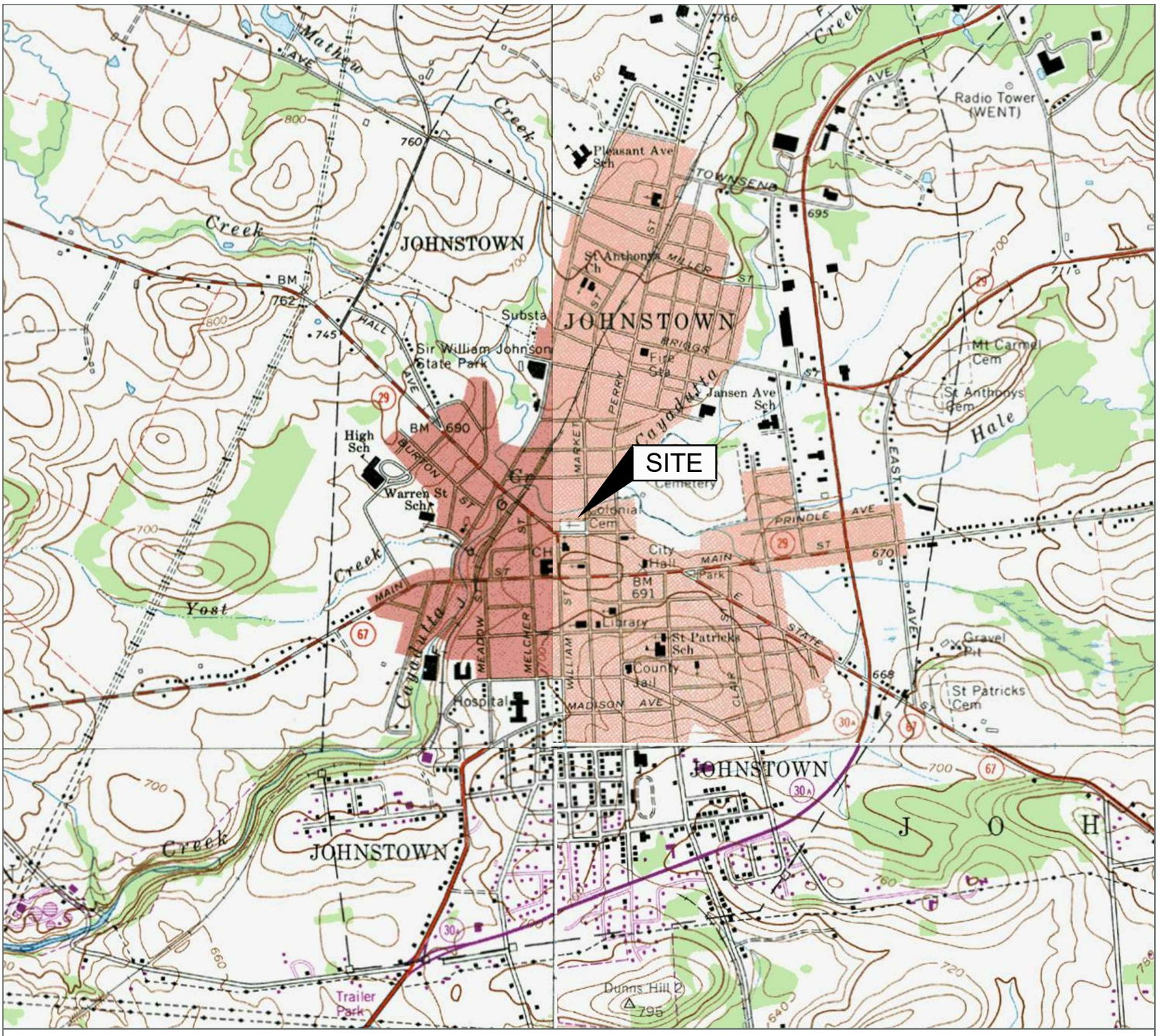
Niagara Mohawk Power Corporation. “Interim Remedial Measure (IRM) Summary Report for the Johnstown (N. Market Street) Site. Johnstown, Fulton County, New York. Site No. 5-18-020:. Tetra Tech FW, June 2007.

Niagara Mohawk Power Corporation. “IRM Summary Report for the Johnstown (N. Market Street) Site. Bridge Replacement Environmental Support Activities”. Tetra Tech FW, October 2007.

Niagara Mohawk Power Corporation. “Record of Decision for the Johnstown (N. Market Street) Former MGP Site, Johnstown, New York”. Niagara Mohawk Power Corporation, March 2010.

Figures



Source:
USGS 7.5 Minute Series
Topographic Quadrangle, 1970
Gloversville, New York
Contour Interval = 20'

Site Location Map

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn
W.G.S.
Designed

Approved

Date
11/15/19
Figure
1

N

Scale In Feet
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Groundwater & Environmental Services, Inc.

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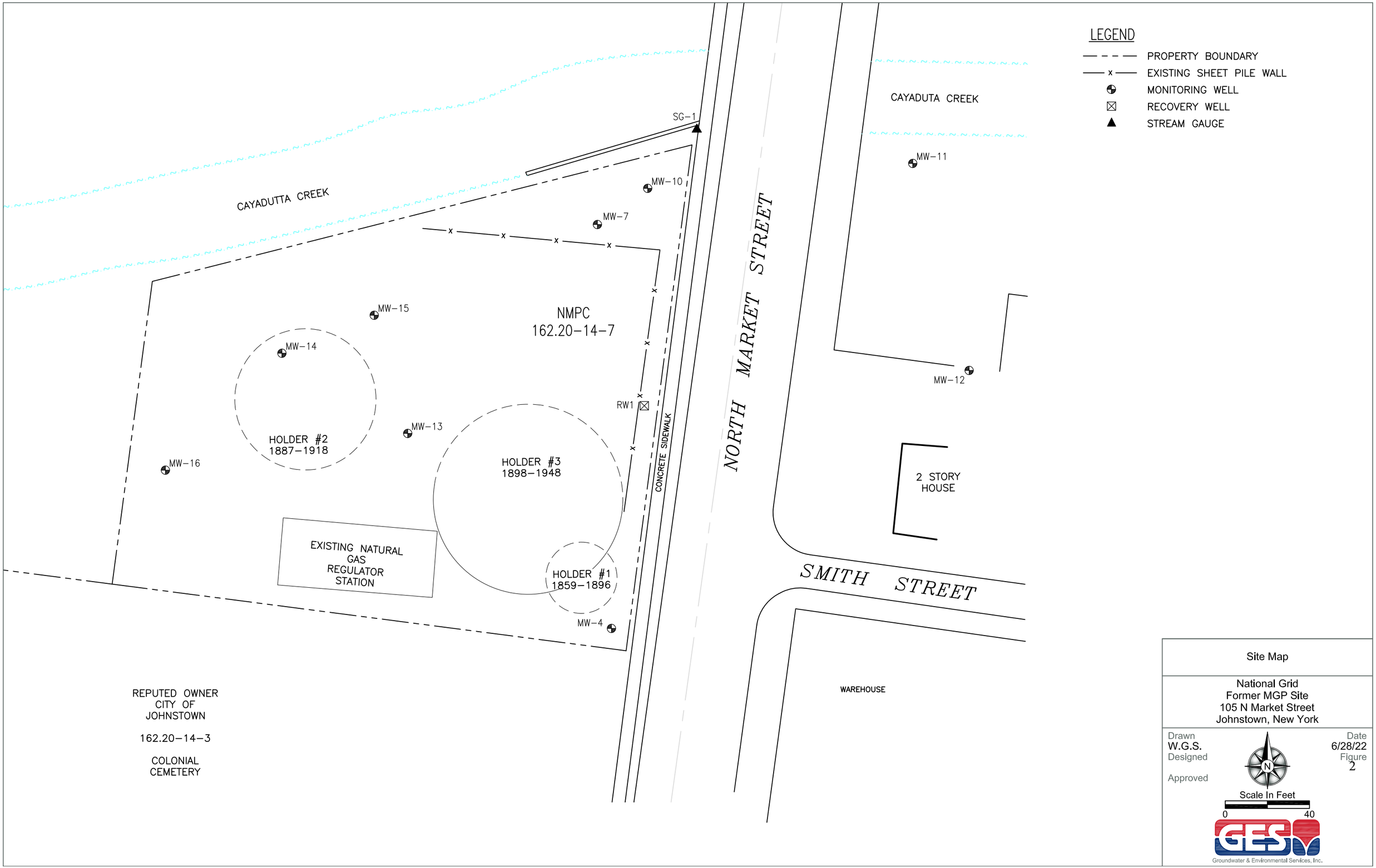

Site Map

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn
W.G.S.
Designed

Approved

Date
6/28/22
Figure
2

Scale In Feet
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Groundwater & Environmental Services, Inc.

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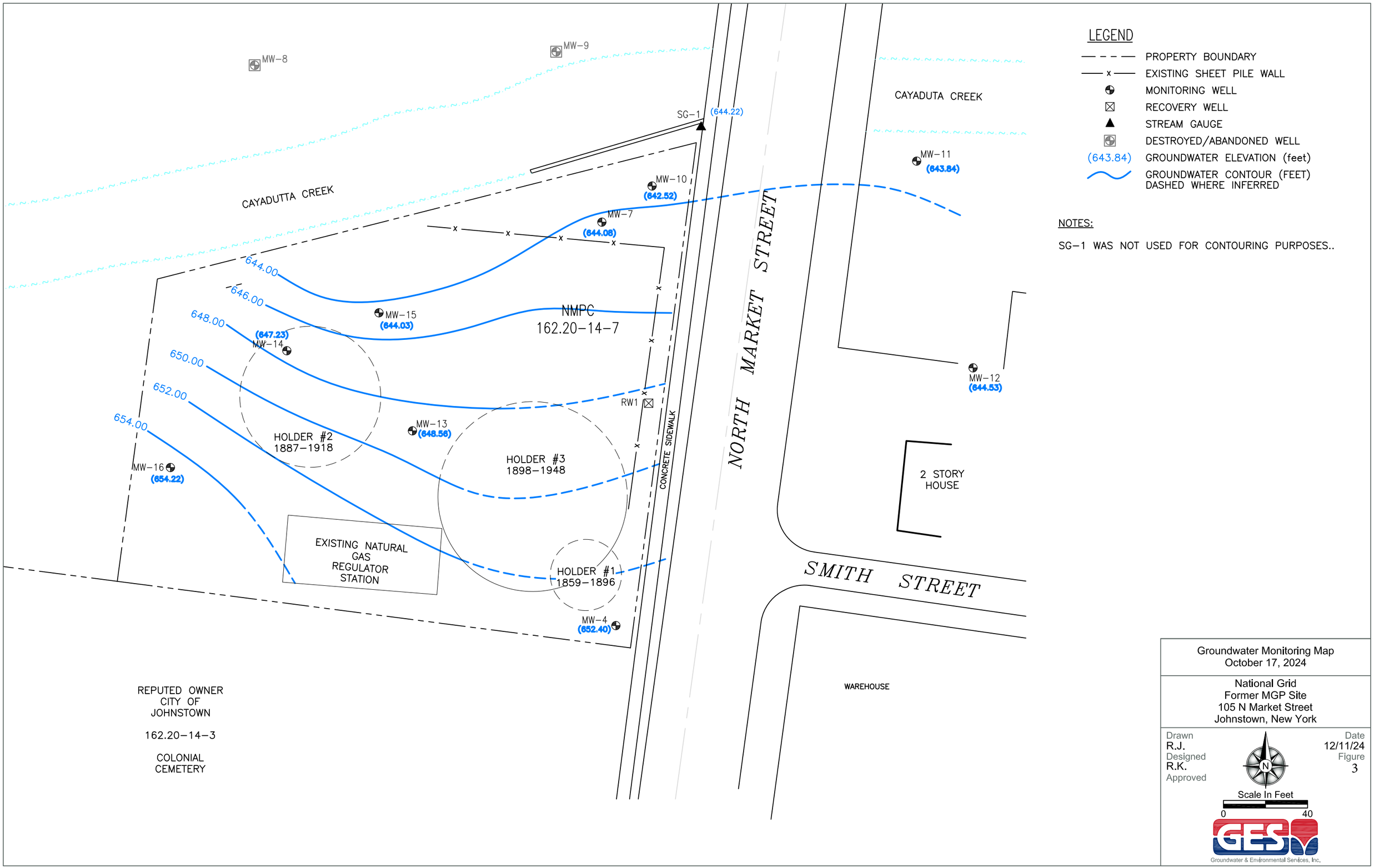

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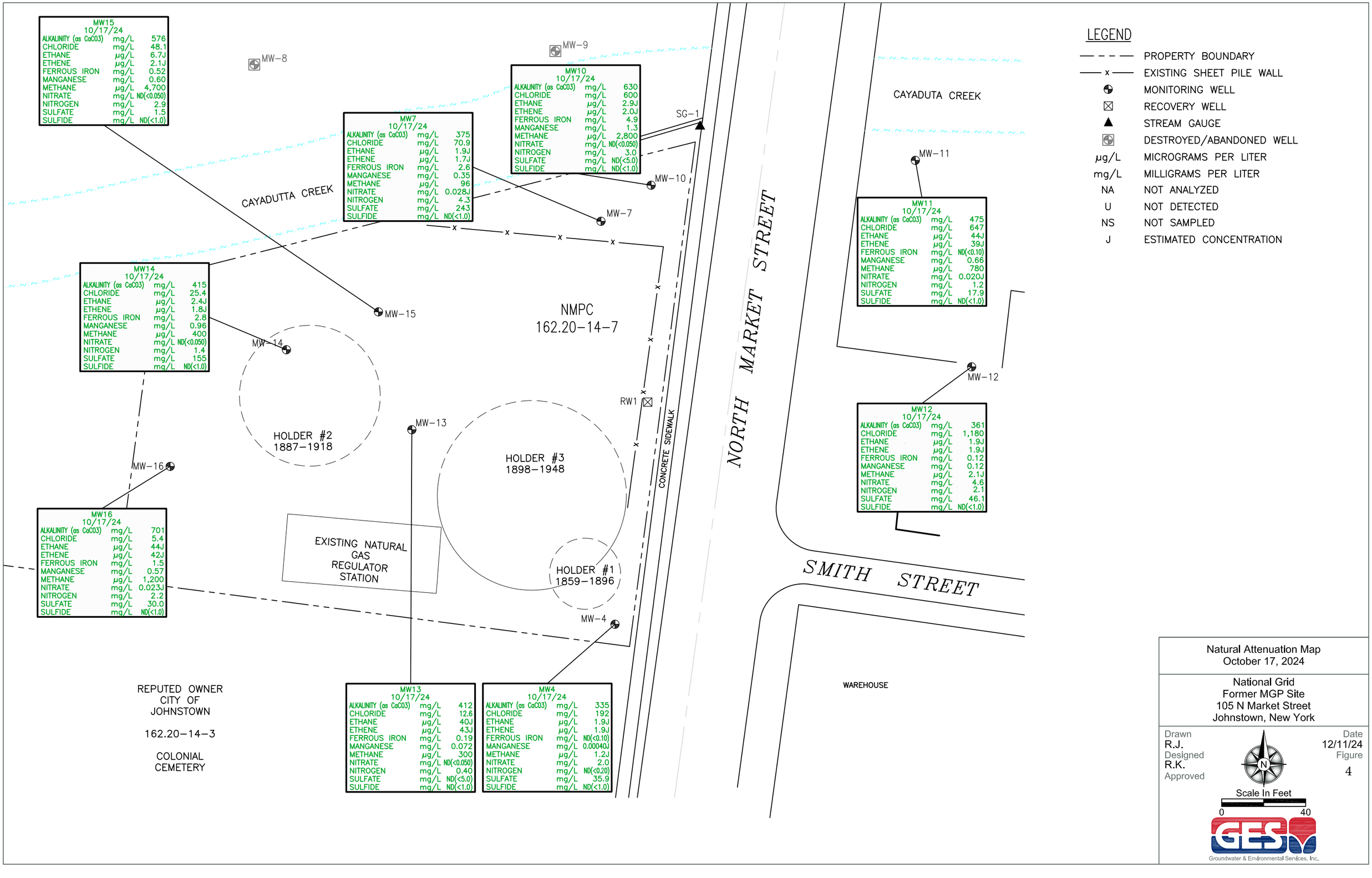

Natural Attenuation Map
October 17, 2024

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn R.J.
Designed R.K.
Approved

Date 12/11/24
Figure 4

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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BTEX Concentration Map
October 17, 2024

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn R.J.
Designed R.K.
Approved

Date 12/11/24
Figure 5

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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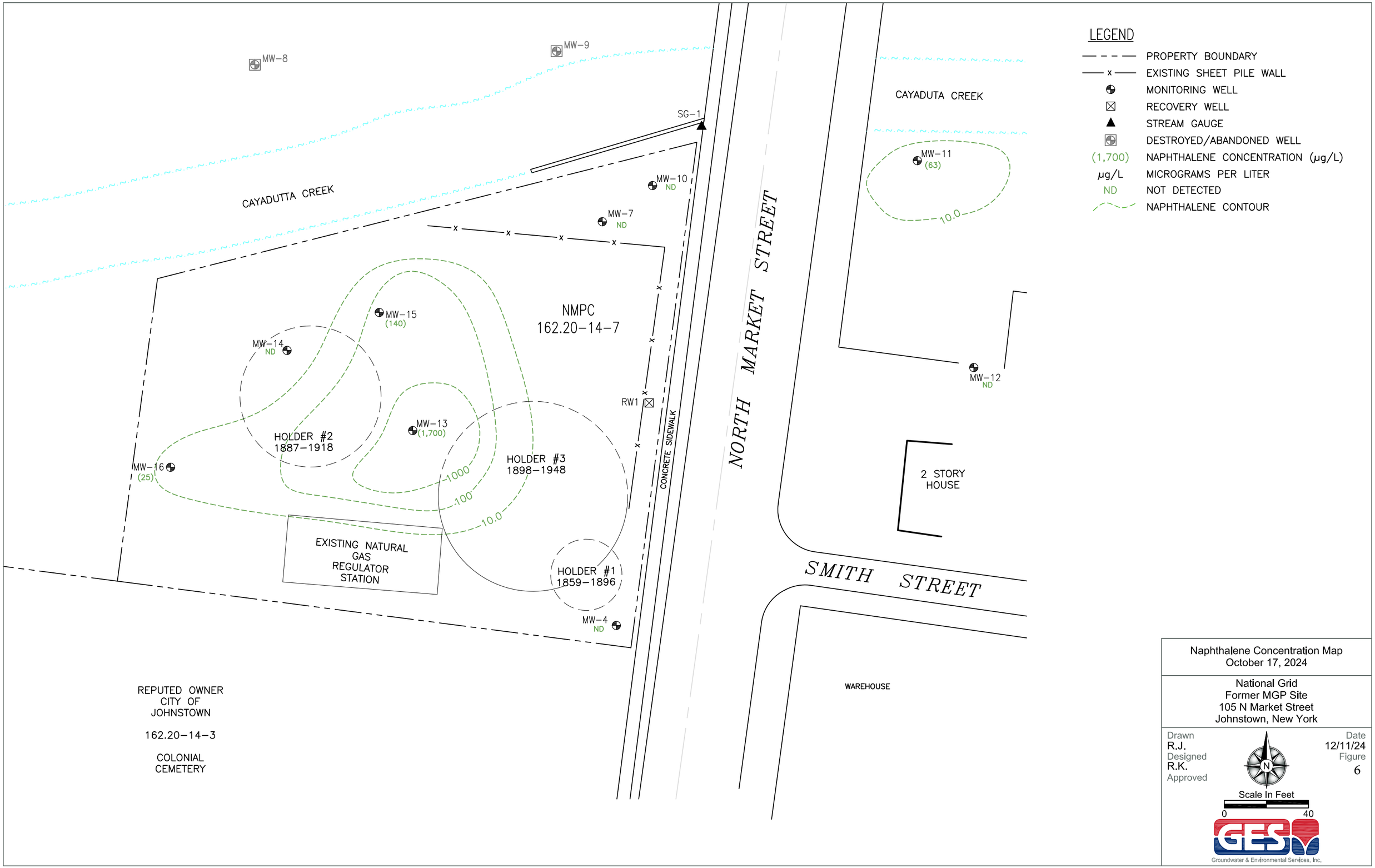

Naphthalene Concentration Map
October 17, 2024

National Grid
Former MGP Site
105 N Market Street
Johnstown, New York

Drawn
R.J.
Designed
R.K.
Approved

Date
12/11/24
Figure
6

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

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Tables

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	6/30/2010		9/29/2010		1/5/2011		4/8/2011		6/16/2011		10/13/2011		12/15/2011	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	23.10	653.44	23.41	653.13	22.95	653.59	22.50	654.04	22.04	654.50	21.41	655.13	22.78	653.76
MW-7	659.08	14.25	644.83	13.18	645.90	13.88	645.20	12.87	646.21	13.80	645.28	13.15	645.93	15.45	643.63
MW-10	657.59	14.80	642.79	14.60	642.99	14.75	642.84	14.09	643.50	14.77	642.82	14.11	643.48	14.22	643.37
MW-11	657.29	NM	NM	13.57	643.72	13.59	643.70	12.51	644.78	13.38	643.91	12.95	644.34	12.76	644.53
MW-12	660.08	NM	NM	NM	NM	15.06	645.02	NM	NM	NM	NM	13.61	646.47	14.54	645.54
MW-13	664.89	14.65	650.24	15.22	649.67	14.95	649.94	11.18	653.71	13.99	650.90	11.91	652.98	14.31	650.58
MW-14	663.91	13.50	650.41	14.46	649.45	14.28	649.63	12.86	651.05	13.65	650.26	13.26	650.65	13.65	650.26
MW-15	661.85	16.90	644.95	17.24	644.61	17.68	644.17	15.07	646.78	16.63	645.22	15.95	645.90	16.38	645.47
MW-16	665.57	9.70	655.87	10.19	655.38	12.33	653.24	11.00	654.57	10.50	655.07	9.79	655.78	9.91	655.66
RW-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
GAUGE1	659.97	15.07	644.90	20.20	639.77	16.30	643.67	15.75	644.22	16.75	643.22	16.05	643.92	15.62	644.35

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	3/15/2012		10/9/2012		4/18/2013		10/7/2013		4/9/2014		10/13/2014		4/16/2015	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	22.81	653.73	NM	NM	23.97	652.57	23.12	653.42	23.28	653.26	23.28	653.26	22.91	653.63
MW-7	659.08	13.55	645.53	14.17	644.91	13.53	645.55	14.36	644.72	13.71	645.37	14.61	644.47	13.23	645.85
MW-10	657.59	14.18	643.41	15.05	642.54	14.27	643.32	14.44	643.15	14.13	643.46	14.98	642.61	14.15	643.44
MW-11	657.29	12.73	644.56	13.95	643.34	13.01	644.28	13.16	644.13	12.68	644.61	13.71	643.58	12.62	644.67
MW-12	660.08	14.26	645.82	16.36	643.72	14.06	646.02	14.99	645.09	14.41	645.67	15.65	644.43	14.25	645.83
MW-13	664.89	14.98	649.91	16.12	648.77	14.18	650.71	15.08	649.81	14.84	650.05	15.53	649.36	11.34	653.55
MW-14	663.91	15.49	648.42	16.98	646.93	13.14	650.77	14.74	649.17	15.70	648.21	15.02	648.89	13.06	650.85
MW-15	661.85	16.41	645.44	17.85	644.00	16.26	645.59	17.21	644.64	16.67	645.18	17.55	644.30	15.31	646.54
MW-16	665.57	11.56	654.01	10.51	655.06	9.98	655.59	9.85	655.72	9.45	656.12	10.24	655.33	10.48	655.09
RW-1	-	-	-	17.98	-	16.21	-	15.95	-	12.32	-	17.31	-	16.84	-
GAUGE1	659.97	15.69	644.28	NM	NM	19.10	640.87	18.85	641.12	18.85	641.12	20.01	639.96	18.91	641.06

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	10/13/2015		4/6/2016		10/25/2016		4/26/2017		10/11/2017		4/26/2018		10/17/2018	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	23.48	653.06	23.51	653.03	24.03	652.51	21.09	652.19	24.35	652.19	22.48	654.06	23.20	653.34
MW-7	659.08	14.61	644.47	14.19	644.89	15.00	644.08	13.62	645.46	14.83	644.25	12.85	646.23	14.40	644.68
MW-10	657.59	14.95	642.64	14.77	624.82	15.18	642.41	14.37	643.22	15.02	642.57	13.05	644.54	14.60	642.99
MW-11	657.29	-	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-12	660.08	15.62	644.46	14.95	645.13	15.82	644.26	13.55	646.53	15.62	644.46	14.00	646.08	15.10	644.98
MW-13	664.89	14.98	649.91	15.95	648.94	16.32	648.57	13.27	651.62	15.80	649.09	12.98	651.91	14.15	650.74
MW-14	663.91	13.63	650.28	16.81	647.1	16.8	647.11	13.71	650.20	15.88	648.03	13.71	650.20	13.88	650.03
MW-15	661.85	17.23	644.62	17.355	644.3	17.9	643.95	16.05	645.80	17.86	643.99	15.71	646.14	16.70	645.15
MW-16	665.57	9.61	655.96	10.79	654.78	11.11	654.46	9.02	656.55	10.43	655.14	9.52	656.05	9.88	655.69
RW-1	-	13.21	-	13.03	NRP	12.88	NRP	10.6	NRP	17.40	NRP	12.35	NRP	12.38	NRP
GAUGE1	659.97	19.91	640.06	19.76	640.21	18.40	641.57	15.70	644.27	15.46	644.51	14.55	645.42	15.70	644.27

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	4/18/2019		10/16/2019		5/20/2020		10/7/2020		4/14/2021		10/6/2021		4/13/2022	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	22.60	653.94	23.47	653.07	22.11	654.43	24.21	652.33	23.46	653.08	22.99	653.55	22.55	653.99
MW-7	659.08	13.85	645.23	14.73	644.35	15.15	643.93	15.02	644.06	14.31	644.77	13.99	645.09	13.38	645.70
MW-10	657.59	14.50	643.09	15.02	642.57	15.02	642.57	15.15	642.44	14.77	642.82	14.24	643.35	14.12	643.47
MW-11	657.29	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW-12	660.08	14.40	645.68	15.54	644.54	14.62	645.46	15.85	644.23	15.29	644.79	14.81	645.27	13.68	646.40
MW-13	664.89	13.07	651.82	14.74	650.15	15.42	649.47	16.05	648.84	14.02	650.87	14.48	650.41	12.18	652.71
MW-14	663.91	13.80	650.11	13.8	650.11	14.23	649.68	16.15	647.76	13.95	649.96	14.21	649.70	13.76	650.15
MW-15	661.85	15.60	646.25	17.05	644.80	16.52	645.33	17.69	644.16	16.61	645.24	16.40	645.45	15.69	646.16
MW-16	665.57	10.39	655.18	9.78	655.79	9.81	655.76	10.93	654.64	9.94	655.63	9.81	655.76	8.84	656.73
RW-1	-	15.22	NRP	13.00	NRP	11.40	NRP	13.83	NRP	12.72	NRP	11.49	NRP	9.28	NRP
GAUGE1	659.97	15.50	644.47	16.28	643.69	16.05	643.92	16.38	643.59	16.73	643.24	16.02	643.95	15.60	644.37

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 2

Groundwater Level Measurements

Well ID	ELEVATION REFERENCE POINT	10/6/2022		4/19/2023		10/11/2023		4/16/2024		10/17/2024	
		Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)	Depth to Water (ft TOC)	GW Elevation (ft AMSL)
MW-4	676.54	24.00	652.54	22.02	654.52	24.62	651.92	21.74	654.80	24.14	652.40
MW-7	659.08	15.08	644.00	14.05	645.03	14.78	644.30	13.59	645.49	15.00	644.08
MW-10	657.59	14.99	642.60	14.79	642.80	14.91	642.68	14.23	643.36	15.07	642.52
MW-11	657.29	NM	-	NM	-	NM	-	12.41	644.88	13.45	643.84
MW-12	660.08	15.06	645.02	14.17	645.91	15.06	645.02	13.46	646.62	15.55	644.53
MW-13	664.89	15.63	649.26	13.34	651.55	15.52	649.37	12.25	652.64	16.33	648.56
MW-14	663.91	14.15	649.76	13.95	649.96	14.73	649.18	13.85	650.06	16.68	647.23
MW-15	661.85	16.67	645.18	16.90	644.95	17.36	644.49	15.78	646.07	17.82	644.03
MW-16	665.57	10.31	655.26	9.48	656.09	10.35	655.22	9.05	656.52	11.35	654.22
RW-1	-	16.30	NRP	10.43	NRP	15.28	NRP	9.42	NRP	17.47	NRP
GAUGE1	659.97	14.65	645.32	19.31	640.66	15.63	644.34	15.20	644.77	15.75	644.22

ft AMSL = Feet above mean sea level
ft TOC = Feet from top of inner casing
GW = Groundwater
NM = Not measured
NRP = No Reference Point

Table 3

Groundwater Analytical Data
MW-4

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/08/13	04/09/14	10/20/14	04/16/15	10/14/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
BTEX Compounds																									
Benzene	µg/L	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)	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	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
m/p-Xylene	µg/L	5	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 (<2.0)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	µg/L	5	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)	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	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.21	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Acenaphthylene	µg/L	NC	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Anthracene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Benzo(a)pyrene	µg/L	0.000	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Chrysene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Fluoranthene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Fluorene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Naphthalene	µg/L	10	3.2	3.2	2.2	2.2	2.2	ND (<0.51)	0.29	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	2.4	0.17	ND (<0.10)	ND (<0.099)	0.46	0.24	0.17	ND (<5.0)	ND (<5.0)
Phenanthrene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Pyrene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.49)	ND (<0.52)	ND (<0.52)	ND (<0.10)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.096)	ND (<0.10)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.12)	ND (<5.0)	ND (<5.0)
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<10)	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<10.0)	ND (<10.0)
Cyanide	mg/L	0.2	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)

AWQS	= Ambient Water Quality Standards
B	= Present in Associated Blank Sample
BTEX	= Benzene, Ethylbenzene, Toluene and Xylene
D	= Diluted Sample
E	= Result exceeded calibration range
F1	= MS and/or MSD Recovery outside acceptance limits.
F2	= MS/MSD RPD above control limits.
J	= Estimated Concentration Value
mg/L	= Milligrams per Liter
NC	= No Criteria
ND (<#)	= Not detected above laboratory reporting limit (indicated by #)
NS	= Not Sampled
NYSDEC	= New York State Department of Environmental Conservation
PAHs	= Polycyclic Aromatic Hydrocarbons
R	= Rejected
µg/L	= Micrograms per Liter
Bolded	= values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-4

CONSTITUENT	UNITS	10/08/13	04/09/14	10/15/14	04/16/15	10/14/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	442	398	400	384	412	394	414	392	418	424	424	452	410	360	390	386	500	406	NS	402	436	378	335
Chloride	mg/L	411	304	329	295	365	304	421	377	ND (<300)	233	306	360	260	296	200	315	637	339	NS	425	266	240	192
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<0.025)	ND (<0.025)	ND (<0.030)	0.037J	ND (<0.16)	ND (<1.0)	0.036 J	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)	1.9 J
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<0.035)	ND (<0.035)	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)	1.9 J
Ferrous Iron	mg/L	0.013	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.14	0.11	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.10	ND (<0.10)	ND (<0.10)	ND (<0.10)	NS	ND (<0.10)	ND (<0.10)	0.21	ND(<0.10)
Manganese	mg/L	ND (<3.0)	ND (<3.0)	ND (<3.0)	ND (<3.0)	0.019	0.0031	0.0053	ND (<0.005)	ND (<0.005)	ND (<0.005)	0.0065	ND (<0.005)	0.0318	ND (<0.005)	0.0541	ND (<0.005)	0.0621	ND (<0.005)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.0030)	0.00040 J
Methane	µg/L	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	0.32J	0.47J	0.27J	0.29J	ND (<0.30)	ND (<2.5)	ND (<2.5)	ND (<1.00)	ND (<5.00)	ND (<5.00)	3.01 J	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<4.0)	1.2 J
Nitrate	mg/L	3.5	3.6	2.7	2.9	2.9	3.4	3.2	2.2	3.2	0.69	2.1	3.9	2.7	2.8	2.2	3.9	2.2	2.6	2.2	1.8	1.8	0.22	2.0
Nitrogen	mg/L	0.31	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)	ND (<0.2)	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)	0.23	ND(<0.20)
Sulfate	mg/L	74.7	70.7	50.8	60	60	73.9	60.8	23.0	56.7	50.0	ND (<50.0)	35.8	42.1	23.7	37.0	35.9	51.4	35.1	NS	20.1	38.1	25.8	35.9
Sulfide	mg/L	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-7

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/08/13	04/09/14	10/20/14	04/16/15	10/14/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
BTEX Compounds																									
Benzene	µg/L	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	**1.3**	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	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)	ND (<1.0)	ND (<1.0)
m/p-Xylene	µg/L	5	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 (<2.0)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	µg/L	5	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)	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	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.3	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	0.10	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.13	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Acenaphthylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	0.20	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	0.10	ND (<0.10)	0.17	0.11	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Anthracene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.12**	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(a)pyrene	µg/L	0.000	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.11**	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.10**	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Chrysene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.12**	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Fluoranthene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	0.16	ND (<0.10)	0.29	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Fluorene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Naphthalene	µg/L	10	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	5.2	ND (<0.49)	3.0	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.83	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	0.11	ND (<5.0)	ND (<5.0)
Phenanthrene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.14	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Pyrene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.46)	ND (<0.46)	ND (<0.49)	ND (<0.49)	ND (<0.10)	ND (<0.097)	ND (<0.097)	ND (<0.098)	ND (<0.11)	ND (<0.11)	0.26	ND (<0.10)	0.43	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.11)	ND (<0.098)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Cyanide and Lead																									
Lead	µg/L	25	7.1	7.1	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	5.6	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	12	ND (<10)
Cyanide	mg/L	0.2	**0.4**	0.16	0.13	0.18	0.18	0.18	0.15	0.18	0.16	0.14	0.17	0.129	0.17	ND (<0.010)	**0.35**	0.11	0.13	**0.26**	0.15	0.15	0.14	0.15	0.14

AWQS	= Ambient Water Quality Standards
B	= Present in Associated Blank Sample
BTEX	= Benzene, Ethylbenzene, Toluene and Xylene
D	= Diluted Sample
E	= Result exceeded calibration range
F1	= MS and/or MSD Recovery outside acceptance limits.
F2	= MS/MSD RPD above control limits.
J	= Estimated Concentration Value
mg/L	= Milligrams per Liter
NC	= No Criteria
ND (<#)	= Not detected above laboratory reporting limit (indicated by #)
NS	= Not Sampled
NYSDEC	= New York State Department of Environmental Conservation
PAHs	= Polycyclic Aromatic Hydrocarbons
R	= Rejected
µg/L	= Micrograms per Liter
Bolded	= values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-7

CONSTITUENT	UNITS	10/08/13	04/09/14	10/15/14	04/16/15	10/14/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	367	375	392	340	403	395	406	412	380	390	440	370	400	446	430	422	440	404	NS	394	406	426	375
Chloride	mg/L	84	79	62.8	67.7	66.7	66.2	79.4	68.9	64.6	63.6	59.4	63.9	50.9	58.1	56.5	62.6	53.4	83.3	NS	90.0	68.4	61.8	70.9
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	0.38J	0.86J	0.20J	0.32J	0.18J	0.13 J	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)	1.9 J
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<0.035)	0.090J	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.00)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)	1.7 J
Ferrous Iron	mg/L	0.25	6.24	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.14	0.59	3.7	3.3	2.8	3.2	2.5	2.1	4.3	2.9	0.66	2.3	0.93	NS	3.6	5.7	0.81	2.6
Manganese	mg/L	1.1	0.564	0.49	0.49	0.46	0.53	0.43	0.478	0.476	0.476	0.459	0.487	0.395	0.513	0.420	0.440	0.400	0.307	0.379	0.389	0.401	0.47	0.35
Methane	µg/L	23	150	82	35	96	17	160	240	120	170	150	140	160	111	30.3	ND (<5.00)	88.2	67.2	NS	19.2	61.4	61	96
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.14	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.10)	ND (<0.20)	0.11	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.022 J	0.028 J
Nitrogen	mg/L	1.5	0.16	2	1.1	1.5	1.6	2.2	1.8	1.3	1.7	1.2	1.6	0.11	1.6	ND (<0.10)	1.7	1.7	1.4	1.6	1.4	1.5	1.6	4.3
Sulfate	mg/L	518	540	457	442	533	384	476	396	394	389	331	334	259	307	298	280	321	287	NS	257	281	281	243
Sulfide	mg/L	1.4	1.4	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)	2.4	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-10

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
BTEX Compounds																									
Benzene	µg/L	1	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	**2.3**	ND (<1.0)	ND (<1.0)	**1.9**	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)	**1.5**	ND (<1.0)	**1.5**	1.0 J
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	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)	ND (<1.0)	ND (<2.0)
m/p-Xylene	µg/L	5	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 (<2.0)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<4.0)
o-Xylene	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<2.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	2	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)	ND (<1.0)	ND (<2.0)
PAHs																									
Acenaphthene	µg/L	20	1.1	0.8	ND (<0.48)	0.63	ND (<0.50)	ND (<0.50)	1.4	0.72	1.6	0.53	1.7	1.4	1.8	0.52	1.9	2.0	1.6	1.5	2.2	1.9	2.2	2.6 J	3.0 J
Acenaphthylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	0.18	0.16	0.18	0.11	0.22	0.22	0.27	ND (<0.095)	0.43	0.38	0.27	0.24	0.29	0.25	0.29	ND (<5.0)	ND (<5.0)
Anthracene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.14	0.14	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(a)anthracene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.11**	ND (<0.099)	ND (<0.10)	ND (<0.11)	**0.13**	**0.15**	ND (<0.095)	**0.63**	**0.61**	**0.16**	**0.20**	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(a)pyrene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.10**	ND (<0.099)	ND (<0.10)	ND (<0.11)	**0.12**	**0.15**	ND (<0.095)	**0.56**	**0.67**	**0.16**	**0.16**	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.17**	ND (<0.099)	ND (<0.10)	ND (<0.11)	**0.13**	**0.15**	ND (<0.095)	**0.65**	**0.89**	**0.23**	**0.24**	ND (<0.10)	**0.11**	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.24	0.32	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.15**	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	**0.25**	**0.85**	**0.19**	**0.22**	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Chrysene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	**0.099**	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	**0.12**	ND (<0.095)	**0.53**	**0.51**	ND (<0.11)	0.17	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	ND (<0.099)	0.11	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Fluoranthene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	0.10	0.16	ND (<0.099)	ND (<0.10)	ND (<0.11)	0.18	0.22	ND (<0.095)	0.78	0.78	0.18	0.24	ND (<0.10)	0.11	ND (<0.11)	ND (<5.0)	0.45 J
Fluorene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.21	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	**0.23**	**0.30**	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Naphthalene	µg/L	10	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	7.9	ND (<0.50)	0.23	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.49	ND (<0.096)	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	0.95	ND (<5.0)	ND (<5.0)
Phenanthrene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	ND (<0.10)	ND (<0.097)	ND (<0.099)	ND (<0.10)	ND (<0.11)	ND (<0.11)	ND (<0.096)	ND (<0.095)	0.18	0.20	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<5.0)	ND (<5.0)
Pyrene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<0.50)	0.15	0.20	ND (<0.099)	ND (<0.10)	0.13	0.22	0.27	ND (<0.095)	0.97	0.90	0.26	0.30	0.14	0.15	0.14	ND (<5.0)	0.41 J
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<5.0)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	6.0	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	24	ND (<10)
Cyanide	mg/L	0.2	0.11	0.081	0.10	0.098	0.010	0.085	0.081	0.13	0.10	0.12	0.079	0.114	0.093	0.097	0.10	0.060	0.066	0.097	0.078	0.12	0.072	0.13	0.098

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-10

CONSTITUENT	UNITS	10/08/13	04/09/14	10/15/14	04/16/15	10/13/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	552	566	548	512	581	586	660	628	616	606	650	550	640	624	502	524	650	612	640	586	614	572	630
Chloride	mg/L	265	470	664	698	1060	893	784	390	427	419	709	440	566	314	472	945	768	816	751	970	823	406	600
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	0.16J	0.33J	0.20J	0.24J	0.42J	0.29 J	0.34 J	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)	2.9 J
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<0.035)	0.12J	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)	2.0 J
Ferrous Iron	mg/L	0.12	6.06	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.11	1.0	4.2	4.7	3.2	4.8	2.6	2.2	5.3	1.2	1.1	3.2	2.0	5.9	4.3	11.5	1.5	4.9
Manganese	mg/L	0.75	1.07	1.3	1.3	1.6	1.2	1.2	1.020	1.030	0.882	0.994	0.946	1.15	0.953	0.771	1.09	1.040	1.150	1.24	1.16	1.47	1.2	1.3
Methane	µg/L	28	110	130	63	82	56	420	300	330	470	680	460	1300	390	451	ND (<5.00)	780	594	NS	482	63.1	900	2,800
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.11	ND (<0.05)	0.12	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.50)	ND (<0.10)	ND (<0.20)	ND (<0.50)	ND (<0.10)	0.14	0.41	0.021 J	ND (<0.050)
Nitrogen	mg/L	4.1	4.8	6.2	5.6	6.3	4	6.5	5.1	3.8	3.3	4.5	4	ND (<1.0)	2.5	1.0	4.0	4.7	3.8	3.6	3.9	4.5	3.5	3.0
Sulfate	mg/L	171	153	89.7	167	53.9	44.4	56.6	148	38.2	ND (<100)	23.0	59.4	20.9	55.2	23.9	7.8	9.7	12.3	4.6	12.4	5.0	ND (<5.0)	ND (<5.0)
Sulfide	mg/L	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)	3.4	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-11

CONSTITUENT	UNITS	NYSDEC AWQS Values	09/29/10	01/04/11	04/06/11	06/14/11	10/11/11	12/13/11	03/14/12	10/09/12	04/18/13	10/08/13	04/09/14	10/20/14	04/16/15	10/14/15 to 10/11/23*	04/16/24	10/17/24
BTEX Compounds																		
Benzene	µg/L	1	**27**	**16**	**2.8**	**13**	**18**	**15**	**7.9**	**12**	**3.5**	**8.1**	**10**	**22**	**7.3**	NS	**16**	**18**
Ethylbenzene	µg/L	5	**7.3**	**7.2**	1.9	**6.9**	**6.1**	**5.5**	3.5	ND (<1.0)	1.2	3.8	**5.1**	**7.8**	3	NS	**6.4**	**6.3**
m/p-Xylene	µg/L	5	3	3.9	2.2	**5.3**	2.4	2.1	1.4J	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	2.1	ND (<2.0)	NS	1.3 J	ND (<4.0)
o-Xylene	µg/L	5	2.6	2.7	1.1	3.1	2.0	2.0	1.2	ND (<1.0)	ND (<1.0)	1.6	2.1	2.6	1.5	NS	1.7	1.6 J
Toluene	µg/L	5	1.3	1.3	ND (<1.0)	1.4	0.97J	0.99J	0.69J	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.1	1.9	ND (<1.0)	NS	1.3	1.4 J
PAHs																		
Acenaphthene	µg/L	20	**150 D**	**140 D**	**150**	**110**	**120**	**130**	**100**	**140 E**	**97**	**110**	**120**	**110**	**59**	NS	**210**	**280**
Acenaphthylene	µg/L	NC	280JD	330 D	290	290	240 D	270 D	210	160 E	120	170	110	150	56	NS	130	160
Anthracene	µg/L	50	21	18	**88**	19 B	19	17	11	23	13	28	13	16	4.2	NS	11 J	17
Benzo(a)anthracene	µg/L	0.002	**2.2J**	**2.2**	**35**	**6.2 B**	**2.7**	**3.0 B**	**5.2 B**	**3.8**	ND (<0.002)	**8.3**	**3.2**	**4.8**	**1.9**	NS	ND (<25)	**0.79 J**
Benzo(a)pyrene	µg/L	0.002	**1.7**	**2.2**	**34**	**5.7 B**	**2.8**	**2.5 B**	**2.3J**	**2.7**	**3.3**	**8.5**	**2.8**	**4.7**	**0.84**	NS	ND (<25)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	**0.65J**	**0.82J**	**24**	**4.8 B**	**1.9**	**2.1**	**1.8J**	**1.7**	ND (<0.002)	ND (<0.002)	ND (<0.002)	**4.6**	**0.68**	NS	ND (<25)	**0.35 J**
Benzo(g,h,i)perylene	µg/L	NC	0.90J	1.2J	20	4.0 B	1.4	1.7	1.3J	1	1	3.4	ND (<0.002)	1.8	ND (<0.002)	NS	ND (<25)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	**0.90J**	**1.1J**	**12**	**2.5 B**	**1**	**0.78**	**1.2J**	**1.6**	ND (<0.002)	ND (<0.002)	ND (<0.002)	**2.1**	ND (<0.002)	NS	ND (<25)	ND (<5.0)
Chrysene	µg/L	0.002	**2.8**	**2.9**	**43**	**8.1 B**	**3.3**	**3.5 B**	ND (<5.1)	**3.4**	**4.4**	**10**	**5.4**	**7.6**	**0.99**	NS	**1.7 J**	**1.2 J**
Dibenzo(a,h)anthracene	µg/L	NC	ND (<1.0)	ND (<2.1)	3.2	ND (<2.4)	0.30J	0.59	ND (<5.1)	ND (<5.1)	ND (<5.1)	ND (<5.1)	ND (<5.1)	ND (<0.47)	ND (<0.47)	NS	ND (<25)	ND (<5.0)
Fluoranthene	µg/L	50	18	14	**96**	22 B	20	16	12	24	14	28	12	16	5.4	NS	13 J	17 J
Fluorene	µg/L	50	**110 D**	**100 D**	**130**	**72**	**79**	**83**	**62**	**92**	**62**	**70**	31	44	16	NS	**69**	**110**
Indeno(1,2,3-cd)pyrene	µg/L	0.002	**0.65J**	**2.1U**	**13**	**2.8 B**	**0.96**	**1.0 B**	**0.69J**	**1.6**	ND (<0.002)	ND (<0.002)	ND (<0.002)	**1.2**	ND (<0.002)	NS	ND (<25)	ND (<5.0)
Naphthalene	µg/L	10	**180 D**	**560 D**	**300**	**480**	**310 D**	**230 D**	**140**	**110**	**50**	**87**	ND (<10)	**51**	2.3	NS	**120**	**63**
Phenanthrene	µg/L	50	**160 D**	**150 D**	**260**	**52 B**	**140 D**	**130**	**91**	**170**	**80**	**130**	5.8	**62**	1.5	NS	**82**	**180**
Pyrene	µg/L	50	26J	17	**150**	28 B	21	21	16	28	18	34	17	20	4.2	NS	15 J	20
Cyanide and Lead																		
Lead	µg/L	25	ND (<5.0)	ND (<5.0)	**40**	7.6	12	ND (<5.0)	4.6J	ND (<5.0)	ND (<5.0)	5.9	ND (<5.0)	0.014	ND (<5.0)	NS	**46**	3.3 J
Cyanide	mg/L	0.2	0.024	0.027	R	0.015J	0.021	ND (<0.01)	0.012	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.018	0.021	0.012	NS	0.020	0.021

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

* = Monitoring well is inaccessible due to debris and was not sampled during this time period

Table 3

Groundwater Analytical Data
MW-11

CONSTITUENT	UNITS	03/14/12	10/09/12	04/18/13	10/08/13	04/09/14	10/15/14	04/16/15	10/14/15 to 10/11/23*	04/16/24	10/17/24
MNA/WQ Parameters											
Alkalinity (as CaCO3)	mg/L	R	623	507	573	465	457	428	NS	461	475
Chloride	mg/L	321	350	202	295	454	364	314	NS	618	647
Ethane	µg/L	ND (<15)	ND (<380)	ND (<380)	ND (<380)	ND (<380)	ND (<7.5)	ND (<7.5)	NS	ND (<170)	44 J
Ethene	µg/L	ND (<15)	ND (<350)	ND (<350)	ND (<350)	ND (<350)	ND (<7.0)	ND (<7.0)	NS	ND (<150)	39 J
Ferrous Iron	mg/L	ND (<0.1)	0.5	0.18	0.22	0.29	ND (<0.1)	ND (<0.1)	NS	0.76	ND (<0.10)
Manganese	mg/L	0.47	0.95	0.95	0.55	0.56	0.56	0.25	NS	0.74	0.66
Methane	µg/L	160	520	12	25	120	180	13	NS	640.00	780
Nitrate	mg/L	0.092	ND (<0.050)	0.79	0.32	0.32	0.059	0.28	NS	ND (<0.050)	0.020 J
Nitrogen	mg/L	1.3	1.4	0.58	0.64	0.57	1.2	0.26	NS	1.5	1.2
Sulfate	mg/L	8.5 B	16.9	112	94.1	58	44.3	82.9	NS	14.9	17.9
Sulfide	mg/L	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.8	ND (<1.0)	NS	1.2	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality
* = Monitoring well is inaccessible due to debris and was not sampled during this time period

Table 3

Groundwater Analytical Data
MW-12

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/08/13	04/09/14	10/20/14	04/16/15	10/14/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
BTEX Compounds																									
Benzene	µg/L	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	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)	ND (<1.0)
m/p-Xylene	µg/L	5	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 (<2.0)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)
o-Xylene	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
Toluene	µg/L	5	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)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)
PAHs																									
Acenaphthene	µg/L	20	1.1	1.1	ND (<0.48)	ND (<0.48)	ND (<0.47)	ND (<0.51)	0.11	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<011)	ND (<0.097)	ND (<0.096)	ND (<0.11)	ND (<0.099)	0.11	ND (<0.098)	ND (<0.10)	ND (<5.0)	ND (<25)
Acenaphthylene	µg/L	NC	ND (<0.2)	ND (<0.2)	0.63	ND (<0.2)	ND (<0.47)	ND (<0.51)	4.4	ND (<0.097)	0.30	0.39	0.62	ND (<0.11)	1.0	0.1	0.61	0.41	0.14	0.21	2.5	0.27	0.40	ND (<5.0)	ND (<25)
Anthracene	µg/L	50	1.1	1.1	0.88	ND (<0.2)	0.73	ND (<0.51)	1.4	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.099	ND (<0.11)	ND (<0.097)	ND (<0.096)	ND (<0.11)	1.4	1.5	0.31	0.22	ND (<5.0)	ND (<25)
Benzo(a)anthracene	µg/L	0.002	**3**	**0.66**	**1.5**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**2.1**	**0.11**	**0.14**	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.24**	**0.34**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.49**	**5.4**	**0.77**	**0.67**	ND (<5.0)	ND (<25)
Benzo(a)pyrene	µg/L	0.002	**3.6**	**0.92**	**1.8**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**2.8**	**0.11**	**0.16**	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.3**	**0.41**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.46**	**6.7**	**0.97**	**0.87**	ND (<5.0)	ND (<25)
Benzo(b)fluoranthene	µg/L	0.002	**3.4**	**0.71**	**2.1**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**2.3**	**0.13**	**0.19**	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.24**	**0.34**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.49**	**6.8**	**0.85**	**0.8**	ND (<5.0)	ND (<25)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.49)	0.51	0.74	ND (<0.49)	ND (<0.47)	ND (<0.51)	1.6	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.15	0.21	ND (<0.097)	ND (<0.096)	ND (<0.11)	0.27	3.8	0.41	0.41	ND (<5.0)	ND (<25)
Benzo(k)fluoranthene	µg/L	0.002	**0.83**	ND (<0.49)	**0.74**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**0.94**	**0.11**	**0.16**	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.11)	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.45**	**6.0**	**0.74**	**0.65**	ND (<5.0)	ND (<25)
Chrysene	µg/L	0.002	**3**	ND (<0.49)	**1.6**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**1.9**	ND (<0.097)	**0.11**	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.19**	**0.22**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.72**	**3.9**	**0.50**	**0.51**	ND (<5.0)	ND (<25)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.52)	ND (<0.52)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<0.51)	0.29	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	ND (<0.097)	ND (<0.11)	ND (<0.097)	ND (<0.096)	ND (<0.11)	ND (<0.099)	0.92	ND (<0.098)	ND (<0.10)	ND (<5.0)	ND (<25)
Fluoranthene	µg/L	50	4.3	0.87	2.00	ND (<0.49)	ND (<0.47)	0.52	3.9	**0.11**	**0.17**	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.33	0.43	ND (<0.097)	ND (<0.096)	ND (<0.11)	0.72	6.8	0.87	0.73	ND (<5.0)	2.4 J
Fluorene	µg/L	50	ND (<0.49)	ND (<0.49)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<0.51)	0.51	ND (<0.097)	ND (<0.10)	ND (<0.099)	0.13	ND (<0.11)	ND (<0.097)	ND (<0.11)	0.12	ND (<0.096)	ND (<0.11)	ND (<0.099)	0.21	ND (<0.098)	ND (<0.10)	ND (<5.0)	ND (<25)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	**1.2**	ND (<0.49)	**0.51**	ND (<0.49)	ND (<0.47)	ND (<0.51)	**1.2**	ND (<0.097)	ND (<0.10)	ND (<0.099)	ND (<0.11)	ND (<0.11)	**0.11**	**0.17**	ND (<0.097)	ND (<0.096)	ND (<0.11)	**0.20**	**3.0**	**0.34**	**0.34**	ND (<5.0)	ND (<25)
Naphthalene	µg/L	10	0.99	ND (<0.52)	1.6	ND (<0.49)	1.9	ND (<0.51)	0.96	ND (<0.097)	0.15	ND (<0.099)	ND (<0.11)	ND (<0.11)	1.8	ND (<0.11)	0.97	ND (<0.096)	ND (<0.11)	ND (<0.099)	0.15	ND (<0.098)	0.71	ND (<5.0)	ND (<25)
Phenanthrene	µg/L	50	3.6	0.61	2	ND (<0.49)	ND (<0.47)	ND (<0.51)	3.5	ND (<0.097)	0.14	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.23	0.34	0.14	ND (<0.096)	ND (<0.11)	0.62	4.7	0.64	0.57	ND (<5.0)	ND (<25)
Pyrene	µg/L	50	5.8	1.3	2.8	ND (<0.49)	ND (<0.47)	0.64	5.4	0.17	0.24	ND (<0.099)	ND (<0.11)	ND (<0.11)	0.49	0.61	ND (<0.097)	ND (<0.096)	ND (<0.11)	1.0	9.6	1.3	1.1	ND (<5.0)	2.5 J
Cyanide and Lead																									
Lead	µg/L	25	**29**	ND (<5.0)	0.018	ND (<0.49)	ND (<10)	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<0.02)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<10)	ND (<10)
Cyanide	mg/L	0.2	ND (<0.010)	ND (<0.010)	0.013	ND (<0.49)	ND (<0.01)	ND (<0.01)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.011	0.011	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.0060 J	0.0060 J

AWQS	= Ambient Water Quality Standards
B	= Present in Associated Blank Sample
BTEX	= Benzene, Ethylbenzene, Toluene and Xylene
D	= Diluted Sample
E	= Result exceeded calibration range
F1	= MS and/or MSD Recovery outside acceptance limits.
F2	= MS/MSD RPD above control limits.
J	= Estimated Concentration Value
mg/L	= Milligrams per Liter
NC	= No Criteria
ND (<#)	= Not detected above laboratory reporting limit (indicated by #)
NS	= Not Sampled
NYSDEC	= New York State Department of Environmental Conservation
PAHs	= Polycyclic Aromatic Hydrocarbons
R	= Rejected
µg/L	= Micrograms per Liter
Bolded	= values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-12

CONSTITUENT	UNITS	10/08/13	04/09/14	10/15/14	04/16/15	10/14/15	04/06/16	10/26/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	415	329	414	368	401	415	436	466	366	456	430	416	400	380	360	430	512	356	NS	418	392	426	361
Chloride	mg/L	662	150	493	139	591	276	556	152	587	345	757	334	490	267	633	391	879	141	NS	805	1,250	467	1,180
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	0.47J	ND (<0.025)	ND (<0.030)	ND (<0.030)	ND (<0.16)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)	1.9 J
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<0.035)	ND (<0.035)	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)	1.9 J
Ferrous Iron	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.11	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	NS	ND (<0.10)	ND (<0.10)	0.082 J	0.12
Manganese	mg/L	2.1	0.36	1.2	0.16	0.039	0.062	0.202	0.0201	0.0399	0.0113	0.0152	0.0153	0.0636	0.0386	0.0074	ND (<0.005)	ND (<0.015)	0.0157	0.272	0.0396	0.0385	0.013	0.12
Methane	µg/L	ND (<1.0)	ND (<1.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	ND (<4.0)	1.95	0.24J	0.27J	1.0J	0.35J	ND (<2.5)	ND (<2.5)	ND (<0.10)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<4.0)	2.1 J
Nitrate	mg/L	4.8	1.4	3.7	1.4	2.5	3.3	2.9	5.1	3.6	0.84	5.6	4.3	ND (<0.10)	5.9	2.5	3	4.4	2.7	3.2	5.3	5.2	0.49	4.6
Nitrogen	mg/L	2.4	0.44	0.61	0.61	ND (<0.2)	ND (<0.2)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	5.1	ND (<1.0)	3.9	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.20)	2.1
Sulfate	mg/L	115	51.6	73.5	54.8	70.2	93.7	56.0	115	53.7	70.3	66.8	53.9	55.1	77.2	48.3	65.9	64.1	39.9	NS	101	54	109	46.1
Sulfide	mg/L	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)	1.6	ND (<1.0)	ND (<1.0)	1.0	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-13

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
BTEX Compounds																									
Benzene	µg/L	1	**400**	**200**	**300**	**17**	**360**	**300**	**348**	**15.5**	**363**	**11.6**	**32.8**	**16.9**	**328**	**126**	**268**	**11.7**	**7.1**	**113**	**5.9**	**171**	**5.2**	**130**
Ethylbenzene	µg/L	5	**320**	**200**	**340**	**17**	**190**	**270**	**366**	**7.4**	**210**	4.8	**23.3**	**12.4**	**230**	**85.6**	**193**	4.5	**164**	**5.1**	**104**	1.5	**148**	2.1	**130**
m/p-Xylene	µg/L	5	**420**	**250**	**480**	**24**	**270**	**360**	**467**	**12.1**	**257**	**8.6**	**34.8**	**16.6**	**229**	**89.5**	**179**	**8.7**	**152**	5.0	**96.2**	2.7	**122**	4.8	**98**
o-Xylene	µg/L	5	**190**	**120**	**210**	**16**	**120**	**150**	**203**	**8.4**	**117**	**9.3**	**18.6**	**9.7**	**112**	**48.6**	**90.7**	**5.5**	**74.2**	4.0	**53.6**	3.6	**60.4**	5.0	**51**
Toluene	µg/L	5	**440**	**270**	**430**	**17**	**320**	**410**	**552**	**7.6**	**332**	3.9	**25.1**	**11.1**	**288**	**95.7**	**279**	**5.8**	**158**	3.9	**84.2**	1.3	**133**	1.6	**120**
PAHs																									
Acenaphthene	µg/L	20	**77**	**71**	**130**	ND (<4.9)	**65 E**	**130**	**225**	0.34	**78.4**	0.16	4.3	6.8	**141**	4.6	**124**	0.35	**106**	5.6	**143**	ND (<0.096)	**245**	0.60 J	**180 J**
Acenaphthylene	µg/L	NC	350	22	450	ND (<4.9)	77 E	220	267	1.2	122	0.61	6.4	6.7	57.0	0.78	43.4	0.89	10.5	1.4	68.4	0.14	24.5	ND (<5.0)	ND (<250)
Anthracene	µg/L	50	ND (<47)	6.9	14	ND (<4.9)	9.2 F1 F2	10	19.2	0.55	7.2	0.25	0.73	0.82	7.3	0.15	5.1	0.33	6.1	0.15	6.7	ND (<0.096)	6.5	0.35 J	ND (<250)
Benzo(a)anthracene	µg/L	0.002	ND (<47)	ND (<47)	**1.9**	ND (<0.001)	**0.59 F2**	ND (<9.7)	**6.7**	**0.93**	**1.7**	**0.30**	**0.22**	**0.14**	**0.79**	**0.18**	**0.51**	**0.38**	**0.98**	ND (<0.098)	**0.98**	ND (<0.096)	**0.56**	ND (<5.0)	ND (<250)
Benzo(a)pyrene	µg/L	0.002	ND (<47)	ND (<47)	**1.6**	ND (<0.001)	ND (<0.49)	ND (<9.7)	**6.5**	**1.0**	**1.3**	**0.40**	**0.20**	ND (<0.10)	**0.58**	**0.20**	**0.31**	**0.82**	**0.87**	ND (<0.098)	**1.1**	**0.11**	**0.31**	ND (<5.0)	ND (<250)
Benzo(b)fluoranthene	µg/L	0.002	ND (<47)	ND (<47)	**2.8**	ND (<0.001)	ND (<0.49)	ND (<9.7)	**6.2**	**1.2**	**1.6**	**0.47**	**0.22**	**0.12**	**0.49**	**0.17**	**0.27**	**0.83**	**0.97**	ND (<0.098)	**1.2**	**0.10**	**0.33**	ND (<5.0)	ND (<250)
Benzo(g,h,i)perylene	µg/L	NC	ND (<47)	ND (<47)	0.6	ND (<0.001)	ND (<0.49)	ND (<9.7)	3.3	0.55	ND (<0.98)	0.21	ND (<0.099)	ND (<0.10)	0.23	ND (<0.10)	0.13	0.45	0.42	ND (<0.098)	0.59	ND (<0.096)	0.11	ND (<5.0)	ND (<250)
Benzo(k)fluoranthene	µg/L	0.002	ND (<47)	ND (<47)	**0.53**	ND (<0.001)	ND (<0.49)	ND (<9.7)	**2.5**	**1.1**	**1.3**	**0.35**	**0.20**	**0.11**	**0.21**	ND (<0.10)	**0.11**	**0.79**	**0.84**	ND (<0.098)	**1.1**	ND (<0.096)	**0.27**	ND (<5.0)	ND (<250)
Chrysene	µg/L	0.002	ND (<47)	ND (<47)	**1.8**	ND (<0.001)	**0.50 F1 F2**	ND (<9.7)	**6.1**	**0.81**	**1.3**	**0.22**	**0.20**	ND (<0.10)	**0.64**	**0.13**	**0.38**	**0.34**	**0.62**	ND (<0.098)	**0.75**	ND (<0.096)	**0.34**	ND (<5.0)	ND (<250)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<47)	ND (<47)	ND (<0.47)	ND (<0.001)	ND (<0.49)	ND (<9.7)	0.85	0.13	ND (<0.98)	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.098)	0.11	ND (<0.11)	ND (<0.098)	0.16	ND (<0.096)	ND (<0.099)	ND (<5.0)	ND (<250)
Fluoranthene	µg/L	50	ND (<47)	6.1	8.2	ND (<4.9)	5.5 F2	ND (<9.7)	17.8	1.9	5.4	0.51	0.77	0.66	4.6	1.3	4.0	0.58	4.4	0.27	5.4	ND (<0.096)	4.7	ND (<5.0)	ND (<250)
Fluorene	µg/L	50	**68**	30	**94J**	ND (<4.9)	43 F1 F2	**55**	**74.8**	0.46	37.9	0.19	2.6	3.7	45.7	0.16	33.2	0.27	42.5	0.89	44.5	ND (<0.096)	50.8	ND (<5.0)	50 J
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<47)	ND (<47)	**0.48**	ND (<0.001)	ND (<0.49)	ND (<9.7)	**2.7**	**0.42**	ND (<0.98)	**0.17**	ND (<0.099)	ND (<0.10)	**0.19**	ND (<0.10)	**0.11**	**0.34**	**0.34**	ND (<0.098)	**0.49**	ND (<0.096)	**0.10**	ND (<5.0)	ND (<250)
Naphthalene	µg/L	10	**3700**	ND (<10)	**4200**	ND (<4.9)	**350 E**	**170**	**5560**	0.96	**1880**	0.45	0.31	0.14	**9,700**	0.19	**2,190**	0.76	1.6	0.16	**586**	ND (<0.096)	**521**	ND (<5.0)	**1700**
Phenanthrene	µg/L	50	**61**	ND (<50)	**70**	ND (<4.9)	31 F1	ND (<9.7)	**78.3**	1.5	32.8	0.60	0.37	2.40	39.8	0.14	31	0.76	24.0	ND (<0.098)	17.2	ND (<0.096)	39.7	ND (<5.0)	36 J
Pyrene	µg/L	50	ND (<47)	7.2	9.7	ND (<4.9)	5.8 F2	ND (<9.7)	ND (<52.1)	1.7	6.0	0.54	0.78	0.63	4.8	0.86	4.1	0.71	4.6	0.13	5.6	ND (<0.096)	4.7	ND (<5.0)	ND (<250)
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<4.9)	ND (<10)	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<0.10)	ND (<10)
Cyanide	mg/L	0.2	**0.26**	0.17	**0.24**	0.11	**0.22 F1**	**0.29**	**0.23**	0.070	**0.20**	0.062	0.10	0.09	0.16	0.11	0.16	0.050	0.095	0.096	0.14	0.046	0.100	0.060	0.10

AWQS	= Ambient Water Quality Standards
B	= Present in Associated Blank Sample
BTEX	= Benzene, Ethylbenzene, Toluene and Xylene
D	= Diluted Sample
E	= Result exceeded calibration range
F1	= MS and/or MSD Recovery outside acceptance limits.
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PAHs	= Polycyclic Aromatic Hydrocarbons
R	= Rejected
µg/L	= Micrograms per Liter
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Table 3

Groundwater Analytical Data
MW-13

CONSTITUENT	UNITS	10/08/13	04/09/14	10/15/14	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
MNA/WQ Parameters																							
Alkalinity (as CaCO3)	mg/L	187	176	255	283 F1	311	364	234	308	226	280	230	380	268	320	232	350	304	350	297	336	264	412
Chloride	mg/L	7.3	9.2	17.3	11.2	9.8	11.4	3.4	7.6	92.7	31.6	8.4	19.5	9.3	6.9	11.8	8.4	ND (<3.0)	6.7	15.8	8.3	4.6	12.6
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	1.2	ND (<0.025)	0.88J	ND (<0.030)	0.22J	0.11 J	0.74 J	ND (<1.00)	ND (<5.0)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)	40 J
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.5)	3.3	ND (<0.035)	2.3	ND (<0.10)	0.46J	0.19 J	2.1	ND (<1.00)	2.34 J	ND (<5.00)	1.26 J	ND (<1.00)	NS	ND (<1.00)	1.02	ND (<7.0)	43 J
Ferrous Iron	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<1.0)	0.18	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.15	ND (<0.10)	ND (<0.10)	0.13	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.11	0.081 J	0.19
Manganese	mg/L	0.088	0.14	0.031	0.064	ND (<7.5)	0.0938	0.0417	0.0705	0.0570	0.0619	0.0298	0.0710	0.0446	0.0709	0.0601	0.0859	0.034	0.062	0.0202	0.0822	0.013	0.072
Methane	µg/L	15	74	ND (<4.0)	110	50	280	0.34J	190	12	73	41	250	84.7	218	ND (<5.00)	111	25.5	NS	10.9	169	32	300
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.05	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<0.50)	ND (<1.0)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	0.025 J	ND (<0.050)
Nitrogen	mg/L	1.2	2.1	0.62	1.4	1.2	1.3	ND (<1.0)	2.1	ND (<1.0)	4.5	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<1.0)	2.3	ND (<1.0)	ND (<100)	ND (<1.0)	ND (<1.0)	1.1	0.25	0.40
Sulfate	mg/L	15.5	15.5	ND (<5.0)	ND (<5.0)	ND (<5.0)	18.3	16.0	42.3	20.4	28.6	26.1	23.4	10.8	17.3	32.1	8.6	25.1	8.4	13.4	3.4	174.0	ND (<5.0)
Sulfide	mg/L	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	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)	1.6	1.0	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-14

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
BTEX Compounds																									
Benzene	µg/L	1	**1.3**	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.54)	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)	ND (<2.0)
Ethylbenzene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.54)	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)	ND (<2.0)
m/p-Xylene	µg/L	5	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<0.54)	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 (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<2.0)	ND (<4.0)
o-Xylene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.54)	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)	ND (<2.0)
Toluene	µg/L	5	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<0.54)	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)	ND (<2.0)
PAHs																									
Acenaphthene	µg/L	20	2.2	0.5	2.00	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.19	ND (<0.096)	1.7	ND (<0.099)	ND (<0.099)	ND (<0.10)	0.18	0.8	0.2	ND (<0.10)	0.20	ND (<0.10)	0.23	ND (<0.099)	ND (<0.099)	ND (<5.0)	ND (<5.2)
Acenaphthylene	µg/L	NC	2.5	ND (<0.48)	2.9	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.99	0.25	4.1	0.19	0.34	0.26	0.71	8.4	1.2	0.38	1.6	0.21	0.49	0.37	0.29	ND (<5.0)	ND (<5.2)
Anthracene	µg/L	50	ND (<0.48)	ND (<0.48)	0.5	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.25	0.096	0.29	ND (<0.099)	0.15	0.11	0.11	3.5	0.6	0.16	0.62	ND (<0.10)	0.19	0.14	0.16	ND (<5.0)	0.30 J
Benzo(a)anthracene	µg/L	0.002	**0.62**	**1**	**1.9**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.28**	**0.13**	**0.26**	**0.11**	ND (<0.099)	ND (<0.10)	ND (<0.096)	**19.8**	**2.1**	**0.51**	**3.5**	ND (<0.10)	ND (<0.10)	**0.63**	**0.13**	ND (<5.0)	ND (<5.2)
Benzo(a)pyrene	µg/L	0.002	**0.65**	**1.3**	**2.4**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.32**	**0.12**	**0.29**	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	**24.8**	**2.6**	**0.66**	**3.9**	ND (<0.10)	ND (<0.10)	**0.72**	**0.15**	ND (<5.0)	ND (<5.2)
Benzo(b)fluoranthene	µg/L	0.002	**0.79**	**1.2**	**3.8**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.55**	**0.21**	**0.47**	**0.14**	ND (<0.099)	**0.7**	ND (<0.096)	**26.1**	**2.8**	**0.87**	**5.4**	ND (<0.10)	ND (<0.10)	**0.91**	**0.19**	ND (<5.0)	ND (<5.2)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.48)	0.95	1.3	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.29	0.11	0.24	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	17.5	1.9	0.54	2.7	ND (<0.10)	ND (<0.10)	0.44	0.11	ND (<5.0)	ND (<5.2)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.48)	**0.83**	**1.1**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.47**	**0.18**	**0.40**	**0.11**	ND (<0.099)	**0.14**	ND (<0.096)	**8.5**	**1.0**	**0.84**	**4.7**	ND (<0.10)	ND (<0.10)	**0.80**	**0.16**	ND (<5.0)	ND (<5.2)
Chrysene	µg/L	0.002	**0.69**	**1.2**	**2.1**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.27**	**0.13**	**0.24**	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	**17.0**	**1.9**	**0.51**	**2.7**	ND (<0.10)	ND (<0.10)	**0.45**	ND (<0.099)	ND (<5.0)	ND (<5.2)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<0.52)	ND (<0.54)	ND (<0.10)	ND (<0.096)	ND (<0.099)	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	4.5	0.4	0.13	0.59	ND (<0.10)	ND (<0.10)	ND (<0.099)	ND (<0.099)	ND (<5.0)	ND (<5.2)
Fluoranthene	µg/L	50	1.2	1.5	3.2	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.45	0.17	0.55	0.13	ND (<0.099)	0.14	0.098	29.0	3.0	0.71	4.5	ND (<0.10)	ND (<0.10)	0.77	0.18	ND (<5.0)	0.46 J
Fluorene	µg/L	50	ND (<0.48)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.14	ND (<0.096)	0.21	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	1.3	0.2	ND (<0.10)	0.26	ND (<0.10)	0.14	ND (<0.099)	ND (<0.099)	ND (<5.0)	ND (<5.2)
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.48)	**0.63**	**0.95**	ND (<0.47)	ND (<0.52)	ND (<0.54)	**0.21**	ND (<0.096)	**0.18**	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	**14.4**	**1.5**	**0.40**	**2.2**	ND (<0.10)	ND (<0.10)	**0.36**	ND (<0.099)	ND (<5.0)	ND (<5.2)
Naphthalene	µg/L	10	0.48	ND (<0.48)	1.1	ND (<0.47)	ND (<0.52)	ND (<0.54)	5.2	ND (<0.096)	4.2	ND (<0.099)	ND (<0.099)	ND (<0.10)	0.72	0.86	1.10	ND (<0.10)	0.18	ND (<0.10)	ND (<0.10)	ND (<0.099)	1.4	ND (<5.0)	ND (<5.2)
Phenanthrene	µg/L	50	0.67	0.63	1.4	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.22	ND (<0.096)	0.17	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.096)	9.8	1.0	0.25	1.5	ND (<0.10)	ND (<0.10)	0.22	ND (<0.099)	ND (<5.0)	ND (<5.2)
Pyrene	µg/L	50	1.5	2.4	5.0	ND (<0.47)	ND (<0.52)	ND (<0.54)	0.68	0.28	0.74	0.20	ND (<0.099)	0.22	0.12	47.0	5.0	1.2	7.3	ND (<0.10)	ND (<0.10)	1.2	0.27	0.52 J	0.44 J
Cyanide and Lead																									
Lead	µg/L	25	15	ND (<5.0)	0.031	ND (<0.01)	ND (<0.01)	ND (<10)	**33.3**	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	**256**	**50.2**	7.5	90.9	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	**150**	9.9 J
Cyanide	mg/L	0.2	0.2	**0.9**	0.2	0.091	0.120	**0.88**	**0.67**	0.079	**0.25**	0.062	0.11	0.0838	0.11	0.12	**0.42**	0.057	0.072	0.14	0.13	0.076	0.10	0.070	**0.41**

AWQS	= Ambient Water Quality Standards
B	= Present in Associated Blank Sample
BTEX	= Benzene, Ethylbenzene, Toluene and Xylene
D	= Diluted Sample
E	= Result exceeded calibration range
F1	= MS and/or MSD Recovery outside acceptance limits.
F2	= MS/MSD RPD above control limits.
J	= Estimated Concentration Value
mg/L	= Milligrams per Liter
NC	= No Criteria
ND (<#)	= Not detected above laboratory reporting limit (indicated by #)
NS	= Not Sampled
NYSDEC	= New York State Department of Environmental Conservation
PAHs	= Polycyclic Aromatic Hydrocarbons
R	= Rejected
µg/L	= Micrograms per Liter
Bolded	= values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-14

CONSTITUENT	UNITS	10/08/13	04/09/14	10/15/14	10/13/14	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
MNA/WQ Parameters																							
Alkalinity (as CaCO3)	mg/L	456	483	372	445	507	520	380	404	392	450	384	380	342	400	364	392	392	NS	310	384	328	415
Chloride	mg/L	7.6	28.5	3.9	10.7	27.4	18.0	3.5	6.6	ND (<3.0)	3.2	3.5	ND (<3.0)	ND (<3.0)	6.7	6.9	4.5	ND (<3.0)	NS	3.4	5.2	2.8	25.4
Ethane	µg/L	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	ND (<7.5)	0.17J	ND (<0.025)	0.13J	ND (<0.030)	ND (<0.16)	ND (<1.0)	ND (<1.0)	1.57	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.5)	2.4 J
Ethene	µg/L	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.0)	ND (<7.5)	ND (<0.035)	ND (<0.035)	ND (<0.10)	ND (<0.10)	ND (<0.032)	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)	1.8 J
Ferrous Iron	mg/L	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.11	0.55	0.22	0.93	0.47	0.30	0.39	0.12	1.90	2.1	0.44	1.4	0.38	NS	0.177	1.4	0.97	2.8
Manganese	mg/L	0.25	1	0.019	0.011	ND (<7.5)	0.768	0.0262	0.416	0.201	0.0121	0.0208	0.051	3.79	0.940	0.268	4.29	0.203	0.0845	1.0	0.116	0.57	0.96
Methane	µg/L	8.6	140	ND (<4.0)	ND (<4.0)	31	140	19	120	1.7J	1.4J	ND (<2.5)	19	1,020	ND (<5.00)	6.54	4.01 J	6.99	NS	7.40	13.3	5.6	400
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	0.87	0.16	ND (<0.05)	ND (<0.10)	0.29	ND (<0.10)	ND (<0.10)	0.59	0.4	ND (<1.0)	ND (<1.0)	ND (<0.50)	0.6	0.28	0.21	ND (<0.10)	0.36	0.21	0.033 J	ND (<0.050)
Nitrogen	mg/L	0.68	1.5	0.22	0.72	1	1.2	ND (<1.0)	ND (<1.0)	1.0	ND (<1.0)	ND (<1.0)	ND (<1.0)	4.2	3.6	1.0	1.8	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.5	0.64	1.4
Sulfate	mg/L	ND (<5.0)	363	ND (<5.0)	ND (<5.0)	324	153	12.5	52.4	15.2	20.3	ND (<10)	17.7	11.2	102.0	15.1	14.5	25.9	NS	10.6	17.1	ND (<5.0)	155
Sulfide	mg/L	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)	1.4	1.0	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-15

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
BTEX Compounds																									
Benzene	µg/L	1	**390**	**210**	**300**	**16**	**350 E**	**330**	**714**	**111**	**373**	**48.7**	**108**	**41.2**	**364**	**55.8**	**271**	**92.7**	**18.7**	**149**	**324**	**91.7**	**139**	**10**	**240**
Ethylbenzene	µg/L	5	**53**	**38**	**74**	1.9	**92**	**110**	**244**	**24.5**	**124**	**10.2**	**45.2**	**15.7**	**135**	**19.4**	**99.9**	**31.0**	**7.9**	**86.7**	**133**	**40.7**	**63.1**	**10**	**98**
m/p-Xylene	µg/L	5	ND (<5.0)	ND (<5.0)	**ND (<10)**	3.2	**8.1**	ND (<8.0)	**13.7**	2.7	**9.4**	ND (<2.0)	2.8	ND (<2.0)	**17.5**	ND (<2.0)	**12.3**	ND (<2.0)	3.4	**21.6**	**10**	4.3	**11.6**	2.3	4.7 J
o-Xylene	µg/L	5	**16**	**8.5**	**28**	**7.5**	**23**	**21**	**31.7**	**7.3**	**22.8**	3.7	**18.8**	**8.1**	**26.2**	4.6	**23**	4.2	**15.4**	**28.1**	**24.4**	**12.4**	**15.2**	**11**	**15**
Toluene	µg/L	5	ND (<5.0)	ND (<5.0)	**5.8**	ND (<1.0)	**7**	ND (<8.0)	**6.1**	1.1	**7.4**	ND (<1.0)	2.9	1.3	**8.5**	1.4	**6.9**	ND (<1.0)	1.1	**11.1**	**5.4**	2.3	4.0	ND (<1.0)	3.6 J
PAHs																									
Acenaphthene	µg/L	20	**23**	18	**24**	6.7	16	**23**	**43.1**	10.1	16.3	12.4	**32.7**	12.6	**28.4**	4.7	17.2	**28.3**	**40.3**	16.6	**39.1**	**27.1**	**22**	**36 J**	**34**
Acenaphthylene	µg/L	NC	6.5	3	3.9	0.59	3.1	ND (<5.1)	2.4	1.5	2.5	1.4	3.9	1.6	1.9	0.66	1.2	2.5	3.7	1.2	1.6	2.2	1.8	ND (<5.0)	2.1 J
Anthracene	µg/L	50	1.4	0.95	0.81	ND (<0.49)	0.57	ND (<5.1)	1.9	0.36	0.56	0.31	0.55	0.46	0.74	0.25	0.52	0.35	0.82	0.42	0.96	0.46	0.67	ND (<5.0)	0.84 J
Benzo(a)anthracene	µg/L	0.002	**0.59**	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	**0.14**	**0.13**	**0.55**	**0.14**	ND (<0.099)	**0.14**	**0.14**	**0.16**	**0.20**	**0.16**	**0.37**	**0.13**	**0.14**	**0.11**	**0.19**	ND (<5.0)	ND (<5.0)
Benzo(a)pyrene	µg/L	0.000	**0.59**	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	**0.10**	**0.58**	**0.11**	ND (<0.099)	**0.12**	ND (<0.097)	**0.18**	**0.20**	**0.13**	**0.37**	ND (<0.11)	ND (<0.099)	ND (<0.10)	**0.19**	ND (<5.0)	ND (<5.0)
Benzo(b)fluoranthene	µg/L	0.002	**0.62**	ND (<0.58)	**0.72**	ND (<0.49)	ND (<0.47)	ND (<5.1)	**0.11**	**0.16**	**0.81**	**0.15**	ND (<0.099)	**0.17**	**0.11**	**0.16**	**0.21**	**0.16**	**0.48**	**0.11**	**0.12**	**0.10**	**0.22**	ND (<5.0)	ND (<5.0)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.58)	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	ND (<0.098)	0.4	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.097)	0.11	0.12	ND (<0.096)	0.21	ND (<0.11)	ND (<0.099)	ND (<0.10)	0.10	ND (<5.0)	ND (<5.0)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.58)	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	**0.13**	**0.69**	**0.11**	ND (<0.099)	**0.15**	**0.10**	ND (<0.10)	ND (<0.097)	**0.15**	**0.41**	ND (<0.11)	**0.11**	ND (<0.10)	**0.18**	ND (<5.0)	ND (<5.0)
Chrysene	µg/L	0.002	**0.59**	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	**0.11**	**0.12**	**0.48**	ND (<0.099)	ND (<0.099)	**0.12**	**0.11**	**0.12**	**0.17**	**0.13**	**0.26**	ND (<0.11)	**0.10**	ND (<0.10)	**0.13**	ND (<5.0)	ND (<5.0)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.58)	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	ND (<0.098)	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.10)	ND (<0.097)	ND (<0.096)	ND (<0.10)	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<5.0)	ND (<5.0)
Fluoranthene	µg/L	50	1.7	1.1	0.93	ND (<0.49)	0.61	ND (<5.1)	1.2	0.46	1.2	0.34	0.53	0.6	0.89	0.41	0.68	0.52	0.76	0.44	0.79	0.46	0.70	ND (<5.0)	ND (<5.0)
Fluorene	µg/L	50	6.1	4.3	5.2	1.2	4.1	5.9	11.8	1.9	4.1	2.4	5.3	3.4	6.6	1.4	4.0	4.4	3.3	2.9	7.9	5.4	5.2	4.4 J	8.5 J
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.58)	ND (<0.58)	ND (<0.48)	ND (<0.49)	ND (<0.47)	ND (<5.1)	ND (<0.10)	ND (<0.098)	**0.31**	ND (<0.099)	ND (<0.099)	ND (<0.10)	ND (<0.097)	ND (<0.10)	ND (<0.097)	ND (<0.096)	**0.17**	ND (<0.11)	ND (<0.099)	ND (<0.10)	ND (<0.099)	ND (<5.0)	ND (<5.0)
Naphthalene	µg/L	10	**13**	**29**	**210**	1.5	**48 E**	**110**	**363**	**34.1**	**69.3**	**16.8**	**138**	**43**	**512**	1.1	**272**	**15.0**	**152**	**242**	**232**	**126**	**138**	**230**	**140**
Phenanthrene	µg/L	50	5.1	3.4	3.7	ND (<0.49)	2.8	ND (<5.1)	8.5	1.2	2.5	0.99	1.9	1.8	3.7	0.52	2.1	1.2	2.7	1.6	3.7	1.2	2.0	ND (<5.0)	2.0
Pyrene	µg/L	50	2	1.5	1.1	ND (<0.49)	0.69	ND (<5.1)	1.4	0.58	1.6	0.45	0.59	0.73	1.0	0.54	0.83	0.71	1.0	0.57	0.92	0.57	0.84	ND (<5.0)	0.56 J
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	ND (<5.0)	0.010	0.010	0.010	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	24	3.3 J
Cyanide	mg/L	0.2	**0.5**	**0.48**	**0.58**	**0.29**	**1**	**1.1**	**1.1**	**0.42**	**1.3**	**0.56**	**0.27**	**0.171**	**0.61**	**0.32**	**0.67**	**0.23**	0.18	**0.23**	**1.1**	**0.29**	**0.25**	0.12	**0.83**

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-15

CONSTITUENT	UNITS	10/08/13	04/09/14	10/15/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	585	482	557	480	600	601	676	562	610	616	600	478	590	446	550	534	480	478	600	492	532	405	576
Chloride	mg/L	42	44.5	44.2	14.2	49.3	55.7	65.4	25.7	58.0	15.2	15.2	43.9	38	20.3	37.4	24.6	14.0	14.9	82.6	29.1	29.2	2.9	48.1
Ethane	µg/L	ND (<380)	ND (<380)	ND (<380)	ND (<380)	ND (<380)	ND (<75)	6.2	3.2	5.1	2.8	2.1	3.4	5.1	ND (<1.00)	3.53 J	ND (<5.00)	ND (<2.0)	2.02	NS	1.96 J	ND (<10.0)	ND (<7.5)	6.7 J
Ethene	µg/L	ND (<350)	ND (<350)	ND (<350)	ND (<350)	ND (<350)	ND (<75)	0.038J	0.037J	ND (<0.10)	ND (<0.10)	0.042J	ND (<1.0)	ND (<1.0)	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)	2.1 J
Ferrous Iron	mg/L	0.18	ND (<0.1)	ND (<0.1)	ND (<0.1)	0.15 HF	ND (<0.1)	8.2	3.0	5.8	3.8	9.2	2.5	3.2	4.2	6.0	8.7	14.8	3.0	7.9	10.7	9.5	0.67	0.52
Manganese	mg/L	1.1	0.68	1	0.68	0.7	ND (<75)	0.609	0.0639	0.735	0.484	1.56	0.775	0.952	0.312	0.685	0.894	1.27	1.03	0.508	0.724	0.818	0.96	0.60
Methane	µg/L	580	1,100	2,400	16	1,600	720	3,400	1,900	2,900	640	3,100	1,400	3,600	416	2,400	348	1,020	2,650	NS	1,190	3,250	1,100	4,700
Nitrate	mg/L	ND (<0.05)	ND (<0.05)	ND (<0.05)	0.28	ND (<0.05)	ND (<0.5)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.50)	ND (<0.10)	ND (<0.20)	ND (<2.0)	ND (<0.50)	0.11	ND (<0.10)	0.020 J	ND (<0.050)
Nitrogen	mg/L	3.1	3.2	2.9	0.81	3.9	3.4	4.7	2.0	4.4	3.1	1.9	1.4	3.1	1.9	2.0	2.2	1.8	1.9	4.5	1.7	2.6	1.0	2.9
Sulfate	mg/L	139	122	91.1	28.7	78.5	116	67.9	17.7	60.6	39.0	28.4	25.1	65.9	31.9	71.0	46.8	1.8	24.4	122	39.0	57.2	32.1	61.5
Sulfide	mg/L	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)	ND (<1.0)	1.6	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Table 3

Groundwater Analytical Data
MW-16

CONSTITUENT	UNITS	NYSDEC AWQS Values	10/08/13	04/09/14	10/20/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
BTEX Compounds																									
Benzene	µg/L	1	**150**	**8.7**	**59**	**91**	**40**	**76**	**149**	**5.9**	**143**	**80.6**	**127**	**126**	**143**	**56.6**	**130**	**15.0**	**97.6**	**9.1**	**59.3**	**12.4**	**89.6**	**6.6**	**82**
Ethylbenzene	µg/L	5	**92**	**6.2**	**41**	**68**	**26**	**35**	**134**	**3.1**	**124**	**60.8**	**101**	**91.5**	**118**	**38.7**	**70.4**	2.9	**65.5**	3.8	**40.8**	**5.5**	**60.6**	1.9	**57**
m/p-Xylene	µg/L	5	**23**	ND (<1.0)	ND (<10)	ND (<1.0)	4.9	5	4.9	ND (<2.0)	**9.3**	**6.6**	**8.7**	**9.5**	**9.3**	3.9	2.8	ND (<2.0)	4.1	ND (<2.0)	3.0	ND (<2.0)	**5.4**	ND (<2.0)	3.9 J
o-Xylene	µg/L	5	**35**	ND (<1.0)	**17**	**24**	**11**	**20**	**32.1**	**1.6**	**38.0**	**21.3**	**32.8**	**31.4**	**34.6**	**12.8**	**22.3**	**6.1**	**21.5**	3.1	**12.6**	**2.2**	**20.0**	1.0	**20**
Toluene	µg/L	5	**9**	ND (<1.0)	**17**	ND (<1.0)	1.4	ND (<2.0)	**2.9**	ND (<1.0)	3.8	2.1	3.8	3.7	4.5	1.5	3.0	ND (<1.0)	2.9	1.6	2.1	ND (<1.0)	3.4	ND (<1.0)	3.3
PAHs																									
Acenaphthene	µg/L	20	16	ND (<1.0)	**40**	**27**	14	**31**	**54.7**	3.0	**39.5**	**39.1**	**57.8**	**45.2**	**53.3**	14.6	**47.0**	9.9	**55.1**	10.6	**48.1**	12.7	**53.5**	18.0	**60**
Acenaphthylene	µg/L	NC	ND (<0.48)	ND (<0.48)	31	25	16	27	47.3	1.9	26.2	24.4	30.6	17.6	21.4	5.9	16.0	3.2	19.4	4.9	19.1	4.7	19.5	5.2	13
Anthracene	µg/L	50	ND (<0.48)	ND (<0.48)	2.8	1.8	1.2	ND (<2.5)	1.4	0.37	2.2	1.7	2.6	1.8	2.4	0.74	1.7	0.47	2.3	0.48	1.7	0.60	2.3	0.63 J	2.1 J
Benzo(a)anthracene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	**0.10**	**0.11**	**0.11**	**0.13**	**0.12**	**0.11**	**0.13**	ND (<0.10)	**0.23**	ND (<0.098)	**0.19**	ND (<0.098)	**0.13**	ND (<0.10)	**0.16**	ND (<5.0)	ND (<5.2)
Benzo(a)pyrene	µg/L	0.000	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	**0.11**	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.21**	ND (<0.098)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)	ND (<5.2)
Benzo(b)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	**0.17**	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	0.11	ND (<0.10)	**0.21**	ND (<0.098)	**0.12**	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)	ND (<5.2)
Benzo(g,h,i)perylene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	ND (<0.097)	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	ND (<0.097)	ND (<0.10)	0.14	ND (<0.098)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)	ND (<5.2)
Benzo(k)fluoranthene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	**0.15**	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	**0.098**	ND (<0.10)	ND (<0.098)	ND (<0.098)	**0.11**	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)	ND (<5.2)
Chrysene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	**0.098**	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	**0.11**	ND (<0.10)	**0.19**	ND (<0.098)	**0.14**	ND (<0.098)	ND (<0.10)	ND (<0.10)	**0.11**	ND (<5.0)	ND (<5.2)
Dibenzo(a,h)anthracene	µg/L	NC	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	ND (<0.097)	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	ND (<0.097)	ND (<0.10)	ND (<0.098)	ND (<0.098)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)	ND (<5.2)
Fluoranthene	µg/L	50	ND (<0.48)	ND (<0.48)	2.7	1.6	1.1	ND (<2.5)	1.8	0.41	2.5	1.9	2.4	1.9	3.0	1.1	2.6	0.47	3.40	0.72	2.2	0.92	3.3	1.2 J	2.8 J
Fluorene	µg/L	50	9.1	ND (<0.48)	22	14	7.1	15	22.2	1.1	17.2	17.2	19.5	12.8	24.1	5.3	16.9	1.8	20.5	3.4	16.2	5.1	20.6	6.3	21
Indeno(1,2,3-cd)pyrene	µg/L	0.002	ND (<0.48)	ND (<0.48)	ND (<0.48)	ND (<0.50)	ND (<0.50)	ND (<2.5)	ND (<0.10)	ND (<0.097)	ND (<0.098)	ND (<0.099)	ND (<0.099)	ND (<0.11)	ND (<0.097)	ND (<0.10)	**0.11**	ND (<0.098)	ND (<0.10)	ND (<0.098)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<5.0)	ND (<5.2)
Naphthalene	µg/L	10	ND (<0.48)	ND (<0.48)	1.7	4.6	5.1	7.4	4.6	0.16	5.8	**30.9**	9.8	**12.9**	**36.8**	2.2	8.0	1.4	**14.1**	8.3	**16.3**	9.0	**28.3**	9.9	**25**
Phenanthrene	µg/L	50	ND (<0.48)	ND (<0.48)	18	11	6.7	10	15.9	0.99	15.7	14.1	16.5	11.6	18.4	2.5	13.1	ND (<0.098)	15.4	3.5	13.0	4.1	18.2	5.3	20
Pyrene	µg/L	50	ND (<0.48)	ND (<0.48)	3	1.8	1.2	ND (<2.5)	2.0	0.50	2.7	2.1	2.5	2.1	3.3	1.2	2.9	0.54	3.8	0.80	2.30	1.0	3.7	1.5 J	2.8 J
Cyanide and Lead																									
Lead	µg/L	25	ND (<5.0)	ND (<5.0)	ND (<0.01)	ND (<0.01)	ND (<0.01)	ND (<10)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	6.1	ND (<5.0)	ND (<20)	ND (<10.0)	ND (<5.0)	ND (<5.0)	ND (<5.0)	17	ND (<10)
Cyanide	mg/L	0.2	0.11	0.023	**0.25**	**0.24**	**0.24**	**0.25**	**0.26**	**0.21**	**0.26**	**0.23**	**0.26**	0.192	**0.23**	0.19	**0.25**	0.17	0.14	0.14	0.19	0.12	0.20	0.17	**0.22**

AWQS = Ambient Water Quality Standards
B = Present in Associated Blank Sample
BTEX = Benzene, Ethylbenzene, Toluene and Xylene
D = Diluted Sample
E = Result exceeded calibration range
F1 = MS and/or MSD Recovery outside acceptance limits.
F2 = MS/MSD RPD above control limits.
J = Estimated Concentration Value
mg/L = Milligrams per Liter
NC = No Criteria
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NYSDEC = New York State Department of Environmental Conservation
PAHs = Polycyclic Aromatic Hydrocarbons
R = Rejected
µg/L = Micrograms per Liter
Bolded = values indicated exceedance of the NYSDEC AWQS

Table 3

Groundwater Analytical Data
MW-16

CONSTITUENT	UNITS	10/08/13	04/09/14	10/15/14	04/16/15	10/13/15	04/06/16	10/25/16	04/26/17	10/11/17	04/26/18	10/16/18	04/18/19	10/16/19	05/20/20	10/07/20	04/14/21	10/06/21	04/13/22	10/06/22	04/19/23	10/11/23	04/16/24	10/17/24
MNA/WQ Parameters																								
Alkalinity (as CaCO3)	mg/L	585	454	595	532	638	615	636	706	630	724	740	560	650	156	670	680	760	546	674	450	674	616	701
Chloride	mg/L	5.4	5	6.5	5.8	4.9	5.7	6.8	3.4	6.5	5.6	4.8	11.8	4.8	3.6	5.2	3.6	3.8	ND (<3.0)	5.7	ND (<3.0)	5.7	3.6	5.4
Ethane	µg/L	ND (<750)	ND (<750)	ND (<750)	ND (<75)	ND (<75)	ND (<75)	1.2	0.15J	0.84J	0.82J	0.99J	0.92 J	1.1	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<5.00)	ND (<7.5)	44 J
Ethene	µg/L	ND (<700)	ND (<700)	ND (<700)	ND (<70)	ND (<70)	ND (<75)	0.24J	0.036J	0.16J	0.13J	0.17J	0.15 J	0.20 J	ND (<1.00)	ND (<5.00)	ND (<5.00)	ND (<2.0)	ND (<1.00)	NS	ND (<1.00)	ND (<1.00)	ND (<7.0)	42 J
Ferrous Iron	mg/L	0.13	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	ND (<0.1)	2.4	1.2	3.0	3.5	3.1	2.6	1.9	2.8	3.0	0.79	4.7	3.6	7.4	0.30	9.0	0.9	1.5
Manganese	mg/L	0.7	0.22	0.63	0.42	0.33	ND (<75)	0.601	0.522	0.599	0.551	0.592	0.603	0.658	0.373	0.650	0.373	0.646	0.275	0.553	0.125	0.634	0.19	0.57
Methane	µg/L	150	75	410	160	1100	110	900	180	780	820	830	850	1100	4.95 J	488	ND (<5.00)	500	173	NS	22.1	641	330	1,200
Nitrate	mg/L	ND (<0.05)	0.53	ND (<0.05)	ND (<0.05)	0.37	0.074	ND (<0.10)	0.33	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<0.10)	ND (<1.0)	ND (<1.0)	ND (<0.50)	0.79	ND (<0.10)	0.32	0.023 J
Nitrogen	mg/L	2.8	2.4	3.3	2.1	1.9	2.6	5.4	2.4	3.2	2.3	3.2	3.4	3.9	2	2.8	2.4	3.9	2.2	3.7	1.0	3.9	1.1	2.2
Sulfate	mg/L	86	ND (<1.0)	107	38.2	22.8	13.3	145	37.8	77.7	111	75.8	79.6	67.7	39	95.7	37.5	56.8	25.9	36.2	28.5	30.2	8.6	30.0
Sulfide	mg/L	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)	ND (<1.0)	1.0	ND (<1.0)	1.0	ND (<1.0)	ND (<1.0)	ND (<1.0)

B = Present in Associated Blank Sample
D = Diluted Sample
J = Estimated Concentration
mg/L = Milligrams per Liter
MNA = Monitored Natural Attenuation
NA = Not Analyzed
ND (<#) = Not detected above laboratory reporting limit (indicated by #)
NS = Not Sampled
R = Rejected
µg/L = Micrograms per Liter
WQ = Water Quality

Appendix A – Field Data

Well ID	Sample?	Well Size?	DTW	DTP	DTB	Comments
RW-1	No	2"	17.47		21.50	
MW-4	Yes	2"	24.14		27.32	
MW-7	Yes	2"	15.00		22.10	
MW-10	Yes	2"	15.07		22.05	
MW-11	No	2"	13.45		22.90	
MW-12	Yes	2"	15.55		22.24	
MW-13	Yes	2"	16.33		22.75	MS/MSD
MW-14	Yes	2"	16.68		23.55	Field Duplicate
MW-15	Yes	2"	17.82		23.00	
MW-16	Yes	2"	11.35		19.45	
Gauge-1 (bridge)	No		15.75		19.76	

***DTW** -depth to water*
***DTP** -depth to product*
***DTB** -depth to bottom*
All from top of casing

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: KL
Job Number: 0603400-120950-221
Well Id. ~~MW-11~~ 4

Date: 10/17/24
Weather: Sunny 40
Time In: 12:45 Time Out: 1330

Well Information

		TOC	Other
Depth to Water:	(feet)	~~24.11~~	
Depth to Bottom:	(feet)	~~22.90~~	27.32
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	3.18	
Volume of Water in Well:	(gal)	0.52	
Three Well Volumes:	(gal)	1.52	

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

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other [ ]
Sampling Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Average Pumping Rate: (ml/min)	200			
Duration of Pumping: (min)	30			
Total Volume Removed: (gal)	2	Did well go dry?	Yes [ ]	No [X]

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

Conversion Factors

	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
~~12:50~~	~~24.28~~	~~16.80~~	~~2.05~~	~~51.0~~	~~.002~~	~~449~~	~~10.01~~	~~.002~~
12:55	24.34	15.06	7.20	62	1.42	49.9	4.29	0.910
13:00	24.40	14.19	7.01	83	1.41	47.2	3.93	0.903
13:05	24.46	13.93	6.98	90	1.41	47.5	3.91	0.905
13:10	24.49	13.74	6.97	93	1.42	46.1	4.02	0.908
13:15	24.49	13.76	6.96	97	1.42	44.2	3.90	0.908
13:20	24.47	13.82	6.96	100	1.41	41.8	3.69	0.904
13:25	24.48	14.00	6.95	104	1.41	37.8	3.73	0.902

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: ~~MW-11~~ MW-4 Duplicate? Yes [ ] No [X]
Sample Time: ~~12:25~~ 13:25 MS/MSD? Yes [ ] No [X]

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: RHS Lyon
Job Number: 0603400-120950-221
Well Id. **MW-7**

Date: 10/17/24
Weather: 40° Sunny
Time In: 1045 Time Out: 1130

Well Information

		TOC	Other
Depth to Water:	(feet)	15.00	
Depth to Bottom:	(feet)	22.10	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	7.10	
Volume of Water in Well:	(gal)	1.13	
Three Well Volumes:	(gal)	3.40	

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 ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒		
Tubing/Bailer Material:	Teflon ☐	Stainless St. ☐	Polyethylene ☒	other ☐	
Sampling Method:	Bailer ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒		
Average Pumping Rate:	(ml/min)	250			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	2			

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ No ☐

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1050	15.49	14.51	7.23	-58	1.31	88.7	3.40	0.835
1055	15.91	14.52	7.11	-83	1.19	90.8	1.63	0.764
1100	16.22	14.62	7.15	-94	1.19	65.2	2.30	0.761
1105	16.42	14.74	7.18	-98	1.20	43.8	1.81	0.768
1110	16.59	14.79	7.17	-99	1.20	31.0	1.71	0.770
1115	16.74	15.01	7.19	-100	1.21	27.0	2.14	0.772
1120	16.89	15.13	7.20	-101	1.20	34.9	5.48	0.771

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-7**
Sample Time: 1120

Duplicate? Yes ☐ No ☒
MS/MSD? Yes ☐ No ☒

Shipped: Syracuse Service Center ☐
Fed-Ex ☐ Courier ☐
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: Peter Lyon
Job Number: 0603400-120950-221
Well Id. **MW-10**

Date: 10/17/24
Weather: Sunny 36°
Time In: 0945 Time Out: 1035

Well Information

		TOC	Other
Depth to Water:	(feet)	15.07	
Depth to Bottom:	(feet)	22.05	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	6.98	
Volume of Water in Well:	(gal)	1.11	
Three Well Volumes:	(gal)	3.35	

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 ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒	
Tubing/Bailer Material:		Teflon ☐	Stainless St. ☐	Polyethylene ☒	other ☐
Sampling Method:		Bailer ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒	
Average Pumping Rate:	(ml/min)	250			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	3			

Did well go dry? Yes ☐ No ☐

Horiba U-52 Water Quality Meter Used? Yes ☒ No ☐

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
0950	15.64	13.93	7.38	-111	2.43	121	2.38	1.52
0955	15.82	14.23	7.22	-131	2.52	70.2	0.86	1.63
1000	16.15	14.68	7.17	-144	2.60	45.7	0.53	1.69
1005	16.61	14.64	7.21	-150	2.67	24.4	0.20	1.72
1010	16.98	15.02	7.10	-147	2.78	15.3	0.10	1.78
1015	17.16	15.02	7.08	-145	2.79	14.3	0.06	1.79
1020	17.31	15.10	7.07	-145	2.78	19.2	0.02	1.78

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Shipped: Syracuse Service Center ☐ Fed-Ex ☐ Courier ☐

Sample ID: **MW-10**
Sample Time: 1020

Duplicate? Yes ☐ No ☒
MS/MSD? Yes ☐ No ☒

Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: IK
Job Number: 0603400-120950-221
Well Id. MW-~~4~~ 11

Date: 10/17/24
Weather: Smw 35
Time In: 11:30 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	13.45	
Depth to Bottom:	(feet)	~~27.32~~	22.90
Depth to Product:	(feet)	~	
Length of Water Column:	(feet)	13.87	
Volume of Water in Well:	(gal)	2.21	
Three Well Volumes:	(gal)	6.65	

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 ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒	
Tubing/Bailer Material:	Teflon ☐	Stainless St. ☐	Polyethylene ☒	other ☐
Sampling Method:	Bailer ☐	Peristaltic ☐	Well Wizard Dedicated Pump ☒	
Average Pumping Rate: (ml/min)	200			
Duration of Pumping: (min)	31			
Total Volume Removed: (gal)	2			

Did well go dry? Yes ☐ No ☒

Horiba U-52 Water Quality Meter Used? Yes ☒ No ☐

Conversion Factors

	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
11:45	13.60	11.53	7.33	-132	3.07	35.9	6.33	1.93
11:50	13.93	12.29	7.06	-141	2.98	23.4	6.05	1.91
11:55	14.18	13.51	6.99	-151	2.94	19.1	5.55	1.88
12:00	14.30	13.69	6.96	-155	2.92	19.7	4.92	1.87
12:05	14.30	14.18	6.95	-154	2.91	19.8	4.40	1.86
12:10	14.30	14.38	6.94	-153	2.91	18.1	4.03	1.86
12:15	14.30	14.61	6.94	-153	2.91	17.6	3.62	1.86

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: MW-~~4~~ 11
Sample Time: 12:15

Duplicate? Yes ☐ No ☒
MS/MSD? Yes ☐ No ☒

Shipped: Syracuse Service Center ☐
Fed-Ex ☐ Courier ☐
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: Peter Lyon
Job Number: 0603400-120950-221
Well Id. **MW-12**

Date: 10/17/19
Weather: 60° Sunny
Time In: 1148 Time Out: 1230

Well Information

		TOC	Other
Depth to Water:	(feet)	15.55	
Depth to Bottom:	(feet)	22.24	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	6.69	
Volume of Water in Well:	(gal)	1.07	
Three Well Volumes:	(gal)	3.21	

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

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other [ ]	
Sampling Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]		
Average Pumping Rate: (ml/min)	250				
Duration of Pumping: (min)	30				
Total Volume Removed: (gal)	2				

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

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1155	15.70	13.66	7.34	81	3.51	333	4.97	2.25
1200	15.68	12.80	7.00	110	4.28	~~255~~ 255	2.50	2.77
1205	15.65	12.81	6.95	119	4.45	131	2.56	2.85
1210	15.66	12.81	6.92	126	4.50	72.6	2.53	2.88
1215	15.67	12.75	6.91	132	4.50	44.5	2.49	2.88
1220	15.62	12.64	6.91	136	4.49	22.2	2.37	2.88
1225	15.68	12.61	6.91	139	4.47	19.3	2.28	2.86

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Sample ID: **MW-12**
Sample Time: 1225

Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: K
Job Number: 0603400-120950-221
Well Id. **MW-13**

Date: 10/17/24
Weather: Sunny 32
Time In: 10:10 Time Out: 11:30

Well Information

		TOC	Other
Depth to Water:	(feet)	16.33	
Depth to Bottom:	(feet)	22.75	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	6.42	
Volume of Water in Well:	(gal)	1.02	
Three Well Volumes:	(gal)	3.08	

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

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Tubing/Bailer Material:		Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other [ ]
Sampling Method:		Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]	
Average Pumping Rate:	(ml/min)	200			
Duration of Pumping:	(min)	30			
Total Volume Removed:	(gal)	3			

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

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

Conversion Factors	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
10:00	16.63	12.02	8.00	-92	0.571	40.2	4.70	0.365
10:05	16.94	12.68	7.88	-172	0.543	31.6	0.79	0.348
10:10	17.10	12.71	7.84	-184	0.550	19.7	0.75	0.358
10:15	17.26	12.59	7.85	-190	0.588	12.4	0.63	0.377
10:20	17.38	12.47	7.83	-197	0.615	10.3	0.49	0.394
10:25	17.49	12.42	7.79	-207	0.641	8.4	0.39	0.411
10:30	17.57	12.34	7.77	-214	0.654	8.2	0.36	0.419

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

MW-13-MS and MW-13-MSD

Sample ID: **MW-13** Duplicate? Yes [ ] No [X]
Sample Time: 10:30 MS/MSD? Yes [X] No [ ]

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: G. Ernst
Job Number: 0603400-120950-221
Well Id. **MW-14**

Date: 10/17/24
Weather: clear 30's
Time In: 1100 Time Out: 1210

Well Information

		TOC	Other
Depth to Water:	(feet)	16.68	
Depth to Bottom:	(feet)	23.55	
Depth to Product:	(feet)		
Length of Water Column:	(feet)	6.87	
Volume of Water in Well:	(gal)	1.10	
Three Well Volumes:	(gal)	3.3	

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

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other [ ]	
Sampling Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]		

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

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

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1105	16.72	12.05	7.64	-20	0.672	390	6.84	0.430
1110	16.97	11.82	7.24	-102	1.21	0.0	4.01	0.774
1115	17.14	11.87	7.32	-123	1.21	0.0	0.80	0.776
1120	17.40	11.96	7.31	-123	1.16	689	0.76	0.742
1125	17.69	11.85	7.31	-121	1.18	595	0.72	0.756
1130	17.83	11.81	7.31	-118	1.18	281	0.75	0.753
1135	17.97	11.83	7.31	-125	1.20	187	0.59	0.769

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Field Duplicate
Sample ID: **MW-14**
Sample Time: 1140

Duplicate? Yes [X] No [X]
MS/MSD? Yes [ ] No [X]

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]
Laboratory: Eurofins Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: G. ERNST
Job Number: 0603400-120950-221
Well Id. **MW-15**

Date: 10/17/24
Weather: clear 30°s
Time In: 0930 Time Out: 1100

Well Information

		TOC	Other
Depth to Water:	(feet)	17.82	
Depth to Bottom:	(feet)	23.00	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	5.18	
Volume of Water in Well:	(gal)	0.83	
Three Well Volumes:	(gal)	2.5	

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

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]		
Tubing/Bailer Material:	Teflon [ ]	Stainless St. [ ]	Polyethylene [X]	other [ ]	
Sampling Method:	Bailer [ ]	Peristaltic [ ]	Well Wizard Dedicated Pump [X]		

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

Did well go dry? Yes [ ] No [ ]

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

Conversion Factors				
	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1000	8.12	12.73	7.01	-114	1.04	13.4	4.47	0.685
1005	8.17	12.59	7.05	-124	1.15	13.1	2.53	0.735
1010	8.46	12.47	7.09	-134	1.22	16.4	1.52	0.780
1015	To Pump	12.44	7.10	-135	1.23	11.3	1.13	0.784
1020	To Pump	12.40	7.10	-138	1.23	5.6	0.94	0.788
1025	To Pump	12.18	7.11	-139	1.23	7.9	0.82	0.789
1030		12.10	7.11	-140	1.24	6.9	0.76	0.791

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Shipped: Syracuse Service Center [ ]
Fed-Ex [ ] Courier [ ]

Sample ID: **MW-15**
Sample Time: 1030

Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Laboratory: Eurofins
Amherst, New York

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: C. ERNST
Job Number: 0603400-120950-221
Well Id. **MW-16**

Date: 10/17/24
Weather: Clear 30°
Time In: 1210 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	11.35	
Depth to Bottom:	(feet)	19.45	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	8.10	
Volume of Water in Well:	(gal)	1.30	
Three Well Volumes:	(gal)	3.9	

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

Purging Information

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

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

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

Conversion Factors

	1" ID	2" ID	4" ID	6" ID
gal/ft. of water	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)
1225	11.39	11.57	7.15	-63	1.15	51.4	7.54	0.735
1230	11.68	11.44	7.38	-116	1.22	37.9	4.10	0.783
1235	11.86	11.50	7.42	-129	1.23	43.8	2.06	0.787
1240	11.97	11.55	7.41	-126	1.20	43.5	1.30	0.769
1245	12.14	11.60	7.39	-121	1.19	27.6	1.03	0.759
1250	12.26	11.65	7.39	-123	1.18	14.6	1.05	0.757
1255	12.49	11.75	7.40	-128	1.19	8.2	0.90	0.759

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	250 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	125 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
2	125 mL	Plastic	Unpreserved	Chloride, Nitrate_Calc- Nitrogen, Nitrate	SM 4500 Cl E
				Nitrite-Nitrite as N	EPA Method 353.2
				Sulfate	D516
1	125 mL	Plastic	H2SO4	Nitrate Nitrite as N	EPA Method 353.2
				Total Kjeldahl Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	125 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Sulfide	SM 4500 S2 F
1	125 mL	Plastic	Unpreserved	Alkalinity	2320B
3	40 mL	Glass	Unpreserved	Carbon Dioxide	RSK_175_CO2
3	40 mL	Glass	HCl	Methane/Ethane/Ethene	RSK_175

Shipped: Syracuse Service Center [ ] Fed-Ex [ ] Courier [ ]

Sample ID: **MW-16**
Sample Time: 1300

Duplicate? Yes [ ] No [X]
MS/MSD? Yes [ ] No [X]

Laboratory: Eurofins Amherst, New York

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Phone (716) 691-7991

Chain of Custody Record

eurofins

Client Information	Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact: Tim Beaumont	Phone: 315 677 1368	Beninati, John		480-192895-40377.1
Company: Groundwater & Environmental Services Inc	PWSID:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Address: 6780 Northern Boulevard Suite 100	Due Date Requested:			Job #:
City: East Syracuse	TAT Requested (days):			
State, Zip: NY, 13057	Compliance Project: Δ Yes Δ No			
Phone:	PO #: 0603400-120950-221-1106			
Email: tbeaumont@gesonline.com	WO #:			
Project Name: Johnstown Semi-Annual GW Event Desc: Johnstown Semi-Annua	Project #: 48027231			
Site: Johnstown Semi-Annual GWS	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	RSK_175_CO2 - Carbon dioxide	9012B_NP - Cyanide, Total	8270D - PAH Semivolatiles	6010C - Metals (ICP) - Pb & Mn	RSK_175 - Methane, Ethane, Ethene	8260C - BTEX - 8260	SM4500_S2_F - Sulfide	351.2, 353.2_Pres	353.2_Nitrite, D516, Nitrate_Calc, SM4500_Cl_E	2320B - Alkalinity	3500_FE_D - Ferrous Iron			Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	B	N	D	A	A	CB	S	N	N	N				
MW-4	10/17/24	13:25	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-7		11:20	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-10		10:20	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-11		12:15	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-12		12:25	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-13		10:30	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-13-MS		10:30	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-13-MSD		10:30	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-14		11:40	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-15		10:30	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
MW-16		13:20	G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
Field Duplicate			G	Water			3	1	2	1	3	3	1	1	2	1	1			19	
Trip Blank				Water					"			2									

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

CAT B DELIVERY

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	10/17/24	Date/Time: 15:45	Company	Received by:	Date/Time: 10.17.24 1545	Company
Relinquished by:		Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:		Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Site Management Plan Inspection Form
109 North Market Street
Former MGP Site
Johnstown, New York

Date: 7/9/2024 Time: 08:30
Technician: Kevin Leo Weather: PC 78

Vegetation Cap		
Condition of Grass	Good	COMMENTS:
Condition of Site Trees	Good	COMMENTS:
Surface Erosion	None	COMMENTS:
Has the site been maintained/mowed?	Yes	COMMENTS:

Sheet Pile Wall		
Has any construction occurred that may have impacted the sheet pile wall?	No	COMMENTS:

Site Wide		
Does the property continue to be used for commercial and/or industrial uses?	Yes	COMMENTS:
Does the use of groundwater for potable or process water continue to be restricted?	Yes	COMMENTS:
Are agricultural or vegetable gardens present on the property?	No	COMMENTS:
Do the Engineering Controls continue to perform as designed?	Yes	COMMENTS:
Do the Engineering Controls continue to be protective of human health and environment?	Yes	COMMENTS:
Are the requirements of the Site Management Plan being met?	Yes	COMMENTS:
Are the requirements of the Environmental Easement being met?	Yes	COMMENTS:
Since the last inspection has the groundwater been sampled in accordance with the SMP?	No	COMMENTS:
Since the last inspection have there been any changes to the remedial system?	No	COMMENTS:
Are there any needed changes?	No	COMMENTS:
Are the site records complete and up to date?	Yes	COMMENTS:

Miscellaneous		
Evidence of Trespassing	No	COMMENTS:
Litter	None	COMMENTS:

Site Monitoring Wells	
Well ID.	***Location Secure?***
RW-1	Yes
MW-4	Yes
MW-7	Yes
MW-10	Yes
MW-11	Yes
MW-12	Yes
MW-13	Yes
MW-14	Yes
MW-15	Yes
MW-16	Yes

General Comments:

Site Management Plan Inspection Form
109 North Market Street
Former MGP Site
Johnstown, New York

Date: 10/17/2024 Time: 8:30
Technician: KL Weather: Sunny 32

Vegetation Cap				
Condition of Grass	GOOD	FAIR	POOR	COMMENTS:
Condition of Site Trees	GOOD	FAIR	POOR	COMMENTS:
Surface Erosion	NONE	MINOR	SIGNIFICANT	COMMENTS:
Has the site been maintained/mowed?	YES		NO	COMMENTS:

Sheet Pile Wall			
Has any construction occurred that may have impacted the sheet pile wall?	YES	NO	COMMENTS:

Site Wide			
Does the property continue to be used for commercial and/or industrial uses?	YES	NO	COMMENTS:
Does the use of groundwater for potable or process water continue to be restricted?	YES	NO	COMMENTS:
Are agricultural or vegetable gardens present on the property?	YES	NO	COMMENTS:
Do the Engineering Controls continue to perform as designed?	YES	NO	COMMENTS:
Do the Engineering Controls continue to be protective of human health and environment?	YES	NO	COMMENTS:
Are the requirements of the Site Management Plan being met?	YES	NO	COMMENTS:
Are the requirements of the Environmental Easement being met?	YES	NO	COMMENTS:
Since the last inspection has the groundwater been sampled in accordance with the SMP?	YES	NO	COMMENTS:
Since the last inspection have there been any changes to the remedial system?	YES	NO	COMMENTS:
Are there any needed changes?	YES	NO	COMMENTS:
Are the site records complete and up to date?	YES	NO	COMMENTS:

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

Site Monitoring Wells		
Well ID.	***Location Secure***	
RW-1	YES	NO
MW-4	YES	NO
MW-7	YES	NO
MW-10	YES	NO
MW-11	YES	NO
MW-12	YES	NO
MW-13	YES	NO
MW-14	YES	NO
MW-15	YES	NO
MW-16	YES	NO

General Comments:

Appendix B – Data Usability Summary Report

Groundwater & Environmental Services, Inc.
708 North Main Street, Suite 201
Blacksburg, VA 24060
T. 800.662.5067

December 18, 2024

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

RE: Data Usability Summary Report for National Grid: Johnstown, NY Site Data Package
Eurofins Buffalo Analytical Job No. 480-224505-1

Groundwater & Environmental Services, Inc. (GES) reviewed one data package (Laboratory Project Number 480-224505-1) from Eurofins Buffalo., for the analysis of groundwater samples collected on October 17, 2024 from monitoring wells located at the National Grid: Johnstown, NY Site. Nine aqueous samples and a field duplicate were analyzed for dissolved gases, PAHs, Nitrogen, Metals, Alkalinity, Chloride, Ferrous Iron, Cyanide, Sulfide and Sulfate. Methodologies utilized were, ASTM and USEPA methods with additional QC requirements of the NYSDEC ASP.

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

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

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

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

In summary, sample results were usable as reported, with exceptions due to poor accuracy in the MS/MSD recoveries.

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	Date Collected	Date Received
480-224505-1	MW-4	10/17/24 13:25	10/18/24 11:00
480-224505-2	MW-7	10/17/24 11:20	10/18/24 11:00
480-224505-3	MW-10	10/17/24 10:20	10/18/24 11:00
480-224505-4	MW-11	10/17/24 12:15	10/18/24 11:00
480-224505-5	MW-12	10/17/24 12:25	10/18/24 11:00
480-224505-6	MW-13	10/17/24 10:30	10/18/24 11:00
480-224505-7	MW-14	10/17/24 11:40	10/18/24 11:00
480-224505-8	MW-15	10/17/24 10:30	10/18/24 11:00
480-224505-9	MW-16	10/17/24 13:00	10/18/24 11:00
480-224505-10	Field Duplicate	10/17/24 00:00	10/18/24 11:00
480-224505-11	Trip Blank	10/17/24 00:00	10/18/24 11:00

Table 2. Validation Qualifiers

Sample ID	*Qualifier*	*Analyte*	*Reason for qualification*
MW-13	J-	Toluene Ethylbenzene BTEX TKN Cyanide	MS/MSD recovery low
	R	Benzo[a]anthracene Benzo[a]pyrene Benzo[k]fluoranthene Chrysene Dibenz(a,h)anthracene	MS/MSD recovery <10%
All Samples	U at RL	Ethane and Ethene	Blank detection
MW-4	U at RL	Methane	Blank detection
	J-	Cyanide	Low MS/MSD recovery
All Samples	J	Ferrous Iron	Analyzed outside hold time

J-: estimated, low bias
R: rejected/ unusable data
J: estimated, bias unknown
U at RL: Non-detect at the reporting limit.

In summary, sample results were usable as reported, with the exception of analytes noted with below criteria QC recoveries. Data qualified with an R qualifier are considered unusable for project objectives.

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

BTEX and TCL Volatiles by EPA 8260C/NYSDEC ASP

Sample holding times were met and instrumental tune fragmentations were within acceptance ranges. Surrogate and internal standard recoveries were within required limits. Laboratory and field-generated blanks reported no detections above reporting limit. Calibration standards show acceptable responses within analytical protocol and validation action limits. The MS/MSD and BS/BSD recoveries were within criteria, with the exception of low recoveries in the MS/MSD associated with MW-13 for benzene and toluene.

Precision calculations for LCS/LCSD and MS/MSDs showed that the recoveries were consistent, as RPDs were within the <30% EPA recommended value. Surrogate recovery was within bounds, and LCS recoveries were compliant, and used to determine method efficacy.

The field duplicate correlations were not calculated as neither sample had above reporting limit detections.

PAHs by EPA8270D/NYSDEC ASP

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

Blanks show no contamination.

Calibration standards, both initial and continuing, show acceptable responses within analytical method protocols and validation guidelines.

LC/LCSD recoveries were within criteria

The MS/MSD associated with MW-13 reported multiple out of specification recoveries. For high recoveries without corresponding detections, no qualifications were required.

Multiple analytes reported 0% recovery in the MS/MSD and the corresponding data cannot be used for project objectives:

- Benzo[a]anthracene
- Benzo[a]pyrene
- Benzo[k]fluoranthene
- Chrysene
- Dibenz(a,h)anthracene

Field precision calculations were not calculated, as the concentrations of PAHs were below reporting limit. Surrogate recoveries were within bounds, with the exception of the surrogate associated with the MS/MSDs. These QC samples used the recoveries of the analytes as indicators, and the surrogate non-compliance does not affect the site data.

Lead and Manganese by EPA 6010/NYDESC ASP

The matrix spike, post digestion spike, and serial dilutions were performed on samples not associated with the project. Blank samples show no contamination above the reporting limit.

LCS/LCSD recovered within specification. There were no qualifiers required.

Wet Chemistry Tests 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:

- Ferrous iron has a 15-minute hold time, as such, all laboratory data is derived past hold time.
- Cyanide recovery in MW-13 was low in the MS/MSD. The concentration reported is qualified as possibly biased low.

Calibration standard responses were compliant. Blanks show no detections above the reporting limits.

Ferrous Iron by S<3500-FeD-00/ NYSDEC ASP

Review was conducted for method compliance, holding times, transcription, calculations, standard and blank acceptability, and accuracy and precision. Samples were prepared outside of hold time, and all sample data is qualified as estimated with an indeterminate bias. All other compliance data were found acceptable for the validated samples.

Calibration standard responses were compliant. Blanks show no detections above the reporting limits.

Total Kjeldahl Nitrogen, Nitrogen as Nitrate/Nitrite by EPA 351.2 & 353.2/NYDESC 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. Calibration standard responses were compliant. Blanks show no detections above the reporting limits. The MS/MSD recoveries and variance were within specification for associated samples.

Dissolved Gases by EPA 5021/RSK-175

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

Method blank detections were reported as follows:

- Methane – 1.62 J ug/L
- Ethane – 1.71 J ug/L
- Ethene – 1.70 J ug/L

All samples reported ethene and ethane concentrations below the RL and these data were qualified as non-detect at the RL. Below RL methane in MW-4 is also qualified as non-detect at the RL.

MW-7, MW-7, MW-10, MW-11, MW-13, MW-14, MW-15, MW-16, and the field duplicate reported high methane concentrations that required dilution. These detections are unaffected by the low-level methane contamination.

The blank spike/blank spike duplicate recovery was high for ethene. There were no positive detections in the sample, so no qualifications were required.

Carbon dioxide recovered high in the MS/MSD. Carbon dioxide in MW-13 is qualified as estimated with a possible high bias.

All other criteria were found acceptable for the validated samples. Calibration standard responses were compliant. Blanks show no detections above the reporting limits.

Field duplicate correlations for methane were outside project objectives and the data were qualified as estimated.

Data Precision

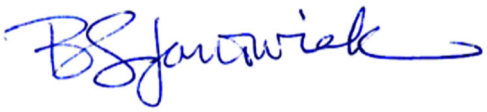
Field Identification	Analyte	Sample Result (µg/L)	Duplicate Result (µg/L)	RPD (%)	Qualified
MW-14/FIELD DUP	Anthracene	0.30	0.35	NC	A
	Fluoranthene	0.46	0.37	NC	A
	Fluoranthene	ND	0.42	NC	A
	Pyrene	0.44	0.54	NC	A
	Carbon dioxide	50000	61000	19.8	A
	Ethane	2.4	2.4	NC	A
	Ethene	1.8	1.8	NC	A
	Methane - DL	400	430	7.2	A
	Manganese	0.96	0.98	2.1	A
	Lead	0.0099	0.012	NC	A
	Total Kjeldahl Nitrogen	1.4	1.6	13.3	A
	Cyanide, Total	0.41	0.40	2.5	A
	Sulfate	155	151	2.6	A
	Nitrite as N	ND	0.023	NC	A
	Alkalinity, Total	415	414	0.2	A
	Alkalinity, Bicarbonate	415	414	0.2	A
	Ferrous Iron	2.8	2.4	NC	A
	Chloride	25.4	25.4	0.0	A

A: Acceptable
NC: Not calculated

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., N.R.C.C.
Principal Environmental Chemist
708 N Main St, Suite 201
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
Job ID: 480-224505-1
Project/Site:

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-224505-1	MW-4	Water	10/17/24 13:25	10/18/24 11:00
480-224505-2	MW-7	Water	10/17/24 11:20	10/18/24 11:00
480-224505-3	MW-10	Water	10/17/24 10:20	10/18/24 11:00
480-224505-4	MW-11	Water	10/17/24 12:15	10/18/24 11:00
480-224505-5	MW-12	Water	10/17/24 12:25	10/18/24 11:00
480-224505-6	MW-13	Water	10/17/24 10:30	10/18/24 11:00
480-224505-7	MW-14	Water	10/17/24 11:40	10/18/24 11:00
480-224505-8	MW-15	Water	10/17/24 10:30	10/18/24 11:00
480-224505-9	MW-16	Water	10/17/24 13:00	10/18/24 11:00
480-224505-10	Field Duplicate	Water	10/17/24 00:00	10/18/24 11:00
480-224505-11	Trip Blank	Water	10/17/24 00:00	10/18/24 11:00

Job Narrative
480-224505-1

Receipt
The samples were received on 10/18/2024 11:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 2.6º C, 2.8º C and 3.2º C.

GC/MS VOA
Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: MW-10 (480-224505-3), MW-14 (480-224505-7) and Field Duplicate (480-224505-10). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted due to the abundance of non-target analytes: MW-11 (480-224505-4). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-13 (480-224505-6), MW-13-MS (480-224505-6[MS]) and MW-13-MSD (480-224505-6[MSD]). Elevated reporting limits (RLs) are provided.

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-15 (480-224505-8), MW-16 (480-224505-9), (480-224505-L-8 MS) and (480-224505-L-8 MSD). 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.

GC/MS Semi VOA
Method 8270D: The following sample was diluted due to color, appearance, and viscosity: MW-12 (480-224505-5). Elevated reporting limits (RL) are provided.

Method 8270D: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-11 (480-224505-4), MW-13 (480-224505-6), MW-13-MS (480-224505-6[MS]), MW-13-MSD (480-224505-6[MSD]) and MW-15 (480-224505-8). Elevated reporting limits (RLs) are provided.

Method 8270D: The following samples were diluted due to the abundance of target analytes : MW-13-MS (480-224505-6[MS]) and MW-13-MSD (480-224505-6[MSD]). Because of this dilution, the surrogate spike and matrix spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method 8270D: The following sample required a dilution due to the abundance of target analytes: MW-13 (480-224505-6). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

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

GC VOA
Method RSK-175: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-10 (480-224505-3), MW-11 (480-224505-4), MW-13 (480-224505-6), MW-13-MS (480-224505-6[MS]), MW-13-MSD (480-224505-6[MSD]), MW-14 (480-224505-7), MW-16 (480-224505-9) and Field Duplicate (480-224505-10). Elevated reporting limits (RLs) are provided.

Method RSK-175: The method blank for analytical batch 480-729134 contained Methane, Ethane and Ethene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method RSK-175: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-15 (480-224505-8). 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.

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

General Chemistry

Job ID: 480-224505-1 (Continued) Eurofins Buffalo

Method SM 4500 S2 F: The method requirement for no headspace was not met. The following samples were analyzed with headspace in the sample container(s): MW-4 (480-224505-1), MW-7 (480-224505-2), MW-10 (480-224505-3), MW-13 (480-224505-6), MW-13-MS (480-224505-6[MS]), MW-13-MSD (480-224505-6[MSD]), (480-224442-K-1) and (480-224442-K-1 DU).

Method SM 2320B: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 480-729448 was outside control limits. Sample matrix interference is suspected.

Methods D516-90, 02: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 480-729535 were outside control limits: MW-13 (480-224505-6). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method SM 2320B: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container(s): (480-224564-A-1) and (480-224564-A-1 DU).

Method SM 2320B: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container(s): MW-10 (480-224505-3), MW-11 (480-224505-4), MW-12 (480-224505-5), MW-14 (480-224505-7), MW-15 (480-224505-8), MW-16 (480-224505-9) and Field Duplicate (480-224505-10).

Method SM 2320B: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container(s): MW-4 (480-224505-1), MW-7 (480-224505-2), (480-224619-G-1), (480-224619-G-1 MS), (480-224619-G-1 MSD), (480-224688-B-3) and (480-224688-B-3 DU).

Method SM 3500 FE D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for the following sample associated with analytical batch 480-730542 were outside control limits: Field Duplicate (480-224505-10). The associated laboratory control sample (LCS) recovery met acceptance criteria.

Method SM 3500 FE D: This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: MW-4 (480-224505-1), MW-7 (480-224505-2), MW-10 (480-224505-3), MW-11 (480-224505-4), MW-12 (480-224505-5), MW-13 (480-224505-6), MW-13-MS (480-224505-6[MS]), MW-13-MSD (480-224505-6[MSD]), MW-14 (480-224505-7), MW-16 (480-224505-9) and Field Duplicate (480-224505-10).

Method SM 2320B: The method requirement for no headspace was not met. The following volatile samples were analyzed with headspace in the sample container(s): MW-4 (480-224505-1) and MW-7 (480-224505-2).

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

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