



2024 Annual Periodic Review Report

Hyde Park Landfill
Niagara Falls, New York
NYSDEC Site No. 932021

Glenn Springs Holdings, Inc.

April 29, 2025

→ The Power of Commitment

Executive Summary

The following report describes the Operation, Maintenance, and Monitoring (OM&M) activities for 2024 at the Hyde Park Landfill Site (Site) located at 4825 Hyde Park Boulevard, Niagara Falls, Town of Niagara, Niagara County, New York. The Site is approximately 30 acres in size and is comprised of two parcels owned by Occidental Chemical Corporation (OCC) and one parcel owned by National Grid (formerly Niagara Mohawk Power Corporation). These parcels contain the landfill (28.1 acres) and the treatment system and associated buildings (1.9 acres). OCC owns an additional 30 parcels that are located to the west and north of the Site that encompass a total area of approximately 29 acres. These parcels were purchased to act as a buffer to the Site or to facilitate remediation. Management of the Site is performed on behalf of OCC by Glenn Springs Holdings, Inc. (GSH), an affiliate of OCC. GHD, formerly Conestoga-Rovers & Associates (CRA), performed OM&M and reporting activities for the Site from October 1, 2008 through November 30, 2024 under contract to and under direct management of GSH. Geosyntec Consultants assumed OM&M and reporting activities for the Site under contract to and under direct management of GSH on December 1, 2024.

During 2024, the remedial system components at the Site performed as designed. The Source Control (SC), Overburden RRT, and Bedrock RRT Systems removed approximately 21.2 million gallons of groundwater from the Site and surrounding formations. The RRT systems continued to provide containment, and Flow Zone 9 remained dewatered between the Site and the face of the Niagara River Gorge (Gorge). All aqueous phase liquid (APL) analytes were below reporting levels in APL Flux Monitoring, indicating no chemical loading to the Gorge seeps. Non-aqueous phase liquid (NAPL) continues to be contained by the Overburden RRT System, with no NAPL being found in overburden monitoring wells (OMWs) outside of the system. The community continues to be protected by the Site remedial systems. In 2024, 1,393 pounds of NAPL were shipped off-Site for disposal.

The 2024 data indicate that there has been no significant change in chemical and hydrogeological conditions at the Site.

Contents

1.	Introduction	1
1.1	Site Location	1
1.2	Site History	1
1.3	Remedial Goals	2
1.4	Remedial Components and Monitoring	2
2.	Institutional and Engineering Controls	3
3.	Site Monitoring Programs and Results	3
3.1	Overburden Monitoring Program	3
3.2	Bedrock Monitoring Program	3
3.3	Community Monitoring Program	4
4.	Site Operation and Maintenance	5
5.	Evaluation and Conclusions	5
5.1	Overburden Monitoring Program	5
5.1.1	Source Control System	5
5.1.2	Overburden Groundwater Elevations	6
5.1.3	Overburden NAPL Presence Monitoring	6
5.1.4	Overburden RRT System Flow Rates	6
5.1.5	Overburden Monitoring Conclusions	7
5.2	Bedrock Monitoring Program	7
5.2.1	Bedrock Groundwater Elevations	7
5.2.2	Bedrock RRT System Flow Rates and Setpoints	7
5.2.3	Bedrock Analytical Results	7
5.2.4	Bedrock Monitoring Conclusions	8
5.3	Community Monitoring Program	8
5.3.1	APL Flux Monitoring Program	8
5.3.2	Quarterly Hydraulic Gradient Summary	9
5.3.3	Soil Vapor Monitoring	9
5.3.4	Gorge Face Seep Survey	9
5.3.5	Community Monitoring Conclusions	9
5.4	Site Operations and Maintenance	9
6.	Recommendations	9

Figure Index

Figure 1.1	Site Location
Figure 1.2	Source Control System Well Locations
Figure 1.3	Overburden RRT System
Figure 1.4	Bedrock RRT System
Figure 1.5	Overburden Monitoring Program
Figure 1.6	Bedrock Monitoring Program
Figure 1.7	Community Monitoring Program
Figure 3.1	APL Flux Well Locations

Table Index

Table 1.1	PMP Monitoring Tasks - 2024
Table 3.1	2024 Source Control Well NAPL Pumping Summary
Table 3.2	2024 Overburden Quarterly Groundwater Elevation Summary
Table 3.3	2024 Overburden NAPL Presence Monitoring
Table 3.4	2024 Overburden Collection Systems Monthly Average Flow (GPM) Summary
Table 3.5	2024 Bedrock Quarterly Groundwater Elevation Summary – Piezometers
Table 3.6	2024 Bedrock Purge Well Monthly Flow Rate (GPM) Summary
Table 3.7a	Analytical Results Summary: Quarterly Group B Bedrock Piezometer Sampling, First Quarter 2024
Table 3.7b	Analytical Results Summary: Quarterly Group B Bedrock Piezometer Sampling, Second Quarter 2024
Table 3.7c	Analytical Results Summary: Quarterly Group B Bedrock Piezometer Sampling, Third Quarter 2024
Table 3.8	2024 Analytical Results Summary: Annual Bedrock Open Catch Basin
Table 3.9	2024 Analytical Results Summary: Annual AFW Composite
Table 3.10	2024 Quarterly Hydraulic Gradient Summary: Community Monitoring Program
Table 3.11	2024 Community Monitoring Well Soil Vapor Monitoring: Community Monitoring Program
Table 4.1	2024 NAPL Decanter Volume Monitoring
Table 4.2	2024 Weekly Carbon Interstage APL Sampling
Table 4.3	2024 Quarterly Leachate Feed APL Sampling
Table 4.4	2024 Quarterly Sac Bed Interstage APL Sampling

Appendices

Appendix A	Institutional and Engineering Controls Certification Form
Appendix B	Monitoring Well Gauging and Sampling Logs

1. Introduction

The following Annual Periodic Review Report (PRR) describes the Operation, Maintenance, and Monitoring (OM&M) activities for 2024 at the Hyde Park Landfill Site (Site) located at 4825 Hyde Park Boulevard, Niagara Falls, Town of Niagara, Niagara County, New York (Figure 1.1). Management of the Site is performed on behalf of Occidental Chemical Corporation (OCC) by Glenn Springs Holdings, Inc. (GSH), an affiliate of OCC. GHD, formerly Conestoga-Rovers & Associates (CRA), performed OM&M and reporting activities for the Site from October 1, 2008 through November 30, 2024 under contract to and under direct management of GSH. Geosyntec Consultants assumed OM&M and reporting activities for the Site under contract to and under direct management of GSH on December 1, 2024. As of December 1, 2024, GHD bears no responsibility or obligations for the Site.

1.1 Site Location

The Site is located in the northwest corner of the Town of Niagara, New York, adjacent to the Town of Lewiston to the north and the City of Niagara Falls to the west. The location of the Site is shown on Figure 1.1. The Site is bounded by Hyde Park Boulevard to the west, the Power Authority Service Road (a New York Power Authority [NYPA] access road) to the north, Ferro Electronic Materials, Inc. (formerly TAM Ceramics) to the south, and vacant property owned by Drive Star Properties LLC (formerly owned by Armand Cerrone, Inc.) to the east. The Site is located approximately 2,000 feet east of the Niagara River Gorge (Gorge).

The Site is approximately 30 acres in size and is comprised of two parcels owned by OCC and one parcel owned by National Grid (formerly Niagara Mohawk Power Corporation). These parcels contain the landfill (28.1 acres) and the treatment system and associated buildings (1.9 acres). OCC owns an additional 30 parcels that are located to the west and north of the Site that encompass a total area of approximately 29 acres. These parcels were purchased to act as a buffer to the Site or to facilitate remediation.

1.2 Site History

The Site is a closed disposal facility into which Hooker Chemical placed liquid, sludge, and solid production waste from 1953 until 1975 when the landfill was closed. In 1978, OCC capped the landfill with clay. In 1981, OCC, the State of New York representing the New York State Department of Environmental Conservation (NYSDEC), and the United States of America representing the United States Environmental Protection Agency (USEPA) entered into a "Stipulation and Judgment Approving Settlement Agreement" (Settlement Agreement). Investigations as part of the approved Settlement Agreement indicated significant chemical migration into the bedrock, including the presence of non-aqueous phase liquid (NAPL). The USEPA added the Site to the National Priorities List in September 1983. Further negotiations among OCC, NYSDEC, and USEPA resulted in a second court agreement: the "Stipulation on Requisite Remedial Technology Program" (November 1985) (RRT Stipulation). In August 2010, OCC issued a "Declaration of Restrictive Covenants and Environmental Easement" (Environmental Easement) granting an easement on the portion of the Site owned by OCC to the Town of Niagara, guaranteeing that the institutional and engineering components of the Remedial Action (RA) will be maintained and transferred with ownership of the property.

In July 2011, NYSDEC reclassified the Site on the Registry of Inactive Hazardous Waste Disposal Sites to a Class 4 site, indicating that it no longer presents a significant threat to public health and/or the environment. Effective October 23, 2013, USEPA deleted the Site from the National Priorities List. As published in the Federal Register, Vol. 78, No. 205, Pg. 63099, "The EPA and the State of New York, through the Department of Environmental Conservation, have determined that all appropriate response actions under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) other than operation, maintenance, and 5-year reviews, have been completed".

1.3 Remedial Goals

The original monitoring and remedial performance requirements for the Site were defined in the 1985 RRT Stipulation. Extensive remediation, investigation, and evaluation of the Site have been completed and documented in previous reports to the NYSDEC and USEPA since the RRT Stipulation was approved. The current monitoring and reporting requirements are detailed in the NYSDEC and USEPA-approved 2006 Performance Monitoring Plan (PMP). A checklist of all tasks required by the PMP and subsequent NYSDEC-approved changes in monitoring requirements is provided in Table 1.1. Action levels specified in the PMP are shown in the applicable analytical data tables.

GHD, on behalf of GSH, submitted *Draft Revised Performance Monitoring Plan* [Draft Revised PMP] (GHD, 2021) to the NYSDEC on October 23, 2021. On September 26, 2024, NYSDEC issued comments on the Draft Revised PMP. In its comment letter, NYSDEC approved discontinuation of the quarterly Group B bedrock piezometer sampling event (refer to Section 3.2) and indicated that further modifications to the bedrock monitoring program recommended in the Draft Revised PMP should be evaluated and proposed in future submittals of the Annual PRR or Five-Year Report.

On February 13, 2025, GHD, on behalf of GSH, submitted *Request for Modifications to Bedrock Monitoring Program* (GHD, 2025), re-introducing the recommendations for modifications to the bedrock monitoring program that were presented in the Draft Revised PMP and subsequent Annual PRRs, with slight adjustments based on the monitoring data collected through 2024. GHD requested that these recommendations be approved for inclusion in the forthcoming revision of the Draft Revised PMP, and proposed resubmission of the Draft Revised PMP with NYSDEC's September 2024 comments addressed following NYSDEC's decision on the proposed modifications. This approach for resubmitting the Draft Revised PMP was agreed to by NYSDEC and GSH during a teleconference held on November 22, 2024. The Draft Revised PMP will be resubmitted following NYSDEC's decision on the proposed modifications.

1.4 Remedial Components and Monitoring

Site remedial components consist of the following:

- Source Control (SC) System, shown on Figure 1.2
 - Six SC wells installed within the landfill; only five are currently active
- Overburden RRT System, shown on Figure 1.3
 - Existing barrier collection system (EBCS) surrounding the original landfill
 - Overburden barrier collection system (OBCS) outside and to the north, west, and south of the original landfill
- Bedrock RRT System, shown on Figure 1.4
 - NAPL containment system (16 purge wells)
 - Aqueous Phase Liquids (APL) plume containment system (two purge wells)

All groundwater collected by these components is treated in an on-Site granular activated carbon treatment system before discharge to the publicly owned treatment works (POTW) under Niagara Falls Water Board Significant Industrial User (SIU) Permit #49. NAPL decanted from the groundwater is stored on Site until a sufficient quantity is available for transport to an approved hazardous waste disposal facility.

Based on the configuration of the treatment system, it is not possible to determine the quantity of NAPL collected by the individual EBCS and OBCS systems. A discussion of NAPL quantity collected by the SC system is presented in Section 5.1.1. In 2024, 1,393 pounds of NAPL were shipped off-Site for disposal.

The PMP requires annual evaluation of the effectiveness of these components using the following three monitoring programs:

- Overburden Monitoring Program (OMP), locations shown on Figure 1.5
- Bedrock Monitoring Program (BMP), locations shown on Figure 1.6
- Community Monitoring Program (CMP), locations shown on Figure 1.7

2. Institutional and Engineering Controls

The required Institutional and Engineering Controls are listed in the completed Institutional and Engineering Controls Certification Form included as Appendix A. Institutional controls include restrictions on uses of Site land, buildings, groundwater, and surface water, and require the implementation of both a Monitoring Plan and an Operation and Maintenance (O&M) Plan. The most recent versions of these documents are the NYSDEC and USEPA approved 2006 PMP and the 2019 Operation and Maintenance Manual (O&M Manual). Engineering controls include groundwater containment through a leachate collection system, collected groundwater treated on Site, a maintained cover system on the landfill, and restricted Site access controlled through perimeter fencing.

3. Site Monitoring Programs and Results

3.1 Overburden Monitoring Program

The OMP involves the monitoring of the SC wells and the Overburden RRT System. The SC wells are a series of production wells installed within the landfill to recover NAPL, while the Overburden RRT System is comprised of two collection systems designed to control the lateral migration of APL and NAPL in the overburden.

The 2024 performance monitoring data for the overburden systems are presented as follows:

Description	Report Location
SC System Well Locations	Figure 1.2
2024 SC Well NAPL Pumping Summary	Table 3.1
Overburden RRT System	Figure 1.3
2024 Overburden Quarterly Groundwater Elevation Summary	Table 3.2
2024 Overburden NAPL Presence Monitoring	Table 3.3
2024 Overburden Collection Systems Monthly Average Flow Summary	Table 3.4

3.2 Bedrock Monitoring Program

The BMP includes the Lockport Bedrock APL and NAPL Plume Containment Systems and the Bloody Run Creek Monitoring Program. The Lockport Bedrock APL and NAPL Plume Containment Systems consist of 18 purge wells that control lateral migration of dissolved phase constituents and NAPL in the bedrock, while the Bloody Run Creek Monitoring Program ensures that Site-related parameters are not adversely impacting groundwater in the upper bedrock subsequent to the remediation of Bloody Run Creek.

Piezometers associated with the Lockport Bedrock APL and NAPL Plume Containment Systems are divided into two groups, referred to as the Group A bedrock piezometers and the Group B bedrock piezometers. The Group B bedrock piezometers are a subset of the Group A bedrock piezometers. The Group A bedrock piezometers are sampled every fifth quarter. This fifth quarter sampling event last occurred in the fourth quarter of 2023 and therefore was not performed in 2024. The Group B bedrock piezometers were sampled on a quarterly basis through the third quarter of 2024. This quarterly sampling event was subsequently discontinued with NYSDEC's September 26, 2024 comment letter on the Draft Revised PMP. The Bloody Run monitoring wells are sampled every 5 years. This five-year sampling event last occurred in October 2021 and is therefore scheduled to be next performed in 2026.

The 2024 performance monitoring data for the bedrock systems are presented as follows:

Description	Report Location
BMP Locations	Figure 1.6
2024 Bedrock Quarterly Groundwater Elevation Summary Piezometers	Table 3.5
2024 Bedrock Purge Well Monthly Flow Rate Summary	Table 3.6
Analytical Results Summary: Quarterly Group B Bedrock Piezometer Sampling	Tables 3.7a c
2024 Analytical Results Summary: Annual Bedrock Open Catch Basin	Table 3.8

The PMP also specifies water level setpoints for each of the purge wells in the Bedrock RRT System. Only major issues associated with achieving these setpoints (if any) are discussed in this PRR, while the day-to-day maintenance of these setpoints was previously presented in the 2024 Quarterly Operations Reports. As indicated in the 2024 Quarterly Operations Reports, the water levels in several purge wells were out of setpoint range for periods of time awaiting replacement of pumps, motors, and variable frequency drives (VFDs). Delivery lead times for equipment (such as pumps, motors, drives, etc.) have been variable. Although some spares have always been kept on hand, replacement of the spares sometimes took longer than anticipated, which affected repair of the purge wells. Additional spares have been and will continue to be ordered to the extent practicable.

In addition to maintaining water levels within target setpoint ranges in the purge wells, the groundwater elevation in flow zone FZ-09 in the area between the landfill and the APL purge wells (APW-1 and APW-2) is to be maintained at an elevation of 526 feet above mean sea level (AMSL) or lower. This elevation ensures that the FZ-09 outcrop along the NYPA access road remains unsaturated. Piezometer PMW-1M-09 is used to monitor the FZ-09 groundwater elevation in this area. A pressure transducer installed in PMW-1M-09 has been programmed to collect groundwater elevation data at 1-hour intervals. These continuous groundwater elevation data were reported in the 2024 Quarterly Operation Reports.

3.3 Community Monitoring Program

The CMP was developed to ensure that the public is not being adversely exposed to Site-related parameters. The CMP includes the Gorge Face Seep Program, the APL Flux Monitoring Program, and the Residential CMP. The Gorge Face Seep Program involves inspections of the Gorge every five years (refer to Section 5.3.4) to ensure that Site-specific parameters are not discharging to a publicly accessible area. The APL Flux Monitoring Program involves annual sampling and ensures that the mass loading via groundwater discharged to the Gorge is less than the defined Flux Action Level. The Residential CMP involves annual vapor monitoring and ensures that residents in the area are not adversely exposed to Site-related constituents in the groundwater or from soil vapors above the groundwater.

The 2024 performance monitoring data for the community monitoring are presented as follows:

Description	Report Location
APL Flux Well Locations	Figure 3.1
2024 Analytical Results Summary: Annual AFW Composite	Table 3.9
Community Monitoring Locations	Figure 1.7
2024 Quarterly Hydraulic Gradient Summary	Table 3.10
2024 Community Monitoring Well Soil Vapor Monitoring	Table 3.11

The 2024 annual AFW composite sample was collected on November 4, 2024.

4. Site Operation and Maintenance

Maintaining the Site remedial elements is critical to the Site's remedial performance. Therefore, inspections of hydraulic and chemical monitoring points, the landfill cap, and the security fence surrounding the landfill have been included in the PMP and O&M Manual. Although not required by the PMP, the monitoring program for the Site groundwater treatment system is discussed briefly in this report. Full details on Site O&M activities are presented in the 2019 O&M Manual.

Analytical results from the treatment system monitoring program have been presented previously in the 2024 Quarterly Operations Reports. These include the following:

- Daily treated effluent total water flows and pH
- Weekly treated effluent APL sampling
- Quarterly treated effluent APL sampling

The following treatment system monitoring was also conducted in 2024:

Description	Report Location
Quarterly NAPL Decanter Volume Monitoring	Table 4.1
Weekly Carbon Interstage APL Sampling	Table 4.2
Quarterly Leachate Feed APL Sampling	Table 4.3
Quarterly Sac Bed Interstage APL Sampling	Table 4.4

The 2006 PMP also requires weekly fence inspections, annual well and piezometer inspections, and annual landfill cap inspections. All of the required inspections were performed in 2024. The inspections did not identify any issues of concern beyond routine maintenance items. Records of these inspections are maintained at the Site and are available upon request, in accordance with the 2006 PMP.

5. Evaluation and Conclusions

5.1 Overburden Monitoring Program

There were no deviations from the OMP in 2024, and monitoring was conducted in accordance with the 2006 PMP. The results of the OMP are discussed below and summarized in Tables 3.1 through 3.4.

5.1.1 Source Control System

The SC wells (SC-2 to SC-6) were historically operated on a monthly basis to pump down the APL/NAPL level to approximately the top of the pump in each well. Based on declining volumes of NAPL production over time, changes in frequency of manual NAPL recovery and associated NAPL thickness measurements have been implemented since 2016 with NYSDEC approval. Refer to the 2023 Annual PRR for a timeline of these program changes.

NAPL thickness is currently measured on a monthly basis at SC-3, quarterly basis at SC-2 and SC-4, and semiannual basis at SC-5 and SC-6. If needed, NAPL is manually removed from these wells at that time.

The 2024 SC well NAPL thickness and recovery data are summarized in Table 3.1. No NAPL was recovered in 2024 from SC-2, SC-5, or SC-6. The volumes of NAPL recovered in 2024 from SC-3 and SC-4 were 122.1 gallons and 25.3 gallons, respectively.

The total amount of NAPL recovered in 2024 was 147.4 gallons. The NAPL volumes removed from the SC wells from 2016 through 2024 are as follows:

Year	Gallons Purged from SC-2	Gallons Purged from SC-3	Gallons Purged from SC-4	Gallons Purged from SC-5	Gallons Purged from SC-6	Total Gallons Purged from SC Wells
2016	5.5	33.25	15.25	1.5	10	65.5
2017	2.75	476.5	46.75	0	5.1	531.1
2018	0	390.3	31.0	0	9.0	430.3
2019	6.5	178.3	23.8	0	0	208.6
2020	3.3	165.5	26.0	0	0	194.8
2021	0	110.3	31.0	0	0	141.3
2022	0	112.8	31.5	0	0	144.3
2023	1.8	117.3	24.5	0	0	143.5
2024	0	122.1	25.3	0	0	147.4

Approximately ten gallons or less of NAPL have been recovered from each of wells SC-2, SC-5, and SC-6 annually since at least 2016. No NAPL has been recovered from SC-5 or SC-6 since 2018. No NAPL was recovered from SC-2 in 2021, 2022, or 2024, and less than 2 gallons were recovered from this well in 2023. Based on the low volumes of NAPL recovered from these three wells, it is recommended that the frequency of manual NAPL recovery and associated NAPL thickness measurements at SC-2, SC-5, and SC-6 be reduced to annually. It is recommended that the frequency of manual NAPL recovery and associated NAPL thickness measurements at wells SC-3 and SC-4 continue on a monthly and quarterly basis, respectively.

5.1.2 Overburden Groundwater Elevations

The overburden groundwater elevation data provided in Table 3.2 were used to generate potentiometric surface maps that were presented in the 2024 Quarterly Operations Reports. These potentiometric surface maps indicated hydraulic containment for each quarter of 2024. Measured water levels are recorded electronically and uploaded into a database from the field. As such, gauging logs are not available.

5.1.3 Overburden NAPL Presence Monitoring

NAPL presence checks are completed annually in the OBCS, Overburden Monitoring Wells (OMWs), and the OBCS manholes. The 2024 NAPL presence monitoring data from the OMWs and manholes are presented in Table 3.3. The data indicate that NAPL was present in 4 of the 17 manholes monitored (MH-29, MH-30, MH-31, and MH-32) and in 1 of the 2 wet wells (Wet Well D). These four manholes are located at the southwest corner of the landfill and all flow to Wet Well D. The data also indicate that NAPL is not present in any of the OMWs. These wells are located outside of the OBCS to the south, west, and northwest of the four manholes and one wet well where NAPL was present (see Figure 1.3). The lack of NAPL presence in these OMWs indicates that overburden NAPL is contained within the boundaries of the OBCS and is not bypassing the OBCS. The monitoring well NAPL gauging log (well inspection log) is included in Appendix B.

5.1.4 Overburden RRT System Flow Rates

The OBCS and EBCS monthly average flow rates, presented in Table 3.4, indicate seasonal fluctuations in flow rates with the highest average flow rates generally occurring during the spring months of 2024.

5.1.5 Overburden Monitoring Conclusions

Based on the overburden data collected in 2024, as shown in Tables 3.1 through 3.4 and the potentiometric surface maps that were presented in the 2024 Quarterly Operations Reports, the SC and Overburden RRT Systems are operating as designed, and overburden containment is being achieved.

5.2 Bedrock Monitoring Program

There were no deviations from the BMP in 2024, and monitoring was conducted in accordance with the 2006 PMP and September 2024 NYSDEC approval to discontinue the quarterly Group B bedrock piezometer sampling event. The results of the BMP in 2024 are discussed below and summarized in Tables 3.5 through 3.8.

5.2.1 Bedrock Groundwater Elevations

The bedrock flow zone groundwater elevation data, presented in Table 3.5, were used to generate groundwater potentiometric surface maps for each of the monitored flow zones. These maps have been presented previously in the 2024 Quarterly Operations Reports. The potentiometric surface maps for each monitored flow zone during each quarter of 2024 indicated containment. Measured water levels are recorded electronically and uploaded directly into a database from the field. As such, gauging logs are not available.

5.2.2 Bedrock RRT System Flow Rates and Setpoints

The 2024 bedrock purge well monthly average flow rate data is presented in Table 3.6. As indicated in Section 3.2, flow rates were consistent with historical flow rates when purge wells were operational.

Maintenance of operating water level setpoints by each of the purge wells has been discussed in the 2024 Quarterly Operations Reports. As indicated in the 2024 Quarterly Operations Reports, water levels in several purge wells were out of setpoint range for periods of time awaiting replacement of pumps, motors, and VFDs. Delivery lead times for equipment (such as pumps, motors, drives, etc.) have been variable. With the exception of these periods and additional minor operational and setpoint issues which were investigated and resolved, the water levels were maintained within target setpoint ranges at the purge wells in 2024.

Based on the hourly data from the PMW-1M-09 pressure transducer, the groundwater elevation in this area of FZ-09 was maintained at an average elevation of 516.50 feet AMSL throughout 2024, with a maximum elevation observed of 522.08 feet AMSL on January 26, 2024. The average and maximum groundwater elevations recorded by the PMW-1M-09 pressure transducer were below the 526 feet AMSL elevation setpoint, which ensures that the FZ-09 outcrop along the NYPA access road remains unsaturated. The data were corroborated by the quarterly groundwater elevations for PMW-1M-09 presented in Table 3.5, based on hand water level measurements, which show an average groundwater elevation of less than 515.93 feet AMSL in 2024.

5.2.3 Bedrock Analytical Results

In accordance with the 2006 PMP, quarterly groundwater samples were collected from the Group B bedrock piezometers in the first, second, and third quarters of 2024. This sampling event was subsequently discontinued. The quarterly groundwater sampling events were performed during March 2024, May 2024, and July 2024. The fifth quarter Group A bedrock piezometer sampling event, as defined in the PMP, was last performed during November 2023 and therefore was not performed in 2024. Groundwater sampling logs are included in Appendix B.

The 2024 quarterly Group B bedrock piezometer sampling results are presented in Tables 3.7a through 3.7c. Samples were analyzed for the Site-specific list of organic acids. Site-specific screening levels (SLs) presented in the PMP are included in these tables and exceedances of these values are highlighted.

The 2024 data for the quarterly Group B bedrock piezometer sampling events indicate that samples from eleven locations collectively exhibited concentrations of chlrendic acid that exceeded the SL. These locations were AGW-

1M-07, AGW-1M-09, AGW-1U-06, B2L-11, D1U-05, F2U-02, F2U-04, G6-04, G6-06, H2U-02, and H5-09. No other concentrations of Site Organic Indicators (SOIs) exceeded the SLs in these quarterly sample results. These exceedances are generally consistent with results from the quarterly Group B bedrock piezometer sampling events conducted in previous years.

In a letter dated October 24, 2019, NYSDEC indicated that recent increases in concentrations of the SOIs 1,1,2,2-PCA, benzene, vinyl chloride, TCE, and cis-1,2-DCE, along with the non-SOI compounds chloroform, 1,1,2-trichloroethane (1,1,2-TCA), trans-1,2-DCE, and chlorobenzene had been noted for piezometer G6-05, suggesting that the groundwater plume had further migrated from the Site towards G6-05. Based on this, NYSDEC requested that a groundwater evaluation be completed in the area of G6-05. In response, GSH submitted a letter dated January 24, 2020 indicating that there was no evidence found to suggest that the groundwater plume would be expanding toward this well. The increasing concentrations were related to minor changes in groundwater flow patterns and the resulting redistribution of contaminant mass and were not considered evidence of an expanding plume. In addition, groundwater flow in the area of G6-05 had consistently been demonstrated to be towards the Site. GSH recommended continued monitoring and provision of updated graphs of the concentrations of these nine organic compounds detected in G6-05 on an annual basis as an appendix in the Annual PRR. The NYSDEC approved this recommendation in its 2019 PRR acceptance letter dated July 29, 2020. G6-05 is sampled every fifth quarter as part of the Group A Bedrock piezometer sampling event. As the Group A Bedrock piezometer sampling event was not performed in 2024, the concentration graphs for G6-05 were not updated for this PRR. Groundwater flow has remained consistently northerly to westerly in the area of the G6 cluster, thus, there is no mechanism for the contaminants at the Site to migrate southerly towards the G6 well cluster.

In the *Request for Modifications to Bedrock Monitoring Program* [Request for Modifications] (GHD, 2025) submittal, recommendations were made for modifications to the bedrock monitoring program based on a review of groundwater concentration data from 2003 through 2024. These recommendations are currently under review at NYSDEC.

The next statistical evaluation of chemistry data generated from the bedrock groundwater quality monitoring programs at the Site will be conducted in 2027 for monitoring results obtained through 2026.

The catch basin on the north side of the Greif Brothers' warehouse is sampled annually for NAPL organic acids. The analytical results for 2024 are presented in Table 3.8. None of the parameters were detected at concentrations above their respective reporting limits.

The bedrock groundwater data collected in 2024 demonstrate that the APL and NAPL purge well systems are operating properly and containment is being maintained in each of the flow zones. With the exception of the modifications to the bedrock monitoring program recommended in the Request for Modifications submittal, no changes to the bedrock purge or monitoring systems are recommended at this time.

5.2.4 Bedrock Monitoring Conclusions

The bedrock monitoring data collected in 2024 demonstrate that the APL and NAPL purge well systems are operating properly, and bedrock containment is being achieved in each of the flow zones.

5.3 Community Monitoring Program

5.3.1 APL Flux Monitoring Program

The APL plume flux composite sampling results are presented in Table 3.9. None of the APL plume flux parameters were detected above their respective reporting levels. As a result, calculation of the flux to the Gorge is not required. Groundwater sampling logs are included in Appendix B.

5.3.2 Quarterly Hydraulic Gradient Summary

Table 3.10 presents a summary of groundwater elevations and vertical hydraulic gradients at the paired community monitoring wells for each quarter of 2024. Downward vertical hydraulic gradients, as demonstrated by a higher groundwater elevation in the overburden monitoring well than in the corresponding bedrock groundwater monitoring well, were maintained at each of the well pairs throughout the year.

5.3.3 Soil Vapor Monitoring

Results of community monitoring well soil vapor monitoring are presented in Table 3.11. None of the six locations monitored exhibited any recordable concentrations of VOCs during the September 2024 monitoring event. Therefore, in accordance with the field procedure for community well vapor monitoring presented in Appendix B of the 2014 Annual PRR, groundwater sampling was not required.

5.3.4 Gorge Face Seep Survey

The Gorge Face Seep Survey was last conducted on November 10, 2021. In over 25 years of performing the Seep Survey (annually then biennially), no issues have been identified that required further action. In a letter dated August 18, 2022, the USEPA approved the request to reduce the Gorge Face Seep Survey to once every five years. The next Seep Survey will be conducted in the fall of 2025 for inclusion in the Seventh Five-Year Review Report due in 2026.

5.3.5 Community Monitoring Conclusions

The community monitoring data collected in 2024 demonstrate that the community is being properly protected by Site remedial systems.

5.4 Site Operations and Maintenance

There were no deviations in 2024 from the treatment system monitoring specified in the 2006 PMP. Ongoing O&M issues are discussed in the 2024 Quarterly Operations Reports.

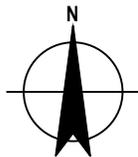
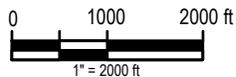
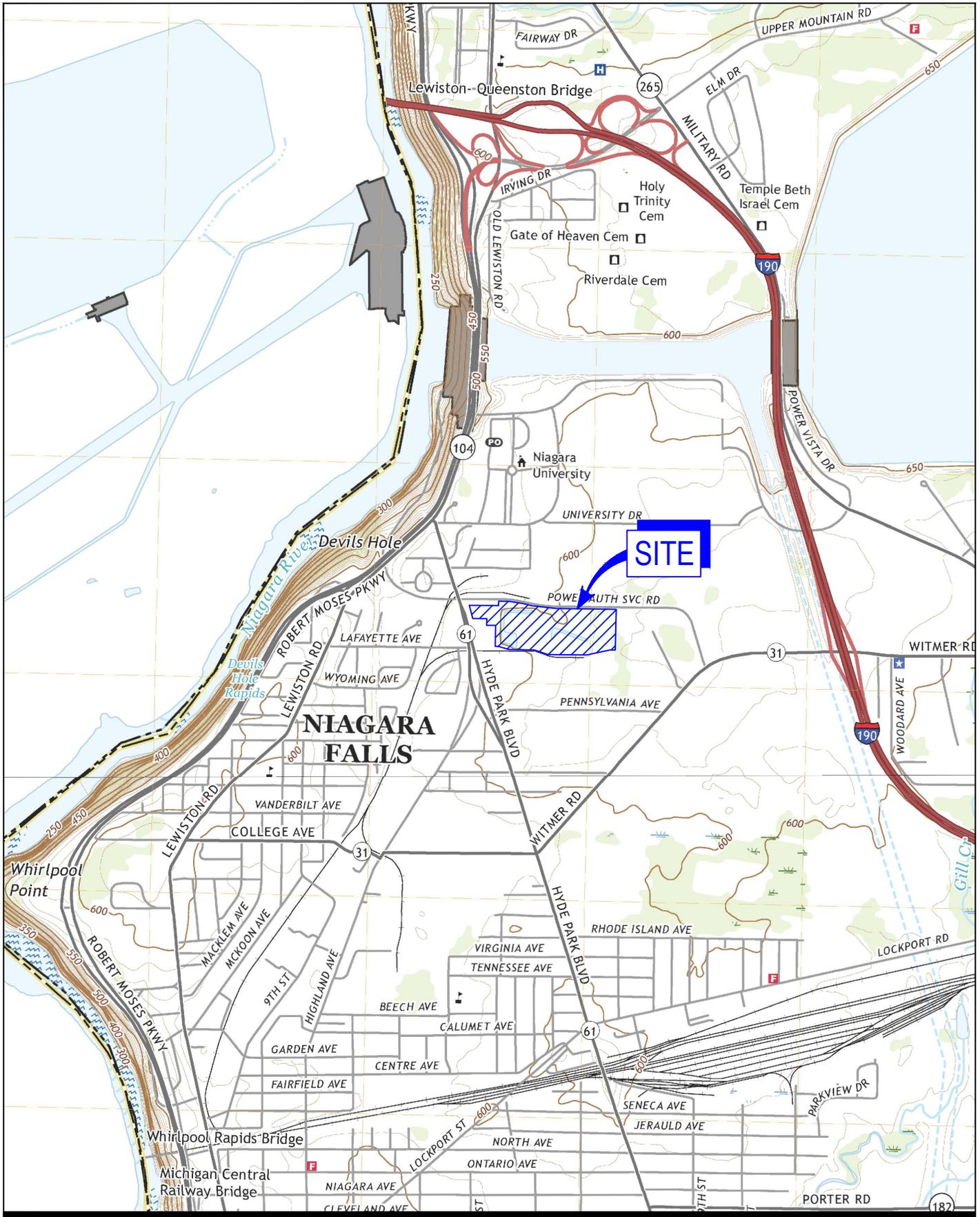
6. Recommendations

Based on the evaluation of data presented within this Annual PRR, no changes in the OM&M activities for the Site are recommended at this time, except for the following:

- Change the frequency of manual NAPL recovery and associated NAPL thickness measurements at SC-2, SC-5, and SC-6 to annual.

In addition, implement the changes to the bedrock monitoring program recommended in the *Request for Modifications to Bedrock Monitoring Program* (GHD, 2025). The Draft Revised PMP will be resubmitted to NYSDEC for review following NYSDEC's decision on the recommended modifications.

Figures

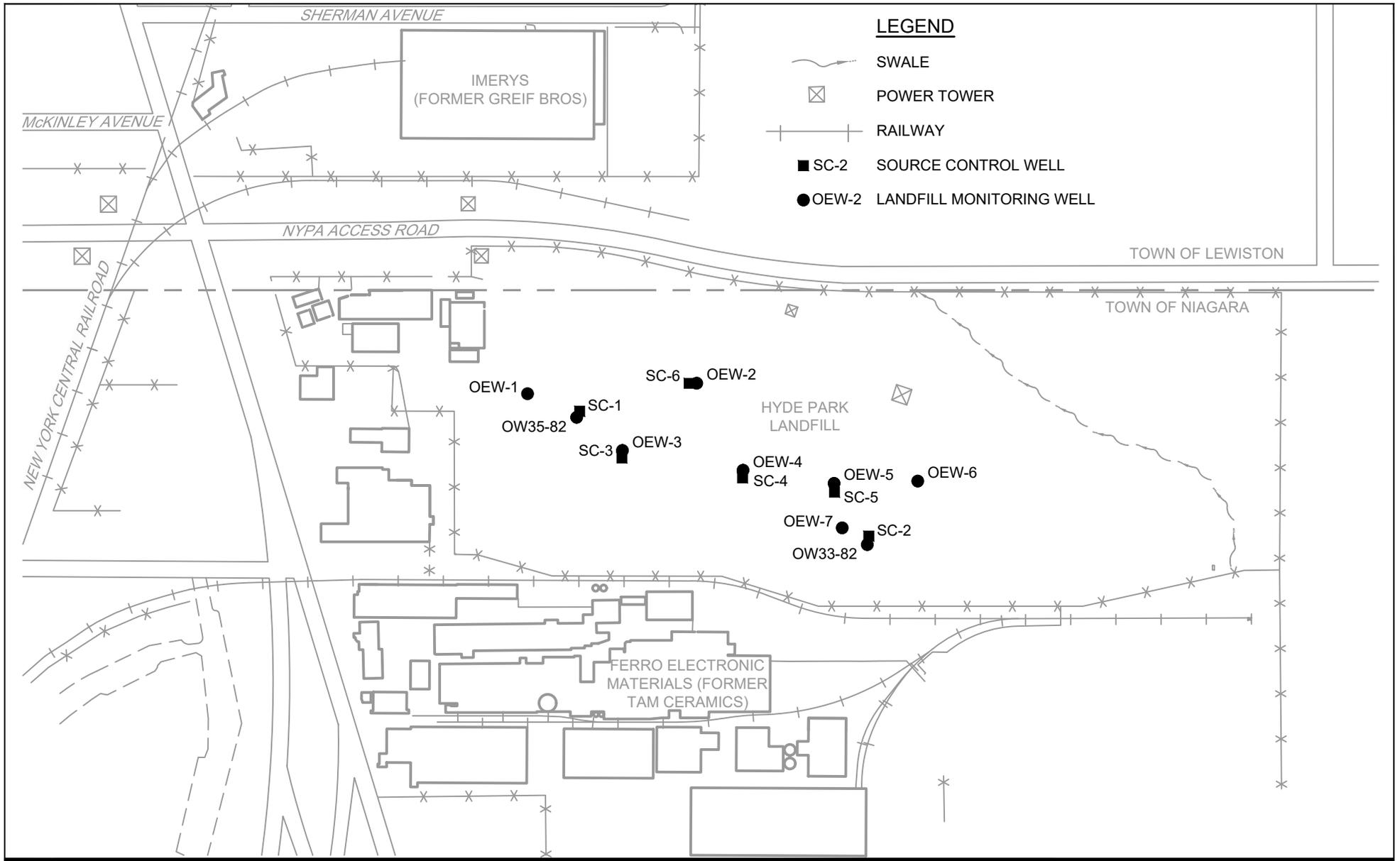


GLENN SPRINGS HOLDINGS, INC.
HYDE PARK LANDFILL SITE
NIAGARA FALLS, NEW YORK

Project No. 11230216
 Date April 2025

SITE LOCATION

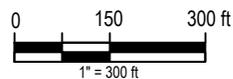
FIGURE 1.1



LEGEND

-  SWALE
-  POWER TOWER
-  RAILWAY
-  SC-2 SOURCE CONTROL WELL
-  OEW-2 LANDFILL MONITORING WELL

NOTE:
 SITE BENCHMARK IS A P.K. NAIL SET IN THE EAST FACE OF A
 POWER POLE LOCATED AT THE WEST END OF THE EXISTING HYDE
 PARK LANDFILL, ELEVATION = 612.77. DATUM NOT VERIFIED.

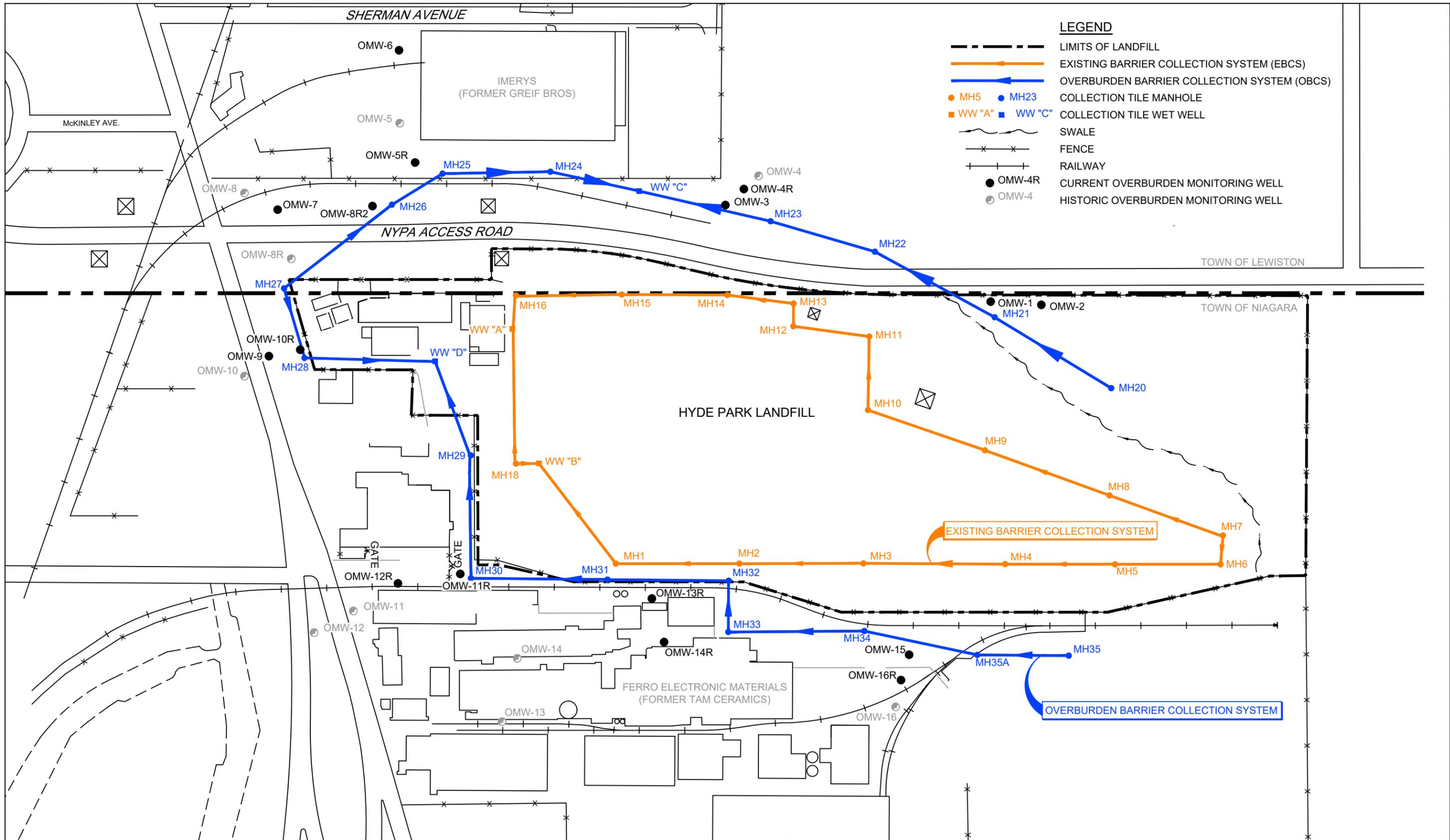


GLENN SPRINGS HOLDINGS, INC.
 HYDE PARK LANDFILL SITE
 NIAGARA FALLS, NEW YORK

Project No. 11230216
 Date April 2025

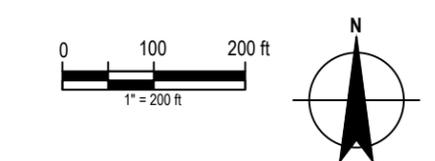
**SOURCE CONTROL SYSTEM WELL
 LOCATIONS**

FIGURE 1.2



LEGEND

	LIMITS OF LANDFILL
	EXISTING BARRIER COLLECTION SYSTEM (EBCS)
	OVERBURDEN BARRIER COLLECTION SYSTEM (OBCS)
	MH5
	MH23
	WW "A"
	WW "C"
	SWALE
	FENCE
	RAILWAY
	OMW-4R CURRENT OVERBURDEN MONITORING WELL
	OMW-4 HISTORIC OVERBURDEN MONITORING WELL



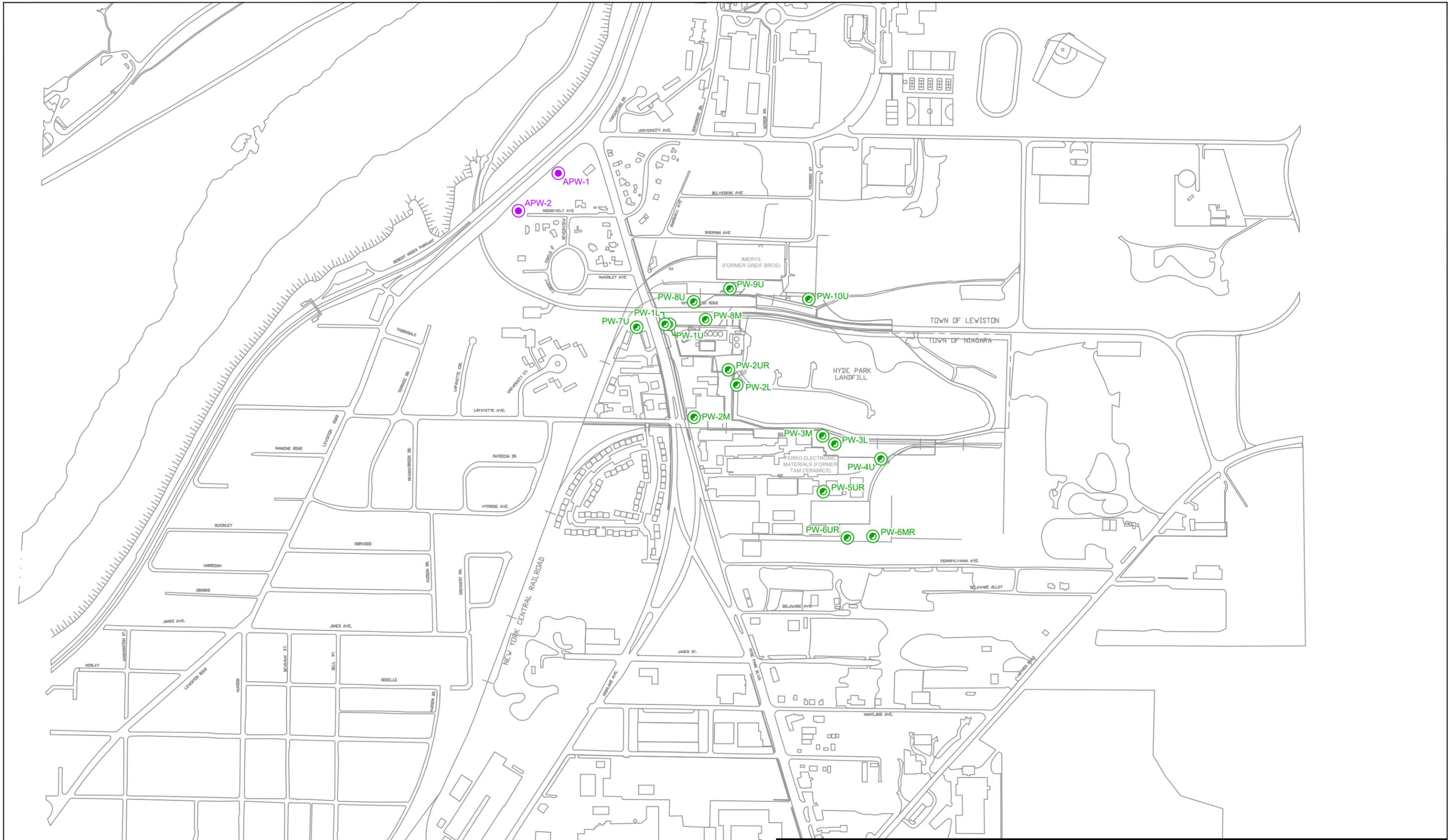
GLENN SPRINGS HOLDINGS, INC.
HYDE PARK LANDFILL SITE
NIAGARA FALLS, NEW YORK

Project No. 11230216
Date April 2025

OVERBURDEN RRT SYSTEM

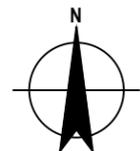
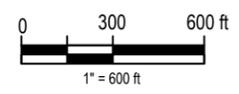
FIGURE 1.3

Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\11230862-Enviro Projs\Project Files\11230216\01 WIP\Env\Figures\RPT006\11230216-GHD-00-00-RPT-EN-D103_WA-006.dwg
Plot Date: 03 April 2025 12:01 PM



LEGEND

- APW-2 APL PLUME CONTAINMENT SYSTEM PURGE WELL
- PW NAPL PLUME CONTAINMENT SYSTEM PURGE WELL

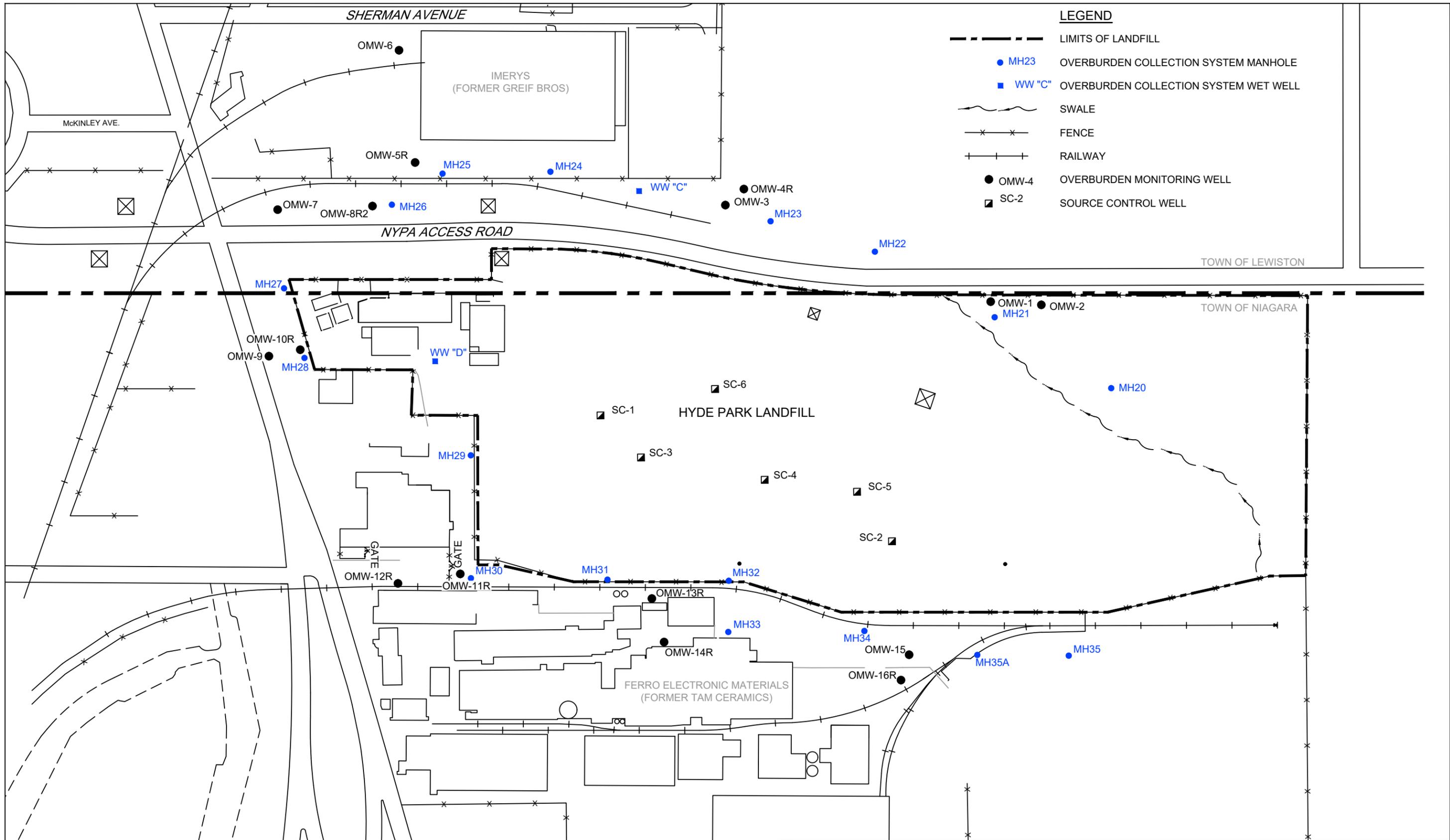


GLENN SPRINGS HOLDINGS, INC.
 HYDE PARK LANDFILL SITE
 NIAGARA FALLS, NEW YORK

BEDROCK RRT SYSTEM

Project No. 11230216
 Date April 2025

FIGURE 1.4



LEGEND

	LIMITS OF LANDFILL
	MH23 OVERBURDEN COLLECTION SYSTEM MANHOLE
	WW "C" OVERBURDEN COLLECTION SYSTEM WET WELL
	SWALE
	FENCE
	RAILWAY
	OMW-4 OVERBURDEN MONITORING WELL
	SC-2 SOURCE CONTROL WELL

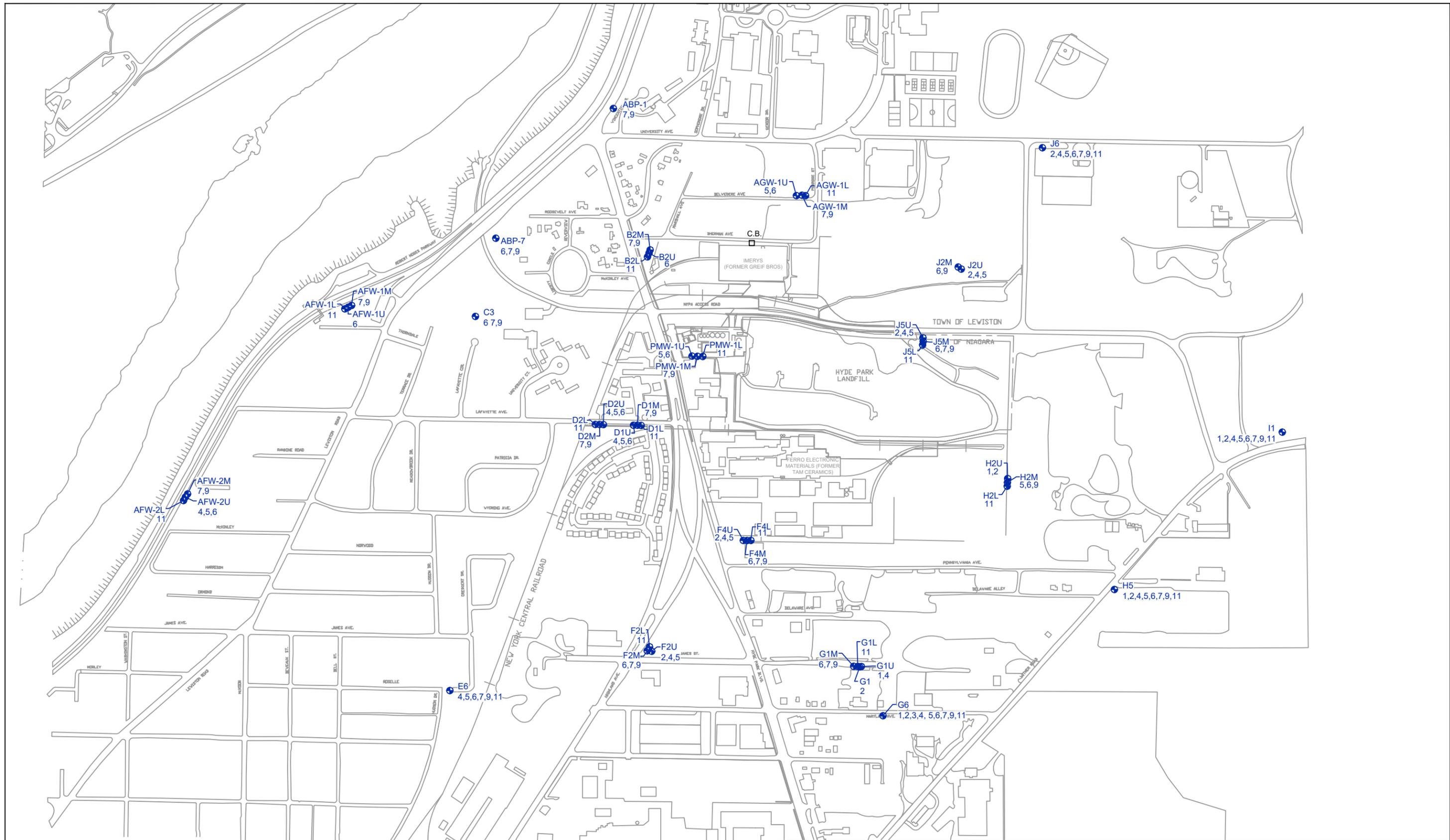
GLENN SPRINGS HOLDINGS, INC.
HYDE PARK LANDFILL SITE
NIAGARA FALLS, NEW YORK

Project No. 11230216
Date April 2025

OVERBURDEN MONITORING PROGRAM

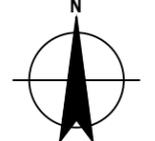
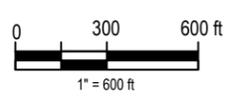
FIGURE 1.5

Filename: C:\ADSK\ACCDocs\GHD Services Pty Ltd\11230862-Enviro Projs\Project Files\11230216\01 WIP\Env\Figures\RPT006\11230216-GHD-00-00-RPT-EN-D105_WA-006.dwg
Plot Date: 03 April 2025 12:02 PM



LEGEND

- F2U BEDROCK FLOW ZONE PIEZOMETER LOCATION
- 2,4,5 FLOW ZONES INSTRUMENTED
- C.B. BEDROCK OPEN CATCHBASIN

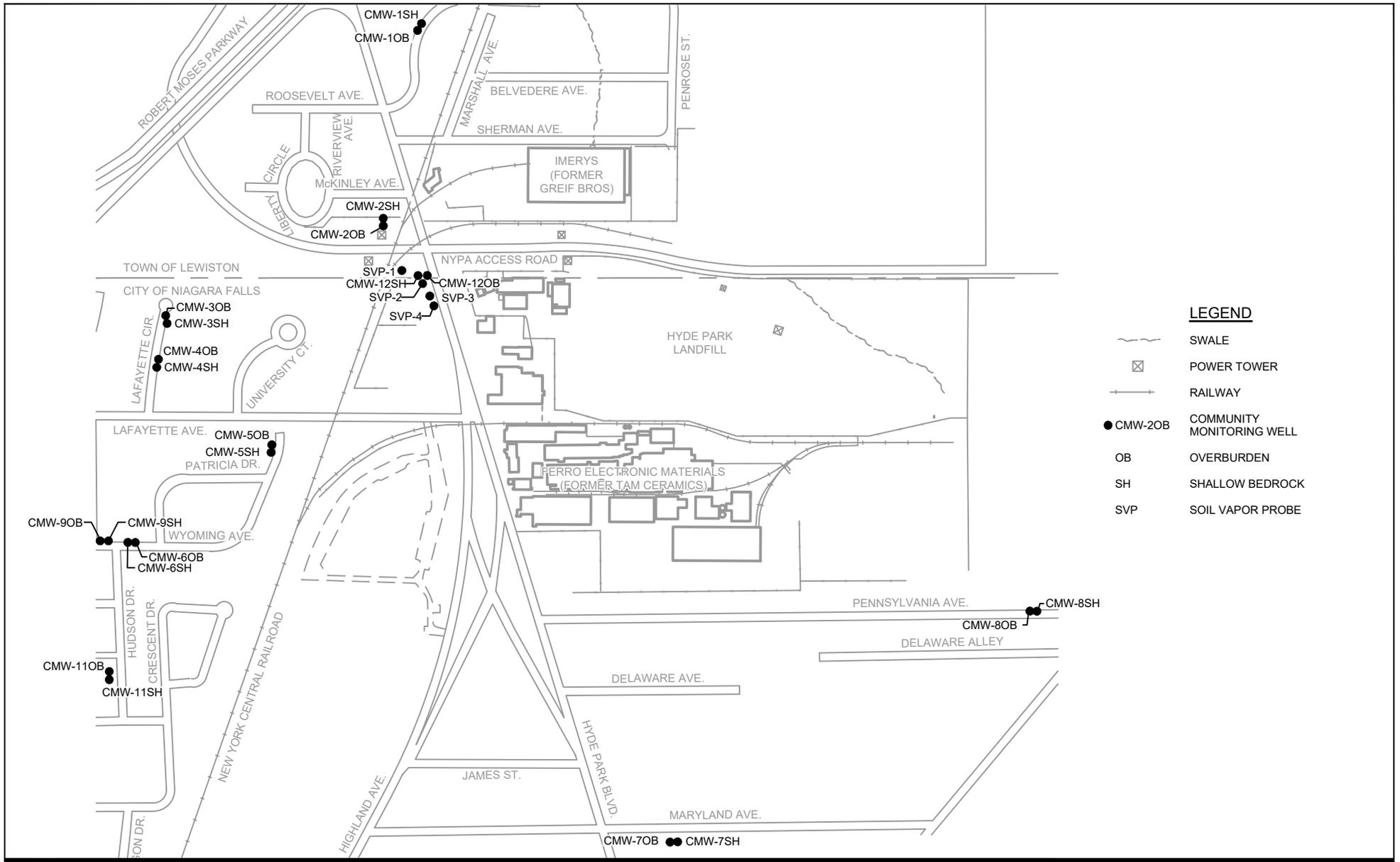


GLENN SPRINGS HOLDINGS, INC.
HYDE PARK LANDFILL SITE
NIAGARA FALLS, NEW YORK

BEDROCK MONITORING PROGRAM

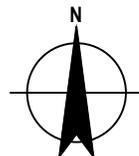
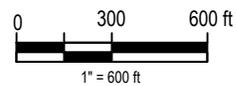
Project No. 11230216
Date April 2025

FIGURE 1.6



LEGEND

-  SWALE
-  POWER TOWER
-  RAILWAY
-  CMW-2OB
- OB** OVERBURDEN
- SH** SHALLOW BEDROCK
- SVP** SOIL VAPOR PROBE

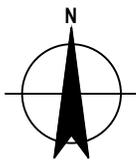
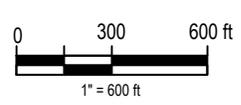
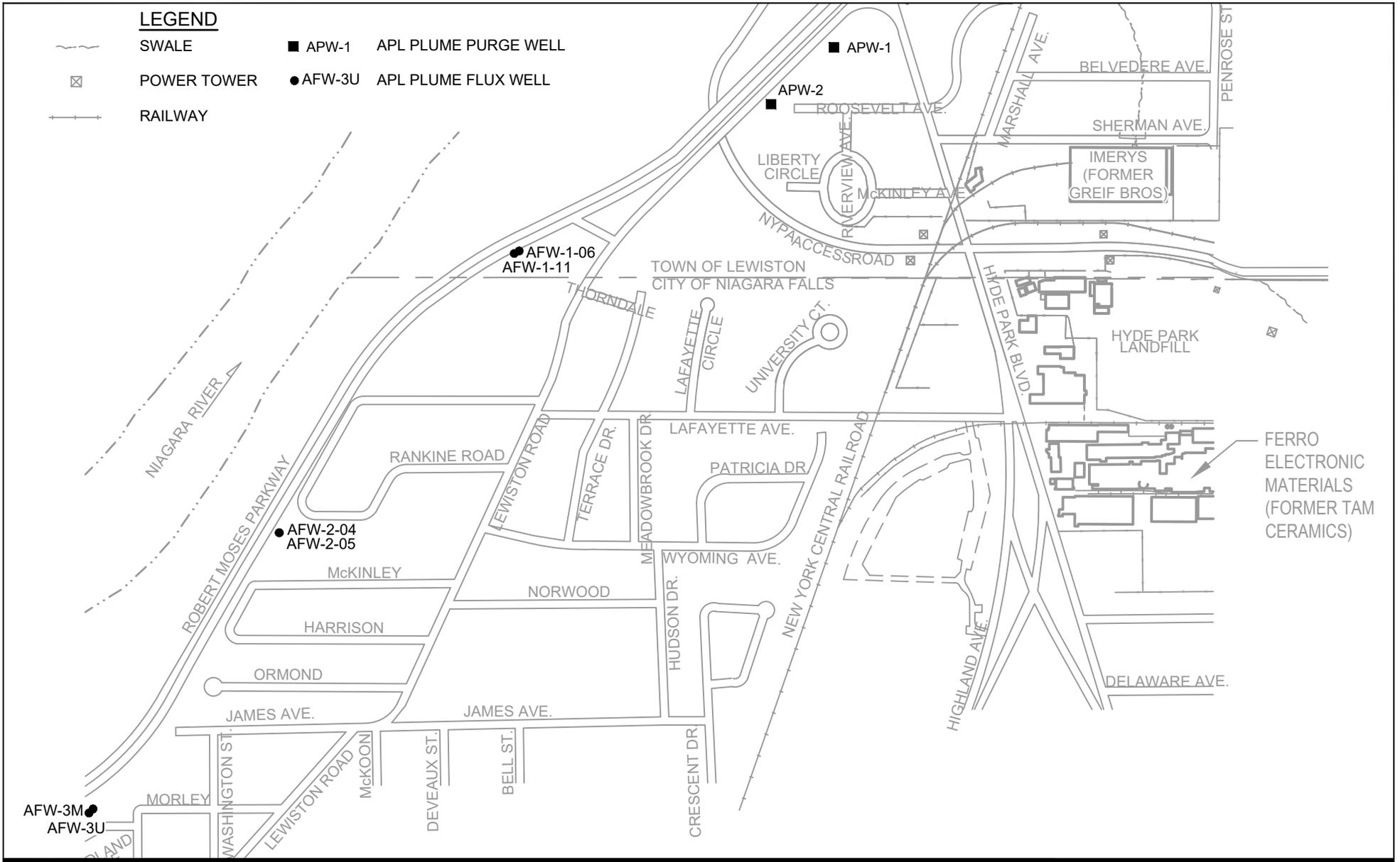


GLENN SPRINGS HOLDINGS, INC.
HYDE PARK LANDFILL SITE
NIAGARA FALLS, NEW YORK

Project No. 11230216
Date April 2025

COMMUNITY MONITORING PROGRAM

FIGURE 1.7



GLENN SPRINGS HOLDINGS, INC.
 HYDE PARK LANDFILL SITE
 NIAGARA FALLS, NEW YORK

**APL FLUX WELL LOCATIONS
 APL PLUME CONTAINMENT SYSTEM**

Project No. 11230216
 Date April 2025

FIGURE 3.1

Tables

Table 1.1

**PMP Monitoring Tasks - 2024
Hyde Park Landfill Site
Town of Niagara, New York**

Program	Frequency	Activity	Location/Description	PMP Table Reference	PRR Report Reference	Completed (Yes/No)	Comment
Overburden	Continuous	Water Level Measurement	Wet Wells	-	-	Yes	
	Daily	Total Water Flow	Decanters	-	-	Yes	
	Monthly	Purge NAPL NAPL Thickness	Source Control NAPL Recovery Well SC-3	Table 3.3	Table 3.1	Yes	
			Source Control NAPL Recovery Well SC-3	Table 3.3	-	Yes	
	Quarterly	Hand Water Level Measurement Hand Water Level Measurement Hand Water Level Measurement NAPL Thickness	Manholes	Table 3.2	Table 3.2	Yes	
			OBCS Overburden Monitoring Wells	Table 3.2	Table 3.2	Yes	
			Source Control Monitoring Wells	Table 3.3	Table 3.2	Yes	
Source Control Monitoring Wells			Table 3.3	Table 3.1	Yes		
Semiannual	NAPL Thickness	Source Control Monitoring Wells	Table 3.3	Table 3.1	Yes		
Annual	NAPL Presence NAPL Presence	Manholes	Table 3.2	Table 3.3	Yes		
		OBCS Overburden Monitoring Wells	Table 3.2	Table 3.3	Yes		
Bedrock	Continuous	Water Level Measurement	NAPL and APL Purge Wells	Table 4.1	-	Yes	See quarterly reports
	Hourly	Water Level Measurement	Bedrock Piezometer PMW-1M-09	-	-	Yes	See quarterly reports
	Daily	Total Water Flow	Decanters	-	-	Yes	
	Monthly	Total Water Flow	Bedrock Purge Wells	-	Table 3.6	Yes	
	Quarterly	Hand Water Level Measurement APL Sampling	All Bedrock Piezometers	-	Table 3.5	Yes	
			Group B Bedrock Piezometers	Table 4.2	Tables 3.7 a-c	Yes	Discontinued following Q3
	Every Fifth Quarter	APL Sampling	Group A Bedrock Piezometers	Table 4.2	-	No	Completed 4th Quarter 2023
	Annual	APL Sampling NAPL Presence	Open Catch Basin	-	Table 3.8	Yes	
Open Catch Basin			-	-	Yes	None present	
Five-Year	APL Sampling APL Sampling	Bloody Run Monitoring Wells	Table 7.1	-	No	Completed in 2021	
		Operating APL and NAPL Purge Wells	Table 7.1	-	No	Completed in 2021/2022	
Community	Quarterly	Hand Water Level Measurement	Bedrock Monitoring Wells	Table 5.4	Table 3.10	Yes	
		Hand Water Level Measurement	Overburden Monitoring Wells	Table 5.4	Table 3.10	Yes	
	Annual	APL Plume Flux Composite Sample Vapor Monitoring	APL Flux Piezometers and Purge Wells (APWs and AFWs)	Table 5.3/App D	Table 3.9	Yes	
			Overburden Monitoring Wells	Table 5.4	Table 3.11	Yes	
Five-Year	Gorge Face Seep Inspection	Seeps	Table 5.2	-	No	Completed in 2021	

Table 1.1

**PMP Monitoring Tasks - 2024
Hyde Park Landfill Site
Town of Niagara, New York**

Program	Frequency	Activity	Location/Description	PMP Table Reference	PRR Report Reference	Completed (Yes/No)	Comment
Treatment	Continuous	APL Sampling	Treated Effluent	Table 6.1	-	Yes	See quarterly reports
		Total Water Flow	Treated Effluent	Table 6.1	-	Yes	See quarterly reports
	Weekly	APL Sampling	Carbon Interstage	Table 6.1	Table 4.2	Yes	See quarterly reports
		APL Sampling	Treated Effluent	Table 6.1	-	Yes	
Quarterly	NAPL Volumes APL Sampling APL Sampling APL Sampling	Decaners	-	-	Table 4.1	Yes	See quarterly reports
		Leachate Feed	Table 6.1	Table 4.3	Yes		
		Sac Bed Interstage	Table 6.1	Table 4.4	Yes		
		Treated Effluent	Table 6.1	-	Yes		
Maintenance	Weekly	Fence Inspections	-	App A	-	Yes	Available upon request
	Annual	Well Inspections	-	App A	-	Yes	Available upon request
		Cap Inspection	-	App A	-	Yes	Available upon request
Site-Wide	Quarterly	Report	-	-	-	Yes	Completed in 2024
	Annual	Report	-	-	-	Yes	Completed in 2024
	Five-Year	Report	-	-	-	No	Completed in 2021

Notes:

- APL - Aqueous Phase Liquid
- NAPL - Non-Aqueous Phase Liquid
- OBCS - Overburden Barrier Collection System
- PMP - Performance Monitoring Plan
- PRR - Annual Periodic Review Report
- - Not applicable

**2024 Source Control Well NAPL Pumping Summary
Hyde Park Landfill Site
Town of Niagara, New York**

Month	SC-2			SC-3			SC-4			SC-5			SC-6			Total NAPL Recovered (gallons)
	NAPL Thickness (feet)	Groundwater Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Thickness (feet)	Groundwater Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Thickness (feet)	Groundwater Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Thickness (feet)	Groundwater Elevation (ft. AMSL)	NAPL Recovered (gallons)	NAPL Thickness (feet)	Groundwater Elevation (ft. AMSL)	NAPL Recovered (gallons)	
January - March	0.7	603.39	0.0	2.4	599.00	32.6	2.3	599.65	8.3	NA	602.42	NA	NA	610.50	NA	40.9
April - June	0.38	603.64	0.0	2.20	598.91	31.5	2.13	599.46	7.0	0.05	602.41	0.0	0.06	609.79	0.0	38.5
July - September	0.55	603.12	0.0	2.50	598.75	29.8	2.45	600.00	3.5	NA	Dry	NA	NA	609.39	NA	33.3
October - December	0.85	602.88	0.0	2.70	598.47	28.3	1.90	600.30	6.5	0.30	Dry	0.0	0.20	608.85	0.0	34.8
Totals			0.0			122.1			25.3			0.0			0.0	147.4

Notes:

ft. AMSL - Feet Above Mean Sea Level

NAPL - Non-Aqueous Phase Liquid

NA - Not Applicable

Dry - Well dry at time of measurement

NAPL thickness measurements indicated are quarterly measurements at SC-2, SC-3, and SC-4; and semiannual measurements at SC-5 and SC-6. Monthly NAPL thickness measured at SC-3 is not shown.

NAPL Recovery is monthly at SC-3; quarterly at SC-2 and SC-4; and semiannual at SC-5 and SC-6. Quarterly total shown for SC-3 comprises three months.

Groundwater elevations indicated are quarterly measurements.

**2024 Overburden Quarterly Groundwater Elevation Summary
Hyde Park Landfill Site
Town of Niagara, New York**

Well	Reference Elevation (ft. AMSL)	Groundwater	Groundwater	Groundwater	Groundwater
		Elevation Quarter 1 3/5/2024 (ft. AMSL)	Elevation Quarter 2 5/16/2024 (ft. AMSL)	Elevation Quarter 3 9/5/2024 (ft. AMSL)	Elevation Quarter 4 12/6/2024 (ft. AMSL)
OMW-1	605.28	598.90	598.60	598.12	597.58
OMW-2	605.99	602.37	601.65	599.68	600.21
OMW-3	598.63	588.06	588.54	587.18	585.55
OMW-4R	601.17	589.94	589.92	589.07	587.84
OMW-5R	591.31	585.24	585.53	582.71	584.87
OMW-6	587.62	585.68	585.60	585.45	NM ⁽¹⁾
OMW-7	592.74	584.83	584.09	584.09	584.29
OMW-8R2	594.67	584.87	584.95	585.27	583.96
OMW-9	595.52	587.20	587.02	586.81	NM ⁽¹⁾
OMW-10R	595.13	586.00	585.99	585.96	586.48
OMW-11R	597.52	592.67	585.17	592.17	592.69
OMW-12R	597.20	592.63	592.61	591.83	592.01
OMW-13R	601.50	593.85	594.00	593.88	593.40
OMW-14R	599.64	597.08	Dry	597.56	594.45
OMW-15	607.48	601.83	602.83	601.20	600.91
OMW-16R	607.62	603.44	603.06	600.99	602.79
SC-2	625.61	603.39	603.64	603.12	602.88
SC-3	638.72	599.00	598.91	598.75	598.47
SC-4	639.35	599.65	599.46	600.00	600.30
SC-5	634.07	602.42	602.41	Dry	Dry
SC-6	631.15	610.50	609.79	609.39	608.85
MH-20	605.87	601.26	601.27	601.20	601.15
MH-21	599.77	593.76	593.75	593.60	593.63
MH-22	593.37	Dry	Dry	Dry	Dry
MH-23	587.05	Dry	Dry	Dry	Dry
MH-24	582.57	574.89	576.59	574.31	574.15
MH-25	583.82	576.57	578.20	575.97	575.77
MH-26	584.48	575.68	577.33	575.50	576.16
MH-27	586.12	575.48	575.70	575.51	575.48
MH-28	585.23	569.15	569.07	569.11	568.83
MH-29	582.90	589.63	589.66	589.55	589.63
MH-30	588.37	Dry	Dry	589.49	589.37
MH-31	590.10	Dry	Dry	580.54	578.43
MH-32	592.01	Dry	582.36	582.37	582.36
MH-33	592.51	Dry	583.76	583.79	583.71
MH-34	597.64	Dry	591.16	591.19	591.14
MH-35	605.69	Dry	599.14	598.21	598.23
MH-35A	605.69	Dry	598.50	599.11	599.10

Notes:

- Dry - No water present in well
 NM⁽¹⁾ - Not measured due to ice and snow accumulation on top of well
 ft. AMSL - Feet Above Mean Sea Level
 * - Water level could not be measured due to presence of overlying snow bank

**2024 Overburden NAPL Presence Monitoring
Hyde Park Landfill Site
Town of Niagara, New York**

Well I.D.	January 3 and March 29, 2024 (Yes/No)
OMW-1	No
OMW-2	No
OMW-3	No
OMW-4R	No
OMW-5R	No
OMW-6	No
OMW-7	No
OMW-8R2	No
OMW-9	No
OMW-10R	No
OMW-11	No
OMW-12R	No
OMW-13R	No
OMW-14R	No
OMW-15	No
OMW-16R	No
MH-20	No
MH-21	No
MH-22	No
MH-23	No
MH-24	No
MH-25	No
MH-26	No
MH-27	No
MH-28	No
MH-29	Yes
MH-30	Yes
MH-31	Yes
MH-32	Yes
MH-33	No
MH-34	No
MH-35	No
MH-35A	No
Wet Well C	No
Wet Well D	Yes

Table 3.4

**2024 Overburden Collection Systems Monthly Average Flow (GPM) Summary
Hyde Park Landfill Site
Town of Niagara, New York**

Month	EBCS WET WELL A	OBCS WET WELL C	OBCS WET WELL D	Total EBCS	Total OBCS
January	1.1	23.2	30.2	1.1	53.5
February	0.6	16.0	12.1	0.6	28.1
March	0.5	13.1	7.8	0.5	20.9
April	1.0	4.2	35.2	1.0	39.4
May	0.4	3.1	9.5	0.4	12.6
June	0.2	12.4	7.4	0.2	19.8
July	0.2	10.5	7.4	0.2	17.9
August	0.1	3.2	2.3	0.1	5.5
September	0.0	2.4	2.1	0.0	4.5
October	0.0	1.5	1.6	0.0	3.1
November	0.0	2.3	2.2	0.0	4.5
December	0.2	5.1	7.0	0.2	12.2
Annual Average	0.4	8.1	10.4	0.4	18.5

Notes:

- GPM - Gallons per minute
EBCS - Existing Barrier Collection System
OBCS - Overburden Barrier Collection System

**2024 Bedrock Quarterly Groundwater Elevation Summary - Piezometers
Hyde Park Landfill Site
Town of Niagara, New York**

Well	Reference Elevation (ft. AMSL)	Groundwater Elevation Quarter 1 3/5/2024 (ft. AMSL)	Groundwater Elevation Quarter 2 5/16/2024 (ft. AMSL)	Groundwater Elevation Quarter 3 9/5/2024 (ft. AMSL)	Groundwater Elevation Quarter 4 12/6/2024 (ft. AMSL)
Flow Zone 1					
G1U-01	617.08	603.59	Dry	600.82	598.88
G6-01	609.24	603.48	603.44	600.86	599.14
H2U-01	620.92	609.70	609.64	606.43	605.91
H5-01	617.61	601.31	604.70	599.41	602.16
I1-01	625.58	602.45	601.46	598.14	597.05
Flow Zone 2					
F2U-02	599.89	575.91	575.76	574.86	574.86
F4U-02	602.32	586.98	586.35	585.42	585.18
G1-02	616.86	593.71	577.68	590.91	590.31
G6-02	608.65	592.20	591.90	590.62	590.22
H2U-02	620.88	595.08	594.68	592.83	593.48
H5-02	617.47	594.88	595.17	592.83	592.37
I1-02	625.47	588.63	589.29	586.23	584.45
J2U-02	609.66	597.13	596.28	593.06	592.84
J5U-02	606.21	597.76	596.88	593.57	593.23
J6-02	609.23	598.49	597.38	593.37	594.42
Flow Zone 4					
AFW-2U-04	593.48	576.92	577.54	576.03	574.98
D1U-04	593.77	581.67	581.61	580.05	580.23
D2U-04	590.65	579.80	579.53	578.13	578.14
E6-04	578.23	566.03	565.80	565.18	565.28
F2U-04	599.76	578.31	578.16	576.72	576.91
F4U-04	602.19	588.18	587.14	584.89	584.92
F6-04	588.06	570.11	570.10	569.79	569.67
G1U-04	616.96	593.76	593.15	590.86	589.66
G6-04	609.15	592.45	592.10	590.94	590.62
H5-04	617.40	594.82	594.56	592.70	592.31
I1-04	625.30	584.98	586.65	584.25	583.30
J2U-04	609.42	594.10	593.29	590.74	590.55
J5U-04	606.05	589.32	588.58	586.28	585.93
J6-04	609.12	581.40	580.88	579.39	579.27
Flow Zone 5					
AFW-2U-05	593.33	576.87	577.50	575.90	574.84
AGW-1U-05	591.80	587.15	586.05	583.13	584.85
D1U-05	593.51	580.60	581.09	579.71	579.69
D2U-05	590.56	580.31	580.76	579.40	579.30
E6-05	578.04	566.09	565.90	565.17	565.34
F2U-05	599.64	578.79	578.50	577.04	577.16
F4U-05	602.06	586.86	584.91	581.95	581.96
F6-05	587.85	570.00	570.03	569.68	569.57
G6-05	609.13	592.28	591.98	590.71	590.41
H2M-05	621.59	592.89	593.02	591.69	591.51
H5-05	617.31	593.48	593.42	591.31	591.74
I1-05	625.25	552.78	553.93	553.47	552.24
J2U-05	609.30	581.60	580.95	579.19	578.54
J5U-05	605.87	582.18	581.58	581.23	578.96
J6-05	609.02	580.89	580.45	578.95	578.40
PMW-1U-05	598.00	579.43	581.08	579.09	579.31

**2024 Bedrock Quarterly Groundwater Elevation Summary - Piezometers
Hyde Park Landfill Site
Town of Niagara, New York**

Well	Reference Elevation (ft. AMSL)	Groundwater Elevation Quarter 1 3/5/2024 (ft. AMSL)	Groundwater Elevation Quarter 2 5/16/2024 (ft. AMSL)	Groundwater Elevation Quarter 3 9/5/2024 (ft. AMSL)	Groundwater Elevation Quarter 4 12/6/2024 (ft. AMSL)
Flow Zone 6					
ABP-7-06	575.78	Dry	Dry	Dry	Dry
AFW-1U-06	571.83	556.49	556.27	556.27	556.29
AFW-2U-06	593.22	545.27	545.21	545.20	545.11
AGW-1U-06	591.66	552.80	552.92	552.52	553.01
B2U-06	589.29	553.58	553.81	553.26	553.86
C3-06	585.78	Dry	Dry	Dry	Dry
D1U-06	593.25	547.89	548.15	547.49	546.43
D2U-06	590.38	548.57	548.85	549.15	547.13
E6-06	577.99	573.34	572.06	571.14	570.58
F2M-06	599.06	547.21	Dry	546.06	545.54
F4M-06	602.05	570.40	550.35	550.16	550.00
F6-06	587.84	572.40	571.97	571.02	570.66
G1M-06	616.75	572.37	571.99	571.07	570.50
G6-06	609.09	573.30	591.99	571.84	571.17
H2M-06	621.42	585.31	586.43	586.30	585.85
H5-06	617.17	594.99	590.24	589.79	588.69
I1-06	625.15	548.75	548.75	549.24	550.18
J2M-06	608.94	554.18	554.39	555.08	552.40
J5M-06	606.22	547.72	547.90	547.36	545.35
J6-06	608.93	555.19	555.69	554.93	554.50
PMW-1U-06	597.92	548.16	548.47	548.02	546.89
Flow Zone 7					
ABP-1-07	576.44	546.87	546.92	546.52	546.65
ABP-7-07	575.73	534.77	533.40	533.09	533.18
AFW-1M-07	571.41	Dry	Dry	Dry	Dry
AFW-2M-07	593.44	526.63	526.70	526.61	526.53
AGW-1M-07	592.91	545.07	551.33	553.58	546.78
B2M-07	589.52	530.44	530.39	Dry	530.37
C3-07	585.62	544.70	544.72	542.61	541.39
D1M-07	594.15	525.60	525.35	524.15	524.64
D2M-07	590.77	523.02	525.61	528.42	525.46
E6-07	577.91	554.81	555.27	554.17	554.40
F2M-07	598.91	516.81	516.61	515.84	515.81
F4M-07	601.91	523.28	523.33	521.81	521.41
F6-07	587.68	567.73	567.88	567.47	567.70
G1M-07	616.68	575.76	575.73	571.67	569.23
G6-07	609.06	576.25	576.16	572.36	570.26
H5-07	617.05	561.42	556.01	555.53	555.55
I1-07	625.14	545.27	548.95	552.44	546.62
J5M-07	606.07	545.40	550.22	553.15	547.14
J6-07	608.85	545.49	549.67	552.80	546.41
PMW-1M-07	598.50	529.95	528.70	529.03	528.60

**2024 Bedrock Quarterly Groundwater Elevation Summary - Piezometers
Hyde Park Landfill Site
Town of Niagara, New York**

Well	Reference Elevation (ft. AMSL)	Groundwater Elevation Quarter 1 3/5/2024 (ft. AMSL)	Groundwater Elevation Quarter 2 5/16/2024 (ft. AMSL)	Groundwater Elevation Quarter 3 9/5/2024 (ft. AMSL)	Groundwater Elevation Quarter 4 12/6/2024 (ft. AMSL)
Flow Zone 9					
ABP-1-09	575.49	534.52	534.96	534.96	534.58
ABP-7-09	575.67	535.59	534.66	534.15	534.29
AFW-1M-09	571.12	526.00	525.77	524.59	524.41
AFW-2M-09	593.32	521.06	521.06	521.00	520.86
AGW-1M-09	592.75	545.24	550.87	553.29	548.20
B2M-09	589.34	Dry	Dry	Dry	529.64
C3-09	585.00	542.44	542.92	541.49	540.26
D1M-09	594.02	516.87	519.37	533.99	521.07
D2M-09	590.66	515.62	515.52	515.30	515.12
E6-09	577.82	552.76	553.05	552.47	551.99
F2M-09	598.71	515.43	515.36	515.36	514.49
F4M-09	601.79	515.38	515.24	514.39	514.45
F6-09	587.53	571.63	570.72	569.80	569.42
G1M-09	616.58	577.33	577.13	573.89	572.03
G6-09	608.98	576.63	576.53	572.43	569.99
H2M-09	621.32	545.47	548.24	550.62	546.23
H5-09	616.93	545.24	548.70	551.60	546.09
I1-09	624.91	563.28	564.27	563.83	563.56
J2M-09	608.77	546.31	550.06	552.97	547.17
J5M-09	605.82	545.72	549.89	552.61	547.01
J6-09	608.76	563.98	565.48	565.96	563.29
PMW-1M-09	598.34	516.34	Dry (<515.90)	Dry (<516.02)	Dry (<515.44)
Flow Zone 11					
AFW-1L-11	572.10	508.14	508.27	505.94	506.43
AFW-2L-11	593.43	496.38	496.86	496.41	495.66
AGW-1L-11	592.71	585.91	585.51	585.48	584.96
B2L-11	589.65	500.98	499.75	498.48	498.30
D1L-11	593.80	503.51	503.58	504.40	502.66
D2L-11	590.21	524.54	524.65	504.26	523.86
E6-11	577.72	531.97	532.56	531.10	528.50
F2L-11	598.94	555.85	555.96	555.74	555.66
F4L-11	602.22	569.37	539.22	569.18	572.07
F6-11	587.40	527.60	528.04	526.75	525.37
G1L-11	616.84	552.72	555.49	555.62	551.54
G6-11	608.89	556.19	558.99	559.21	554.86
H2L-11	620.73	553.30	553.10	553.24	553.56
H5-11	616.81	542.07	542.58	542.21	541.09
I1-11	624.75	547.49	547.05	547.25	547.34
J5L-11	607.20	542.84	545.35	546.60	541.83
J6-11	608.68	585.91	586.18	585.53	584.44
PMW-1L-11	598.84	513.48	513.48	513.49	513.73

Notes:

- Dry - No water present in well
- ft. AMSL - Feet Above Mean Sea Level

Table 3.6

**2024 Bedrock Purge Well Monthly Flow Rate (GPM) Summary
Hyde Park Landfill Site
Town of Niagara, New York**

Month	PW-1U	PW-1L	PW-2UR	PW-2M	PW-2L	PW-3M	PW-3L	PW-4U	PW-5UR	PW-6UR	PW-6MR
January	0.11	3.99	0.85	0.29	1.26	3.18	3.70	0.04	1.92	0.81	5.73
February	0.11	1.25	0.89	8.09	0.48	3.36	2.67	0.05	0.05	0.86	4.91
March	0.10	0.89	1.01	3.58	0.28	2.62	2.28	0.06	0.01	0.85	4.48
April	0.15	1.77	0.84	4.34	0.87	2.99	2.35	0.05	1.70	0.92	4.29
May	0.13	0.91	0.18	6.57	0.30	3.73	2.21	0.05	2.01	0.80	4.62
June	0.13	0.88	1.03	6.08	0.18	3.00	2.14	0.05	1.88	0.79	4.33
July	0.14	0.86	0.97	5.50	0.16	3.70	2.87	0.07	1.78	0.75	4.17
August	0.11	0.72	0.83	4.68	0.00	4.53	2.04	0.07	1.61	0.62	4.10
September	0.08	0.63	0.58	4.54	0.00	3.57	0.50	0.07	1.23	0.44	3.25
October	0.09	0.65	0.70	5.83	0.00	7.41	0.18	0.12	1.46	0.56	4.31
November	0.08	0.60	0.65	4.27	0.00	3.30	0.13	0.10	1.36	0.48	4.01
December	0.09	0.74	0.67	4.93	0.00	0.90	0.10	0.08	0.88	0.55	3.80
Annual Average	0.11	1.16	0.77	4.89	0.29	3.52	1.77	0.07	1.33	0.70	4.33

Month	PW-7U	PW-8M	PW-8U	PW-9U	PW-10U	APW-1	APW-2
January	0.37	0.31	0.68	1.11	1.85	0.93	0.13
February	0.46	0.00	0.66	1.12	1.65	0.33	0.10
March	0.23	0.00	0.59	1.00	1.80	0.35	0.07
April	0.00	0.28	0.69	1.16	1.89	0.46	0.03
May	0.00	0.00	0.58	1.07	1.70	0.27	0.01
June	0.00	0.00	0.42	0.98	1.65	0.21	0.68
July	0.00	0.00	0.35	0.75	1.58	0.10	0.72
August	0.00	0.00	0.48	0.88	1.33	0.14	0.45
September	0.00	0.00	0.34	0.65	0.79	0.17	0.36
October	0.00	0.00	0.45	0.87	1.10	0.21	0.31
November	0.00	0.00	0.06	0.78	1.02	0.19	0.33
December	0.00	0.00	0.00	0.77	1.05	0.27	0.68
Annual Average	0.09	0.05	0.44	0.93	1.45	0.30	0.32

Notes:

GPM - Gallons per minute

**Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
First Quarter 2024
Hyde Park Landfill Site
Town of Niagara, New York**

Sample Location:			ABP-7-09	AGW-1M-07	AGW-1M-09	AGW-1U-06	C3-07
Sample ID:			ABP-7-9-0324	AGW-1M-7-0324	AGW-1M-9-0324	AGW-1U-6-0324	C3-7-0323
Sample Date:			3/18/2024	3/18/2024	3/19/2024	3/18/2024	3/18/2024
Parameters	Units	Screening Level					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	16 J	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	250 U	130 J	71 J	250 U



Sample Location:			C3-09	D1U-04	D1U-05	F2M-09	F2U-02
Sample ID:			C3-9-0324	D1U-04-0324	D1U-05-0324	F2M-9-0324	F2U-2-0324
Sample Date:			3/18/2024	3/21/2024	3/21/2024	3/19/2024	3/19/2024
Parameters	Units	Screening Level					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	250 U	110 J	250 U	180 J

Sample Location:			F2U-04	G1U-01	G6-01	G6-04	G6-06
Sample ID:			F2U-4-0324	G1U-1-0324	G6-1-0324	G6-4-0324	G6-6-0324
Sample Date:			3/19/2024	3/20/2024	3/20/2024	3/20/2024	3/20/2024
Parameters	Units	Screening Level					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	1700	930
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	400	240
4-Chlorobenzoic acid	µg/L	7,300	30 U	31	30 U	3700	2400
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	350	250 U	250 U	83 J	42 J

Sample Location:			H2U-02	H2U-02	H5-09
Sample ID:			H2U-2-0324	W7-10-0324	H5-9-0324
Sample Date:			3/19/2024	3/19/2024	3/20/2024
Parameters	Units	Screening Level		Duplicate	
Organic Acids					
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	120
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	26 J
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U
Chlorendic acid	µg/L	50	150 J	160 J	96 J

Notes:

- µg/L - Micrograms per liter
- J - Estimated concentration
- U - Not detected at the associated reporting limit
- 350 - Concentration exceeds Screening Level

**Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Second Quarter 2024
Hyde Park Landfill Site
Town of Niagara, New York**

Sample Location:			ABP-7-09	AGW-1M-07	AGW-1M-09	AGW-1M-09	AGW-1U-06
Sample ID:			ABO-7-09-0524	AGW-1M-07-0524	AGW-1M-09-0524	W7-10-0524	AGW-1U-06-0524
Sample Date:			5/20/2024	5/22/2024	5/22/2024	5/22/2024	5/22/2024
			Duplicate				
Parameters	Units	Screening Level					
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	70 J	120 J	130 J	98 J

Sample Location:			B2L-11	C3-07	C3-09	D1U-04	D1U-05
Sample ID:			B2L-11-0524	C3-07-0524	C3-09-0524	D1U-04-0524	D1U-05-0524
Sample Date:			5/20/2024	5/20/2024	5/20/2024	5/22/2024	5/22/2024
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	60	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	140 J	250 U	250 U	250 U	170 J

Sample Location:			F2M-09	F2U-02	F2U-04	G1U-01	G6-01
Sample ID:			F2M-09-0524	F2U-02-0524	F2U-04-0524	G1U-01-0524	G6-01-0524
Sample Date:			5/21/2024	5/21/2024	5/21/2024	5/20/2024	5/21/2024
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	180 J	380	250 U	250 U

Sample Location:			G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-04-0524	G6-06-0524	H2U-02-0524	H5-09-0524
Sample Date:			5/21/2024	5/21/2024	5/23/2024	5/20/2024
Organic Acids						
2-Chlorobenzoic acid	µg/L	7,300	2600	1300	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	580	300	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	7100	3800	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	230 J	120 J	150 J	77 J

Notes:

- µg/L - Micrograms per liter
- J - Estimated concentration
- U - Not detected at the associated reporting limit
- 380 - Concentration exceeds Screening Level

**Analytical Results Summary
Quarterly Group B Bedrock Piezometer Sampling
Third Quarter 2024
Hyde Park Landfill Site
Town of Niagara, New York**

Sample Location:			ABP-7-09	AGW-1M-07	AGW-1M-07	AGW-1M-09	AGW-1U-06
Sample ID:			ABW-7-9-0824	AGW-1M-7-0824	W7-10-0824	AGW-1M-9-0824	AGW-1U-6-0824
Sample Date:			7/30/2024	7/31/2024	7/31/2024	7/31/2024	7/31/2024
Parameters	Units	Screening Level	Duplicate				
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	85 J	92 J	140 J	56 J

Sample Location:			B2L-11	C3-07	C3-09	D1U-04	D1U-05
Sample ID:			B2L-11-0824	C3-7-0824	C3-9-0824	D1U-4-0824	D1U-5-0824
Sample Date:			7/27/2024	7/30/2024	7/30/2024	7/30/2024	7/30/2024
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	15 J	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	140 J	250 U	250 U	250 U	170 J

Sample Location:			F2M-09	F2U-02	F2U-04	G1U-01	G6-01
Sample ID:			F2M-9-0824	F2U-2-0824	F2U-4-0824	G1U-1-0824	G6-1-0824
Sample Date:			7/31/2024	7/31/2024	7/31/2024	7/29/2024	7/29/2024
Organic Acids							
2-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	30 U	30 U	30 U	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	250 U	130 J	350	250 U	250 U

Sample Location:			G6-04	G6-06	H2U-02	H5-09
Sample ID:			G6-4-0824	G6-6-0824	H2U-2-0824	H5-9-0824
Sample Date:			7/29/2024	7/29/2024	8/1/2024	7/29/2024
Organic Acids						
2-Chlorobenzoic acid	µg/L	7,300	1800	840	30 U	30 U
3-Chlorobenzoic acid	µg/L	7,300	420	220	30 U	30 U
4-Chlorobenzoic acid	µg/L	7,300	4500	2500	30 U	30 U
Benzoic acid	µg/L	150,000	100 U	100 U	100 U	100 U
Chlorendic acid	µg/L	50	62 J	250 U	150 J	94 J

Notes:

- µg/L - Micrograms per liter
- J - Estimated concentration
- U - Not detected at the associated reporting limit
- 350 - Concentration exceeds Screening Level

Table 3.8

**2024 Analytical Results Summary
Annual Bedrock Open Catch Basin
Hyde Park Landfill Site
Town of Niagara, New York**

Sample Location:	BR-OpenCatchBasin
Sample ID:	HPOPENCB-2024
Sample Date:	10/11/2024

Parameters	Units	
Organic Acids		
2-Chlorobenzoic acid	µg/L	30 U
3-Chlorobenzoic acid	µg/L	30 U
4-Chlorobenzoic acid	µg/L	30 U
Benzoic acid	µg/L	100 U
Chlorendic acid	µg/L	250 U

Notes:

U - Not detected at the associated reporting limit

**2024 Analytical Results Summary
Annual AFW Composite
Hyde Park Landfill Site
Town of Niagara, New York**

Parameters	Units	Reporting Level	Sample Location:
			AFWCOMPOSITE
			Sample ID:
			AFW-C-1124
			Sample Date:
			11/4/2024
Polychlorinated Biphenyls (PCBs)			
Pentachlorobiphenyl	µg/L	1	0.003490 J
Tetrachlorobiphenyl	µg/L	1	0.007070 J
Trichlorobiphenyl	µg/L	1	0.005340 J
Pesticides			
alpha-BHC	µg/L	1	0.024 J
beta-BHC	µg/L	1	0.049 U
delta-BHC	µg/L	1	0.025 J
gamma-Chlordane	µg/L	1	0.020 J
Mirex	µg/L	1	0.049 U
Dioxin Furans			
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/L	500	5.14 J

Notes:

- BHC - Benzene Hexachloride
- pg/L - Picograms per liter
- µg/L - Micrograms per liter
- J - Estimated concentration
- U - Not detected at the associated reporting limit

**2024 Quarterly Hydraulic Gradient Summary
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York**

		3/5/2024			5/16/2024			9/5/2024			12/6/2024		
Gradient Pairing Overburden Bedrock		Overburden Elevation (ft. AMSL)	Bedrock Elevation (ft. AMSL)	Gradient (ft./ft.)									
CMW-1OB	CMW-1SH	572.30	563.75	0.777	572.06	563.61	0.768	573.37	563.24	0.921	573.74	562.70	1.004
CMW-2OB	CMW-2SH	587.77	572.15	1.092	587.19	573.49	0.958	584.91	572.61	0.860	583.19	572.59	0.741
CMW-3OB	CMW-3SH	575.38	554.12	1.519	575.53	554.27	1.519	574.15	553.98	1.441	571.27	553.81	1.247
CMW-4OB	CMW-4SH	574.28 ⁽²⁾	567.16	0.603	574.09	567.12	0.591	573.43	566.81	0.561	574.28 ⁽²⁾	566.55	0.655
CMW-5OB	CMW-5SH	583.34	577.87	0.346	583.18	575.89	0.461	583.43 ⁽²⁾	576.83	0.418	583.43 ⁽²⁾	577.12	0.399
CMW-6OB	CMW-6SH	571.81	562.08	1.014	571.73	561.91	1.023	571.70	561.88	1.023	571.79	561.54	1.068
CMW-7OB	CMW-7SH	606.43 ⁽¹⁾	598.58	0.549	606.10 ⁽¹⁾	598.58	0.526	606.21 ⁽¹⁾	597.78	0.590	606.28 ⁽¹⁾	NM	NV
CMW-8OB	CMW-8SH	612.91 ⁽¹⁾	609.09	0.367	612.88 ⁽¹⁾	609.35	0.339	612.89 ⁽¹⁾	605.83	0.679	612.89 ⁽¹⁾	605.14	0.745
CMW-9OB	CMW-9SH	569.28	559.95	1.794	569.20 ⁽¹⁾	559.86	1.796	569.06 ⁽¹⁾	559.81	1.779	569.06 ⁽¹⁾	559.82	1.777
CMW-11OB	CMW-11SH	569.11	565.21	0.406	568.95 ⁽¹⁾	565.11	0.400	568.87	564.86	0.418	569.75	564.96	0.499
CMW-12OB	CMW-12SH	583.51	570.91	0.670	583.40	574.48	0.474	576.39	573.79	0.138	575.33	574.45	0.047

Notes:

ft. AMSL - Feet Above Mean Sea Level

ft./ft. - Feet per foot

NM - Not measured because lid was frozen shut.

NV - No value.

-⁽¹⁾ - Well recorded as dry during this event. Bottom of well depth (sounded during monitoring event) was used to calculate gradient.

-⁽²⁾ - Well recorded as surcharged during this event. Reference elevation was used to calculate gradient.

**2024 Community Monitoring Well Soil Vapor Monitoring
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York**

**September 19, 2024
76°F - 79°F**

Well I.D.	Time Intervals	Sampling Time (hhmm)	VOC Readings (ppmv)
SVP-1	Background	1207	0
	At 1 minute	1208	0
	At 2 minutes	1209	0
	At 3 minutes	1210	0
	At 4 minutes	1211	0
	At 5 minutes	1212	0
	At 6 minutes	1213	0
	At 7 minutes	1214	0
	At 8 minutes	1215	0
	At 9 minutes	1216	0
	At 10 minutes	1217	0
SVP-2	Background	1156	0
	At 1 minute	1157	0
	At 2 minutes	1158	0
	At 3 minutes	1159	0
	At 4 minutes	1200	0
	At 5 minutes	1201	0
	At 6 minutes	1202	0
	At 7 minutes	1203	0
	At 8 minutes	1204	0
	At 9 minutes	1205	0
	At 10 minutes	1206	0
SVP-3	Background	1145	0
	At 1 minute	1146	0
	At 2 minutes	1147	0
	At 3 minutes	1148	0
	At 4 minutes	1149	0
	At 5 minutes	1150	0
	At 6 minutes	1151	0
	At 7 minutes	1152	0
	At 8 minutes	1153	0
	At 9 minutes	1154	0
	At 10 minutes	1155	0
SVP-4	Background	1130	0
	At 1 minute	1131	0
	At 2 minutes	1132	0
	At 3 minutes	1133	0
	At 4 minutes	1134	0
	At 5 minutes	1135	0
	At 6 minutes	1136	0
	At 7 minutes	1137	0
	At 8 minutes	1138	0
	At 9 minutes	1139	0
	At 10 minutes	1140	0

**2024 Community Monitoring Well Soil Vapor Monitoring
Community Monitoring Program
Hyde Park Landfill Site
Town of Niagara, New York**

**September 19, 2024
76°F - 79°F**

Well I.D.	Time Intervals	Sampling Time (hhmm)	VOC Readings (ppmv)
CMW-7OB	Background	1227	0
	At 1 minute	1228	0
	At 2 minutes	1229	0
	At 3 minutes	1230	0
	At 4 minutes	1231	0
	At 5 minutes	1232	0
	At 6 minutes	1233	0
	At 7 minutes	1234	0
	At 8 minutes	1235	0
	At 9 minutes	1236	0
	At 10 minutes	1237	0
CMW-8OB	Background	1245	0
	At 1 minute	1246	0
	At 2 minutes	1247	0
	At 3 minutes	1248	0
	At 4 minutes	1249	0
	At 5 minutes	1250	0
	At 6 minutes	1251	0
	At 7 minutes	1252	0
	At 8 minutes	1253	0
	At 9 minutes	1254	0
	At 10 minutes	1255	0

Notes:

ppmv - Parts per million by volume
VOC - Volatile Organic Compound
°F - Degrees Fahrenheit

**2024 NAPL Decanter Volume Monitoring
Hyde Park Landfill Site
Town of Niagara, New York**

	Decanter #1	Decanter #2	Decanter #3
First Quarter 2024			
March 8, 2024			
Thickness (feet)	26.5	18.3	13.4
Level (%)	66	39	38
Volume ⁽¹⁾ (gallons)	7,392	4,368	4,256
Second Quarter 2024			
May 17, 2024			
Thickness (feet)	26.3	6.3	6.6
Level (%)	75	33	32
Volume ⁽¹⁾ (gallons)	8,400	3,696	3,584
Third Quarter 2024			
September 6, 2024			
Thickness (feet)	28.3	5.4	7.9
Level (%)	81	20	32
Volume ⁽¹⁾ (gallons)	9,072	2,240	3,584
Fourth Quarter 2024			
December 13, 2024			
Thickness (feet)	27.8	5.4	7.4
Level (%)	71	22	25
Volume ⁽¹⁾ (gallons)	7,952	2,464	2,800

Notes:

- ⁽¹⁾ - Based on level percentage of NAPL in 11,200-gallon decanters
 NAPL - Non-Aqueous Phase Liquid

Table 4.2
2024 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:	HP 1324 INT-D	HP 11024 INT-D	HP 11724 INT-D	HP 12424 INT-D	HP 13124 INT-D	HP 2724 INT-D	HP 21424 INT-D	HP 22124 INT-D	HP 22824 INT-D	HP 22824 INT-D
Sample Date:	1/3/2024	1/10/2024	1/17/2024	1/24/2024	1/31/2024	2/7/2024	2/14/2024	2/21/2024	2/28/2024	2/28/2024
Parameters	Units									
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	0.41 J	0.38 J	0.50 J	0.46 J	0.83 J	0.66 J	0.64 J	0.46 J	0.76 J
1,1,2,2-Tetrachloroethane	µg/L	1.6	1.5	2.9	2.7	9.8	7.1	8.4	9.1	11
1,1,2-Trichloroethane	µg/L	0.41 J	0.37 J	0.46 J	0.53 J	1.3	1.0	1.2	1.3	1.8
1,1-Dichloroethane	µg/L	2.4	2.4	2.1	2.3	2.1	1.9	1.9	2.3	2.2
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	0.32 J	0.24 J	0.22 J	0.22 J	1.0 U
1,2,4-Trichlorobenzene	µg/L	0.34 J	0.39 J	0.60 J	0.58 J	1.3	1.1	1.3	1.3	1.1
1,2-Dichlorobenzene	µg/L	0.66 J	0.66 J	1.0	0.92 J	1.8	1.5	1.6	1.6	1.5
1,2-Dichloroethane	µg/L	11	11	10	11	9.8	10	11	12	12
1,2-Dichloropropane	µg/L	1.0	0.89 J	0.89 J	0.95 J	0.89 J	0.86 J	0.96 J	1.0	1.0
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	0.34 J	0.29 J	0.33 J	0.33 J	0.30 J
1,4-Dichlorobenzene	µg/L	0.43 J	0.41 J	0.68 J	0.63 J	1.2	1.1	1.1	1.1	0.97 J
2-Chlorotoluene	µg/L	10	11	16	15	29	24	27	27	24
3-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	3.5	3.6	5.9	5.3	11	8.5	9.5	9.5	8.6
Benzene	µg/L	110	110	120	120	130	120	130	130	130
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	1.7	1.7	1.3	1.0 U	5.0	1.9	1.9	2.9	1.9
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	44	45	52	51	78	67	72	73	72
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	6.0	6.1	6.2	12	18	9.4	12	18	29
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	8.9	8.3	14	15	33	37	35	29	23
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	8.3	8.6	11	10	18	16	17	17	16
m&p-Xylenes	µg/L	8.2	8.4	12	11	25	20	22	22	20
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.77 J
m-Monochlorobenzotrifluoride	µg/L	1.5	1.6	2.3	2.2	3.9	3.3	3.2	3.7	3.3
o-Monochlorobenzotrifluoride	µg/L	4.9	5.1	7.2	6.9	13	11	11	12	10
o-Xylene	µg/L	13	13	18	17	28	26	28	28	26
p-Monochlorobenzotrifluoride	µg/L	4.5	4.9	6.8	6.4	12	9.8	9.7	11	9.6
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	0.45 J	0.42 J	0.57 J	0.59 J	3.9	1.4	0.94 J	0.94 J	1.2
Toluene	µg/L	4.1	4.7	7.8	8.5	24	14	16	19	23
trans-1,2-Dichloroethene	µg/L	8.5	8.5	8.5	9.3	10	9.5	10	11	10
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	13	13	18	17	27	23	22	21	23
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	24	23	30	33	62	50	53	49	37
Xylenes (total)	µg/L	21	22	30	28	54	46	50	51	46

Notes:
 J - Estimated concentration.
 U - Not detected at the associated reporting limit.
 UJ - Not detected; associated reporting limit is estimated.
 µg/L - Micrograms per liter

Table 4.2
2024 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:	HP 3624 INT-D	HP 31324 INT-D	HP 32024 INT-D	HP 32724 INT-D	HP 4324 INT-D	HP 41024 INT-D	HP 41724 INT-D	HP 42424 INT-D	HP 5124 INT-D	HP 5124 INT-D
Sample Date:	3/6/2024	3/13/2024	3/20/2024	3/27/2024	4/3/2024	4/10/2024	4/17/2024	4/24/2024	5/1/2024	5/1/2024
Parameters	Units									
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	0.77 J	0.68 J	0.62 J	0.52 J	0.63 J	0.36 J	0.60 J	0.62 J	0.48 J
1,1,2,2-Tetrachloroethane	µg/L	10	10	10	8.4	9.1	2.6	9.8	12	7.4
1,1,2-Trichloroethane	µg/L	1.8	1.8	1.9	1.3	1.5	0.47 J	1.4	1.6	0.84 J
1,1-Dichloroethane	µg/L	2.4	2.3	2.2	2.2	2.6	2.7	2.3	2.3	2.2
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.41 J	1.0 U
1,2,4-Trichlorobenzene	µg/L	0.94 J	0.83 J	0.95 J	0.70 J	0.93 J	0.78 J	1.4	1.7	1.4
1,2-Dichlorobenzene	µg/L	1.4	1.3	1.6	1.3	1.5	1.2	1.9	2.2	1.9
1,2-Dichloroethane	µg/L	12	12	12	11	12	12	13	12	11
1,2-Dichloropropane	µg/L	1.0	1.1	1.1	0.94 J	1.1	1.1	1.1	0.93 J	1.1
1,3-Dichlorobenzene	µg/L	0.30 J	0.27 J	0.31 J	0.26 J	0.31 J	0.22 J	0.41 J	0.39 J	0.39 J
1,4-Dichlorobenzene	µg/L	0.96 J	0.90 J	1.0	0.92 J	1.1	0.88 J	1.4	1.6	1.3
2-Chlorotoluene	µg/L	23	22	24	21	23	20	32	37	30
3-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	1.0 U
4-Chlorotoluene	µg/L	8.2	7.6	8.4	7.7	8.4	7.1	11	13	11
Benzene	µg/L	140	130	130	130	150	140	160	160	150
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.21 J	0.23 J	1.0 U	0.24 J
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	2.3	1.9	2.4	1.8	2.0	1.7	2.4	2.8	2.2
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	72	69	73	69	76	67	91	100	89
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	31	27	21	17	21	8.0	14	16	11
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	21	19	15	12	13	9.9	24	29	26
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	16	15	17	15	17	14	21	23	20
m&p-Xylenes	µg/L	19	18	20	18	19	14	24	31	20
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	3.0	2.7	3.1	2.8	3.0	2.5	4.0	4.7	4.0
o-Monochlorobenzotrifluoride	µg/L	9.9	9.2	10	9.6	9.4	8.0	13	15	13
o-Xylene	µg/L	25	24	27	24	26	22	34	38	32
p-Monochlorobenzotrifluoride	µg/L	9.2	7.8	9.2	8.7	8.7	7.0	12	13	11
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.3	1.0	0.84 J	0.84 J	0.87 J	0.61 J	0.99 J	1.6	1.4
Toluene	µg/L	20	18	19	17	20	9.4	18	25	12
trans-1,2-Dichloroethene	µg/L	11	11	10	10	12	12	12	12	13
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	21	20	19	17	17	12	20	22	17
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	35	32	26	21	27	22	46	52	40
Xylenes (total)	µg/L	44	42	47	42	45	35	58	70	52

Notes:
 J - Estimated concentration.
 U - Not detected at the associated reporting limit.
 UJ - Not detected; associated reporting limit is estimated.
 µg/L - Micrograms per liter

Table 4.2
2024 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:	HP 5824 INT-D	HP 51524 INT-D	HP 52224 INT-D	HP 52924 INT-D	HP 6524 INT-D	HP 61224 INT-D	HP 61924 INT-D	HP 62624 INT-D	HP 7324 INT-D	HP 7324 INT-D
Sample Date:	5/8/2024	5/15/2024	5/22/2024	5/29/2024	6/5/2024	6/12/2024	6/19/2024	6/26/2024	7/3/2024	7/3/2024
Parameters	Units									
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	0.59 J	0.60 J	1.0 U	0.27 J	0.65 J	0.65 J	0.41 J	0.50 J	0.54 J
1,1,2,2-Tetrachloroethane	µg/L	6.2	7.8	5.2	0.96 J	7.9	10	3.6	5.1	5.7
1,1,2-Trichloroethane	µg/L	0.83 J	1.0	0.89 J	0.21 J	1.7	1.9	0.87 J	1.1	1.1
1,1-Dichloroethane	µg/L	2.1	2.8	2.6	3.0	2.6	3.1	2.8	2.8	2.7
1,1-Dichloroethene	µg/L	0.24 J	1.0 U	1.0 U	1.0 U	1.0 U	0.26 J	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	1.1	1.0	0.88 J	0.65 J	0.89 J	1.1	0.75 J	0.71 J	1.0
1,2-Dichlorobenzene	µg/L	1.8	1.7	1.5	1.3	1.6	2.1	1.5	1.6	2.0
1,2-Dichloroethane	µg/L	11	11	10	11	12	13	13	12	12
1,2-Dichloropropane	µg/L	1.0	1.1	1.2	1.1	1.1	1.4	1.3	1.3	1.3
1,3-Dichlorobenzene	µg/L	0.34 J	0.34 J	0.36 J	0.23 J	0.30 J	0.41 J	0.28 J	0.27 J	0.35 J
1,4-Dichlorobenzene	µg/L	1.2	1.3	0.94 J	0.91 J	1.1	1.4	1.0	1.0 J	1.5
2-Chlorotoluene	µg/L	28	30	24	20	27	35	24	24	30
3-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	10	11	8.3	6.9	9.7	12	8.5	8.4	11
Benzene	µg/L	140	160	150	160	160	200	160	170	180
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	3.3	4.1	1.0 U	1.9	5.6	3.4	5.8	5.1	6.9
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	83	89	80	74	84	110	83	88	98
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	12	20	21	8.0	48	41	15	21	15
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	32	32	22	9.3	14	23	13	13	19
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	19	19	16	13	17	23	16	17	21
m&p-Xylenes	µg/L	17	16	14	10	17	24	14	17	19
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	2.2	0.77 J	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	4.1	3.3	2.8	2.3	3.1	4.2	2.6	3.0	3.3
o-Monochlorobenzotrifluoride	µg/L	13	12	9.6	8.1	10	14	8.9	9.9	12
o-Xylene	µg/L	29	30	27	22	28	37	25	28	33
p-Monochlorobenzotrifluoride	µg/L	12	9.9	7.6	6.8	9.5	14	7.7	8.7	9.7
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	1.1	0.96 J	0.67 J	0.32 J	0.72 J	0.66 J	0.45 J	0.32 J	0.32 J
Toluene	µg/L	9.3	11	9.2	6.1	19	23	10	14	13
trans-1,2-Dichloroethene	µg/L	13	14	14	14	15	18	16	16	17
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	17	16	13	11	19	24	14	15	15
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	46	51	35	20	26	46	24	24	36
Xylenes (total)	µg/L	46	46	41	32	45	60	39	45	52

Notes:
 J - Estimated concentration.
 U - Not detected at the associated reporting limit.
 UJ - Not detected; associated reporting limit is estimated.
 µg/L - Micrograms per liter

Table 4.2
2024 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:	HP 71024 INT-D	HP 71724 INT-D	HP 72424 INT-D	HP 73124 INT-D	HP 8724 INT-D	HP 81424 INT-D	HP 82124 INT-D	HP 82824 INT-D	HP 82824 INT-D	HP 9424 INT-D
Sample Date:	7/10/2024	7/17/2024	7/24/2024	7/31/2024	8/7/2024	8/14/2024	8/21/2024	8/28/2024	8/28/2024	9/4/2024
Parameters	Units									
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	0.49 J	0.43 J	0.36 J	0.41 J	0.46 J	1.0 U	0.50 J	0.44 J	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	4.8	3.6	2.9	3.0	3.3	0.46 J	4.5	4.1	0.47 J
1,1,2-Trichloroethane	µg/L	1.1	0.99 J	0.95 J	1.1	1.3	1.0 U	1.6	2.0	0.21 J
1,1-Dichloroethane	µg/L	2.7	2.5	2.7	2.8	3.2	3.1	3.3	3.2	3.3
1,1-Dichloroethene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	0.69 J	0.70 J	0.70 J	0.56 J	0.60 J	0.45 J	0.76 J	0.60 J	0.50 J
1,2-Dichlorobenzene	µg/L	1.4	1.7	1.4	1.5	1.4	1.2	1.5	1.4	1.1
1,2-Dichloroethane	µg/L	11	12	12	13	13	14	14	13	12
1,2-Dichloropropane	µg/L	1.3	1.3	1.3	1.5	1.4	1.4	1.6	1.5	1.3
1,3-Dichlorobenzene	µg/L	0.28 J	0.28 J	0.27 J	0.27 J	0.25 J	0.21 J	0.27 J	0.25 J	0.22 J
1,4-Dichlorobenzene	µg/L	0.94 J	1.0	1.0	0.95 J	0.94 J	0.76 J	1.0	0.85 J	0.72 J
2-Chlorotoluene	µg/L	24	25	23	23	23	19	25	22	16
3-Chlorotoluene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	7.9	8.5	8.1	8.1	8.1	6.5	8.2	7.5	5.6
Benzene	µg/L	170	180	170	180	190	190	200	200	180
Bromodichloromethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromoform	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	7.4	5.1	1.0 U	2.6	3.2	2.4	5.5	4.6	4.0
Carbon tetrachloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	85	93	87	87	91	80	110	96	81
Chloroethane	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	31	16	23	27	33	7.6	43	49	10
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	12	12	9.1	8.8	9.2	4.5	10	9.5	4.2
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	17	18	17	17	18	14	19	18	13
m&p-Xylenes	µg/L	16	16	15	15	16	13	18	17	13
Methylene chloride	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	3.0	3.2	3.0	2.8	3.0	2.4	3.3	2.9	2.2
o-Monochlorobenzotrifluoride	µg/L	9.8	11	9.5	9.4	10	7.5	11	9.5	7.1
o-Xylene	µg/L	26	29	27	26	27	21	29	27	20
p-Monochlorobenzotrifluoride	µg/L	9.1	9.4	8.7	8.7	8.9	6.9	9.4	8.5	6.8
Styrene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	0.28 J	0.25 J	0.25 J	0.24 J	0.30 J	0.24 J	0.25 J	1.0 U	1.0 U
Toluene	µg/L	11	8.6	8.8	9.3	9.9	10	13	14	11
trans-1,2-Dichloroethene	µg/L	18	17	17	18	19	22	19	18	21
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	13	12	11	11	12	8.3	13	13	7.7
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	26	25	21	21	23	11	29	27	11
Xylenes (total)	µg/L	42	44	41	40	43	34	48	44	33

Notes:
 J - Estimated concentration.
 U - Not detected at the associated reporting limit.
 UJ - Not detected; associated reporting limit is estimated.
 µg/L - Micrograms per liter

Table 4.2
2024 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01	HP-INTER-D-01
Sample ID:	HP 91124 INT-D	HP 91824 INT-D	HP 92524 INT-D	HP 10224 INT-D	HP 10924 INT-D	HP 101624 INT-D	HP 102324 INT-D	HP 103024 INT-D	HP 103024 INT-D	HP 110624 INT-D
Sample Date:	9/11/2024	9/18/2024	9/25/2024	10/2/2024	10/9/2024	10/16/2024	10/23/2024	10/30/2024	10/30/2024	11/6/2024
Parameters	Units									
Volatile Organic Compounds										
1,1,1-Trichloroethane	µg/L	0.66 J	2.0 U	1.0 U	2.0 U	2.0 U	0.78 J	1.1 J	0.26 J	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	3.2	4.0	0.44 J	0.69 J	5.2	7.4	10	1.6	1.9
1,1,2-Trichloroethane	µg/L	1.7 J	1.7 J	1.0 U	0.50 J	2.3	2.3	2.7	0.71 J	0.52 J
1,1-Dichloroethane	µg/L	2.6	2.9	3.1	3.3	3.2	2.9	3.2	3.8	4.1
1,1-Dichloroethene	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
1,2,4-Trichlorobenzene	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	µg/L	1.3 J	1.1 J	1.0 U	0.95 J	1.4 J	1.0 U	2.0 U	1.0 U	1.0 U
1,2-Dichloroethane	µg/L	11	10	12	12	13	12	13	14	15
1,2-Dichloropropane	µg/L	1.2 J	1.3 J	1.0	1.2 J	1.2 J	1.4	1.4 J	1.4	1.5
1,3-Dichlorobenzene	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	µg/L	0.84 J	2.0 U	1.0 U	0.65 J	0.93 J	1.0 U	2.0 U	1.0 U	1.0 U
2-Chlorotoluene	µg/L	20	17	1.0 U	14	20	0.67 J	2.0 U	0.37 J	0.45 J
3-Chlorotoluene	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
4-Chlorotoluene	µg/L	6.7	5.5	1.0 U	4.9	6.9	1.0 U	2.0 U	1.0 U	1.0 U
Benzene	µg/L	180	170	36	170	200	140	160	110	130
Bromodichloromethane	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Bromoform	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Carbon disulfide	µg/L	6.1	9.4	1.9	3.0	9.1	8.1	11	8.7	8.4
Carbon tetrachloride	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Chlorobenzene	µg/L	90	75	1.0 U	71	91	4.3	4.3	2.1	2.6
Chloroethane	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Chloroform (Trichloromethane)	µg/L	37	44	4.6	12	59	71	83	19	18
Chloromethane (Methyl chloride)	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
cis-1,2-Dichloroethene	µg/L	7.3	6.5	3.0	3.7	6.7	5.9	7.4	6.2	6.5
cis-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Ethylbenzene	µg/L	16	13	1.0 U	11	17	1.1	1.3 J	0.44 J	0.59 J
m&p-Xylenes	µg/L	16	14	2.0 U	11	16	0.70 J	4.0 U	2.0 U	2.0 U
Methylene chloride	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 J	3.1	3.6	1.0 U	1.0 U
m-Monochlorobenzotrifluoride	µg/L	2.5	1.7 J	1.0 U	1.6 J	2.0	1.0 U	2.0 U	1.0 U	1.0 U
o-Monochlorobenzotrifluoride	µg/L	8.5	5.6	1.0 U	5.4	7.2	1.5	1.6 J	0.66 J	0.92 J
o-Xylene	µg/L	23	19	1.0 U	17	25	3.1	3.3	1.5	1.8
p-Monochlorobenzotrifluoride	µg/L	7.2	4.5	1.0 U	4.5	5.4	0.46 J	2.0 U	1.0 U	1.0 U
Styrene	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Tetrachloroethene	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Toluene	µg/L	11	11	1.0 U	9.5	15	2.5	3.3	1.3	1.7
trans-1,2-Dichloroethene	µg/L	15	14	1.0 U	19	16	2.3	2.4	2.6	2.9
trans-1,3-Dichloropropene	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Trichloroethene	µg/L	9.0	8.0	0.31 J	6.0	11	3.9	4.8	2.5	3.2
Trichlorofluoromethane (CFC-11)	µg/L	2.0 U	2.0 U	1.0 U	2.0 U	2.0 U	1.0 U	2.0 U	1.0 U	1.0 U
Vinyl acetate	µg/L	4.0 U	4.0 U	2.0 U	4.0 U	4.0 U	2.0 U	4.0 U	2.0 U	2.0 U
Vinyl chloride	µg/L	23	23	24	8.7	22	17	20	22	23
Xylenes (total)	µg/L	39	33	3.0 U	28	41	3.8	3.3 J	1.5 J	1.8 J

Notes:
 J - Estimated concentration.
 U - Not detected at the associated reporting limit.
 UJ - Not detected; associated reporting limit is estimated.
 µg/L - Micrograms per liter

Table 4.2
2024 Weekly Carbon Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:	HP-INTER-D-01							
Sample ID:	HP 111324 INT-D	HP 112024 INT-D	HP 112724 INT-D	HP 120424 INT-D	HP 121124 INT-D	HP 121724 INT-D	HP 122624 INT-D	
Sample Date:	11/13/2024	11/20/2024	11/27/2024	12/4/2024	12/11/2024	12/17/2024	12/26/2024	
Parameters	Units							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	1.1	1.0 U	0.78 J	0.93 J	1.1	1.4	1.1
1,1,2,2-Tetrachloroethane	µg/L	14	1.2	8.3	11	15	15	11
1,1,2-Trichloroethane	µg/L	3.7	0.31 J	2.4	2.5	3.9	3.6	3.0
1,1-Dichloroethane	µg/L	3.5	4.5	3.1	3.0	2.8	3.0	2.6
1,1-Dichloroethene	µg/L	1.0 U	1.0 U					
1,2,4-Trichlorobenzene	µg/L	1.0 U	1.0 U					
1,2-Dichlorobenzene	µg/L	1.0 U	1.0 U					
1,2-Dichloroethane	µg/L	15	17	12	13	14	12	12
1,2-Dichloropropane	µg/L	1.7	1.6	1.5	1.5	1.6	1.7	1.5
1,3-Dichlorobenzene	µg/L	1.0 U	1.0 U					
1,4-Dichlorobenzene	µg/L	1.0 U	1.0 U					
2-Chlorotoluene	µg/L	1.1	0.46 J	0.95 J	1.3	2.4	2.7	2.7
3-Chlorotoluene	µg/L	1.0 U	1.0 U					
4-Chlorotoluene	µg/L	1.0 U	1.0 U					
Benzene	µg/L	190	140	170	170	190	170	180
Bromodichloromethane	µg/L	0.45 J	0.32 J	1.0 U	1.0 U	1.0 U	0.35 J	1.0 U
Bromoform	µg/L	1.0 U	1.0 U					
Bromomethane (Methyl bromide)	µg/L	1.0 U	1.0 U					
Carbon disulfide	µg/L	11	8.1	11	9.5	6.9	9.1	5.6
Carbon tetrachloride	µg/L	1.0 U	1.0 U					
Chlorobenzene	µg/L	7.4	2.7	6.4	7.9	13	15	14
Chloroethane	µg/L	1.0 U	1.0 U					
Chloroform (Trichloromethane)	µg/L	73	11	44	54	73	57	57
Chloromethane (Methyl chloride)	µg/L	1.0 U	1.0 U					
cis-1,2-Dichloroethene	µg/L	8.5	6.8	7.1	7.5	8.6	9.2	8.0
cis-1,3-Dichloropropene	µg/L	1.0 U	1.0 U					
Dichlorodifluoromethane (CFC-12)	µg/L	1.0 U	1.0 U					
Ethylbenzene	µg/L	2.3	0.78 J	2.0	2.7	4.6	5.2	5.2
m&p-Xylenes	µg/L	1.3 J	2.0 U	1.1 J	1.6 J	3.3	3.9	3.9
Methylene chloride	µg/L	5.4	1.0 U	1.1	0.91 J	3.0	1.8	0.83 J
m-Monochlorobenzotrifluoride	µg/L	0.39 J	1.0 U	0.33 J	0.42 J	0.72 J	0.95 J	0.95 J
o-Monochlorobenzotrifluoride	µg/L	2.7	1.0	2.4	3.3	5.2	5.8	6.0
o-Xylene	µg/L	5.4	2.0	5.1	6.8	11	13	12
p-Monochlorobenzotrifluoride	µg/L	0.65 J	1.0 U	0.46 J	0.71 J	1.4	1.6	1.6
Styrene	µg/L	1.0 U	1.0 U					
Tetrachloroethene	µg/L	0.25 J	1.0 U	0.31 J	0.50 J	0.77 J	1.6	1.1
Toluene	µg/L	7.4	2.0	6.4	9.6	17	20	19
trans-1,2-Dichloroethene	µg/L	2.7	2.9	2.3	2.7	2.6	2.9	2.7
trans-1,3-Dichloropropene	µg/L	1.0 U	1.0 U					
Trichloroethene	µg/L	7.7	3.7	6.5	8.6	15	16	15
Trichlorofluoromethane (CFC-11)	µg/L	1.0 U	1.0 U					
Vinyl acetate	µg/L	2.0 U	2.0 U					
Vinyl chloride	µg/L	23	22	19	20	19	23	17
Xylenes (total)	µg/L	6.7	2.0 J	6.2	8.4	15	17	16

Notes:
 J - Estimated concentration.
 U - Not detected at the associated reporting limit.
 UJ - Not detected; associated reporting limit is estimated.
 µg/L - Micrograms per liter

Table 4.3

**2024 Quarterly Leachate Feed APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York**

Sample Location:	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	
Sample ID:	HP 32024 INF	HP 61924 INF	HP 92524 INF	HP 121724 INF	
Sample Date:	3/20/2024	6/19/2024	9/25/2024	12/17/2024	
Parameters	Units				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	2.8 J	2.1 J	3.6 J	2.8 J
1,1,1,2-Tetrachloroethane	µg/L	79	51	100	76
1,1,2-Trichloroethane	µg/L	6.9	5.8	12	10
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	1.4 J	10 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	1.3 J	10 U
1,2,4-Trichlorobenzene	µg/L	430	290	740	510
1,2-Dichlorobenzene	µg/L	60	45	110	72
1,2-Dichloroethane	µg/L	16	9.7	22	16
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	1.5 J	10 U
1,3-Dichlorobenzene	µg/L	19	14	30	22
1,4-Dichlorobenzene	µg/L	80	60	150	93
2-Chlorotoluene	µg/L	650	480	980	700
3-Chlorotoluene	µg/L	8.0	5.1	13	7.0 J
4-Chlorotoluene	µg/L	440	320	710	490
Benzene	µg/L	100	100	200	150
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	10 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	10 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	10 U
Carbon disulfide	µg/L	7.4	4.4 J	14	13
Carbon tetrachloride	µg/L	16	7.6	11	17
Chlorobenzene	µg/L	450	350	780	560
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	10 U
Chloroform (Trichloromethane)	µg/L	190	200	390	260
Chloromethane (Methyl chloride)	µg/L	4.2 J	5.0 U	5.0 U	10 U
cis-1,2-Dichloroethene	µg/L	210	160	350	230
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	10 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	5.0 U	10 U
Ethylbenzene	µg/L	150	110	240	170
m&p-Xylenes	µg/L	540	380	870	580
Methylene chloride	µg/L	23	24	41	31
m-Monochlorobenzotrifluoride	µg/L	52	31	84	53
o-Monochlorobenzotrifluoride	µg/L	150	97	260	160
o-Xylene	µg/L	280	210	460	330
p-Monochlorobenzotrifluoride	µg/L	190	120	330	190
Styrene	µg/L	8.6	5.0 U	5.0 U	10 U
Tetrachloroethene	µg/L	140	76	56	200
Toluene	µg/L	690	500	1100	840
trans-1,2-Dichloroethene	µg/L	3.0 J	4.3 J	6.3	4.7 J
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	10 U
Trichloroethene	µg/L	430	340	820	400
Trichlorofluoromethane (CFC-11)	µg/L	2.8 J	1.7 J	3.1 J	2.6 J
Vinyl acetate	µg/L	10 U	10 U	10 U	20 U
Vinyl chloride	µg/L	9.7	42	80	72
Xylenes (total)	µg/L	820	590	1300	910

Table 4.3

**2024 Quarterly Leachate Feed APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York**

Sample Location:	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	PMPTKOUTLET	
Sample ID:	HP 32024 INF	HP 61924 INF	HP 92524 INF	HP 121724 INF	
Sample Date:	3/20/2024	6/19/2024	9/25/2024	12/17/2024	
Parameters	Units				
Semi-volatile Organic Compounds					
2,4,6-Trichlorophenol	µg/L	2.7 J	10 U	98 U	10 U
2,4-Dichlorophenol	µg/L	140	120	210	27
2,4-Dimethylphenol	µg/L	10 U	10 U	98 U	10 U
2,4-Dinitrophenol	µg/L	50 U	50 U	490 U	50 U
2-Chlorobenzoic acid	µg/L	2700	2500	4400	3000
2-Chloronaphthalene	µg/L	10 U	10 U	98 U	10 U
2-Chlorophenol	µg/L	6.4 J	8.9 J	98 U	7.2 J
2-Nitrophenol	µg/L	10 U	10 U	98 U	10 U
3-Chlorobenzoic acid	µg/L	1500	1300	2200	1300
4,6-Dinitro-2-methylphenol	µg/L	50 U	50 U	490 U	50 U
4-Chloro-3-methylphenol	µg/L	10 U	10 U	98 U	10 U
4-Chlorobenzoic acid	µg/L	2300	2500	4600	3200
4-Nitrophenol	µg/L	50 U	50 U	490 U	50 U
Acenaphthene	µg/L	10 U	10 U	98 U	10 U
Acenaphthylene	µg/L	10 U	10 U	98 U	10 U
Anthracene	µg/L	10 U	10 U	98 U	10 U
Benzo(a)anthracene	µg/L	10 U	10 U	98 U	10 U
Benzo(a)pyrene	µg/L	10 U	10 U	98 U	10 U
Benzo(b)fluoranthene	µg/L	10 U	10 U	98 U	10 U
Benzo(g,h,i)perylene	µg/L	10 U	10 U	98 U	10 U
Benzoic acid	µg/L	4900	6200	14000	5600
bis(2-Chloroethoxy)methane	µg/L	10 U	10 U	98 U	10 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	10 U	10 U	98 U	10 U
Butyl benzylphthalate (BBP)	µg/L	10 U	10 U	98 U	10 U
Chlorendic acid	µg/L	4200	5200	5100	4000
Chrysene	µg/L	10 U	10 U	98 U	10 U
Dibenz(a,h)anthracene	µg/L	10 U	10 U	98 U	10 U
Diethyl phthalate	µg/L	10 U	10 U	98 U	10 U
Dimethyl phthalate	µg/L	1.6 J	10 U	98 U	1.6 J
Di-n-butylphthalate (DBP)	µg/L	10 U	10 U	98 U	10 U
Di-n-octyl phthalate (DnOP)	µg/L	10 U	10 U	98 U	10 U
Fluoranthene	µg/L	10 U	10 U	98 U	10 U
Fluorene	µg/L	10 U	10 U	98 U	10 U
Hexachlorobenzene	µg/L	5.2 J	11	98 U	5.2 J
Hexachlorobutadiene	µg/L	14	16	98 U	15
Hexachlorocyclopentadiene	µg/L	10 U	10 U	98 U	10 U
Hexachloroethane	µg/L	5.8 J	5.9 J	98 U	6.0 J
Indeno(1,2,3-cd)pyrene	µg/L	10 U	10 U	98 U	10 U
Isophorone	µg/L	10 U	10 U	98 U	10 U
Naphthalene	µg/L	10 U	10 U	98 U	10 U
Octachlorocyclopentene	µg/L	5.0 U	5.0 U	49 U	5.0 U
Pentachlorophenol	µg/L	50 U	50 U	490 U	50 U
Phenanthrene	µg/L	10 U	10 U	98 U	10 U
Phenol	µg/L	170	10 U	4300	3400
Pyrene	µg/L	10 U	10 U	98 U	10 U

Notes:

- U Not detected at the associated reporting limit.
- J Estimated concentration.
- UJ Not detected; associated reporting limit is estimated.
- µg/L Micrograms per liter

Table 4.4

2024 Quarterly Sac Bed Interstage APL Sampling
Hyde Park Landfill Site
Town of Niagara, New York

Sample Location:		SAC INTERSTAGE					
Sample ID:		HP 32024 SAC	HP 61924 SAC	HP 62624 SAC	HP 92524 SAC	HP 102224 SAC	HP 121724 SAC
Sample Date:		3/20/2024	6/19/2024	6/26/2024	9/25/2024	10/22/2024	12/17/2024
Parameters	Units						
Polychlorinated Biphenyls (PCB)							
Total pentachlorobiphenyl	pg/L	703000 J	-	593000 J	-	1750000 J	875000 J
Total tetrachlorobiphenyl	pg/L	914000 J	-	870000 J	-	2100000 J	1380000 J
Total trichlorobiphenyl	pg/L	342000 J	-	351000 J	-	645000 J	506000 J
Total PCBs	µg/L	1.959 J	-	1.814 J	-	4.495 J	2.761 J
Dioxin Furans							
2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	pg/L	30800	701	-	4120	-	1920

Notes:

- - Not applicable
- J - Estimated concentration
- pg/L - Picograms per liter
- µg/L - Micrograms per liter

Appendices

Appendix A

**Institutional and Engineering Controls
Certification Form**



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



	Site Details	Box 1	
Site No.	932021		
Site Name Hooker-Hyde Park Landfill			
Site Address: 4825 Hyde Park Boulevard Zip Code: 14305			
City/Town: Town Of Niagara			
County: Niagara			
Site Acreage: 22.800 30			
Reporting Period: March 31, 2024 to March 31, 2025			
		YES	NO
1.	Is the information above correct?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	If NO, include handwritten above or on a separate sheet.		
2.	Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.	Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.	Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5.	Is the site currently undergoing development?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		Box 2	
		YES	NO
6.	Is the current site use consistent with the use(s) listed below? Closed Landfill	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7.	Are all ICs in place and functioning as designed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.			
A Corrective Measures Work Plan must be submitted along with this form to address these issues.			
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date	

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
130.11-1-3	Occidental Chemical Corporation	Ground Water Use Restriction Landuse Restriction Monitoring Plan O&M Plan
		Surface Water Use Restriction

Same as parcel with SBL number 130.11-4.1

130.11-1-4.1	Occidental Chemical Corporation	Ground Water Use Restriction Landuse Restriction Building Use Restriction Surface Water Use Restriction Monitoring Plan O&M Plan
--------------	---------------------------------	---

Occidental, the United States and State of New York:

- Stipulation and Judgement Approving Settlement Agreement, January 19, 1981
- Stipulation on Requisite Remedial Technology, November 1, 1985
- Enforcement Decision Document for Requisite Remedial Technology; November 11, 1985
- Performance Monitoring Plan, July 31, 2006
- Declaration of Restrictive Covenants and Environmental Easement, August 11, 2010

Legacy Restriction: "3. Restrictions on Use: The following restrictions apply to the use of the Property, run with the land, and are binding on the Grantor: the Property shall not be used in any manner that would interfere with or adversely affect the implementation, integrity, or effectiveness of the Response Action performed at the Site, including, but not limited to, a) the extraction of on-site groundwater, b) any digging, excavation, extraction of materials, construction, or other activity outside the requirements of the Response Action that would disturb the cap placed upon the Landfill at the Site, or c) other activity that would disturb or interfere with any portion of the Response Action for the Site enumerated in the RRT Stipulation."

130.11-1-5.1	Niagara Mohawk Power Corp	
--------------	---------------------------	--

7.2 acre portion only

Monitoring Plan
O&M Plan

Occidental, the United States and State of New York:

- Stipulation and Judgment Approving Settlement Agreement, January 19, 1981
- Stipulation on Requisite Remedial Technology; November 1, 1985
- Enforcement Decision Document for Requisite Remedial Technology, November 11, 1985
- Performance Monitoring Plan, July 31, 2006

Description of Engineering Controls

Parcel

Engineering Control

130.11-1-3

Point-of-Entry Water Treatment
Groundwater Treatment System
Groundwater Containment
Fencing/Access Control
Monitoring Wells

Granular activated carbon treatment facility that handles aqueous phase leachate (APL) and non-aqueous phase leachate (NAPL) generated from the landfill and offsite sources.

130.11-1-4.1

Groundwater Treatment System
Monitoring Wells
Cover System
Groundwater Containment
Leachate Collection
Fencing/Access Control

The below engineering controls are from the Declaration of Restrictive Covenants and Environmental Easement August 11, 2010 and other documentation that are the most applicable to the parcel and community wide remediation.

Landfill cap. Landfill cap source control wells. Landfill perimeter capping. Collection and containment of aqueous phase liquids (APL) and non-aqueous phase liquids (NAPL) in the overburden. Collection and containment of APL and NAPL in the bedrock. Industrial protection program by sealing of sumps and manholes. Bloody run excavation with new culvert installation, cleaned of existing and/or slip lined. Niagara Gorge face soil and visibly contaminated rock excavated and disposed of in the landfill. Niagara Gorge face seeps remediation by APL plume pumping wells through groundwater flow zones.

130.11-1-5.1

7.2 acre portion only

Groundwater Treatment System
Cover System
Groundwater Containment
Leachate Collection
Fencing/Access Control
Monitoring Wells

The below engineering controls are from documentation that are the most applicable to the parcel and community wide remediation.

Landfill cap. Landfill cap source control wells. Landfill perimeter capping. Collection and containment of aqueous phase liquids (APL) and non-aqueous phase liquids (NAPL) in the overburden. Collection and containment of APL and NAPL in the bedrock. Industrial protection program by sealing of sumps and manholes.

Periodic Review Report (PRR) Certification Statements

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

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

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

YES NO

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

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

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

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

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

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

YES NO

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 932021

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Joseph A. Branch at 7601 Old Channel Trail, Montague, MI 49437,
print name print business address

am certifying as Remedial Party (Owner or Remedial Party)

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


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

4/29/2025
Date

EC CERTIFICATIONS

Box 7

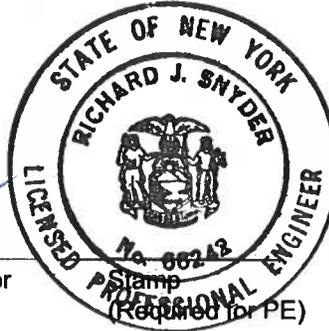
Professional Engineer Signature

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

I Richard J. Snyder at 2055 Niagara Falls Blvd, Niagara Falls, NY 14304,
print name print business address

am certifying as a Professional Engineer for the Remedial Party
(Owner or Remedial Party)


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



4/29/25
Date

Appendix B

**Monitoring Well Gauging and Sampling
Logs**

