



April 4, 2024

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

Re: Third Post-Remediation Groundwater Sampling Report – November 2023  
NYSEG Newark Former MGP Site  
Corner of Main Street and West Shore Boulevard  
Village of Newark, Wayne County, New York  
NYSDEC Site No. 859021

Dear Mr. Squire:

This report presents the findings of the third (3<sup>rd</sup>) post-remediation groundwater sampling event completed at the New York State Electric & Gas Corporation (NYSEG) Newark Former Manufactured Gas Plant (MGP) site [New State Department of Environmental Conservation (NYSDEC) Site No. 859021], located at the corner of Main Street and West Shore Boulevard in the Village of Newark, Wayne County, New York (referred to herein as the “Site”). This groundwater sampling event was completed by NEU-VELLE, LLC (NEU-VELLE) personnel in coordination with NYSEG, pending the adoption of a Site Management Plan (SMP) for the Site.

## **SCOPE OF WORK**

### **Synoptic Water Levels**

On November 2<sup>nd</sup>, 2023, groundwater levels were collected from six (6) of the seven (7) existing monitoring wells on and around the Site; monitoring well MW-10-03 was inaccessible during the sampling event as the property owner did not provide access to the building courtyard area. The locations of the monitoring wells are depicted on the Site Plan provided as **Figure 1**. Each well was also gauged for the presence of non-aqueous phase liquid (NAPL) using an oil/water interface probe. NAPL was not detected in any of the wells. The Site-wide round of groundwater level measurements is summarized in **Table 1** and inferred groundwater elevation contours are presented on **Figure 2**.

### **Groundwater Sampling**

From November 2<sup>nd</sup> through November 4<sup>th</sup>, 2023, groundwater samples were collected from six (6) of the seven (7) existing monitoring wells on and around the Site. As mentioned above, MW-10-03 was inaccessible during sampling. Groundwater samples were collected using low-flow methods.

Prior to initiating low-flow purging, field personnel donned new nitrile gloves, and care was taken to avoid introducing contaminants into the groundwater monitoring wells. Low-flow purging was conducted using a decontaminated, stainless steel bladder pump equipped with a polyethylene bladder and polyethylene tubing. A new, clean bladder and new, clean tubing were used at each groundwater monitoring well. During purging, water-level measurements, temperature, dissolved

oxygen (DO), oxidation reduction potential (ORP), pH, turbidity, and specific conductance (purge parameters) were measured and recorded using calibrated field monitoring equipment.

The well information, sample information, monitoring parameters, and field observations were recorded on a groundwater sample log completed at each well. The groundwater sample logs are provided as **Attachment 1**.

### **Collection of Laboratory Samples**

New nitrile gloves were donned by field personnel prior to the collection of each groundwater sample. The laboratory samples were collected in laboratory-supplied sample containers. Samples were placed in a cooler, pre-chilled with ice, and submitted under standard chain of custody protocols to Paradigm Environmental Services, Inc. (Paradigm) of Rochester, New York. The groundwater samples were analyzed for the following:

- volatile organic compounds (VOCs), BTEX (benzene, toluene, ethylbenzene, and xylene) only, in accordance with USEPA Method 8260C;
- semi-volatile organic compounds (SVOCs), polycyclic aromatic hydrocarbons (PAHs) only, in accordance with USEPA Method 8270D; and
- total cyanide in accordance with USEPA Method 335.4.

Copies of the chain of custody forms are included in **Attachment 2**. Quality Assurance/Quality Control (QA/QC) samples, including one (1) equipment blank sample, one (1) field duplicate sample (collected at MW-10-01), one (1) trip blank, and matrix spike/matrix spike duplicate (MS/MSD) samples were collected.

### **Reporting of Results**

Copies of the laboratory analytical reports are presented in **Attachment 2**, and the analytical results are summarized in **Table 2** of this report. **Table 2** also summarizes analytical data for the field duplicate QA/QC sample collected during this sampling event.

### **Waste Disposal**

Purged groundwater and decontamination water were containerized in a 55-gallon, polyethylene drum that was labeled and staged at the Site. This wastewater will then be properly disposed, with disposal documentation submitted to the NYSDEC under separate cover.

## **RESULTS**

### **Analytical Results**

The groundwater sample analytical results were compared to the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1, Class GA, standards, criteria, and guidance values (SCGs).

The analytical results for groundwater samples are summarized in **Table 2** and **Figure 3**, as follows:

- no BTEX compounds were reported in the groundwater samples collected during this sampling event;
- several PAHs were detected in the groundwater samples collected from monitoring wells MW-10-04, MW-10-01, MW-3A, MW-11-05, MW-1A, and MW-22-01, although many were estimated concentrations below the reporting limit (“J” qualifiers).
  - The MW-10-04 sample detected twelve (12) PAHs: anthracene (0.06 J micrograms per liter [µg/L] or parts per billion [ppb]), benzo(g,h,i)perylene (2.2 µg/L), dibenz(a,h)anthracene (0.30 µg/L), fluoranthene (1.3 µg/L), phenanthrene (0.25 µg/L), and pyrene (1.1 µg/L) were detected at concentrations below their respective TOGS 1.1.1, Class GA SCGs, and benzo(a)anthracene (0.48 µg/L), benzo(a)pyrene (1.3 µg/L), benzo(b)fluoranthene (2.5 µg/L), benzo(k)fluoranthene (0.75 µg/L), chrysene (1.1 µg/L), and indeno(1,2,3-cd)pyrene (2.2 µg/L) were detected at concentrations above their respective TOGS 1.1.1, Class GA SCGs. Note, the concentration for anthracene was an estimated value below the laboratory reporting limit.
  - The MW-10-01 sample detected nine (9) PAHs: benzo(g,h,i)perylene (0.07 J µg/L), fluoranthene (0.06 J µg/L), phenanthrene (0.02 J µg/L), and pyrene (0.05 J µg/L) were detected at concentrations below their respective TOGS 1.1.1, Class GA SCGs, and benzo(a)anthracene (0.04 J µg/L), benzo(a)pyrene (0.05 J µg/L), benzo(b)fluoranthene (0.07 J µg/L), chrysene (0.04 J µg/L), and indeno(1,2,3-cd)pyrene (0.07 J µg/L) were detected at concentrations above their respective TOGS 1.1.1, Class GA SCGs. Note, each of these nine (9) PAHs were estimated values below the laboratory reporting limits.
  - The MW-3A sample detected one (1) PAH, benzo(b)fluoranthene (0.02 J µg/L), below the reporting limit and above its TOGS 1.1.1, Class GA SCG (0.002 µg/L).
  - The MW-11-05 sample detected one (1) PAH, anthracene (0.04 J µg/L), below the reporting limit and below its TOGS 1.1.1, Class GA SCG (50 µg/L).
  - The MW-1A sample detected eleven (11) PAHs: benzo(g,h,i)perylene (0.69 µg/L), dibenz(a,h)anthracene (0.09 J µg/L), fluoranthene (0.45 µg/L), phenanthrene (0.10 µg/L), and pyrene (0.37 µg/L) were detected at concentrations below their respective TOGS 1.1.1, Class GA SCGs, and benzo(a)anthracene (0.15 µg/L), benzo(a)pyrene (0.39 µg/L), benzo(b)fluoranthene (0.71 µg/L), benzo(k)fluoranthene (0.23 µg/L), chrysene (0.36 µg/L), and indeno(1,2,3-cd)pyrene (0.68 µg/L) were detected at concentrations above their respective TOGS 1.1.1, Class GA SCGs. Note, the concentration of dibenz(a,h)anthracene was an estimated value below the laboratory reporting limit.
  - The MW-22-01 sample detected five (5) PAHs: benzo(g,h,i)perylene (0.04 J µg/L) was detected at a concentration below its respective TOGS 1.1.1, Class GA SCG, and

benzo(a)pyrene (0.03 J µg/L), benzo(b)fluoranthene (0.05 J µg/L), indeno(1,2,3-cd)pyrene (0.04 J µg/L), and pyrene (0.05 J µg/L) were detected at concentrations above their respective TOGS 1.1.1, Class GA SCGs. Note, each of these five (5) PAHs were estimated values below the laboratory reporting limits.; and

- total cyanide was detected in one (1) groundwater sample collected from monitoring well MW-22-01 (0.011 milligrams per liter or mg/L), which is below the TOGS 1.1.1, Class GA SCG for total cyanide (0.2 mg/L).

The analytical results for the QA/QC samples are summarized as follows:

- no detections of BTEX, and similar PAHs and total cyanide concentrations were reported between the “parent sample” and the field duplicate sample collected at MW-10-01;
- no detections of BTEX, PAHs, or cyanide were reported in the “equipment blank” sample; and
- no detections of BTEX compounds were reported in the “trip blank” sample.

### **Groundwater Mapping**

A groundwater elevation contour map was prepared based upon the water levels measured on November 2, 2023, from six (6) of the seven (7) groundwater monitoring wells at the Site. This groundwater elevation contour map is provided as **Figure 2**, and the inferred groundwater flow direction is interpreted to be toward the center of the Site with a possible overall area flow to the northeast, which appears consistent with historic depictions groundwater flow at the Site (i.e., as depicted in the Remedial Investigation Report). Groundwater flow may still be influenced by a former stream (Military Brook) that had been filled in prior to the hotel construction, as depicted on **Figure 2**.

### **CONCLUSIONS**

This report presents the results of the third post-remediation groundwater sampling event completed at the NYSEG Newark Former MGP site (NYSDEC Site No. 859021).

No BTEX compounds were reported in the groundwater samples collected during this sampling event.

Low-level PAH detections were reported across the Site, including upgradient (hydraulically) of the former MGP Site in both the south (MW-10-04 and MW-1A) and west (MW-3A) directions. These concentrations are similar to the previous groundwater sampling event results and may represent historic and background concentrations for this urban area.

A low-level cyanide detection was reported in a monitoring well adjacent to the former MGP Site (MW-22-01). This detection was below the TOGS 1.1.1, Class GA SCG for total cyanide (0.2 mg/L).

NYSEG anticipates continuing the groundwater sampling at semi-annual frequency (spring and fall) for the first three (3) years (2022 through 2024) following remediation, pending the final approval



of the SMP. Results from these semi-annual sampling events will be reviewed with the NYSDEC to evaluate the scope of future sampling. The next groundwater sampling event will be in spring 2024.

Please feel free to contact me at (585) 478-3167 or [lreid@neu-velle.com](mailto:lreid@neu-velle.com) with any questions you may have regarding this letter report, or contact Mr. Jeremy Wolf, NYSEG's Project Manager for the Site, at (585) 500-8392.

Sincerely,

A handwritten signature in black ink that reads "Logan Reid". The signature is written in a cursive, flowing style.

Logan Reid  
NEU-VELLE LLC

cc: Jeremy Wolf – NYSEG

**Attachments:**

Table 1 – Monitoring Well Reference Data and Groundwater Measurements

Table 2 – Analytical Detections in Groundwater

Figure 1 – Site Plan

Figure 2 – Groundwater Elevation Contours

Figure 3 – Analytical Detections in Groundwater

Attachment 1 – Groundwater Sample Logs

Attachment 2 – Groundwater Laboratory Reports and Chain of Custody Forms

**Tables**

**Table 1**  
**New York State Electric & Gas - Newark Former MGP Site, Newark, NY**  
**NYSDEC Site No. 859021**  
**Monitoring Well Reference Data and Groundwater Measurements**

Well ID	Top of PVC Riser (MP) Elevation (Feet NAVD88)	June 23-24, 2022		May 24-26, 2023		November 2, 2023	
		Depth to Water (Feet below MP)	Groundwater Elevation (Feet NAVD88)	Depth to Water (Feet below MP)	Groundwater Elevation (Feet NAVD88)	Depth to Water (Feet below MP)	Groundwater Elevation (Feet NAVD88)
MW-10-01	440.88	14.4	426.48	14.2	426.68	15.2	425.68
MW-22-01 (replacement for MW-10-02)	441.24	15.4	425.84	15.4	425.84	15.6	425.64
MW-10-03	441.49	15.0	426.49	15.2	426.29	NM	NM
MW-10-04	440.80	9.6	431.20	11.1	429.70	11.4	429.40
MW-11-05	439.95	14.1	425.85	13.9	426.05	14.5	425.45
MW-1A	441.10	11.0	430.10	12.6	428.50	12.6	428.50
MW-3A	441.31	12.1	429.21	12.0	429.31	13.4	427.91

**Notes:**

1. Top of PVC Riser Elevations obtained from Table 3 of Remedial Investigation Report (RIR) by ARCADIS, dated July 2012, except for MW-22-01 that was surveyed following the Remedial Action.
2. Depths to water measured by NEU-VELLE on date(s) indicated.
3. "Elevations given in feet Above Mean Sea Level (AMSL), 1988 North American Vertical Datum (NAVD)." per ARCADIS RIR.
4. MP = Measuring Point
4. NM = Not measured due to well being inaccessible

Table 2  
New York State Electric & Gas - Newark Former MGP Site, Newark, NY  
NYSDEC Site No. 859021  
Groundwater Sample Analytical Results

Sampling Location			MW10-04		MW10-04		MW10-04		MW10-01		MW10-01				MW10-01			
Sample ID			MW10-04/SB19		MW10/04-052523		MW10/04-110223		MW10/01-052423		MW10-01/SB11		Dupe-052423		MW10/01-110423		Dupe-110423	
Sample Date			6/23/2022		5/25/2023		11/2/2023		6/24/2022		5/24/2023				11/4/2023			
Laboratory Identification			222996-01		2329862-05		235187-01		223014-02		2329862-01		2329862-02		235187-06		235187-07	
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
BTEX																		
Benzene	1	µg/L	ND	1.00	ND	0.50	ND	1.00	ND	1.00	ND	0.50	ND	0.50	ND	1.00	ND	1.00
Toluene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.50	ND	2.00	ND	2.00
Ethylbenzene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.50	ND	2.00	ND	2.00
m,p-Xylene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.50	ND	2.00	ND	2.00
o-Xylene		µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.50	ND	2.00	ND	2.00
PAHs																		
2-Methylnaphthalene	NS	µg/L	ND	5.0	ND	0.1	NT		ND	5.0	ND	0.1	ND	0.1	NT		NT	
2-Chloronapthalene	10	µg/L	NT		ND	0.2	NT		NT		ND	0.2	ND	0.2	NT		NT	
Acenaphthene	20	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	0.1	ND	0.1
Acenaphthylene	NS	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	0.1	ND	0.1
Anthracene	50	µg/L	ND	5.0	0.09 J	0.1	0.06 J	0.1	ND	5.0	ND	0.1	ND	0.1	ND	0.1	ND	0.1
Benz(a)anthracene	0.002	µg/L	ND	5.0	0.58	0.1	0.48	0.1	ND	5.0	0.06 J	0.1	0.04 J	0.1	0.04 J	0.1	0.04 J	0.1
Benzo(a)pyrene	ND	µg/L	ND	10.0	1.8	0.1	1.3	0.1	ND	10.0	0.1	0.1	0.08 J	0.1	0.05 J	0.1	0.05 J	0.1
Benzo(b)fluoranthene	0.002	µg/L	ND	10.0	3.7	0.1	2.5	0.1	ND	10.0	0.15 J	0.1	0.14	0.1	0.07 J	0.1	0.08 J	0.1
Benzo(g,h,i)perylene	NS	µg/L	ND	10.0	2.6	0.1	2.2	0.1	ND	10.0	0.11	0.1	0.10	0.1	0.07 J	0.1	0.07 J	0.1
Benzo(k)fluoranthene	0.002	µg/L	ND	10.0	0.85	0.1	0.75	0.1	ND	10.0	0.05 J	0.1	0.04 J	0.1	ND	0.1	ND	0.1
Dibenz(a,h)anthracene	NS	µg/L	ND	5.0	0.36	0.1	0.3	0.1	ND	5.0	ND	0.1	ND	0.1	ND	0.1	ND	0.1
Dibenzofuran	NS	µg/L	ND	5.0	ND	0.1	NT		ND	5.0	ND	0.1	ND	0.1	NT		NT	
Chrysene	0.002	µg/L	ND	5.0	1.7	0.1	1.1	0.1	ND	5.0	0.08 J	0.1	ND	0.1	0.04 J	0.1	ND	0.1
Fluoranthene	50	µg/L	ND	5.0	2.3	0.1	1.3	0.1	ND	5.0	0.12	0.1	0.11	0.1	0.06 J	0.1	0.06 J	0.1
Fluorene	50	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	0.1	ND	0.1
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	5.0	2.4	0.1	2.2	0.1	ND	5.0	0.1	0.1	0.10 J	0.1	0.07 J	0.1	0.07 J	0.1
Naphthalene	10	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	0.1	ND	0.1
Phenanthrene	50	µg/L	ND	5.0	0.44	0.1	0.25	0.1	ND	5.0	0.07 J	0.1	ND	0.1	0.02 J	0.1	0.1	0.1
Pyrene	50	µg/L	ND	5.0	1.9	0.1	1.1	0.1	ND	5.0	0.1	0.1	0.09 J	0.1	0.05 J	0.1	0.05 J	0.1
Cyanide																		
Cyanide, Total	0.2	mg/L	ND S	0.010	ND	0.005	ND S	0.010	ND S	0.010	ND	0.005	0.002 J	0.005	ND SN	0.010	ND S	0.010

- Notes:
- 1. µg/L = micrograms per liter
  - 2. mg/L = milligrams per liter
  - 3. NT = not tested, NS = No standard, and ND = non-detect
  - 4. Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) Ambient Water Quality Standards and Groundwater Effluent Limitations, June 1998.
  - 5. S is a laboratory data qualifier indicating "Laboratory Control Sample (LCS) Spike below accepted limits"
  - 6. N is a laboratory data qualifier indicating "Matrix Spike below accepted limits"
  - 7. J is a laboratory data qualifier indicating "Result estimated between the quantitation limit and half the quantitation limit."
  - 8. **Bold Sample result** = compound was detected.
  - 9. **Gray shading indicates the sample result is above the TOGS 1.1.1 Standards, Criteria and Guidance Value.**

Table 2  
New York State Electric & Gas - Newark Former MGP Site, Newark, NY  
NYSDEC Site No. 859021  
Groundwater Sample Analytical Results

Sampling Location			MW-3A		MW-3A		MW-3A		MW11-05		MW11-05		MW11-05		MW-1A				MW-1A		MW-1A	
Sample ID			MW-3A		MW3A-052423		MW3A-110323		MW11-05/SB47		MW11/05-052623		MW11/05-110323		MW-1A		MW1A-FIELDDUPLICATE		MW1A-052623		MW1A-110223	
Sample Date			6/24/2022		5/24/2023		11/3/2023		6/24/2022		5/25/2023		11/3/2023		6/23/2022				5/25/2023		11/2/2023	
Laboratory Identification			223014-03		2329862-03		235187-04		223014-04		2329862-04		235187-05		222996-02		222996-03		2329862-07		235187-02	
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
BTEX																						
Benzene	1	µg/L	ND	1.00	ND	0.50	ND	1.00	ND	1.00	ND	0.50	ND	1.00	ND	1.00	ND	1.00	ND	0.50	ND	1.00
Toluene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.00	ND	2.50	ND	2.00
Ethylbenzene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.00	ND	2.50	ND	2.00
m,p-Xylene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.00	ND	2.50	ND	2.00
o-Xylene		µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.00	ND	2.50	ND	2.00
PAHs																						
2-Methylnaphthalene	NS	µg/L	ND	5.0	ND	0.1	NT		ND	5.0	ND	0.1	NT		ND	5.0	ND	5.0	ND	0.1	NT	
2-Chloronaphthalene	10	µg/L	NT		ND	0.2	NT		NT		ND	0.2	NT		NT		NT		ND	0.2	NT	
Acenaphthene	20	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	ND	0.1	ND	0.1
Acenaphthylene	NS	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	ND	0.1	ND	0.1
Anthracene	50	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	0.04 J	0.1	ND	5.0	ND	5.0	ND	0.1	ND	0.1
Benz(a)anthracene	0.002	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	0.06 J	0.1	0.15	0.1
Benzo(a)pyrene	ND	µg/L	ND	10.0	ND	0.1	ND	0.1	ND	10.0	ND	0.1	ND	0.1	ND	10.0	ND	10.0	0.14	0.1	0.39	0.1
Benzo(b)fluoranthene	0.002	µg/L	ND	10.0	ND	0.1	0.02 J	0.1	ND	10.0	ND	0.1	ND	0.1	ND	10.0	ND	10.0	0.25	0.1	0.71	0.1
Benzo(g,h,i)perylene	NS	µg/L	ND	10.0	ND	0.1	ND	0.1	ND	10.0	ND	0.1	ND	0.1	ND	10.0	ND	10.0	0.21	0.1	0.69	0.1
Benzo(k)fluoranthene	0.002	µg/L	ND	10.0	ND	0.1	ND	0.1	ND	10.0	ND	0.1	ND	0.1	ND	10.0	ND	10.0	0.06 J	0.1	0.23	0.1
Dibenz(a,h)anthracene	NS	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	0.03 J	0.1	0.09 J	0.1
Dibenzofuran	NS	µg/L	ND	5.0	ND	0.1	NT		ND	5.0	ND	0.1	NT		ND	5.0	ND	5.0	ND	0.1	NT	
Chrysene	0.002	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	0.13	0.1	0.36	0.1
Fluoranthene	50	µg/L	ND	5.0	0.02 J	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	0.20	0.1	0.45	0.1
Fluorene	50	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	ND	0.1	ND	0.1
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	0.18	0.1	0.68	0.1
Naphthalene	10	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	ND	0.1	ND	0.1
Phenanthrene	50	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	0.03	0.1	ND	0.1	ND	5.0	ND	5.0	ND	0.1	0.1	0.1
Pyrene	50	µg/L	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	5.0	0.17	0.1	0.37	0.1
Cyanide																						
Cyanide, Total	0.2	mg/L	ND S	0.010	0.004 J	0.005	ND S	0.010	ND S	0.010	0.008	0.005	ND S	0.010	ND SN	0.010	ND S	0.010	0.002 J	0.005	ND S	0.010

- Notes:
- 1. µg/L = micrograms per liter
  - 2. mg/L = milligrams per liter
  - 3. NT = not tested, NS = No standard, and ND = non-detect
  - 4. Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) Ambient Water Quality Standards and Groundwater Effluent Limitations, June 1998.
  - 5. S is a laboratory data qualifier indicating "Laboratory Control Sample (LCS) Spike below accepted limits"
  - 6. N is a laboratory data qualifier indicating "Matrix Spike below accepted limits"
  - 7. J is a laboratory data qualifier indicating "Result estimated between the quantitation limit and half the quantitation limit."
  - 8. **Bold Sample result** = compound was detected.
  - 9. **Gray shading indicates the sample result is above the TOGS 1.1.1 Standards, Criteria and Guidance Value.**

Table 2  
New York State Electric & Gas - Newark Former MGP Site, Newark, NY  
NYSDEC Site No. 859021  
Groundwater Sample Analytical Results

Sampling Location			MW10-03		MW 10-03		MW-22-01 <sup>(8)</sup>		MW-22-01		MW-22-01		Equipment Blank		Equipment Blank		Equipment Blank	
Sample ID			MW10-03/SB16		MW10/03-052523		MW-22-01		MW22/01-052623		MW22/01-110223		Equipment Blank		Equipment Blank-052623		EQ-110423	
Sample Date			6/24/2022		5/25/2023		7/8/2022		5/26/2023		11/22/2023		6/24/2022		5/26/2023		11/4/2023	
Laboratory Identification			223014-05		2329862-06		223239-01		2329862-08		235187-03		223014-01		2329862-09		235187-08	
Analyte	TOGS 1.1.1 Class GA SCG	Units	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit	Result	Reporting Limit
BTEX																		
Benzene	1	µg/L	ND	1.00	ND	0.50	ND	1.00	ND	0.50	ND	1.00	ND	1.00	ND	0.50	ND	1.00
Toluene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.00
Ethylbenzene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.00
m,p-Xylene	5	µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.00
o-Xylene		µg/L	ND	2.00	ND	2.50	ND	2.00	ND	2.50	ND	2.00	ND	2.00	ND	2.50	ND	2.00
PAHs																		
2-Methylnaphthalene	NS	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	NT		ND	5.0	0.03 J	0.1	NT	
2-Chloronaphthalene	10	µg/L	NT		ND	0.2	NT		ND	0.2	NT		ND	5.0	ND	0.2	NT	
Acenaphthene	20	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1
Acenaphthylene	NS	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1
Anthracene	50	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1
Benz(a)anthracene	0.002	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	0.03 J	0.1	ND	10.0	ND	0.1	ND	0.1
Benzo(a)pyrene	ND	µg/L	ND	10.0	ND	0.1	ND	10.0	ND	0.1	ND	0.1	ND	10.0	ND	0.1	ND	0.1
Benzo(b)fluoranthene	0.002	µg/L	ND	10.0	ND	0.1	ND	10.0	0.01 J	0.1	0.05 J	0.1	ND	10.0	0.01 J	0.1	ND	0.1
Benzo(g,h,i)perylene	NS	µg/L	ND	10.0	ND	0.1	ND	10.0	ND	0.1	0.04 J	0.1	ND	10.0	ND	0.1	ND	0.1
Benzo(k)fluoranthene	0.002	µg/L	ND	10.0	ND	0.1	ND	10.0	0.01 J	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1
Dibenz(a,h)anthracene	NS	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1
Dibenzofuran	NS	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	NT		ND	5.0	ND	0.1	NT	
Chrysene	0.002	µg/L	ND	5.0	ND	0.1	ND	5.0	0.04 J	0.1	ND	0.1	ND	5.0	0.03 J	0.1	ND	0.1
Fluoranthene	50	µg/L	ND	5.0	ND	0.1	ND	5.0	0.04 J	0.1	ND	0.1	ND	5.0	0.02 J	0.1	ND	0.1
Fluorene	50	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1
Indeno(1,2,3-cd)pyrene	0.002	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	0.04 J	0.1	ND	10.0	ND	0.1	ND	0.1
Naphthalene	10	µg/L	ND	5.0	ND	0.1	ND	5.0	ND	0.1	ND	0.1	ND	5.0	0.07 J	0.1	ND	0.1
Phenanthrene	50	µg/L	ND	5.0	ND	0.1	ND	5.0	0.03 J	0.1	ND	0.1	ND	5.0	ND	0.1	ND	0.1
Pyrene	50	µg/L	ND	5.0	ND	0.1	ND	5.0	0.07 J	0.1	0.05 J	0.1	ND	5.0	ND	0.1	ND	0.1
Cyanide																		
Cyanide, Total	0.2	mg/L	ND S	0.010	ND	0.005	0.034	0.010	0.026	0.005	0.011 S	0.010	ND S	0.010	0.003 J	0.005	ND S	0.010

Notes:

1. µg/L = micrograms per liter

2. mg/L = milligrams per liter

3. NT = not tested, NS = No standard, and ND = non-detect

4. Division of Water Technical and Operational Guidance Series (TOGS) (1.1.1) Ambient Water Quality Standards and Groundwater Effluent Limitations, June 1998.

5. S is a laboratory data qualifier indicating "Laboratory Control Sample (LCS) Spike below accepted limits"

6. J is a laboratory data qualifier indicating "Result estimated between the quantitation limit and half the quantitation limit."

7. **Bold Sample result** = compound was detected.

8. **Gray shading indicates the sample result is above the TOGS 1.1.1 Standards, Criteria and Guidance Value.**

## Figures

FIGURE 1



LEGEND

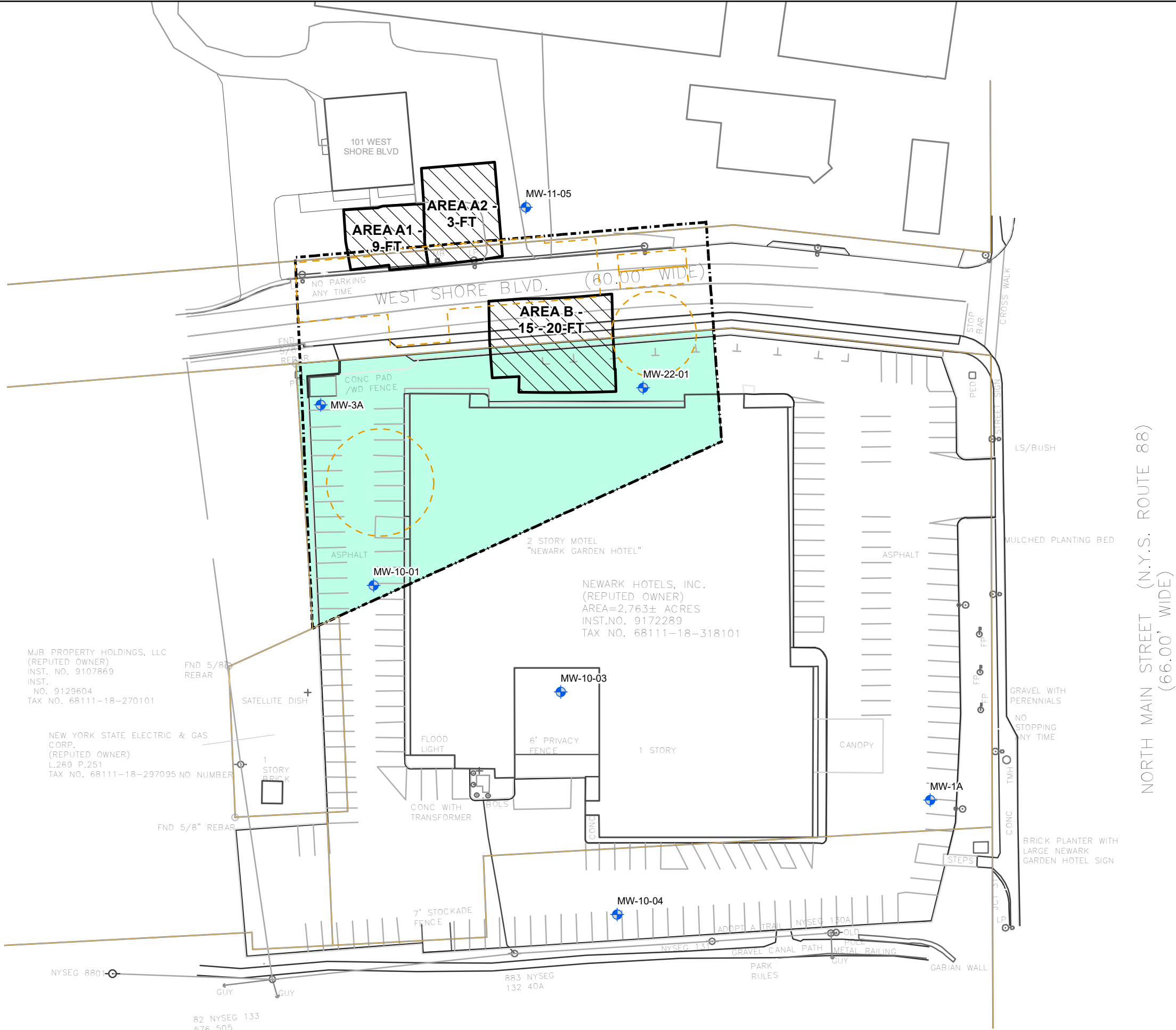
- MONITORING WELL (ACTIVE)
- PROPERTY LINES/ROW
- APPROXIMATE FORMER MGP SITE
- HISTORIC MGP INFRASTRUCTURE
- SOIL REMOVAL AREA (WITH DEPTHS)
- INSTITUTIONAL CONTROL BOUNDARY

NEW YORK STATE ELECTRIC & GAS CORPORATION  
NEWARK FORMER MGP SITE  
NYSDEC SITE NO. 8-59-021  
NEWARK, NEW YORK

SITE PLAN AND INSTITUTIONAL CONTROL BOUNDARIES



APRIL 20224





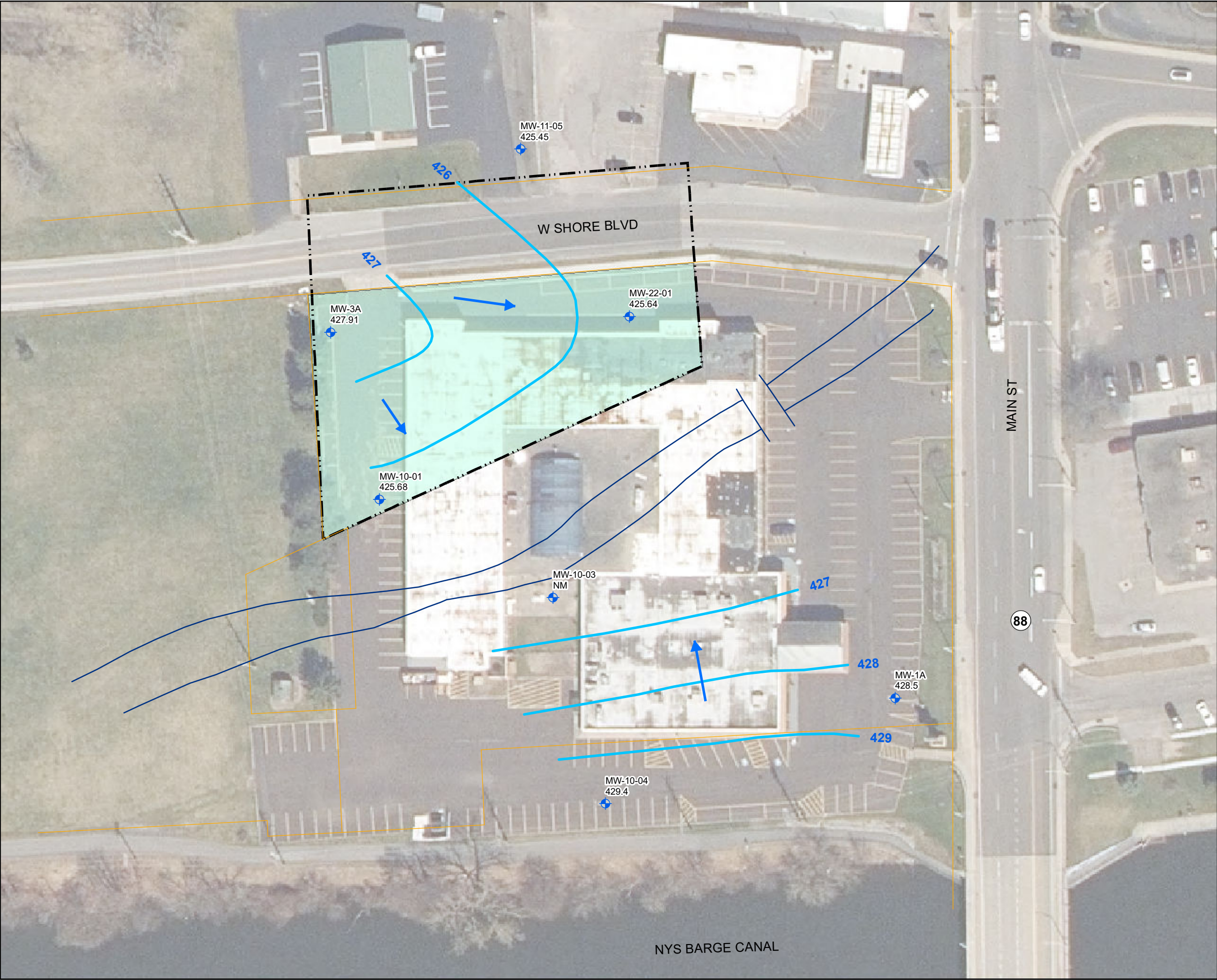


FIGURE 2



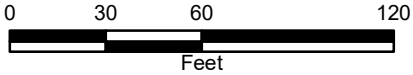
LEGEND

- MONITORING WELL (SAMPLED)
- FORMER LOCATION OF MILITARY BROOK
- PROPERTY LINES/ROW
- APPROXIMATE FORMER MGP BOUNDARY
- INSTITUTIONAL CONTROL BOUNDARY

NOTES:  
1. AERIAL IMAGERY PROVIDED BY NYS GIS CLEARINGHOUSE, IMAGERY DATE SPRING 2023.  
2. GROUNDWATER ELEVATIONS MEASURED ON NOVEMBER 2, 2023.

NEW YORK STATE ELECTRIC & GAS CORPORATION  
NEWARK FORMER MGP SITE  
NYSDEC SITE NO. 8-59-021  
NEWARK, NEW YORK

GROUNDWATER ELEVATION CONTOURS  
NOVEMBER 2023



APRIL 2024





FIGURE 3



LEGEND

- MONITORING WELL (SAMPLED)
- FORMER LOCATION OF MILITARY BROOK
- PROPERTY LINES/ROW
- APPROXIMATE FORMER MGP BOUNDARY
- INSTITUTIONAL CONTROL BOUNDARY

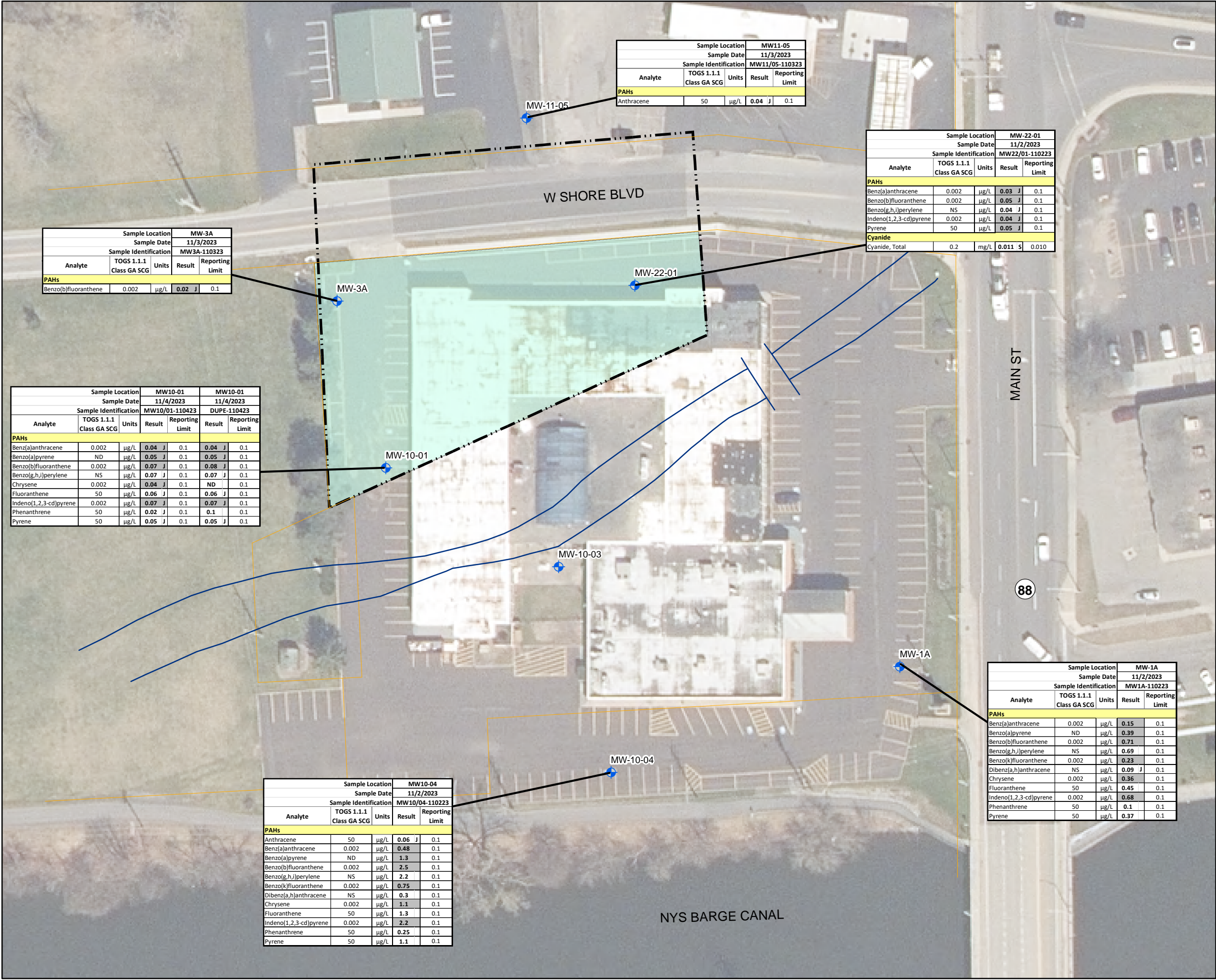
NOTES:  
1. AERIAL IMAGERY PROVIDED BY NYS GIS CLEARINGHOUSE, IMAGERY DATE SPRING 2023.

NEW YORK STATE ELECTRIC & GAS CORPORATION  
NEWARK FORMER MGP SITE  
NYSDEC SITE NO. 8-59-021  
NEWARK, NEW YORK

ANALYTICAL DETECTIONS  
IN GROUNDWATER  
NOVEMBER 2023



APRIL 2024



**Attachment 1**

**Groundwater Sampling Logs**













NV Project No.

Project Name: RG + E Groundwater Newark  
 Site Location: 125 N. Main St. Newark NJ 14513  
 Client: \_\_\_\_\_  
 Project Manager: \_\_\_\_\_

Date: 11.3.2023  
Coordinates: \_\_\_\_\_  
Agency Site ID: \_\_\_\_\_  
Completed By: NJ  
Other NEU-VELLE Rep(s) On-Site: \_\_\_\_\_

## EQUIPMENT

TYPE OF EQUIPMENT	MAKE	MODEL	ID #	NOTES
Water Parameter Meter	Horiba	Water Quality Monitor U-5000	Pine A02010	Fantastarc
Water level Meter	Horan Instruments	chipper-T	Pine 24820	
Compressor Controller	QED MicroPurge	MPS0	Pine 81032	
Bladder Pump	QED MicroPurge			

## WELL INFORMATION

Riser Headspace: \_\_\_\_\_ ppmv  
 Measurements Taken From: ☐ Top of Riser [Height above surface = \_\_\_\_\_] ☒ Top of Casing [Height above surface = 0] ☐ Other (Specify) \_\_\_\_\_  
 Measured Depth to Bottom: 19.6'  
 Depth to Water: 14.5'  
 Length of Water Column: 5.1'  
 NAPL Present? ☐ Yes ☒ No Density: ☐ Light ☐ Dense Thickness: \_\_\_\_\_

**PURGE START**

Time: 12:30 Color: Bran cloudy Odor: None Sheen: None Free Product: None

[illegible]

**PURGE END**

Time: 14:10 Color: Brown Cloudy Odor: None Sheen: None Free Product: None

## SAMPLING

Time: 14:15 Color: " Odor: " Sheen: " Free Product: "

## LABORATORY CONTAINERS

[illegible]

COMMENTS/NOTES (Weather, Limiting Factors/Conditions, etc.):	

Turbidity persisted. Sampled once all other values stable.





**Attachment 2**

**Groundwater Laboratory Reports and Chain of Custody Forms**





**PARADIGM**  
ENVIRONMENTAL SERVICES, INC.

*Analytical Report For*

**Neu-Velle**

*For Lab Project ID*

**235187**

*Referencing*

**Newark Frmr MGP**

*Prepared*

**Wednesday, November 15, 2023**

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below:

***Portions of the enclosed report reflects analysis that has been subcontracted and are presented in their original form.***

A handwritten signature in cursive script that reads "Emily Farmer". The signature is written in dark ink and is positioned above a horizontal line.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*Report Prepared Wednesday, November 15, 2023*

Page 1 of 50

**Lab Project ID: 235187**
**Client:** Neu-Velle
**Project Reference:** Newark Frmr MGP

**Sample Identifier:** MW10/04-110223

**Lab Sample ID:** 235187-01

**Date Sampled:** 11/2/2023 12:25

**Matrix:** Groundwater

**Date Received** 11/7/2023

### **Volatile Organics**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Benzene	< 1.00	ug/L		11/10/2023 16:38
Ethylbenzene	< 2.00	ug/L		11/10/2023 16:38
m,p-Xylene	< 2.00	ug/L		11/10/2023 16:38
o-Xylene	< 2.00	ug/L		11/10/2023 16:38
Toluene	< 2.00	ug/L		11/10/2023 16:38
<u><b>Surrogate</b></u>	<u><b>Percent Recovery</b></u>	<u><b>Limits</b></u>	<u><b>Outliers</b></u>	<u><b>Date Analyzed</b></u>
1,2-Dichloroethane-d4	<b>99.7</b>	79.7 - 118		11/10/2023 16:38
4-Bromofluorobenzene	<b>97.1</b>	80.1 - 112		11/10/2023 16:38
Pentafluorobenzene	<b>101</b>	88 - 115		11/10/2023 16:38
Toluene-D8	<b>104</b>	88.2 - 113		11/10/2023 16:38

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** z20962.D



Lab Project ID: 235187

Client: **Neu-Velle**

Project Reference: Newark Frmr MGP

Sample Identifier: MW1A-110223

Lab Sample ID: 235187-02

Date Sampled: 11/2/2023 13:30

Matrix: Groundwater

Date Received 11/7/2023

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Benzene	< 1.00	ug/L		11/10/2023 16:57
Ethylbenzene	< 2.00	ug/L		11/10/2023 16:57
m,p-Xylene	< 2.00	ug/L		11/10/2023 16:57
o-Xylene	< 2.00	ug/L		11/10/2023 16:57
Toluene	< 2.00	ug/L		11/10/2023 16:57

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>102</b>	79.7 - 118		11/10/2023 16:57
4-Bromofluorobenzene	<b>97.0</b>	80.1 - 112		11/10/2023 16:57
Pentafluorobenzene	<b>103</b>	88 - 115		11/10/2023 16:57
Toluene-D8	<b>103</b>	88.2 - 113		11/10/2023 16:57

Method Reference(s): EPA 8260C

EPA 5030C

Data File: z20963.D



Lab Project ID: 235187

Client: **Neu-Velle**

Project Reference: Newark Frmr MGP

Sample Identifier: MW22/01-110223

Lab Sample ID: 235187-03

Date Sampled: 11/2/2023 15:30

Matrix: Groundwater

Date Received 11/7/2023

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Benzene	< 1.00	ug/L		11/10/2023 17:16
Ethylbenzene	< 2.00	ug/L		11/10/2023 17:16
m,p-Xylene	< 2.00	ug/L		11/10/2023 17:16
o-Xylene	< 2.00	ug/L		11/10/2023 17:16
Toluene	< 2.00	ug/L		11/10/2023 17:16

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>96.5</b>	79.7 - 118		11/10/2023 17:16
4-Bromofluorobenzene	<b>93.4</b>	80.1 - 112		11/10/2023 17:16
Pentafluorobenzene	<b>96.0</b>	88 - 115		11/10/2023 17:16
Toluene-D8	<b>94.7</b>	88.2 - 113		11/10/2023 17:16

Method Reference(s): EPA 8260C

EPA 5030C

Data File: z20964.D



Lab Project ID: 235187

Client: Neu-Velle

Project Reference: Newark Frmr MGP

Sample Identifier: MW3A-110323

Lab Sample ID: 235187-04

Date Sampled: 11/3/2023 12:05

Matrix: Groundwater

Date Received 11/7/2023

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Benzene	< 1.00	ug/L		11/10/2023 17:36
Ethylbenzene	< 2.00	ug/L		11/10/2023 17:36
m,p-Xylene	< 2.00	ug/L		11/10/2023 17:36
o-Xylene	< 2.00	ug/L		11/10/2023 17:36
Toluene	< 2.00	ug/L		11/10/2023 17:36

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>104</b>	79.7 - 118		11/10/2023 17:36
4-Bromofluorobenzene	<b>97.5</b>	80.1 - 112		11/10/2023 17:36
Pentafluorobenzene	<b>100</b>	88 - 115		11/10/2023 17:36
Toluene-D8	<b>101</b>	88.2 - 113		11/10/2023 17:36

Method Reference(s): EPA 8260C

EPA 5030C

Data File: z20965.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Wednesday, November 15, 2023

Page 5 of 50

**Lab Project ID: 235187**
**Client:** Neu-Velle
**Project Reference:** Newark Frmr MGP

**Sample Identifier:** MW11/05-110323

**Lab Sample ID:** 235187-05

**Date Sampled:** 11/3/2023 14:15

**Matrix:** Groundwater

**Date Received** 11/7/2023

### **Volatile Organics**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Benzene	< 1.00	ug/L		11/10/2023 17:55
Ethylbenzene	< 2.00	ug/L		11/10/2023 17:55
m,p-Xylene	< 2.00	ug/L		11/10/2023 17:55
o-Xylene	< 2.00	ug/L		11/10/2023 17:55
Toluene	< 2.00	ug/L		11/10/2023 17:55
<u><b>Surrogate</b></u>	<u><b>Percent Recovery</b></u>	<u><b>Limits</b></u>	<u><b>Outliers</b></u>	<u><b>Date Analyzed</b></u>
1,2-Dichloroethane-d4	<b>97.7</b>	79.7 - 118		11/10/2023 17:55
4-Bromofluorobenzene	<b>95.1</b>	80.1 - 112		11/10/2023 17:55
Pentafluorobenzene	<b>99.9</b>	88 - 115		11/10/2023 17:55
Toluene-D8	<b>99.7</b>	88.2 - 113		11/10/2023 17:55

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** z20966.D





Lab Project ID: 235187

Client: **Neu-Velle**

Project Reference: Newark Frmr MGP

Sample Identifier: MW10/01-110423

Lab Sample ID: 235187-06

Date Sampled: 11/4/2023 11:35

Matrix: Groundwater

Date Received 11/7/2023

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Benzene	< 1.00	ug/L		11/10/2023 19:13
Ethylbenzene	< 2.00	ug/L		11/10/2023 19:13
m,p-Xylene	< 2.00	ug/L		11/10/2023 19:13
o-Xylene	< 2.00	ug/L		11/10/2023 19:13
Toluene	< 2.00	ug/L		11/10/2023 19:13

<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>105</b>	79.7 - 118		11/10/2023 19:13
4-Bromofluorobenzene	<b>94.1</b>	80.1 - 112		11/10/2023 19:13
Pentafluorobenzene	<b>102</b>	88 - 115		11/10/2023 19:13
Toluene-D8	<b>99.7</b>	88.2 - 113		11/10/2023 19:13

Method Reference(s): EPA 8260C

EPA 5030C

Data File: z20970.D



Lab Project ID: 235187

Client: **Neu-Velle**

Project Reference: Newark Frmr MGP

Sample Identifier: Dupe-110423

Lab Sample ID: 235187-07

Date Sampled: 11/4/2023

Matrix: Groundwater

Date Received 11/7/2023

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Benzene	< 1.00	ug/L		11/10/2023 18:14
Ethylbenzene	< 2.00	ug/L		11/10/2023 18:14
m,p-Xylene	< 2.00	ug/L		11/10/2023 18:14
o-Xylene	< 2.00	ug/L		11/10/2023 18:14
Toluene	< 2.00	ug/L		11/10/2023 18:14
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>105</b>	79.7 - 118		11/10/2023 18:14
4-Bromofluorobenzene	<b>94.5</b>	80.1 - 112		11/10/2023 18:14
Pentafluorobenzene	<b>101</b>	88 - 115		11/10/2023 18:14
Toluene-D8	<b>101</b>	88.2 - 113		11/10/2023 18:14

Method Reference(s): EPA 8260C

EPA 5030C

Data File: z20967.D



Lab Project ID: 235187

Client: **Neu-Velle**

Project Reference: Newark Frmr MGP

Sample Identifier: EQ-110423

Lab Sample ID: 235187-08

Date Sampled: 11/4/2023 12:00

Matrix: Water

Date Received 11/7/2023

**Volatile Organics**

<b>Analyte</b>	<b>Result</b>	<b>Units</b>	<b>Qualifier</b>	<b>Date Analyzed</b>
Benzene	< 1.00	ug/L		11/10/2023 18:34
Ethylbenzene	< 2.00	ug/L		11/10/2023 18:34
m,p-Xylene	< 2.00	ug/L		11/10/2023 18:34
o-Xylene	< 2.00	ug/L		11/10/2023 18:34
Toluene	< 2.00	ug/L		11/10/2023 18:34
<b>Surrogate</b>	<b>Percent Recovery</b>	<b>Limits</b>	<b>Outliers</b>	<b>Date Analyzed</b>
1,2-Dichloroethane-d4	<b>105</b>	79.7 - 118		11/10/2023 18:34
4-Bromofluorobenzene	<b>96.1</b>	80.1 - 112		11/10/2023 18:34
Pentafluorobenzene	<b>101</b>	88 - 115		11/10/2023 18:34
Toluene-D8	<b>101</b>	88.2 - 113		11/10/2023 18:34

Method Reference(s): EPA 8260C

EPA 5030C

Data File: z20968.D

**Lab Project ID: 235187**
**Client:** Neu-Velle
**Project Reference:** Newark Frmr MGP

**Sample Identifier:** Trip Blank T1166

**Lab Sample ID:** 235187-09

**Date Sampled:** 10/16/2023

**Matrix:** Water

**Date Received** 11/7/2023

### **Volatile Organics**

<u><b>Analyte</b></u>	<u><b>Result</b></u>	<u><b>Units</b></u>	<u><b>Qualifier</b></u>	<u><b>Date Analyzed</b></u>
Benzene	< 1.00	ug/L		11/10/2023 18:53
Ethylbenzene	< 2.00	ug/L		11/10/2023 18:53
m,p-Xylene	< 2.00	ug/L		11/10/2023 18:53
o-Xylene	< 2.00	ug/L		11/10/2023 18:53
Toluene	< 2.00	ug/L		11/10/2023 18:53

<u><b>Surrogate</b></u>	<u><b>Percent Recovery</b></u>	<u><b>Limits</b></u>	<u><b>Outliers</b></u>	<u><b>Date Analyzed</b></u>
1,2-Dichloroethane-d4	<b>106</b>	79.7 - 118		11/10/2023 18:53
4-Bromofluorobenzene	<b>93.4</b>	80.1 - 112		11/10/2023 18:53
Pentafluorobenzene	<b>103</b>	88 - 115		11/10/2023 18:53
Toluene-D8	<b>102</b>	88.2 - 113		11/10/2023 18:53

**Method Reference(s):** EPA 8260C

EPA 5030C

**Data File:** z20969.D



**Method Blank Report**

**Client:** Neu-Velle  
**Project Reference:** Newark Frmr MGP  
**Lab Project ID:** 235187  
**Matrix:** Groundwater

***Volatile Organics***

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	<u>Date Analyzed</u>	
Benzene	<1.00	ug/L		11/10/2023	13:38
Ethylbenzene	<2.00	ug/L		11/10/2023	13:38
m,p-Xylene	<2.00	ug/L		11/10/2023	13:38
o-Xylene	<2.00	ug/L		11/10/2023	13:38
Toluene	<2.00	ug/L		11/10/2023	13:38

<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Limits</u>	<u>Outliers</u>	<u>Date Analyzed</u>	
1,2-Dichloroethane-d4	<b>104</b>	79.7 - 118		11/10/2023	13:38
4-Bromofluorobenzene	<b>92.9</b>	80.1 - 112		11/10/2023	13:38
Pentafluorobenzene	<b>100</b>	88 - 115		11/10/2023	13:38
Toluene-D8	<b>101</b>	88.2 - 113		11/10/2023	13:38

**Method Reference(s):** EPA 8260C  
EPA 5030C  
**Data File:** z20953.D  
**QC Batch ID:** voaw231110  
**QC Number:** Blk 1

***QC Report for Laboratory Control Sample***

**Client:** **Neu-Velle**  
**Project Reference:** Newark Frmr MGP  
**Lab Project ID:** 235187  
**SDG #:** 5187-01  
**Matrix:** Groundwater

***Volatile Organics***

Analyte	Spike Added	Spike Units	LCS Result	LCS % Recovery	% Rec Limits	LCS Outliers	Date Analyzed
Benzene	20.0	ug/L	20.1	101	82.6 - 111		11/10/2023
Ethylbenzene	20.0	ug/L	20.0	100	82.7 - 108		11/10/2023
Toluene	20.0	ug/L	20.5	103	81.3 - 111		11/10/2023
<b>Method Reference(s):</b> EPA 8260C EPA 5030C z20952.D							
<b>Data File:</b> z20952.D							
<b>QC Number:</b> LCS 1							
<b>QC Batch ID:</b> voaw231110							

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

*QC Report for Matrix Spike and Matrix Spike Duplicate*

Client: **Neu-Yelle**

SDG #: 5187-01

Project Reference: Newark Frmr MGP

Lab Project ID: 235187

Lab Sample ID: 235187-06

Date Sampled: 11/4/2023

Sample Identifier: MW10/01-110423

Date Received: 11/7/2023

Matrix: Groundwater

Date Analyzed: 11/10/2023

**Volatile Organics**

Analyte	Sample Result	MS	MS	MS %	MSD	MSD	MSD %	% Rec.	MS	MSD	Relative % Diff.	RPD	RPD
	Result	Units	Added	Result	Recovery	Added	Result	Recovery	Limits	Outlier	Outlier	Limit	Outlier
Benzene	< 1.00	ug/L	50.0	52.0	104	50.0	47.3	94.7	82.6 - 111			9.32	13.7
Ethylbenzene	< 2.00	ug/L	50.0	53.6	107	50.0	48.9	97.9	82.7 - 108			9.15	14.4
Toluene	< 2.00	ug/L	50.0	51.9	104	50.0	47.8	95.6	81.3 - 111			8.20	17.1
Method Reference(s): EPA 8260C													
EPA 5030C													
Data File(s): z20971.D													
z20972.D													
z20970.D													
1													
QC Batch ID: VOAWZ31110													

Any estimated values are displayed, and derived values calculated, based on numeric result only. See primary analytical report for data flags.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Report Prepared Tuesday, November 14, 2023



## Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

*"<" = Analyzed for but not detected at or above the quantitation limit.*

*"E" = Result has been estimated, calibration limit exceeded.*

*"H" = Denotes a parameter analyzed outside of holding time.*

*"Z" = See case narrative.*

*"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.*

*"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.*

*"B" = Method blank contained trace levels of analyte. Refer to included method blank report.*

*"J" = Result estimated between the quantitation limit and half the quantitation limit.*

*"L" = Laboratory Control Sample recovery outside accepted QC limits.*

*"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.*

*"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.*

*"\*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*

*"(1)" = Indicates data from primary column used for QC calculation.*

*"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.*

*"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.*

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# GENERAL TERMS AND CONDITIONS

## LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

### Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

### Scope and Compensation.

LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB will use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

### Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

### Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

### Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

### Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.

Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

### Legal Responsibility.

LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

### Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

### Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

### Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

# CHAIN OF CUSTODY

## PARADIGM ENVIRONMENTAL SERVICES

PROJECT REFERENCE  
*Newark Fair MGP*

REPORT TO:		INVOICE TO:	
COMPANY: <i>Newark LLC</i>	ADDRESS: <i>10 Jones Ave</i>	COMPANY: <i>same</i>	LAB PROJECT ID: <i>735187</i>
CITY: <i>Rochester</i>	STATE: <i>NY</i>	CITY: <i>14601</i>	STATE: <i>NY</i>
PHONE: <i>585-478-3163</i>	FAX: <i>585-478-3163</i>	PHONE: <i>585-478-3163</i>	FAX: <i>585-478-3163</i>
ATTN: <i>David Encinella</i>	ATTN: <i>cc: j.c@encinella.com</i>	Quotation #: <i>735187</i>	

Matrix Codes:	WA - Water	DW - Drinking Water	SO - Soil	SD - Solid
AG - Aqueous Liquid	WG - Groundwater	WW - Wastewater	SL - Sludge	PT - Paint
NG - Non-Aqueous Liquid				WP - Wipe
				CK - Caulk
				AR - Air

DATE COLLECTED	TIME COLLECTED	C O M P O S I T E	G R A B	SAMPLE IDENTIFIER	M C A O T D R E I S	C O N U N T B E I N G O R F S	REQUESTED ANALYSIS	REMARKS	PARADIGM LAB SAMPLE NUMBER
11/2/23	12:25		X	MW 10/04-100223	GW 4	X X X		PAHs for Low-level SIMs	01
11/2/23	13:30		X	MW 1A-110223	GW 4	X X X		"	02
11/2/23	15:30		X	MW 22/01-110223	GW 4	X X X		"	03
11/3/23	12:05		X	MW 3A-110323	GW 4	X X X		"	04
11/3/23	14:15		X	MW 11/05-110323	GW 4	X X X		"	05
11/4/23	11:35		X	MW 10/01-110423	GW 4	X X X		"	06
11/4/23	X X		X	D-01-110423	GW 4	X X X		"	07
11/4/23	11:35		X	MW 10/01 MS/MSD	GW 8	X X X		"	08
11/4/23	12:00		X	EQ-110423	X 4	X X X		"	09
X X	X X		X	Trip Blank	X X	X X		"	10

Turnaround Time	Report Supplements
Availability contingent upon lab approval; additional fees may apply.	
Standard 5 day <input checked="" type="checkbox"/>	None Required <input type="checkbox"/>
10 day <input type="checkbox"/>	Batch QC <input type="checkbox"/>
Rush 3 day <input type="checkbox"/>	Category A <input type="checkbox"/>
Rush 2 day <input type="checkbox"/>	Category B <input checked="" type="checkbox"/>
Rush 1 day <input type="checkbox"/>	NYSDEC EDD <input type="checkbox"/>
Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>
Other <input type="checkbox"/>	Other EDD <input type="checkbox"/>

Received By: <i>[Signature]</i>	Date/Time: <i>11/14/23 @ 11:30</i>	Total Cost: <i>411664</i>
Received @ Lab By: <i>[Signature]</i>	Date/Time: <i>11/16/23 @ 16:30</i>	
Received By: <i>[Signature]</i>	Date/Time: <i>11/17/23 11:17</i>	
Received @ Lab By: <i>[Signature]</i>	Date/Time: <i>11/17/23</i>	

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

*PAHs for Low-level SIMs Analysis*



## Chain of Custody Supplement

Client: New - Vello

Completed by: [Signature]

Lab Project ID: 235187

Date: 11/7/2023

### Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	Yes	No	N/A
Container Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Transferred to method-compliant container	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Headspace (<1 mL)	<input checked="" type="checkbox"/> BTEX	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Preservation	<input checked="" type="checkbox"/> TCN BTEX	<input type="checkbox"/>	<input checked="" type="checkbox"/> PAH
Comments	BTEX preserved per Sample label		
Chlorine Absent (<0.10 ppm per test strip)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Comments			
Holding Time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			
Temperature	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Comments	10°C Iced		
Compliant Sample Quantity/Type	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comments			



**Experience is the solution**

314 North Pearl Street ♦ Albany, New York 12207  
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

November 14, 2023

Emily Farmen  
Paradigm Environmental  
179 Lake Avenue  
Rochester, NY 14608

TEL: (800) 724-1997

Work Order No: 231108018

RE: Analysis of Samples  
Project #235187

Adirondack Environmental Services, Inc received 8 samples on 11/8/2023 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Christopher Hess  
QA Manager

## Adirondack Environmental Services, Inc

## CASE NARRATIVE

---

### Paradigm Environmental

**Date:** 14-Nov-23

Analysis of Samples

**Lab WorkOrder:** 231108018

Project #235187

---

Sample containers were not supplied by Adirondack Environmental Services.

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### Definitions - RL: Reporting Limit DF: Dilution factor

<b>Qualifiers:</b>	ND : Not Detected at reporting limit	C: CCV below acceptable Limits
	J: Analyte detected below quantitation limit	C+: CCV above acceptable Limits
	B: Analyte detected in Blank	S: LCS Spike recovery is below acceptable limits
	X : Exceeds maximum contamination limit	S+: LCS Spike recovery is above acceptable limits
	H: Hold time exceeded	Z: Duplication outside acceptable limits
	N: Matrix Spike below acceptable limits	T : Tentatively Identified Compound-Estimated
	N+: Matrix Spike is above acceptable limits	E :Above quantitation range-Estimated

**Note : All Results are reported as wet weight unless noted**

**The results relate only to the items tested. Information supplied by the client is assumed to be correct.**

---

**Adirondack Environmental Services, Inc**

Date: 14-Nov-23

**CLIENT:** Paradigm Environmental  
**Project:** Analysis of Samples  
Project #235187

**LabWork Order: 231108018**  
**PO#:**

**Lab SampleID:** 231108018-001 **Collection Date:** 11/2/2023 12:25:00 PM

**Client Sample ID:** 235187-01 (MW 10/04-110223) **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

**CYANIDE, TOTAL - EPA 335.4 REV 1.0** Analyst: **GK**

( Prep: 335.4 - 11/10/2023 )

Cyanide	ND	0.010	S	mg/L	1	11/10/2023 2:27:05 PM
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**Lab SampleID:** 231108018-002 **Collection Date:** 11/2/2023 1:30:00 PM

**Client Sample ID:** 235187-02 (MW1A-110223) **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**CYANIDE, TOTAL - EPA 335.4 REV 1.0** Analyst: **GK**

( Prep: 335.4 - 11/10/2023 )

Cyanide	ND	0.010	S	mg/L	1	11/10/2023 2:28:24 PM
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**Lab SampleID:** 231108018-003 **Collection Date:** 11/2/2023 3:30:00 PM

**Client Sample ID:** 235187-03 (MW22/01-110223) **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

**CYANIDE, TOTAL - EPA 335.4 REV 1.0** Analyst: **GK**

( Prep: 335.4 - 11/10/2023 )

Cyanide	0.011	0.010	S	mg/L	1	11/10/2023 2:30:08 PM
---------	-------	-------	---	------	---	-----------------------

**Lab SampleID:** 231108018-004 **Collection Date:** 11/3/2023 12:05:00 PM

**Client Sample ID:** 235187-04 (MW3A-110323) **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**CYANIDE, TOTAL - EPA 335.4 REV 1.0** Analyst: **GK**

( Prep: 335.4 - 11/10/2023 )

Cyanide	ND	0.010	S	mg/L	1	11/10/2023 2:31:45 PM
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**Lab SampleID:** 231108018-005 **Collection Date:** 11/3/2023 2:15:00 PM

**Client Sample ID:** 235187-05 (MW11/05-110323) **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**CYANIDE, TOTAL - EPA 335.4 REV 1.0** Analyst: **GK**

( Prep: 335.4 - 11/10/2023 )

Cyanide	ND	0.010	S	mg/L	1	11/10/2023 2:33:22 PM
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**Adirondack Environmental Services, Inc**

Date: 14-Nov-23

**CLIENT:** Paradigm Environmental  
**Project:** Analysis of Samples  
Project #235187

**LabWork Order: 231108018**  
**PO#:**

**Lab SampleID:** 231108018-006 **Collection Date:** 11/4/2023 11:35:00 AM  
**Client Sample ID:** 235187-06 (MW10/01-110423) **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>CYANIDE, TOTAL - EPA 335.4 REV 1.0</b> Analyst: GK ( Prep: 335.4 - 11/13/2023 )						
Cyanide	ND	0.010	SN	mg/L	1	11/14/2023 2:21:59 PM

**Lab SampleID:** 231108018-007 **Collection Date:** 11/4/2023  
**Client Sample ID:** 235187-07 (Dupe-110423) **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>CYANIDE, TOTAL - EPA 335.4 REV 1.0</b> Analyst: GK ( Prep: 335.4 - 11/13/2023 )						
Cyanide	ND	0.010	S	mg/L	1	11/14/2023 2:30:37 PM

**Lab SampleID:** 231108018-008 **Collection Date:** 11/4/2023 12:00:00 PM  
**Client Sample ID:** 235187-08 (EQ-110423) **Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>CYANIDE, TOTAL - EPA 335.4 REV 1.0</b> Analyst: GK ( Prep: 335.4 - 11/13/2023 )						
Cyanide	ND	0.010	S	mg/L	1	11/14/2023 2:32:20 PM

**CLIENT:** Paradigm Environmental  
**Work Order:** 231108018  
**Project:** Analysis of Samples

# ANALYTICAL QC SUMMARY REPORT

**BatchID: 104880**

<b>MBLK</b>	SeqNo: 3669417 Samp ID: MB-104880	PrepDate:1/9/2023 PrepRef:(335.4)	TestNo: E335.4 Units: mg/L	RunNo: 226786 Analysis Date: 11/10/2023
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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.010									

<b>LCS</b>	SeqNo: 3669418 Samp ID: LCS-104880	PrepDate:1/9/2023 PrepRef:(335.4)	TestNo: E335.4 Units: mg/L	RunNo: 226786 Analysis Date: 11/10/2023
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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.05204	0.010	0.1	0	52	90	110	0	0		S

<b>MS</b>	SeqNo: 3669422 Samp ID: 231103052-002A	PrepDate:1/9/2023 PrepRef:(335.4)	TestNo: E335.4 Units: mg/L	RunNo: 226786 Analysis Date: 11/10/2023
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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.010	0.1	0	0	90	110	0	0		S

<b>DUP</b>	SeqNo: 3669420 Samp ID: 231031060-001	PrepDate:1/9/2023 PrepRef:(335.4)	TestNo: E335.4 Units: mg/L	RunNo: 226786 Analysis Date: 11/10/2023
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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.010	0	0	0	0	0	0	0	14.2	

**Qualifiers:** ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

B - Analyte detected in the associated Method Blank

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits



**CLIENT:** Paradigm Environmental  
**Work Order:** 231108018  
**Project:** Analysis of Samples

## ANALYTICAL QC SUMMARY REPORT

**BatchID:** 104929

<b>MBLK</b>	SeqNo: 3670981 Samp ID: MB-104929	PrepDate:1/13/2023 PrepRef:(335.4)	TestNo: E335.4 Units: mg/L	RunNo: 226871 Analysis Date: 11/14/2023
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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.010									

<b>LCS</b>	SeqNo: 3670982 Samp ID: LCS-104929	PrepDate:1/13/2023 PrepRef:(335.4)	TestNo: E335.4 Units: mg/L	RunNo: 226871 Analysis Date: 11/14/2023
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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.0745	0.010	0.1	0	74.5	90	110	0	0		S

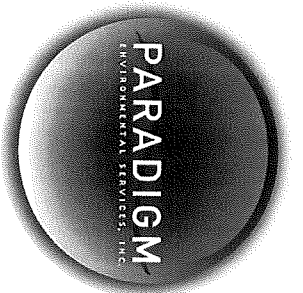
<b>MS</b>	SeqNo: 3670994 Samp ID: 231108018-006A (235187-06 (MMW1	PrepDate:1/13/2023 PrepRef:(335.4)	TestNo: E335.4 Units: mg/L	RunNo: 226871 Analysis Date: 11/14/2023
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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	0.06619	0.010	0.1	0	66.2	90	110	0	0		S

<b>MSD</b>	SeqNo: 3670995 Samp ID: 231108018-006A (235187-06 (MMW1	PrepDate:1/13/2023 PrepRef:(335.4)	TestNo: E335.4 Units: mg/L	RunNo: 226871 Analysis Date: 11/14/2023
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Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cyanide	ND	0.010	0.1	0	8.51	90	110	0.06619	0	20	S

**Qualifiers:** ND - Not Detected at the Reporting Limit  
S - Spike Recovery outside accepted recovery limits  
B - Analyte detected in the associated Method Blank  
J - Analyte detected below quantitation limits  
R - RPD outside accepted recovery limits



179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

# CHAIN OF CUSTODY

231108

ELAP ID: 1

## REPORT TO:

## INVOICE TO:

COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJECT
ADDRESS:		ADDRESS:			
CITY:	STATE: ZIP:	CITY:	STATE: ZIP:	TURNDOWN TIME: (WORKING DAYS)	
PHONE:	FAX:	PHONE:	FAX:		

PROJECT NAME/SITE NAME:

Newark Firm MGP

ATTN: Reporting

ATTN: Accounts Payable

COMMENTS:

Please email results to reporting@paradigmenv.com

REQUESTED ANALYSIS

DATE DUE: 11/15/23

1 2 3 4 5

STD

DATE	TIME	COMPOSITE	GRADES	SAMPLE LOCATION/FIELD ID	MATERIALS	COINTEGRATION	Cyanide	REMARKS	PARADIGM LAB SAMPLE NUMBER
11/2/2023	12:25	X		MMW10/04-110223	GW	1	X	235187-01	
11/2/2023	13:30	X		MMW-1A-110223	GW	1	X	235187-02	
11/2/2023	15:30	X		MMW22/01-110223	GW	1	X	235187-03	
11/3/2023	12:05	X		MMW3A-110323	GW	1	X	235187-04	
11/3/2023	14:15	X		MMW11/05-110323	GW	1	X	235187-05	
11/4/2023	11:35	X		MMW10/01-110423	GW	3	X	235187-06 +MS/MSD	
11/4/2023		X		Dupe-110423	GW	1	X	235187-07	
11/4/2023	12:00	X		EQ-110423	W	1	X	235187-08	
9									
10									

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter

NELAC Compliance

Container Type:

Y ☐ N ☐

Preservation:

Y ☐ N ☐

Holding Time:

Y ☐ N ☐

Temperature:

Y ☐ N ☐

Client

Sampled By

Date/Time

Total Cost:

Relinquished By

Date/Time

Received By

Date/Time

P.L.F.

Received @ Lab By

Date/Time



**Experience is the solution**

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

## TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

- (a) Neither **Adirondack Environmental Services, Inc.**, nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.**'s performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.
- (b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.
- (c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.
- (d) In no event shall **Adirondack Environmental Services, Inc.**, its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.
- (e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**
- (f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.
- (g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.



## ANALYTICAL REPORT

Lab Number:	L2366869
Client:	Paradigm Environmental Services 179 Lake Avenue Rochester, NY 14608
ATTN:	Jane Daloia
Phone:	(585) 647-2530
Project Name:	235187
Project Number:	235187
Report Date:	11/10/23

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OH (CL108), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930).

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** 235187  
**Project Number:** 235187

**Lab Number:** L2366869  
**Report Date:** 11/10/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2366869-01	MW 10/04-110223 235187-01	WATER	Not Specified	11/02/23 12:25	11/09/23
L2366869-02	MW 1A-110223 235187-02	WATER	Not Specified	11/02/23 13:30	11/09/23
L2366869-03	MW 22/01-110223 235187-03	WATER	Not Specified	11/02/23 15:30	11/09/23
L2366869-04	MW 3A-110323 235187-04	WATER	Not Specified	11/03/23 12:05	11/09/23
L2366869-05	MW 11/05-110323 235187-05	WATER	Not Specified	11/03/23 14:15	11/09/23
L2366869-06	MW 10/01-110423 235187-06	WATER	Not Specified	11/04/23 11:35	11/09/23
L2366869-07	DUPE-110423 235187-07	WATER	Not Specified	11/04/23 00:00	11/09/23
L2366869-08	EQ-110423 235187-08	WATER	Not Specified	11/04/23 12:00	11/09/23



**Project Name:** 235187  
**Project Number:** 235187

**Lab Number:** L2366869  
**Report Date:** 11/10/23

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

**HOLD POLICY** - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

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Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

**Case Narrative (continued)**

## Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

## Semivolatile Organics by SIM

With the client's authorization, L2366869-01, -02, and -03 were extracted with the method required holding time exceeded.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Melissa Sturgis

Title: Technical Director/Representative

Date: 11/10/23

# ORGANICS



# SEMIVOLATILES

Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

## SAMPLE RESULTS

Lab ID: L2366869-01  
 Client ID: MW 10/04-110223 235187-01  
 Sample Location: Not Specified

Date Collected: 11/02/23 12:25  
 Date Received: 11/09/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 11:44  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/10/23 05:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
Fluoranthene	1.3		ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	0.48		ug/l	0.10	0.02	1
Benzo(a)pyrene	1.3		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	2.5		ug/l	0.10	0.02	1
Benzo(k)fluoranthene	0.75		ug/l	0.10	0.04	1
Chrysene	1.1		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	0.06	J	ug/l	0.10	0.04	1
Benzo(ghi)perylene	2.2		ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	0.25		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.30		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	2.2		ug/l	0.10	0.04	1
Pyrene	1.1		ug/l	0.10	0.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	65		15-120
4-Terphenyl-d14	65		41-149

Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

## SAMPLE RESULTS

Lab ID: L2366869-02  
 Client ID: MW 1A-110223 235187-02  
 Sample Location: Not Specified

Date Collected: 11/02/23 13:30  
 Date Received: 11/09/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 12:00  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/10/23 05:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
Fluoranthene	0.45		ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	0.15		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.39		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	0.71		ug/l	0.10	0.02	1
Benzo(k)fluoranthene	0.23		ug/l	0.10	0.04	1
Chrysene	0.36		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	0.69		ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	0.10		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.09	J	ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	0.68		ug/l	0.10	0.04	1
Pyrene	0.37		ug/l	0.10	0.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	69		15-120
4-Terphenyl-d14	68		41-149

Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

## SAMPLE RESULTS

Lab ID: L2366869-03  
 Client ID: MW 22/01-110223 235187-03  
 Sample Location: Not Specified

Date Collected: 11/02/23 15:30  
 Date Received: 11/09/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 12:17  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/10/23 05:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
Fluoranthene	ND		ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	0.05	J	ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	ND		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	0.04	J	ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	0.04	J	ug/l	0.10	0.04	1
Pyrene	0.05	J	ug/l	0.10	0.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	56		15-120
4-Terphenyl-d14	59		41-149

Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

## SAMPLE RESULTS

Lab ID: L2366869-04  
 Client ID: MW 3A-110323 235187-04  
 Sample Location: Not Specified

Date Collected: 11/03/23 12:05  
 Date Received: 11/09/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 12:33  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/10/23 05:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
Fluoranthene	ND		ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	0.02	J	ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	ND		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04	1
Pyrene	ND		ug/l	0.10	0.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	56		15-120
4-Terphenyl-d14	56		41-149

Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

## SAMPLE RESULTS

Lab ID: L2366869-05  
 Client ID: MW 11/05-110323 235187-05  
 Sample Location: Not Specified

Date Collected: 11/03/23 14:15  
 Date Received: 11/09/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 12:50  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/10/23 05:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
Fluoranthene	ND		ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	ND		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	0.04	J	ug/l	0.10	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04	1
Pyrene	ND		ug/l	0.10	0.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	65		15-120
4-Terphenyl-d14	64		41-149

Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

## SAMPLE RESULTS

Lab ID: L2366869-06  
 Client ID: MW 10/01-110423 235187-06  
 Sample Location: Not Specified

Date Collected: 11/04/23 11:35  
 Date Received: 11/09/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 13:07  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/10/23 05:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
Fluoranthene	0.06	J	ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	0.04	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.05	J	ug/l	0.10	0.04	1
Benzo(b)fluoranthene	0.07	J	ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	0.04	J	ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	0.07	J	ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	0.02	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	0.07	J	ug/l	0.10	0.04	1
Pyrene	0.05	J	ug/l	0.10	0.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	68		15-120
4-Terphenyl-d14	70		41-149

Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

## SAMPLE RESULTS

Lab ID: L2366869-07  
 Client ID: DUPE-110423 235187-07  
 Sample Location: Not Specified

Date Collected: 11/04/23 00:00  
 Date Received: 11/09/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 13:57  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/10/23 05:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
Fluoranthene	0.06	J	ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	0.04	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.05	J	ug/l	0.10	0.04	1
Benzo(b)fluoranthene	0.08	J	ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	ND		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	0.07	J	ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	0.10		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	0.07	J	ug/l	0.10	0.04	1
Pyrene	0.05	J	ug/l	0.10	0.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	66		15-120
4-Terphenyl-d14	69		41-149



Project Name: 235187

Lab Number: L2366869

Project Number: 235187

Report Date: 11/10/23

## SAMPLE RESULTS

Lab ID: L2366869-08  
 Client ID: EQ-110423 235187-08  
 Sample Location: Not Specified

Date Collected: 11/04/23 12:00  
 Date Received: 11/09/23  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 14:14  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/10/23 05:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.04	1
Fluoranthene	ND		ug/l	0.10	0.04	1
Naphthalene	ND		ug/l	0.10	0.04	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.04	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.02	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04	1
Chrysene	ND		ug/l	0.10	0.04	1
Acenaphthylene	ND		ug/l	0.10	0.04	1
Anthracene	ND		ug/l	0.10	0.04	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.04	1
Fluorene	ND		ug/l	0.10	0.04	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04	1
Pyrene	ND		ug/l	0.10	0.04	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	62		15-120
4-Terphenyl-d14	65		41-149

Project Name: 235187

Project Number: 235187

Lab Number: L2366869

Report Date: 11/10/23

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270E-SIM  
 Analytical Date: 11/10/23 10:54  
 Analyst: RP

Extraction Method: EPA 3510C  
 Extraction Date: 11/09/23 23:58

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-08 Batch: WG1850596-1					
Acenaphthene	ND		ug/l	0.10	0.04
Fluoranthene	ND		ug/l	0.10	0.04
Naphthalene	ND		ug/l	0.10	0.04
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.04
Benzo(b)fluoranthene	ND		ug/l	0.10	0.02
Benzo(k)fluoranthene	ND		ug/l	0.10	0.04
Chrysene	ND		ug/l	0.10	0.04
Acenaphthylene	ND		ug/l	0.10	0.04
Anthracene	ND		ug/l	0.10	0.04
Benzo(ghi)perylene	ND		ug/l	0.10	0.04
Fluorene	ND		ug/l	0.10	0.04
Phenanthrene	0.02	J	ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.04
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.04
Pyrene	ND		ug/l	0.10	0.04

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	129	Q	10-120
4-Terphenyl-d14	72		41-149

**Lab Control Sample Analysis**  
Batch Quality Control

**Project Name:** 235187  
**Project Number:** 235187

**Lab Number:** L2366869  
**Report Date:** 11/10/23

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits		RPD	Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-08 Batch: WG1850596-2 WG1850596-3								
Acenaphthene	58		67		40-140		14	40
Fluoranthene	64		72		40-140		12	40
Naphthalene	58		67		40-140		14	40
Benzo(a)anthracene	70		77		40-140		10	40
Benzo(a)pyrene	70		81		40-140		15	40
Benzo(b)fluoranthene	67		81		40-140		19	40
Benzo(k)fluoranthene	71		77		40-140		8	40
Chrysene	63		74		40-140		16	40
Acenaphthylene	56		64		40-140		13	40
Anthracene	65		75		40-140		14	40
Benzo(ghi)perylene	75		89		40-140		17	40
Fluorene	59		67		40-140		13	40
Phenanthrene	63		72		40-140		13	40
Dibenzo(a,h)anthracene	82		97		40-140		17	40
Indeno(1,2,3-cd)pyrene	94		111		40-140		17	40
Pyrene	63		71		40-140		12	40

Lab Control Sample Analysis  
Batch Quality Control

Project Name: 235187  
Project Number: 235187

Lab Number: L2366869  
Report Date: 11/10/23

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				

Semivolatle Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-08 Batch: WG1850596-2 WG1850596-3

Surrogate	LCS		LCSD		%Recovery	Qual	Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual			
2-Fluorophenol	47		54				21-120
Phenol-d6	33		38				10-120
Nitrobenzene-d5	73		85				23-120
2-Fluorobiphenyl	62		71				15-120
2,4,6-Tribromophenol	114		129			Q	10-120
4-Terphenyl-d14	61		70				41-149

Project Name: 235187  
Project Number: 235187

Lab Number: L2366869  
Report Date: 11/10/23

Matrix Spike Analysis  
Batch Quality Control

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MS Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Semi-volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1850596-4 WG1850596-5 QC Sample: L2366869-06												
Client ID: MW 10/01-110423 235187-06												
Acenaphthene	ND	10	5.8	58		5.3	53		40-140	9		40
Fluoranthene	0.06J	10	6.2	62		5.6	56		40-140	10		40
Naphthalene	ND	10	5.8	58		5.4	54		40-140	7		40
Benzo(a)anthracene	0.04J	10	6.9	69		6.3	63		40-140	9		40
Benzo(a)pyrene	0.05J	10	6.8	68		6.1	61		40-140	11		40
Benzo(b)fluoranthene	0.07J	10	6.8	68		5.9	59		40-140	14		40
Benzo(k)fluoranthene	ND	10	6.1	61		5.7	57		40-140	7		40
Chrysene	0.04J	10	6.4	64		5.8	58		40-140	10		40
Acenaphthylene	ND	10	5.5	55		5.1	51		40-140	8		40
Anthracene	ND	10	6.6	66		6.0	60		40-140	10		40
Benzo(ghi)perylene	0.07J	10	7.0	70		6.3	63		40-140	11		40
Fluorene	ND	10	5.8	58		5.4	54		40-140	7		40
Phenanthrene	0.02J	10	6.2	62		5.8	58		40-140	7		40
Dibenzo(a,h)anthracene	ND	10	7.5	75		6.7	67		40-140	11		40
Indeno(1,2,3-cd)pyrene	0.07J	10	8.8	88		8.0	80		40-140	10		40
Pyrene	0.05J	10	6.2	62		5.6	56		40-140	10		40

Surrogate	MS %Recovery	MS Qualifier	MSD %Recovery	MSD Qualifier	Acceptance Criteria
2-Fluorobiphenyl	63		58		15-120
4-Terphenyl-d14	61		55		41-149
Nitrobenzene-d5	77		70		23-120

**Project Name:** 235187  
**Project Number:** 235187

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**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**  
**Cooler** **Custody Seal**  
A Absent

Container Information		Initial	Final	Temp	Pres	Seal	Frozen	Analysis(*)
Container ID	Container Type	Cooler	pH	pH			Date/Time	
L2366869-01A	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-02A	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-03A	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-04A	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-05A	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-06A	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-06A 1	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-06A 2	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-07A	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)
L2366869-08A	Amber 1000ml unpreserved	A	7	7	2.8	Y	Absent	NYTCL-8270-SIM(7)

\*Values in parentheses indicate holding time in days



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## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

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### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

**Chlordane:** The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**Final pH:** As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

**Frozen Date/Time:** With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

**Gasoline Range Organics (GRO):** Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

**Initial pH:** As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

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#### Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

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## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



**Alpha Analytical, Inc.**Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 20

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**Certification Information****The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 624.1:** m/p-xylene, o-xylene, Naphthalene**EPA 625.1:** alpha-Terpineol**EPA 8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**Mansfield Facility****SM 2540D:** TSS.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables).**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522, EPA 537.1.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

# CHAIN OF CUSTODY



<b>REPORT TO:</b>		<b>INVOICE TO:</b>	
COMPANY: <b>Paradigm Environmental</b>	ADDRESS: <b>179 Lake Avenue</b>	COMPANY: <b>Same</b>	ADDRESS: <b>Same</b>
CITY: <b>Rochester</b>	STATE: <b>NY</b>	CITY: <b>Same</b>	STATE: <b>Same</b>
PHONE: <b>FAX:</b>	ZIP: <b>14608</b>	PHONE: <b>FAX:</b>	ZIP: <b>14608</b>
ATTN: <b>Reporting</b>	ATTN: <b>Accounts Payable</b>	LAB PROJECT #: <b>12346869</b>	
COMMENTS: <b>Please email results to reporting@paradigmenv.com</b>		TURNAROUND TIME: (WORKING DAYS) <b>Standard STD</b>	
		OTHER: <b>1</b> <b>2</b> <b>3</b> <b>5</b>	
		Date Due: <b>11/19/2023</b>	

DATE	TIME	COMPOSITE	GARB	SAMPLE LOCATION/FIELD ID	MATERIALS	COINTEGRATION	PAH'S	REMARKS	PARADIGM LAB SAMPLE NUMBER
11/22/23	12:25	X		MW 10/04 - 110223	GL	1	X	235182 - 01	
	13:30	X		MV 1A - 110223	1	1	X	-02	
	14:30	X		MV 22/01 - 110223	1	1	X	-03	
11/23/23	12:05	X		MV 3A - 110323	1	1	X	-04	
	14:15	X		MV 11/05 - 110323	1	1	X	-05	
11/24/23	11:35	X		MV 10/01 - 110423	1	1	X	-06 + MSAD	
		X		Dupe - 110423	1	1	X	-07	
	11:35	X		EQ - 110423	1	1	X	-08	
	12:00	X		EQ - 110423	1	1	X		

LAB USE ONLY BELOW THIS LINE\*\*

Sample Condition: Per NELAP/ELAP 210/241/242/243/244

Receipt Parameter: **NELAC Compliance**

Container Type:	Y <input type="checkbox"/> N <input type="checkbox"/>
Preservation:	Y <input type="checkbox"/> N <input type="checkbox"/>
Holding Time:	Y <input type="checkbox"/> N <input type="checkbox"/>
Temperature:	Y <input type="checkbox"/> N <input type="checkbox"/>

Client

Sampled By: *[Signature]* Date/Time: **11/19/2023 1600**

Total Cost: **1600**

Relinquished By: *[Signature]* Date/Time: **11/19/2023 1600**

Received By: *[Signature]* Date/Time: **11/19/2023 1600**

P.L.F.

Received By: *[Signature]* Date/Time: **11/19/2023 0930**

Received @ Lab By

Date/Time