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

December 22, 2023

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 2023)

Dear Mr. Squire:

Enclosed is the Semi-Annual Groundwater Monitoring Report July through December 2023 for the Johnstown (N. Market St.) MGP Site located in Johnstown, New York. The report includes the groundwater monitoring results from October 11, 2023.

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) 428-5652 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

December 2023

Version 1

Semi-Annual Groundwater Monitoring Report

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

Prepared for:
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Syracuse, NY 13202

Prepared by:
Groundwater & Environmental Services, Inc.
6780 Northern Boulevard, Suite 100
East Syracuse, NY 13057
TEL: 800-220-3069
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GES Project:
0603400.120950.221

Date:
December 22, 2023

Devin T. Shay, PG
Program Manager / Principal Hydrogeologist

Table of Contents

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 October 2023 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). Note: Monitoring well MW-11 was not gauged or sampled during the October 2023 sampling round due to concrete/metal and wood debris at this off-site well location. However, the City of Johnstown removed a debris pile in December of 2023, and the well was located. The condition of the well will be assessed prior to the Spring 2024 sampling event.

3.1 Groundwater Gauging and Sampling Procedures

3.1.1 Gauging

Long-term groundwater monitoring includes water level gauging at eight 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 October 2023 as well as previous events. **Appendix A** also presents the field documentation from the October 2023 water gauging event.

No product was present in recovery well RW-1 or the other eight 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, eight 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 11, 2023, from monitoring wells 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 11, 2023, from monitoring wells MW-12, MW-13, MW-14, 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 11, 2023, with the exception of MW-15 (0.25 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 2023 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	Decreasing
MW-7	Stable	Stable	Stable	Stable	Decreasing
MW-10	No Trend	Stable	Stable	Stable	Decreasing
MW-11	Not sampled	Not sampled	Not sampled	Not sampled	Not sampled
MW-12	Stable	Stable	Stable	Stable	Decreasing
MW-13	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
MW-14	Stable	No Trend	No Trend	No Trend	Decreasing
MW-15	Decreasing	Stable	Stable	No Trend	Probably Increasing
MW-16	Probably Decreasing	Probably Decreasing	Probably 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. The naphthalene plume (concentrations above the WQ) currently includes monitoring wells MW-13, 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-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, Total 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 October 2023 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 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. "Preliminary Historical Profile of the Johnstown (Market Street) MGP Site. Johnstown, New York". Niagara Mohawk Power Corporation, June 1993.

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.

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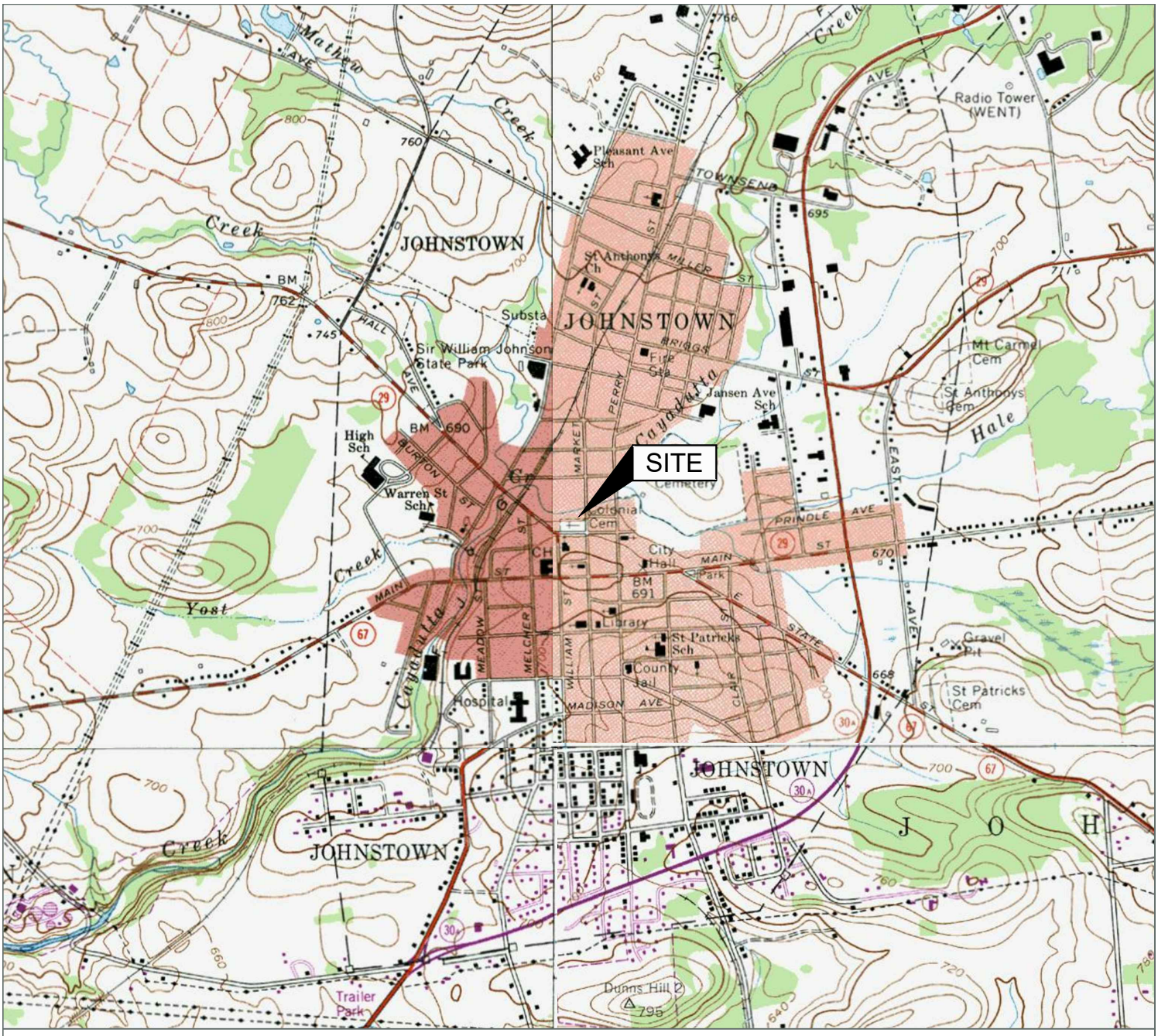
Figures



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
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Scale In Feet
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Groundwater & Environmental Services, Inc.

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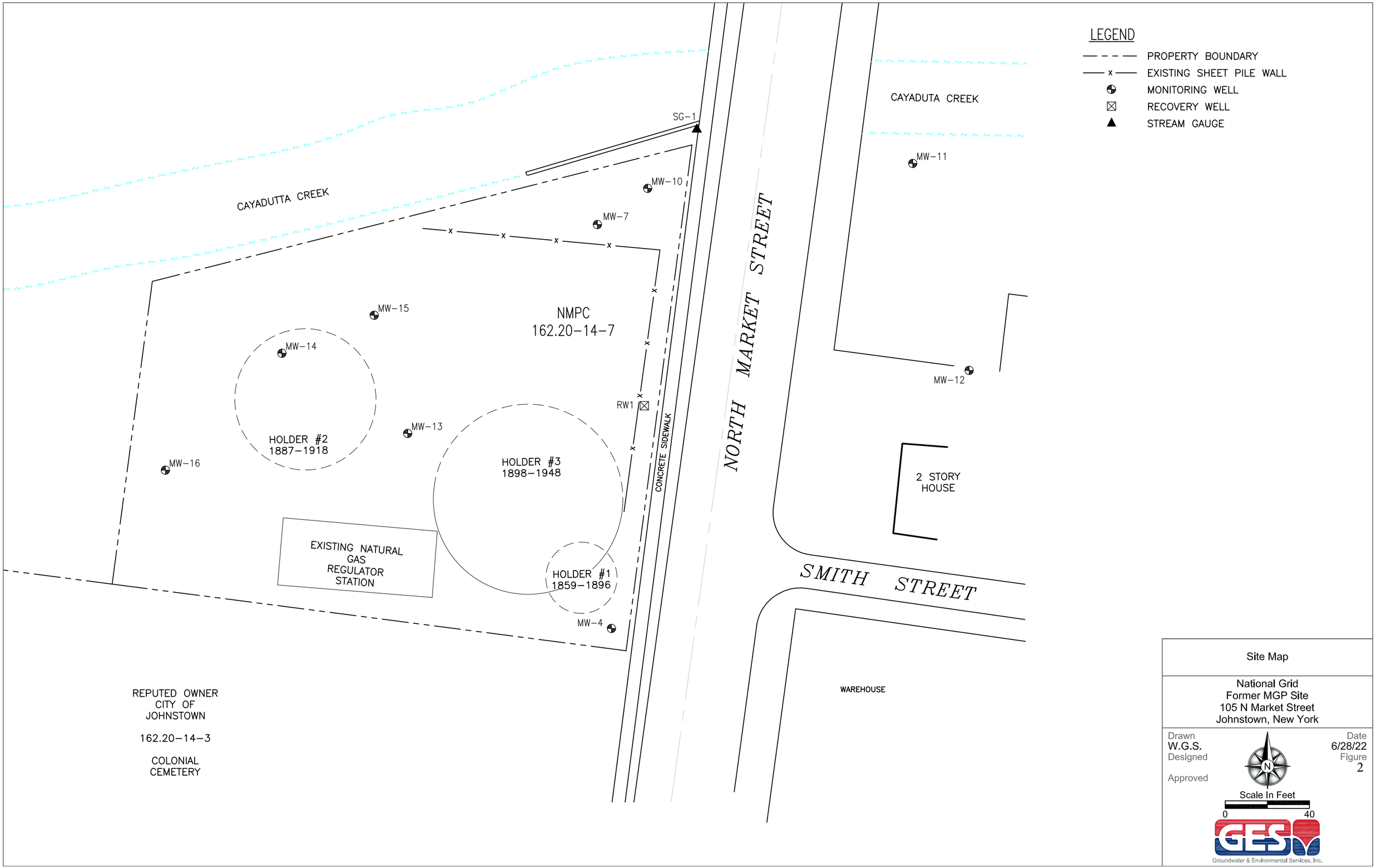

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Site Map

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

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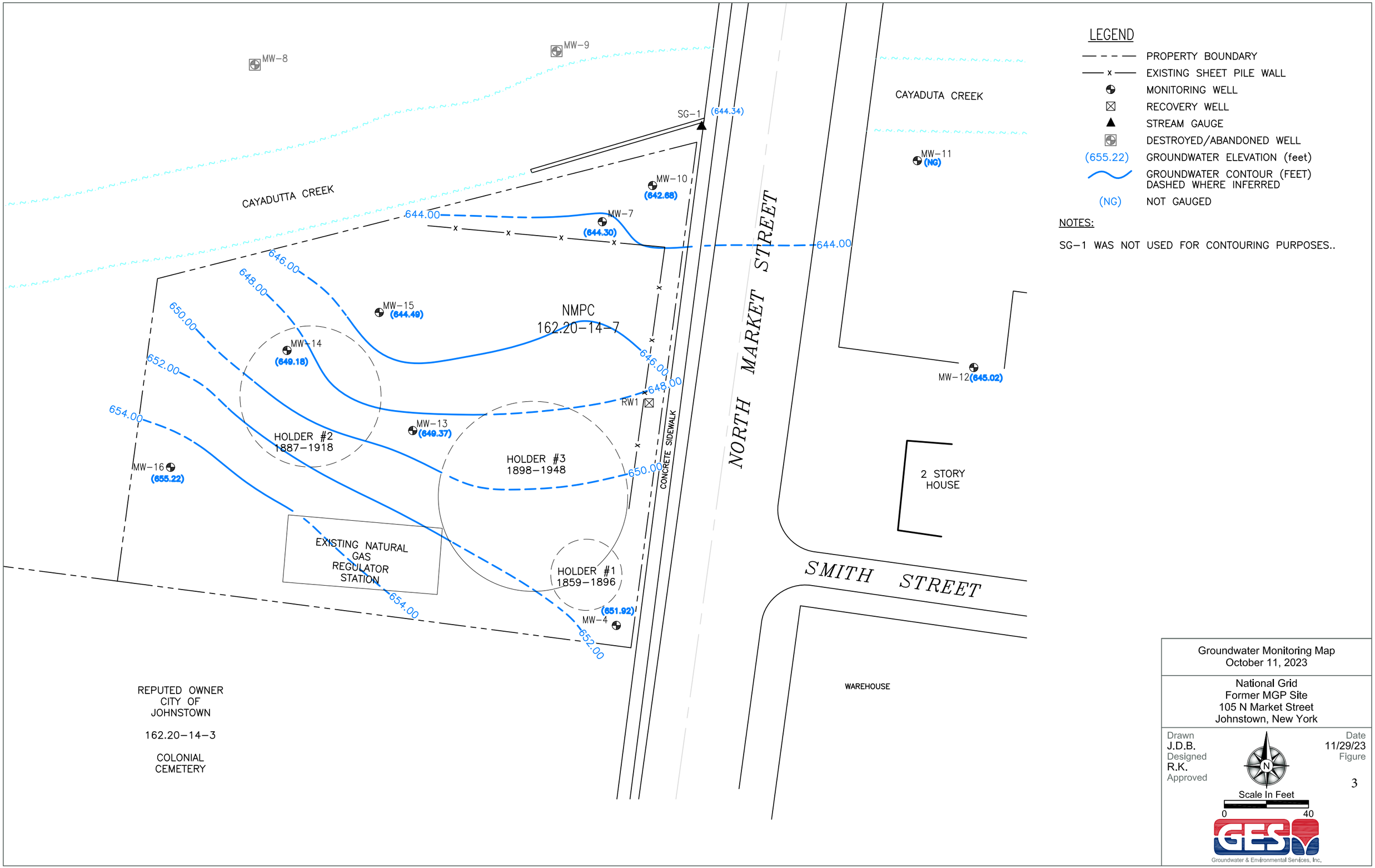
Approved

Date
6/28/22
Figure
2

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.



Groundwater Monitoring Map
October 11, 2023

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

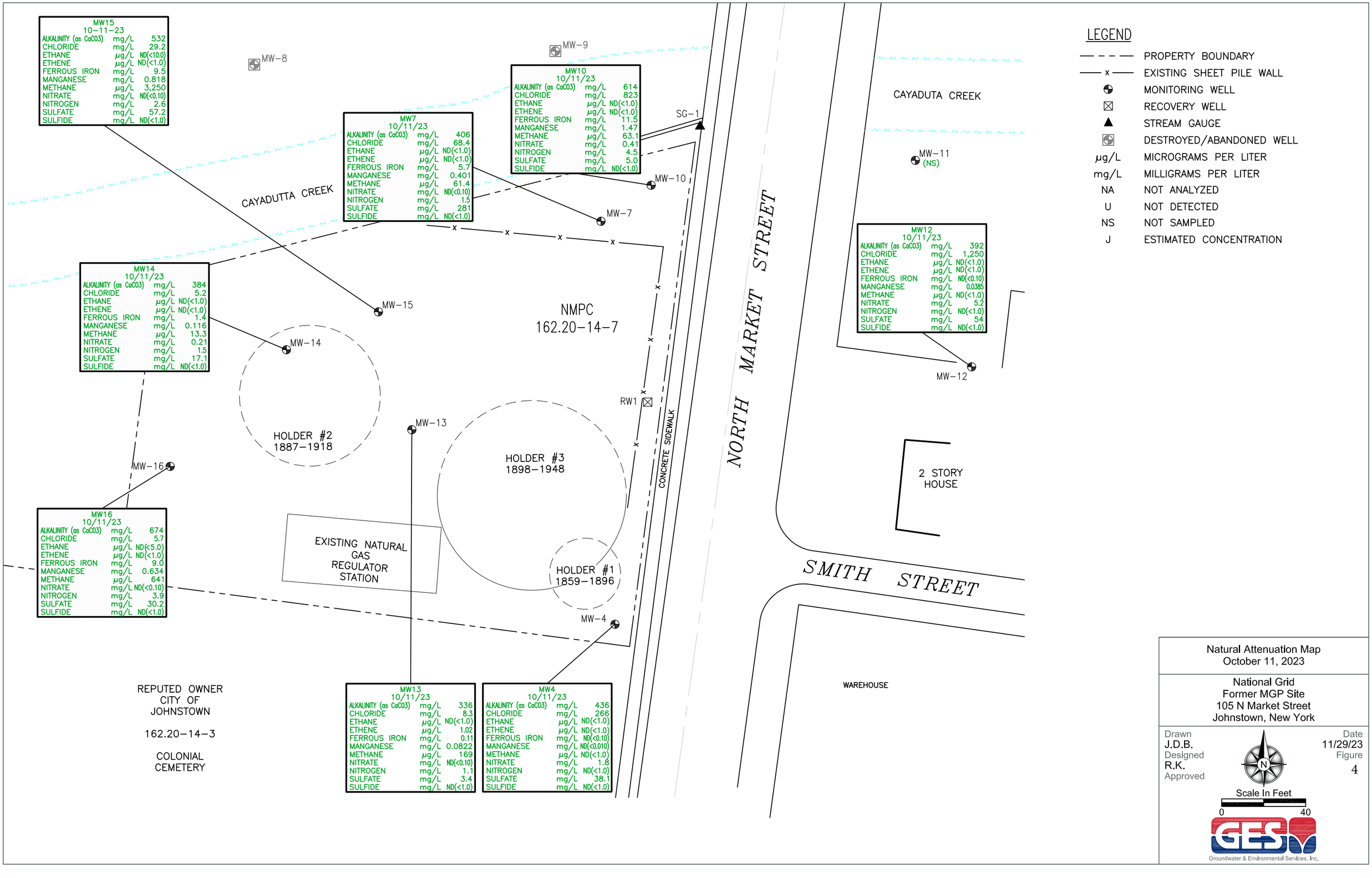
Drawn J.D.B.
Designed R.K.
Approved

Date 11/29/23
Figure 3

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

M:\Graphics\0600-Syracuse\Misc\National Grid\Johnstown\Johnstown SM.dwg, B40 sm, 11/29/2023 9:48:56 AM, jbamard



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BTEX Concentration Map
October 11, 2023

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

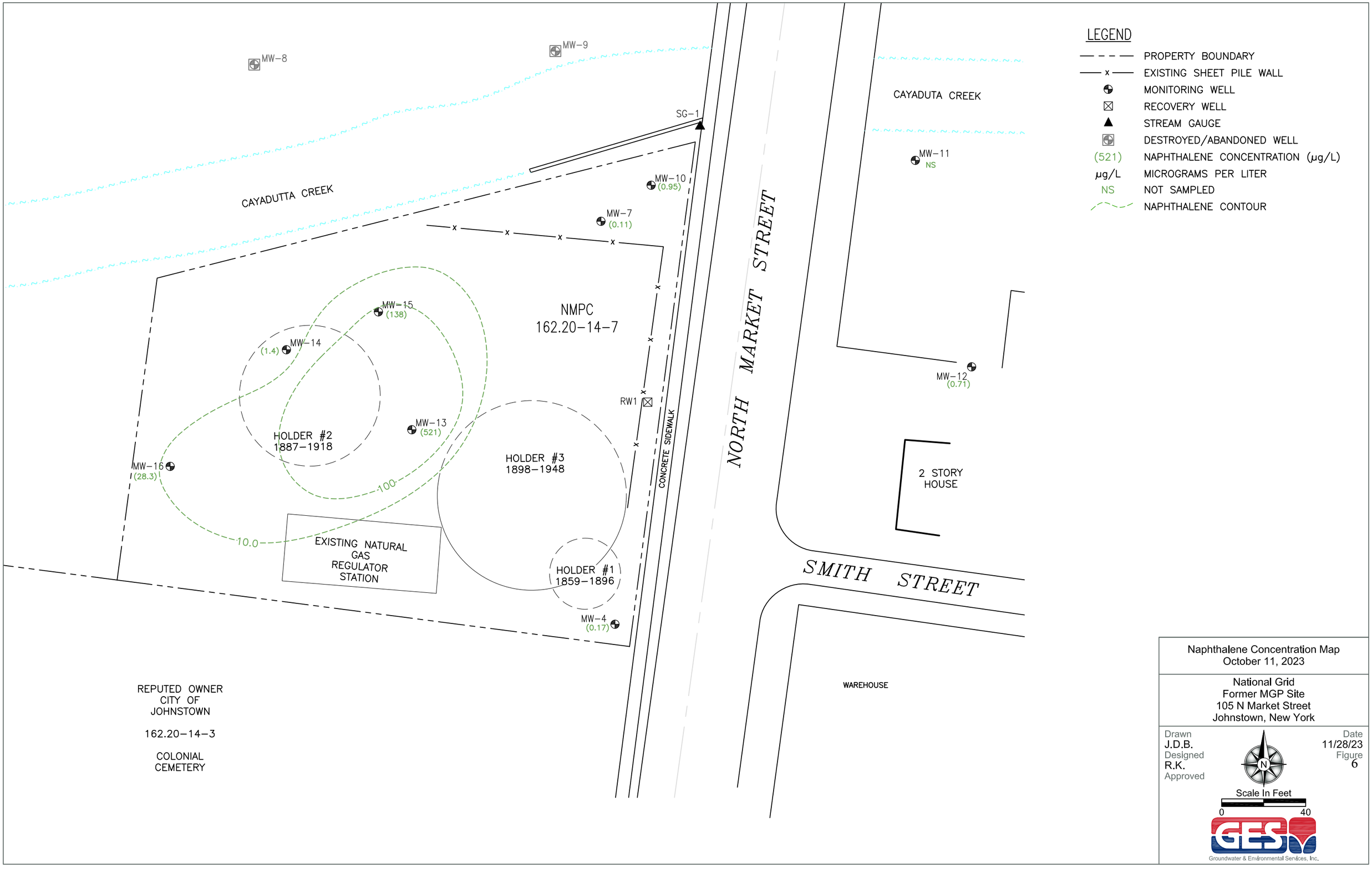
Drawn J.D.B.
Designed R.K.
Approved

Date 11/28/23
Figure 5

Scale In Feet
0 40

Groundwater & Environmental Services, Inc.

M:\Graphics\0600-Syracuse\Misc\National Grid\Johnstown\Johnstown SM.dwg, B40 sm, 11/28/2023 3:52:49 PM, jbarnard



Naphthalene Concentration Map
October 11, 2023

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

Drawn J.D.B.
Designed R.K.
Approved

Date 11/28/23
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	
		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
MW-7	659.08	15.08	644.00	14.05	645.03	14.78	644.30
MW-10	657.59	14.99	642.60	14.79	642.80	14.91	642.68
MW-11	657.29	NM	-	NM	-	NM	-
MW-12	660.08	15.06	645.02	14.17	645.91	15.06	645.02
MW-13	664.89	15.63	649.26	13.34	651.55	15.52	649.37
MW-14	663.91	14.15	649.76	13.95	649.96	14.73	649.18
MW-15	661.85	16.67	645.18	16.90	644.95	17.36	644.49
MW-16	665.57	10.31	655.26	9.48	656.09	10.35	655.22
RW-1	-	16.30	NRP	10.43	NRP	15.28	NRP
GAUGE1	659.97	14.65	645.32	19.31	640.66	15.63	644.34

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
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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
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)
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)
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)
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)

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
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
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
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)
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)
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)
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)
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)
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
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)
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
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)

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
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)
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)	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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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)
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
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)
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)
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)
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

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
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
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
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)
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)
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
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
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
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)
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
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
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)

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
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)	**1.5**	ND (<1.0)
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)
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)
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)
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)
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
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
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)
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)
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)
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)
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)
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)
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**	**0.81**	ND (<0.11)	0.17	ND (<0.10)	ND (<0.099)	ND (<0.11)
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)
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)
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)
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)
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
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)
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
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)
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

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
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
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
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)
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)
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
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
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
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
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
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
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)

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 04/19/23*	10/11/23
BTEX Compounds											
Benzene	µg/L	1	**7.9**	**12**	**3.5**	**8.1**	**10**	**22**	**7.3**	NS	NS
Ethylbenzene	µg/L	5	3.5	ND (<1.0)	1.2	3.8	**5.1**	**7.8**	3	NS	NS
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	NS
o-Xylene	µg/L	5	1.2	ND (<1.0)	ND (<1.0)	1.6	2.1	2.6	1.5	NS	NS
Toluene	µg/L	5	0.69J	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.1	1.9	ND (<1.0)	NS	NS
PAHs											
Acenaphthene	µg/L	20	**100**	**140 E**	**97**	**110**	**120**	**110**	**59**	NS	NS
Acenaphthylene	µg/L	NC	210	160 E	120	170	110	150	56	NS	NS
Anthracene	µg/L	50	11	23	13	28	13	16	4.2	NS	NS
Benzo(a)anthracene	µg/L	0.002	**5.2 B**	**3.8**	ND (<0.002)	**8.3**	**3.2**	**4.8**	**1.9**	NS	NS
Benzo(a)pyrene	µg/L	0.002	**2.3J**	**2.7**	**3.3**	**8.5**	**2.8**	**4.7**	**0.84**	NS	NS
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	NS
Benzo(g,h,i)perylene	µg/L	NC	1.3J	1	1	3.4	ND (<0.002)	1.8	ND (<0.002)	NS	NS
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	NS
Chrysene	µg/L	0.002	ND (<5.1)	**3.4**	**4.4**	**10**	**5.4**	**7.6**	**0.99**	NS	NS
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	NS
Fluoranthene	µg/L	50	12	24	14	28	12	16	5.4	NS	NS
Fluorene	µg/L	50	**62**	**92**	**62**	**70**	31	44	16	NS	NS
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	NS
Naphthalene	µg/L	10	**140**	**110**	**50**	**87**	ND (<10)	**51**	2.3	NS	NS
Phenanthrene	µg/L	50	**91**	**170**	**80**	**130**	5.8	**62**	1.5	NS	NS
Pyrene	µg/L	50	16	28	18	34	17	20	4.2	NS	NS
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	NS
Cyanide	mg/L	0.2	0.012	ND (<0.010)	ND (<0.010)	ND (<0.010)	0.018	0.021	0.012	NS	NS

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.
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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

* = 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 04/19/23*	10/11/23
MNA/WQ Parameters										
Alkalinity (as CaCO3)	mg/L	R	623	507	573	465	457	428	NS	NS
Chloride	mg/L	321	350	202	295	454	364	314	NS	NS
Ethane	µg/L	ND (<15)	ND (<380)	ND (<380)	ND (<380)	ND (<380)	ND (<7.5)	ND (<7.5)	NS	NS
Ethene	µg/L	ND (<15)	ND (<350)	ND (<350)	ND (<350)	ND (<350)	ND (<7.0)	ND (<7.0)	NS	NS
Ferrous Iron	mg/L	ND (<0.1)	0.5	0.18	0.22	0.29	ND (<0.1)	ND (<0.1)	NS	NS
Manganese	mg/L	0.47	0.95	0.95	0.55	0.56	0.56	0.25	NS	NS
Methane	µg/L	160	520	12	25	120	180	13	NS	NS
Nitrate	mg/L	0.092	ND (<0.050)	0.79	0.32	0.32	0.059	0.28	NS	NS
Nitrogen	mg/L	1.3	1.4	0.58	0.64	0.57	1.2	0.26	NS	NS
Sulfate	mg/L	8.5 B	16.9	112	94.1	58	44.3	82.9	NS	NS
Sulfide	mg/L	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	ND (<1.0)	1.8	ND (<1.0)	NS	NS

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
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 (<0.2)	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)
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	0.62	ND (<0.11)	1.0	0.1	0.61	0.41	0.14	0.21	2.5	0.27	0.40
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
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**
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**
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**
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
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**	**0.65**
Chrysene	µg/L	0.002	**1**	**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**
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)
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
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)
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**
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
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
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
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)
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)

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
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
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
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)
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)
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)
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
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)
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
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)
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
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)

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
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**
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**
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**
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**
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**
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**
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
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
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**
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**
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**
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
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**
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**
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)
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
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
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**
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**
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
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
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)
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

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
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
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
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
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)
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
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
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
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
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)
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
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
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)

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
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)
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)
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)
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)
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)
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)
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
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
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**
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**
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**
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
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**
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)
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)
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
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)
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)
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
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)
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
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)
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

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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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
MNA/WQ Parameters																						
Alkalinity (as $CaCO_3$)	mg/L	417	456	483	372	445	507	520	380	404	392	450	384	380	342	400	364	392	392	NS	310	384
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
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)
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)
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
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
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
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
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
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
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)

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
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**
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**
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**
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**
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
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**
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
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
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**
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**
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**
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
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**
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**
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)
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
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
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)
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**
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
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
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)
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**

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
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
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
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)
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)
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
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
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
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)
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
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
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)

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
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**
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**
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**
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**
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
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**
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
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
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**
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)
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)
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)
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)
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**
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)
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
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
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)
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**
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
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
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)
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

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
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
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
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)
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)
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
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
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
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)
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
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
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)

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, Former MGP Site
Johnstown, New York

Semi-Annual GWS Event
October 26, 2022

Well ID	Sample?	Well Size?	DTW	DTP	DTB	Comments
RW-1	No	~~4~~ 4"	15.28	—	21.50	
MW-4	Yes	2"	24.62	—	27.32	
MW-7	Yes	2"	14.78	—	22.10	
MW-10	Yes	2"	14.91	—	22.05	
MW-11	No	2"	~~0~~ —	—	22.90	inaccessable- debris
MW-12	Yes	2"	15.06	—	22.24	
MW-13	Yes	2"	15.52	—	22.75	MS/MSD
MW-14	Yes	2"	14.73	—	23.55	Field Duplicate
MW-15	Yes	2"	17.36	—	23.00	
MW-16	Yes	2"	10.35	—	19.45	
Gauge-1 (bridge)	No		15.43	—	19.76	

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

Unable to access MW-11. Area is on adjacent property and was full of concrete/metal and wood debris.

National Grid
109 North Market Street, Johnstown New York

Sampling Personnel: AJ
Job Number: 0603400-120950-221
Well Id. **MW-4**

Date: 10/11/23
Weather: 55°F, cloudy
Time In: 1115 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	27.62	
Depth to Bottom:	(feet)	27.32	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	2.70	
Volume of Water in Well:	(gal)	0.43	
Three Well Volumes:	(gal)	1.2	

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:	150 (ml/min)				
Duration of Pumping:	30 (min)				
Total Volume Removed:	1.5 (gal)				

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)
1125	24.24	13.31	7.41	-83	1.05	22.1	2.15	0.642
1130	24.24	13.34	7.09	41	1.67	56.1	4.40	1.06
1135	24.24	13.23	6.78	69	1.73	54.8	4.59	1.11
1140	24.24	13.19	6.70	77	1.73	31.3	4.60	1.11
1145	24.24	13.16	6.67	84	1.73	16.7	4.61	1.11
1150	24.24	13.17	6.67	89	1.73	9.4	4.58	1.11
1155	24.24	13.29	6.66	94	1.73	3.2	4.48	1.11

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H2SO4	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	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO2	RSK-175

Sample ID: **MW-4-1023**
Sample Time: 1200

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

Shipped: Drop-off Albany Service Center ☐
Pace Courier ☒
Laboratory: Pace Analytical Greensburg, Pennsylvania

National Grid
109 North Market Street, Johnstown New York

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

Date: 10/11/23
Weather: 50° overcast
Time In: 1054 Time Out: 1130

Well Information

		TOC	Other
Depth to Water:	(feet)	14.78	
Depth to Bottom:	(feet)	22.10	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	7.32	
Volume of Water in Well:	(gal)	1.17	
Three Well Volumes:	(gal)	3.51	

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)
1055	15.07	15.19	2.22	-157	2.21	36.9	3.43	1.37
1100	15.47	14.17	2.22	-151	1.38	123	1.96	0.879
1105	15.83	14.06	2.20	-139	1.25	89.0	1.15	0.796
1110	16.13	14.08	2.21	-143	1.23	51.6	0.75	0.787
1115	16.50	14.09	2.23	-153	1.23	35.9	0.40	0.791
1120	16.78	14.05	2.24	-160	1.24	36.7	0.25	0.793
1125	17.06	14.02	2.24	-163	1.24	29.7	0.18	0.797

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H2SO4	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	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO2	RSK-175

Shipped: Drop-off Albany Service Center ☐
Pace Courier ☒

Sample ID: **MW-7-1023**
Sample Time: 1125

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

Laboratory: Pace Analytical
Greensburg, Pennsylvania

Bridge: 15.63

National Grid
109 North Market Street, Johnstown New York

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

Date: 10/11/23
Weather: overcast 50°
Time In: 1000 Time Out: 1040

Well Information

		TOC	Other
Depth to Water:	(feet)	14.91	
Depth to Bottom:	(feet)	22.05	
Depth to Product:	(feet)	—	
Length of Water Column:	(feet)	2.14	
Volume of Water in Well:	(gal)	1.14	
Three Well Volumes:	(gal)	3.42	

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)
1005	15.79	15.24	7.11	-171	3.03	69.4	0.98	1.94
1010	15.94	15.30	7.13	-187	3.07	39.0	0.63	1.96
1015	16.08	15.35	7.16	-192	3.12	24.8	0.53	2.00
1020	16.30	15.33	7.18	-194	3.17	12.4	0.37	2.03
1025	16.44	15.36	7.18	-194	3.19	8.4	0.36	2.04
1030	16.62	15.40	7.18	-194	3.21	6.6	0.22	2.05
1035	16.84	15.38	7.19	-193	3.23	10.1	0.17	2.07

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H2SO4	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	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO2	RSK-175

Sample ID: **MW-10-1023**
Sample Time: 1035

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

Shipped: Drop-off Albany Service Center ☐
Pace Courier ☒
Laboratory: Pace Analytical Greensburg, Pennsylvania

National Grid
109 North Market Street, Johnstown New York

Inaccessible

Sampling Personnel:
Job Number: 0603400-120950-221
Well Id. **MW-11**

Date:
Weather:
Time In: Time Out:

Well Information

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

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)	
Duration of Pumping:	(min)	
Total Volume Removed:	(gal)	

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)

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H2SO4	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	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO2	RSK-175

Sample ID: **MW-11-1023**
Sample Time:

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

Shipped: Drop-off Albany Service Center [ ]
Pace Courier [X]
Laboratory: Pace Analytical
Greensburg, Pennsylvania

National Grid
109 North Market Street, Johnstown New York

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

Date: 10/11/23
Weather: 55° overcast
Time In: 1153 Time Out: 1230

Well Information

		TOC	Other
Depth to Water:	(feet)	15.06	
Depth to Bottom:	(feet)	22.24	
Depth to Product:	(feet)	-	
Length of Water Column:	(feet)	7.18	
Volume of Water in Well:	(gal)	1.14	
Three Well Volumes:	(gal)	3.44	

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

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	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)
1155	15.14	13.73	7.19	-34	2.56	207	6.59	1.67
1200	15.10	13.43	7.22	2	3.31	340	4.21	2.13
1205	15.14	12.91	7.20	17	4.25	321	2.65	2.74
1210	15.17	12.74	7.18	26	4.46	116	2.57	2.85
1215	15.17	12.73	7.15	36	4.52	48.8	2.51	2.90
1220	15.19	12.72	7.14	41	4.55	32.8	2.47	2.91
1225	15.19	12.73	7.12	47	4.56	47.5	2.48	2.92

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H2SO4	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	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO2	RSK-175

Sample ID: **MW-12-1023**
Sample Time: 1225

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

Shipped: Drop-off Albany Service Center [ ]
Pace Courier [X]
Laboratory: Pace Analytical Greensburg, Pennsylvania

National Grid
109 North Market Street, Johnstown New York

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

Date: 12/11/23
Weather: 51°F, cloudy
Time In: 1000 Time Out: 1110

Well Information

		TOC	Other
Depth to Water:	(feet)	15.52	
Depth to Bottom:	(feet)	22.75	
Depth to Product:	(feet)	–	
Length of Water Column:	(feet)	7.23	
Volume of Water in Well:	(gal)	1.15	
Three Well Volumes:	(gal)	3.47	

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

Purging Information

Purging Method:	Bailer [ ]	Peristaltic [ ]	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)
1005	15.90	13.70	7.53	-70	0.671	24.2	2.43	0.423
1010	16.12	13.63	7.54	-115	0.633	13.1	0.93	0.405
1015	16.41	13.62	7.54	-122	0.623	9.9	0.81	0.399
1020	16.60	13.56	7.55	-138	0.622	5.5	0.61	0.397
1025	16.69	13.47	7.54	-150	0.646	3.6	0.52	0.413
1030	16.81	13.36	7.54	-160	0.675	3.6	0.48	0.431
1035	16.90	13.27	7.51	-168	0.694	3.0	0.44	0.443

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H_2SO_4	Nitrogen	EPA Method 351.2
1	250 mL	Plastic	HNO_3	Lead & Manganese	EPA Method 6010
3	40 mL	Glass	HCl	VOC's & BTEX	EPA SW-846 Method 8260
1	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO_2	RSK-175

MW-13-MS-1023 and MW-13-MSD-1023

Sample ID: **MW-13-1023** Duplicate? Yes [ ] No [X]
Sample Time: 1040 MS/MSD? Yes [X] No [ ]

Shipped: Drop-off Albany Service Center [ ]
Pace Courier [X]
Laboratory: Pace Analytical Greensburg, Pennsylvania

National Grid
109 North Market Street, Johnstown New York

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

Date: 10/11/23
Weather: cloudy 50°s
Time In: 1045 Time Out: 1140

Well Information

		TOC	Other
Depth to Water:	(feet)	14.73	
Depth to Bottom:	(feet)	23.55	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	8.82	
Volume of Water in Well:	(gal)	1.41	
Three Well Volumes:	(gal)	4.23	

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)
1050	14.88	12.98	4.29	150	0.000	130	10.88	0.000
1055	15.31	13.37	4.58	284	0.664	0.0	5.16	0.424
1100	15.49	13.27	4.43	356	0.669	0.0	9.93	0.428
1105	15.62	13.22	5.02	325	0.667	704	9.59	0.428
1110	15.98	13.04	5.26	299	0.668	226	9.47	0.428
1115	16.11	13.02	5.61	254	0.671	73.8	8.83	0.429
1120	16.21	13.00	5.76	178	0.672	42.6	9.35	0.431

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H2SO4	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	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO2	RSK-175

Field Duplicate-1023

Sample ID: **MW-14-1023**
Sample Time: 1125

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

Shipped: Drop-off Albany Service Center [ ]
Pace Courier [X]
Laboratory: Pace Analytical
Greensburg, Pennsylvania

National Grid
109 North Market Street, Johnstown New York

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

Date: 10/11/23
Weather: cloudy 50°s
Time In: 1140 Time Out:

Well Information

		TOC	Other
Depth to Water:	(feet)	17.36	
Depth to Bottom:	(feet)	23.00	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	5.64	
Volume of Water in Well:	(gal)	0.90	
Three Well Volumes:	(gal)	2.71	

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)
1150	17.60	13.89	4.24	74	0.897	92.0	3.07	0.583
1155	17.63	13.99	4.89	35	0.915	28.1	2.68	0.590
1200	17.90	14.04	4.17	43	0.895	16.4	1.21	0.573
1205	18.09	13.97	6.91	-117	0.941	11.5	1.00	0.602
1210	18.24	13.85	7.33	-140	0.937	8.4	0.84	0.600
1215	18.37	13.85	7.49	-152	0.933	6.0	0.77	0.597
1220	18.42	13.88	7.49	-155	0.954	4.3	0.63	0.611

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H2SO4	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	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO2	RSK-175

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

Sample ID: **MW-15-1023**
Sample Time: 1225

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

Laboratory: Pace Analytical
Greensburg, Pennsylvania

National Grid
109 North Market Street, Johnstown New York

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

Date: 10/11/23
Weather: Cloudy 50°s
Time In: 0950 Time Out: 1045

Well Information

		TOC	Other
Depth to Water:	(feet)	10.35	
Depth to Bottom:	(feet)	19.45	
Depth to Product:	(feet)	NP	
Length of Water Column:	(feet)	9.10	
Volume of Water in Well:	(gal)	1.46	
Three Well Volumes:	(gal)	4.4	

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

Purging Information

Purging Method:		Bailer [ ]	Peristaltic [ ]	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)
1005	10.39	13.38	4.75	213	0.913	24.1	8.55	0.633
1010	10.60	13.01	4.69	36	0.993	24.4	11.13	0.638
1015	10.91	12.55	4.83	-11	1.13	20.1	11.13	0.722
1020	11.28	12.82	4.75	15	1.10	12.4	9.91	0.702
1025	11.67	13.05	4.65	38	1.09	6.5	10.33	0.695
1030	12.12	13.10	4.69	8	1.11	~~8.82~~ 2	9.29	0.708
1035	12.43	13.04	4.78	-14	1.13	1.3	10.02	0.721

Sampling Information:

Quantity	Size	Material	Preservative	Compounds analyzed	Method
2	100 mL	Glass	Unpreserved	SVOC PAH's	EPA SW-846 Method 8270
1	250 mL	Plastic	Unpreserved	Ferrous Iron	SM 3500 FE D
				Chloride	SM 4500 Cl E
				Total Alkalinity	EPA Method 310.2
1	250 mL	Plastic	H2SO4	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	250 mL	Plastic	NaOH	Total Cyanide	EPA Method 9012B
1	250 mL	Plastic	NaOH & Zinc Acetate	Nitrate & Nitrite	EPA Method 353.2
				Sulfide	EPA Method 376.1
				Sulfate	EPA Method 375.4
2	40 mL	Glass	Benzalkonium Chloride	Methane/Ethane/ Ethene/CO2	RSK-175

Sample ID: **MW-16-1023**
Sample Time: 1040

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

Shipped: Drop-off Albany Service Center [ ]
Pace Courier [X]
Laboratory: Pace Analytical Greensburg, Pennsylvania

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 1

Section A Required Client Information:

Company: GES - Syracuse
Address: 6780 Northern Blvd. Suite 100
East Syracuse, New York 13057
Email To: dshay@gesonline.com
Phone: 800.220.3069x4052 Fax: None
Requested Due Date/TAT: Standard

Section B Required Project Information:

Report To: Devin Shay (GES) dshay@gesonline.com
Report To: Tim Beaumont (GES) tbeaumont@gesonline.com
Purchase Order No.:
Project Name: National Grid - 109 North Market Street, Johnstown NY
Project Number: 0603400-120950-221-1106

Section C Invoice Information:

Attention: Accounts Payable via email at ges-invoices@ges
Company Name: Groundwater & Environmental Services, Inc
Address: 6780 Northern Blvd, Suite 100, East Syracuse, NY 13057
Pace Quote Reference: CAT-B Deliverable
Pace Project Manager: Justin Horn

Semi-Annual GWS

REGULATORY AGENCY: NPDES, GROUND WATER, DRINKING WATER, UST, RCRA, OTHER

SITE LOCATION: GA, IL, IN, MI, NC, OH, SC, WI, OTHER

Section D Required Client Information

SAMPLE ID
One Character per box.
(A-Z, 0-9 / ,-)
Samples IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE (DRINKING WATER, WATER, WASTE WATER, PRODUCT, SOIL/SOLID, OIL, WIPE, AIR, OTHER, TISSUE)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	NaOH and Zn Acetate	Benzylkonium Chloride	Requested Analysis: Methane/Ethane/Ethene/Carbon Dioxide by RSK-175	SVOC's PAH's by Method 8270	Total Kjeldahl Nitrogen by EPA Method 351.2 (Low Level)	Metals (Lead and Manganese) by EPA Method 6010	VOC's BTEX by Method 8260C	Ferrous Iron by SM 3500 Fe D.	Total Alkalinity by EPA Method 310.2	Chloride by SM 4500 Cl E	Total Cyanide by EPA Method 9012B	Nitrate and Nitrite by EPA Method 353.2.	Sulfide by EPA Method 376.1 and Sulfate by EPA Method 375.4	Pace Project Number / Lab I.D.
1	MW-4-1023	WT	G			10/1/23	1200	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
2	MW-7-1023	WT	G				1125	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
3	MW-10-1023	WT	G				1035	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
4	~~MW-11-1023~~	~~WT~~	~~G~~					~~12~~	~~3~~	~~1~~	~~1~~	~~5~~	~~1~~		~~1~~		~~2~~	~~2~~	~~1~~	~~1~~	~~3~~	~~1~~	~~1~~	~~1~~			
5	MW-12-1023	WT	G				1225	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
6	MW-13-1023	WT	G				1040	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
7	MW-13-MS-1023	WT	G				1040	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
8	MW-13-MSD-1023	WT	G				1040	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
9	MW-14-1023	WT	G				1125	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
10	MW-15-1023	WT	G				1225	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
11	MW-16-1023	WT	G				1040	12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
12	Field Duplicate - 1023	WT	G					12	3	1	1	5	1		1		2	2	1	1	3	1	1	1			
13	Trip Blank	WT	Lab					2				2									2						

Additional Comments:

SAMPLES WILL ARRIVE IN # 3 COOLERS.

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

SPECIFIC EDD NAME:

NGJohnstown-labnumber.28351.EQEDD.zip

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
GES	10/1/23	1500			

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Allison Jordan
SIGNATURE of SAMPLER:
DATE Signed (MM / DD / YY):

SAMPLE CONDITIONS

Temp in °C	Received on Ice Y/N	Custody Sealed Cooler Y/N	Samples Intact Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

E-File,(ALLQ020rev.3,31Mar05), 13Jun2005

Appendix B – Data Usability Summary Report

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

December 14, 2023

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
Pace Analytical Job No. 30630241

Groundwater & Environmental Services, Inc. (GES) reviewed one data package (Laboratory Project Number 30630241) from Pace Analytical Services, Inc., for the analysis of groundwater samples collected on October 11, 2023 from monitoring wells located at the National Grid: Johnstown, NY Site. Eight 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 D516-11, EPA 351.2, EPA 6010C, SM 4500NO3F-2016, SM4500CIE-2011, SM 4500S2F-2011, SM 3500-FeB-2011, SM 2320B-2011, and the USEPA SW846 methods 8260C/8270DSIM/9012B, with additional QC requirements of the NYSDEC ASP. Dissolved gases analyses were subcontracted to Microbac Laboratories, 158 Starlite Drive, Marietta, OH.

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	Microbac ID	Sample ID	Date Collected	Date Received
30630241001	M3J1036-01	MW-4-1023	10/11/23 12:00	10/12/23 09:35
30630241002	M3J1036-02	MW-7-1023	10/11/23 11:25	10/12/23 09:35
30630241003	M3J1036-03	MW-10-1023	10/11/23 10:35	10/12/23 09:35
30630241004	M3J1036-04	MW-12-1023	10/11/23 12:25	10/12/23 09:35
30630241005	M3J1036-05	MW-13-1023	10/11/23 10:40	10/12/23 09:35
30630241006		MW-13-MS-1023	10/11/23 10:40	10/12/23 09:35
30630241007		MW-13-MSD-1023	10/11/23 10:40	10/12/23 09:35
30630241008	M3J1036-06	MW-14-1023	10/11/23 11:25	10/12/23 09:35
30630241009	M3J1036-07	MW-15-1023	10/11/23 12:25	10/12/23 09:35
30630241010	M3J1036-08	MW-16-1023	10/11/23 10:40	10/12/23 09:35
30630241011	M3J1036-09	Field Duplicate-1023	10/11/23 00:00	10/12/23 09:35
30630241001	M3J1036-01	MW-4-1023	10/11/23 12:00	10/12/23 09:35

Table 2. Validation Qualifiers

Sample ID	*Qualifier*	*Analyte*	*Reason for qualification*
MW-4 MW-7 MW-10 MW-12 MW-14	U at 0.17 ug/L U at 0.11 ug/L U at 0.95 ug/L U at 0.71 ug/L J+	Naphthalene	Method blank detection
MW-13 MW-15 MW-16	J+	Naphthalene	High recovery LCS/LCSD
MW-13	J+	Chloride	High MS/MSD recovery
	J_	Cyanide	Low MS/MSD recovery
All Samples	J	Ferrous Iron	Analyzed outside hold time

In summary, sample results were usable as reported.

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.

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 with the exception of a 1.0 ug/L detection of naphthalene in the method blank. Naphthalene concentrations reported below the blank concentration are qualified as non-detect at the reported concentration. Naphthalene concentrations greater than, but within 5x the blank concentration are qualified as estimated with a possible high bias. Concentrations greater than 5x the blank concentration are not impacted, and require no qualification. Data qualifiers are listed in Table 2.

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

LC/LCSD recovered high for both dibenz(a,h)anthracene and naphthalene. There were no detections of dibenz(a,h) anthracene, so no qualifiers were required. Naphthalene concentrations not previously qualified due to blank detection are qualified as estimated, with a possible high bias.

The MS/MSD analyzed with the data is not associated with the site.

Field precision calculations indicate good reproducibility. Surrogate recovery was within bounds.

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.
- Cyanide recovery in the MS/MSD was high in the duplicate associated with MW-13. The concentrations reported in the duplicate and original samples are qualified as possibly biased high.

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. Blanks show no contamination. The case narrative stated the samples were received in improper containers, but the implications for the data were not noted.

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

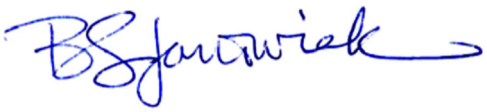
Field Identification	Analyte	Sample Result (µg/L)	Duplicate Result (µg/L)	RPD (%)	Qualified
MW-14/FIELD DUP	Alkalinity	384	368	4.3	A
	Nitrogen, NO2 Plus NO3	0.21	0.2	4.9	A
	Nitrogen, Kjeldahl	1.5	1.1	NC	A
	Sulfate	17.1	17.6	2.9	A
	Iron, Ferrous	1.4	1.6	13.3	A
	Chloride	5.2	5.1	1.9	A
	Cyanide	0.10	0.1	0.0	A
	Manganese	116	127	9.1	A
	Carbon Dioxide	161000	186000	14.4	A
	Methane	13.3	13.5	1.5	A
	Acenaphthylene	0.29	0.27	7.1	A
	Anthracene	0.16	0.16	0.0	A
	Benzo(a)anthracene	0.13	0.13	0.0	A
	Benzo(a)pyrene	0.15	0.14	6.9	A
	Benzo(b)fluoranthene	0.19	0.20	5.1	A
	Benzo(g,h,i)perylene	0.11	0.11	0.0	A
	Benzo(k)fluoranthene	0.16	0.16	0.0	A
	Chrysene		0.098	NC	A
	Fluoranthene	0.18	0.18	0.0	A
	Pyrene	0.27	0.28	3.6	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

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30630241001	**MW-4-1023**	Water	10/11/23 12:00	10/12/23 09:35
30630241002	**MW-7-1023**	Water	10/11/23 11:25	10/12/23 09:35
30630241003	**MW-10-1023**	Water	10/11/23 10:35	10/12/23 09:35
30630241004	**MW-12-1023**	Water	10/11/23 12:25	10/12/23 09:35
30630241005	**MW-13-1023**	Water	10/11/23 10:40	10/12/23 09:35
30630241006	**MW-13-MS-1023**	Water	10/11/23 10:40	10/12/23 09:35
30630241007	**MW-13-MSD-1023**	Water	10/11/23 10:40	10/12/23 09:35
30630241008	**MW-14-1023**	Water	10/11/23 11:25	10/12/23 09:35
30630241009	**MW-15-1023**	Water	10/11/23 12:25	10/12/23 09:35
30630241010	**MW-16-1023**	Water	10/11/23 10:40	10/12/23 09:35
30630241011	**Field Duplicate-1023**	Water	10/11/23 00:00	10/12/23 09:35

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SAMPLE ANALYTE COUNT

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30630241001	**MW-4-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241002	**MW-7-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241003	**MW-10-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241004	**MW-12-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241005	**MW-13-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241006	**MW-13-MS-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241007	**MW-13-MSD-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241008	**MW-14-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241009	**MW-15-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241010	**MW-16-1023**	EPA 6010C	JWT	2	PASI-MV
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA
30630241011	**Field Duplicate-1023**	EPA 6010C	JWT	2	PASI-MV

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SAMPLE ANALYTE COUNT

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8270D by SIM	DSC	19	PASI-PA
		EPA 8260C	JEW	10	PASI-PA
		SM 2320B-2011	CMT	1	PASI-PA
		SM 3500-FeB-2011	PAS	1	PASI-PA
		SM 4500-S2-F-2011	PAS	1	PASI-PA
		300.0 Rev.2.1, 1993	JLM	1	PASI-PA
		EPA 351.2	AK1	1	PASI-PA
		SM 4500-Cl-E-2011	AK1	1	PASI-PA
		SM 4500NO3-F-2016	AK1	1	PASI-PA
		EPA 9012B	CMT	1	PASI-PA

PASI-MV = Pace Analytical Services - Long Island
PASI-PA = Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Date: October 31, 2023

The samples were subcontracted to Microbac Laboratories, 158 Starlite Drive, Marietta, OH 45750, for Dissolved Gases analysis.
The results of this analysis are reported on the Microbac data tables attached.

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for EPA 6010C by Pace Analytical Services Long Island. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3005A with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

Batch Comments:

The post digestion spike for sample 70273431001 (PDS 1657394) did not meet acceptance criteria for Aluminum, Boron, Calcium, Chromium, Magnesium, Manganese, and Silver.
- QC Batch: 324545

The post digestion spike for sample 70274286001 (PDS 1657396) did not meet acceptance criteria for Silver, Calcium, and Sodium.
- QC Batch: 324546

The serial dilution for sample 70274286001 (SD 1657397) did not meet acceptance criteria for Boron, Calcium, Copper, Iron, Potassium, Magnesium, Manganese, Sodium, Nickel, and Zinc.
- QC Batch: 324546

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

Analyte Comments:

QC Batch: 324511

1c: The post digestion spike for sample 70273431001 (PDS 1657394) did not meet acceptance criteria for Aluminum, Boron, Calcium, Chromium, Magnesium, Manganese, and Silver.

- BLANK (Lab ID: 1657252)
  - Manganese
  - Lead
- DUP (Lab ID: 1657254)
  - Manganese
  - Lead
- LCS (Lab ID: 1657253)
  - Manganese
  - Lead
- MS (Lab ID: 1657255)
  - Manganese
  - Lead
- MW-10-1023 (Lab ID: 30630241003)
  - Manganese
  - Lead
- MW-12-1023 (Lab ID: 30630241004)
  - Manganese
  - Lead
- MW-13-1023 (Lab ID: 30630241005)
  - Manganese
  - Lead
- MW-13-MS-1023 (Lab ID: 30630241006)
  - Manganese
  - Lead
- MW-13-MSD-1023 (Lab ID: 30630241007)
  - Manganese
  - Lead
- MW-14-1023 (Lab ID: 30630241008)
  - Manganese
  - Lead
- MW-15-1023 (Lab ID: 30630241009)
  - Manganese
  - Lead
- MW-4-1023 (Lab ID: 30630241001)
  - Manganese
  - Lead
- MW-7-1023 (Lab ID: 30630241002)
  - Manganese
  - Lead

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **EPA 6010C**
Description: 6010 MET ICP
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

Analyte Comments:

QC Batch: 324512

2c: The post digestion spike for sample 70274286001 (PDS 1657396) did not meet acceptance criteria for Silver, Calcium, and Sodium.

- BLANK (Lab ID: 1657256)
  - Manganese
  - Lead
- DUP (Lab ID: 1657380)
  - Manganese
  - Lead
- Field Duplicate-1023 (Lab ID: 30630241011)
  - Manganese
  - Lead
- LCS (Lab ID: 1657257)
  - Manganese
  - Lead
- MS (Lab ID: 1657381)
  - Manganese
  - Lead
- MW-16-1023 (Lab ID: 30630241010)
  - Manganese
  - Lead

3c: The serial dilution for sample 70274286001 (SD 1657397) did not meet acceptance criteria for Boron, Calcium, Copper, Iron, Potassium, Magnesium, Manganese, Sodium, Nickel, and Zinc.

- BLANK (Lab ID: 1657256)
  - Manganese
  - Lead
- DUP (Lab ID: 1657380)
  - Manganese
  - Lead
- Field Duplicate-1023 (Lab ID: 30630241011)
  - Manganese
  - Lead
- LCS (Lab ID: 1657257)
  - Manganese
  - Lead
- MS (Lab ID: 1657381)
  - Manganese
  - Lead
- MW-16-1023 (Lab ID: 30630241010)
  - Manganese
  - Lead

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

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

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

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

QC Batch: 622659

B: Analyte was detected in the associated method blank.
- BLANK for HBN 622659 [OEXT/510 (Lab ID: 3035218)
  - Naphthalene

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 622659

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
- LCS (Lab ID: 3035219)
  - Dibenz(a,h)anthracene
  - Naphthalene

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

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **EPA 8270D by SIM**
Description: 8270D PAH SIM Reduced Volume
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

QC Batch: 622659

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30630241005,30630653003

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

- MS (Lab ID: 3035220)
  - 2-Methylnaphthalene
  - Dibenz(a,h)anthracene
  - Naphthalene
- MS (Lab ID: 3035222)
  - Dibenz(a,h)anthracene
- MSD (Lab ID: 3035223)
  - Dibenz(a,h)anthracene

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

- MS (Lab ID: 3035220)
  - Acenaphthene
- MSD (Lab ID: 3035221)
  - 2-Methylnaphthalene
  - Acenaphthene
  - Acenaphthylene
  - Fluorene
  - Naphthalene
  - Phenanthrene

R1: RPD value was outside control limits.

- MSD (Lab ID: 3035223)
  - Anthracene
  - Benzo(a)anthracene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(g,h,i)perylene
  - Benzo(k)fluoranthene
  - Chrysene
  - Dibenz(a,h)anthracene
  - Fluoranthene
  - Fluorene
  - Indeno(1,2,3-cd)pyrene
  - Naphthalene
  - Phenanthrene
  - Pyrene

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **EPA 8260C**
Description: 8260C MSV
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for EPA 8260C by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 623510

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30630241005

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

- MS (Lab ID: 3039465)
  - Ethylbenzene

Additional Comments:

Pace Analytical Services, LLC
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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **SM 2320B-2011**
Description: 2320B Alkalinity
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for SM 2320B-2011 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **SM 3500-FeB-2011**
Description: Iron, Ferrous
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for SM 3500-FeB-2011 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

H1: Analysis conducted outside the EPA method holding time.
- MW-10-1023 (Lab ID: 30630241003)
- MW-12-1023 (Lab ID: 30630241004)
- MW-13-1023 (Lab ID: 30630241005)
- MW-13-MS-1023 (Lab ID: 30630241006)
- MW-13-MSD-1023 (Lab ID: 30630241007)
- MW-14-1023 (Lab ID: 30630241008)
- MW-15-1023 (Lab ID: 30630241009)
- MW-16-1023 (Lab ID: 30630241010)
- MW-4-1023 (Lab ID: 30630241001)
- MW-7-1023 (Lab ID: 30630241002)

H3: Sample was received or analysis requested beyond the recognized method holding time.
- Field Duplicate-1023 (Lab ID: 30630241011)

H6: Analysis initiated outside of the 15 minute EPA required holding time.
- Field Duplicate-1023 (Lab ID: 30630241011)
- MW-10-1023 (Lab ID: 30630241003)
- MW-12-1023 (Lab ID: 30630241004)
- MW-13-1023 (Lab ID: 30630241005)
- MW-13-MS-1023 (Lab ID: 30630241006)
- MW-13-MSD-1023 (Lab ID: 30630241007)
- MW-14-1023 (Lab ID: 30630241008)
- MW-15-1023 (Lab ID: 30630241009)
- MW-16-1023 (Lab ID: 30630241010)
- MW-4-1023 (Lab ID: 30630241001)
- MW-7-1023 (Lab ID: 30630241002)

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **SM 4500-S2-F-2011**
Description: 4500-S2-F Sulfide, Iodometric
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for SM 4500-S2-F-2011 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **300.0 Rev.2.1, 1993**
Description: 300.0 IC Anions 28 Days
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for 300.0 Rev.2.1, 1993 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **EPA 351.2**
Description: 351.2 Total Kjeldahl Nitrogen
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for EPA 351.2 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 351.2 with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 622131

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30627484002,30628489002

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

- MSD (Lab ID: 3032474)
  - Nitrogen, Kjeldahl, Total

QC Batch: 622133

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30628150001,30630241005

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

- MS (Lab ID: 3032487)
  - Nitrogen, Kjeldahl, Total

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **SM 4500-Cl-E-2011**
Description: 4500 Chloride
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for SM 4500-Cl-E-2011 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 622139

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30630241005

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

- MSD (Lab ID: 3032518)
  - Chloride

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **SM 4500NO3-F-2016**
Description: SM4500NO3-F, NO3-NO2
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for SM 4500NO3-F-2016 by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

Additional Comments:

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PROJECT NARRATIVE

Project: National Grid-Johnstown, NY
Pace Project No.: 30630241

Method: **EPA 9012B**
Description: 9012B Cyanide, Total
Client: Groundwater & Environmental Services, Inc. (Syracuse)
Date: October 31, 2023

General Information:
11 samples were analyzed for EPA 9012B by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 9012B with any exceptions noted below.

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

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

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

QC Batch: 623160

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30630241005,30630653003

M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

- MSD (Lab ID: 3037447)
  - Cyanide

Additional Comments:

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