B&B Engineers & Geologists
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*an affiliate of Geosyntec Consultants*

# 2024 Site Management Periodic Review Report – Durez North Tonawanda

## NYSDEC Site No. 932018
## Durez North Tonawanda Interceptor Trench
## 700 Walck Road
## North Tonawanda, New York

*Prepared for*

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# EXECUTIVE SUMMARY

Glenn Springs Holdings, Inc. (GSH), an Occidental Chemical Corporation (OCC) affiliate, assumed operation, maintenance, and monitoring (OM&M) responsibilities for the former Durez North Tonawanda Facility Interceptor Trench (IT) (Site) from OCC effective July 1, 1998. Since that time, pursuant to the individual Site documents and subsequent approved modifications, GSH has conducted routine monitoring and maintenance programs at the Site. On October 1, 2008, GHD Services, Inc. (GHD), formerly Conestoga-Rovers & Associates (CRA), was retained to perform operation, maintenance, monitoring, and reporting activities for the Site under contract to and direct management of GSH. On August 1, 2022, B&B Engineers and Geologists of New York, P.C. (B&B), an affiliate of Geosyntec Consultants, Inc. (Geosyntec), was retained by GSH to perform operation, maintenance, monitoring, and reporting activities for the Site.

Approximately 37.9 million gallons of groundwater was collected from the IT, treated, and discharged in calendar year 2024. Water is discharged to the nearby City of North Tonawanda stormwater sewer under the authority of a New York State Department of Environmental Conservation State Pollutant Discharge Elimination System Permit (SPDES) (Permit No. NY0001198). The volume of water treated and discharged was reported in the monthly SPDES Discharge Monitoring Reports (DMRs) submitted to the New York State Department of Environmental Conservation (NYSDEC). The 2024 semiannual groundwater contours and measured water levels at the piezometer clusters indicate that an overall inward gradient to the IT is being maintained. Therefore, the purpose and primary objective of the IT are being met.

Groundwater samples are collected annually from the Site for chemical analysis. The analytical results from the April 2024 groundwater monitoring event indicate that no volatile organic compounds (VOCs) or total recoverable phenolics were detected at concentrations greater than the laboratory method detection limits (MDLs). These results are consistent with Site historical data.

Per comment No. 1 in the NYSDEC's response letter for the 2022 Periodic Review Report (PRR) for Durez NT/Inlet Site, GSH agreed to pump piezometer T-2A to dry (pump all groundwater and NAPL to the extent possible out of T-2A) to evaluate if the formation still contains mobile non-aqueous phase liquid (NAPL). On September 10, 2024, T-2A was pumped dry and subsequently checked for the presence of NAPL. No NAPL was observed to be present which would indicate there is no mobile NAPL. Additionally, during the semiannual water level rounds, select wells were monitored in the vicinity of T-2A to demonstrate that an inward gradient was present in the area of T-2A. The water level rounds were completed in March and September 2024 and demonstrated that there is an inward gradient in the vicinity of T-2A. This is important since, should there still be mobile NAPL present in the vicinity of T-2A, it will be captured by the IT due to the inward groundwater gradient.

The groundwater monitoring program is conducted to collect the hydraulic and groundwater chemical data necessary to evaluate both the effectiveness of the IT and long-term trends in groundwater chemistry in select monitoring wells. The hydraulic data collected in calendar year

2024 indicates that the IT is functioning effectively, and the chemical groundwater data collected demonstrates that the IT continues to prevent off-Site migration of impacted groundwater.

In addition a to completing the routine operation, maintenance and monitoring for the groundwater collection system and the treatment system, GSH also completed drainage improvements primarily in the area near Harding Avenue, cleared trees to address root infiltration issues in the IT, cleaned and video inspected portions of the IT to remove root infiltration obstructions and assess areas of the IT where historical outward gradient issues have occurred, cleared trees and vegetation in various areas of the site to improve access to wells and resolve intermittent antenna communication issues for the treatment system and repaired the Site access road.

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# 1. INTRODUCTION

Glenn Springs Holdings, Inc. (GSH), an Occidental Chemical Corporation (OCC) affiliate, assumed operation, maintenance, and monitoring (OM&M) responsibilities for the former Durez North Tonawanda Facility Interceptor Trench (IT) (Site) (Figure 1.1) from OCC effective July 1, 1998. On October 1, 2008, GHD Services, Inc. (GHD), formerly Conestoga-Rovers & Associates (CRA), was retained to perform operation, maintenance, monitoring, and reporting activities for the Site under contract to and direct management of GSH. On August 1, 2022, B&B Engineers and Geologists of New York, P.C. (B&B), an affiliate of Geosyntec Consultants, Inc. (Geosyntec), was retained by GSH to perform operation, maintenance, monitoring, and reporting activities for the Site.

This report was prepared on behalf of OCC and covers operation, maintenance, and monitoring activities for calendar year 2024. The completed 2024 NYSDEC Institutional and Engineering Controls Certification Form is included as Appendix A.

This report describes the monitoring and maintenance activities conducted and presents the data collected at the Site between January 1, 2024 and December 31, 2024.

# 2. DUREZ NORTH TONAWANDA FACILITY/IT SITE

Pursuant to Appendix B of the *Durez Partial Consent Judgment* (PCJ), groundwater monitoring at the former OCC Durez Division North Tonawanda Plant is being conducted as part of the Site-wide groundwater remediation program. This monitoring began on October 2, 1989, prior to the installation of a groundwater remediation system, the principal component of which is a perimeter groundwater interceptor trench. This report presents data obtained during the 2024 calendar year.

Sitewide semiannual hydraulic monitoring for the period covered by this annual report was conducted in March and September 2024. The annual groundwater quality monitoring was conducted April 10-11, 2024. All work conducted during 2024 was performed in accordance with the protocols and requirements in Appendix B of the PCJ "*Monitoring, Operations, and Maintenance Plan*" (1989) and subsequent *Minor Modification #10, Rev. 2 "Minor Change to Appendix B "Monitoring, Operations, and Maintenance Plan*" (September 1999).

This report summarizes the purpose and scope of the current groundwater monitoring program, discusses the hydraulic effectiveness of the IT, and provides a summary of groundwater chemistry monitoring results. The completed NYSDEC 2024 *Institutional and Engineering Controls Certification Form* is included in Appendix A.

## 2.1 Site Monitoring

### 2.1.1 Purpose

The purpose and primary design objectives of the IT are:

- to collect and capture groundwater located inside the IT that could otherwise migrate off the Site, and
- to collect and capture groundwater located outside the Site by creating an inward hydraulic gradient toward the IT (lower groundwater elevation in the trench than in the piezometers outside the trench)

The IT groundwater monitoring program is conducted to collect the hydraulic and groundwater quality data necessary to evaluate the effectiveness of the IT and the long-term trends in groundwater quality in selected monitoring wells.

### 2.1.2 Scope

The hydraulic monitoring program consists of semiannual measurements of water levels in 48 monitoring wells located on and off the Site and semiannual measurement of water levels in 36 on-Site piezometers. The piezometer arrays consist of three wells (A, B, and C): the first well (A) is located on the outside perimeter of IT; the second well (B) is located in the IT bedding material; and the third well (C) is located in the interior (Plant side) of the IT for a total of twelve, 3-well piezometers arrays. The piezometer arrays are referred to as the "T-Series" piezometers and

have been monitored since their installation in August 1990. The monitoring well and piezometer locations are presented on Figure 1.2.

The groundwater quality monitoring program at the Site consists of annual sampling and chemical analyses of groundwater collected from seven monitoring wells located off and on the Site. The selection and utilization of these wells are consistent with the requirements specified in the PCJ or from approved minor changes to the PCJ. All groundwater samples collected in 2024 were analyzed for the Site-specific list of targeted organic compounds, total recoverable phenolics, and total organic carbon (TOC).

Specific conductance, pH, and temperature were measured in the field during sample collection. The results of the annual monitoring are further discussed in Section 2.3.

## 2.2 Hydraulic Effectiveness of the IT

Total monthly precipitation in Niagara Falls and Buffalo, New York during 2024 (obtained from the National Oceanic and Atmospheric Administration [NOAA]) is provided in Table 2.1. Monthly precipitation for both areas is provided since the Site is approximately equidistant between both official weather stations. In 2024, 26.60 inches of rain was recorded at the NOAA Niagara Falls station while 36.72 inches rain was recorded at the NOAA Buffalo station. It is reasonable to conclude that an average of the two recorded rainfall totals was received at the Durez NT site (i.e., approximately 31.7 inches).

Groundwater elevation contour maps developed using groundwater elevations measured on March 7 and September 4, 2024 (presented as Figures 2.1 and 2.2, respectively) show the configuration of the water table surface for each monitoring event. Due to the steep hydraulic gradient created by the IT (lower groundwater elevation in the trench than in the piezometers inside and outside the trench), not all of the contour lines immediately adjacent to the IT can be shown on the contour maps. Groundwater elevations for 2024 are presented in Table 2.2. Two additional monitoring wells, NP-19 and NP-27 were hydraulically monitored in addition to the monitoring wells and piezometers in the current hydraulic monitoring program to provide additional hydraulic information in the vicinity of piezometer T-2A. The significance of piezometer T-2A is further discussed in Section 2.2.3.

Groundwater elevations for the T-series piezometers are presented on Figures 2.1 and 2.2 to show the magnitude of the hydraulic gradient adjacent to the IT. The water levels in a number of the piezometers (A, B, and C piezometers, respectively) were dry when measured due to the influence of the trench and limited local recharge. Pumping from the IT is maintained such that the water level is below the top of the glaciolacustrine clay unit, which serves as the lower confining unit for the overburden groundwater at the Site. Maintaining this lowered groundwater elevation causes the IT to act as a continuous sump surrounding the Site.

### 2.2.1 Spring Hydraulic Monitoring Event

During the March 7, 2024 hydraulic monitoring event (refer to Figure 2.1), an inward gradient was observed at all twelve trench piezometer arrays with the exception of piezometer arrays T-3, T-5, and T-6.

- A review of the elevation data for piezometer array T-3 indicates that the elevation of the IT (T-3B-574.25 feet [ft]) was 0.44 feet higher than the exterior T-3A (573.81 ft) piezometer elevation. T-3 is located along the western edge of the property on a section of the IT that runs north to south between Wilson and Harding Avenue (i.e., between manholes MH17+20.8 and MH19+76.3). Groundwater elevations for nearby wells MW-1 (574.35 ft) and NP-35 (571.63 ft) indicate that the groundwater elevation is variable in this area with a minor gradient towards the IT.
- A review of the elevation data for piezometer array T-5 indicates that the elevation of the IT (T-5B-574.10 ft) was 2.18 ft higher than the exterior T-5A (571.92 ft) piezometer elevation. T-5 is located north of Lift Station 2 (29+85.3) on the northern portion of the IT. The nearest monitoring well to T-5 is NP-22A, which had a groundwater elevation of 573.61 ft which is 1.69 ft higher than the T-5A elevation and therefore would indicate that the groundwater gradient for that area is towards the IT.
- A review of the elevation data for piezometer array T-6 indicates that the elevation of the IT (T-6B-574.08 ft) was 0.07 ft (0.84 inches) higher than the exterior T-6A (574.01 ft) piezometer elevation. T-6 is located north of the T-5 piezometer array on a section of the IT that runs north to south parallel to Farnsworth Avenue. A 0.07 ft gradient is very low and therefore further analysis was not completed. It is speculated that the whatever is the cause of the outward gradient at the T-5 piezometer cluster south of the T-6 cluster is likely effecting water elevations near the T-6 piezometer array also.

None of the 12 piezometer arrays were dry during the March monitoring event.

### 2.2.2 Fall Hydraulic Monitoring Event

During the September 4, 2024 hydraulic monitoring event (refer to Figure 2.2), an inward gradient was observed at each of the trench piezometer arrays. At 9 of the 12 piezometer arrays (T-2, T-4, T-5, T-6, T-7, T-8, T-9, T-11, and T-13), at least one of the A, B or C piezometers in the array was dry. However, using the elevation of the bottom of the dry well, an inward gradient was still observed at each of these locations. The following discussions provide additional information for each piezometer array that had one or more piezometer that was dry to support an inward gradient towards the IT.

- For the T-2 piezometers, the T-2B (trench) and T-2C (interior) piezometers were dry. When the bottom depth of piezometer T-2B (563.95 ft) is compared to the groundwater elevation in piezometer T-2A (568.04 ft), which is located directly outside of the IT, an inward hydraulic gradient towards the trench was present at this array.

- At the T-5 piezometer locations, the T-5A piezometers was dry. When the groundwater elevation of piezometer T-5B (565.91 ft) (trench) is compared to the bottom depth of piezometer T-5A (570.98 ft), which is located directly outside of the IT, an inward hydraulic gradient towards the trench was present at this array.
- A review of the elevation data for piezometer array T-4 shows that the bottom depth of the IT (T-4B-565.59 ft) was 4.38 feet lower than the exterior T-4A bottom depth of 569.97 ft, which is located directly outside of the IT. Therefore, an inward hydraulic gradient towards the trench was present at this array.
- When the groundwater elevation in piezometer T-6B (565.98 ft) is compared to the bottom depth of piezometer T-6A (569.98 ft), which is located directly outside of the IT, and the groundwater elevation in the nearby monitoring well NP-22A (568.87 ft), which is located outside of the IT and in close proximity to array T-6, an inward hydraulic gradient towards the trench can be assumed to be present at this location.
- Piezometer array T-7 is located on a lateral of the IT that is perpendicular to the IT. As such T-7A and T-7C would both be considered exterior piezometers. Piezometers T-7B and T-7A were both dry during the monitoring event with bottom elevations of 565.81 ft and 569.47 ft, respectively. Piezometer T-7C had water present and a groundwater elevation of 567.15 ft. Based on the bottom elevation of 565.18 ft for the IT (T-7B), an inward gradient can be concluded since the elevation at T-7A is 3.66 ft higher and at T-7C is 1.34 ft higher than the trench.
- A review of the elevation data for piezometer array T-8 indicates that the elevation of the IT (T-8B) is 570.24 ft which is lower than the bottom elevation of piezometer T-8A which was 571.02 ft. This would indicate an inward gradient.
- When the groundwater elevation in piezometer T-9B (568.44 ft) is compared to the bottom elevation of piezometer T-9A (571.00 ft), which is located directly outside of the IT, the T-9B elevation is 2.56 ft lower than the exterior elevation. This would indicate an inward gradient for this location.
- When the bottom depth of piezometer T-11B (566.25 ft) is compared to the groundwater elevation in piezometer T-11A (569.67 ft) an inward hydraulic gradient towards the trench was present at this location.
- Piezometer array T-13 had a dry piezometer for the interior location (T-13C); however, the exterior piezometer elevation (T-13A) was 568.17 ft while the trench (T-13B) groundwater elevation was 562.27 ft. This indicates an inward gradient. The dry interior piezometer is not relevant since the bottom elevation of the piezometer is higher than the water elevation in the trench and monitoring location is interior to the Site. Groundwater interior to the site needs to be either captured by the trench or contained within the Site. In this situation, the groundwater is being captured by the trench since the gradient is towards the trench.

### 2.2.3 Hydraulic Containment at the T-2 Piezometer Cluster

In December 2008, GSH submitted a letter to the NYSDEC detailing 1) the discovery of NAPL presence in T-2A, and 2) the investigation activities that were conducted to identify the cause of the NAPL presence. Subsequently, GSH and the NYSDEC agreed that GSH would continue to pump the NAPL from the T-2A location and monitor hydraulic conditions at T-2A and surrounding wells to demonstrate a continued inward gradient towards the IT in this area.

Per comment No. 1 of the NYSDEC's response letter for the 2022 Periodic Review Report (PRR) for Durez NT/Inlet Site, GSH agreed to pump piezometer T-2A to dry (pump all groundwater and NAPL to the extent possible out of T-2A) to evaluate if the formation still contains mobile NAPL. Although GSH is only required to check T-2A for the presence of NAPL annually, T-2A was checked for NAPL during both semi-annual hydraulic monitoring events on March 7, 2024, and September 10, 2024. No NAPL was observed during either monitoring event. Table 2.3 presents the groundwater elevations observed during the semiannual (March and September) hydraulic monitoring at T-2A and surrounding monitoring wells. Groundwater elevations in these wells and piezometers from the March 7 and September 4, 2024 monitoring events are shown on Figures 2.3 and 2.4, respectively. As indicated in Section 2.2, an inward gradient into the trench was present at piezometer array T-2 during both semiannual monitoring events. Table 2.4 shows the total amount of NAPL pumped from T-2A and the NAPL thickness from 2008 through 2024.

## 2.3 Groundwater Quality Monitoring

Groundwater quality monitoring at the Site consists of seven monitoring wells (NP-22A, NP-23, NP-27, P-32A, NP-35, NP-44, and NP-46) sampled annually. The annual groundwater sampling event was conducted in April 10, 2024. Three of the seven monitoring wells (NP-22A, P-32A, and NP-46) produced a sufficient volume of groundwater for sampling during this event. Wells NP-23, NP-27, NP-35, and NP-44 did not yield sufficient groundwater to either purge prior to sampling or sample after purging and, therefore, were considered "dry". Purge records for this event are presented in Appendix B.

Groundwater samples were submitted to the New York State Department of Health (NYSDOH) National Environmental Laboratory Approval Program (NELAP New York ID #10145) certified laboratory ALS Environmental (ALS) located in Rochester, New York for analysis for the following analytes/parameters and associated required method detection and reporting limits:

**Table A Analytical Analytes/Parameters**

| Targeted Organic Compounds | Reporting Limit (RL) (µg/L) | Method Detection Limit (MDL) (µg/L) |
|---|---|---|
| Benzene | 1.0 | 0.20 |
| Chlorobenzene | 1.0 | 0.20 |
| Toluene | 1.0 | 0.20 |
| 2-Chlorotoluene | 1.0 | 0.20 |
| 1,2-Dichlorobenzene | 1.0 | 0.20 |
| 1,4-Dichlorobenzene | 1.0 | 0.20 |
| 1,2,3-Trichlorobenzene | 1.0 | 0.25 |
| 1,2,4-Trichlorobenzene | 1.0 | 0.34 |
| Total Recoverable Phenolics | 5.0 | 2.9 |
| TOC | 1,000.0 | 500 |

Notes:
µg/L – micrograms per liter

In addition to the above analytes, measurements of pH, temperature, specific conductivity, turbidity, dissolved oxygen (DO), and oxidation/reduction potential (ORP) were conducted and documented in the field by the sampling team. The quality assurance/quality control (QA/QC) review for the sampling event is presented in Appendix C.

### 2.3.1 Summary of Groundwater Chemistry Results

A summary of the analytical results for the 2024 groundwater quality monitoring event is presented in Table 2.5. Volatile organic compounds (VOCs) and total recoverable phenolics were not detected above the laboratory RLs in the samples collected from the three wells sampled. As indicated in the QA/QC review in Appendix C, the laboratory reported results to the laboratory's MDL for each analyte. These MDLs are shown in Table A above. With the exception of the MDL for total recoverable phenolics, these MDLs are less than or equal to the New York State (NYS) Class GA Groundwater Standards (Class GA Groundwater Standards) set forth in the NYSDEC *Division of Water Technical and Operational Guidance Series (1.1.1), Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations (June 1998)*. No detections for total recoverable phenolics were reported. TOC concentrations were detected above the RL, but there is no NYS water quality standard for TOC. Historical groundwater data is presented in Appendix D. A comparison of the April 2024 results to the historical data indicates that the April 2024 sample results are within the historical range for the Site. The IT continues to prevent off-Site migration of Site groundwater as well since no detections were observed in wells outside of the IT.

# 3. GROUNDWATER COLLECTION SYSTEM AND PANHANDLE REMEDIATION

This section has been prepared to fulfill the requirements for the Groundwater Collection System and Panhandle Remediation Annual Report as set forth in Appendix B of the PCJ. The *Operation and Maintenance (O&M) Manual*, dated July 2019, provides procedures and protocols for the instrumentation, operation, maintenance, and inspection of the system.

## 3.1 Groundwater Collection System

The groundwater collection system consists of an 8,300-foot long groundwater IT, one lateral trench that extends off the former plant property to the south in the southwest corner of the IT, one lateral trench that extends to the north of the IT on the north portion of the property, three lift stations, and a main collection pump station (Figure 1.2). The IT creates a closed-loop groundwater sink and a groundwater flow divide around the Site between on-site impacted areas and clean off-site areas. Underground piping conveys collected groundwater to a NAPL decanter and then into two aboveground steel storage tanks from which the water is pumped to an on-Site activated carbon treatment system. The collected water is treated by the on-Site process. After treatment with granular activated carbon (GAC), the treated water is discharged under the Site's NYSDEC SPDES permit (No. NY0001198) to the City of North Tonawanda storm sewer system.

Since 2011, all collected groundwater has been recovered through the IT. Approximately 37.9 million gallons of groundwater from the IT were collected, treated, and discharged in 2024 compared to 40.6 million gallons in 2023. Table 3.1 summarizes the volume of water treated and discharged on a per month per year basis. The volume of water treated and discharged was reported to the NYSDEC in the monthly NYSDEC SPDES Discharge Monitoring Reports (DMRs). It is worth noting that no groundwater was treated and discharged in February 2024. The treatment system was shut down from January 29, 2024 to March 3, 2024 due to a pipe break in the main feed piping from the main lift station to the decanter. The damaged piping was disassembled and replaced by Camtech Plumbing and Mechanical of Niagara Falls, New York in February 2024 and treatment resumed in March. At the same time, repair of the backwash piping from the treatment building to the decanter was also completed. The main feed line repairs included the replacement of approximately 85 linear feet of 3-inch steel piping with 3-inch CPVC piping, re-installation of the heat tracing wiring, and installation of new 2-inch thick polyisocyanurate pipe covering with ZeroPerm® vapor barrier. The repair of the backwash piping included the replacement of approximately 160 linear feet of 2-inch steel piping with 2-inch CPVC piping, re-installation of the heat tracing wires, and installation of new 2-inch thick polyisocyanurate pipe covering with ZeroPerm® vapor barrier.

A lateral drain is present and runs from the bedding of the City of North Tonawanda storm sewer located in Walck Road to trench manhole MH-4+20.2. This lateral is designed to drain the sewer bedding into the IT system to capture any chemistry potentially present in the bedding. Semiannual inspections of each of the trench manholes were performed on June 26 and November 12, 2024.

The inspection results are included in Appendix E. In August and September 2024, Kandey Company, Inc. was retained to clean and conduct video inspections of specific sections of the IT. The cleaning activities are further discussed in Section 4.3 as a component of the Site drainage improvements.

Inspection of the treatment system carbon beds and groundwater collection system is conducted on a daily basis. The inspections conducted in 2024 did not identify any significant issues with the treatment and the groundwater collections system except for a minor sensor that needed to be replaced and sections of pipe that needed to be replaced on the backwash and the main feed pipes running from the treatment building to the decanter. The treatment and groundwater collection systems functioned as designed.

## 3.2 Panhandle Remediation

The inspections required by the panhandle monitoring program were conducted on June 26, 2024, and November 11, 2024. The inspection forms for 2024 are included in Appendix E.

Vegetation is plentiful, native species of wetland/forestland plants are colonizing the area, and there are no obvious symptoms of stress. In addition to the native colonization, native trees and shrubs were planted in the areas surrounding the engineered wetlands and along the access road on the east side of the panhandle area. The ditch culverts are in good condition, and there is good accessibility to monitoring wells.

# 4. SITE ACTIVITIES

The activities and repairs performed in 2024 are summarized in the sections below. The activities are grouped into four categories: IT Maintenance, Monitoring Well/Piezometer Maintenance, Process, and Non-Process. Process Activities are activities that influenced the treatment system for the Site; Non-Process Activities are activities performed on Site during the year that had no impact on the treatment system for the Site.

## 4.1 IT Maintenance

The semiannual inspections of the trench manholes, which were performed on June 26, 2024, and November 12, 2024, revealed minor sediment buildup was occurring within the IT. Inspection forms are included in Appendix E. There were some surcharged conditions observed during the June 2024 inspections, however those conditions were not observed during the November 2024 inspection. Root growth obstructions have been a historical occurrence within various sections of the IT resulting in periodic cleaning of the IT to remove root growth. In August and September 2024, Kandey Company, Inc. was retained to operate a high-pressure jetter vac truck to "cut out" the possible root obstructions to the extent possible within specific sections of the IT (Refer to Figure 4.1 for cleaning and video inspection locations and findings). The cleaning activities took place over a period of five days. Once the IT was cleaned, it was videoed to inspect the IT for possible damage from root infiltration, to ensure the cleaning was effective at removing roots and any other debris and to ensure the IT was in good general condition.

### 4.1.1 Cleaning and Video Findings

#### *4.1.1.1 Cleaning Activities*

Prior to cleaning, varying levels of surcharged conditions were observed from Lift Station 2 downstream to manhole MH4 located on the southwest corner of the property. From manhole MH8 downstream to manhole MH4, the IT was surcharged with about one foot of groundwater prior to cleaning. From Lift Station 1 downstream to MH10, the IT was surcharged with about 10 feet to 15 feet of groundwater in each manhole. From Lift Station 2 downstream to Lift Station 1, similar surcharge conditions were observed. Cleaning progressed from the downstream manhole MH4 upstream to Lift Station 2. This section of the IT was cleaned and video inspected in an effort to remove potential root obstructions thereby improving the operation of the IT and to identify potential cause for historical outward gradients at piezometers T-3 and T-4 located downstream of Lift Station 2 and at piezometers T-5 and T-6 upstream of Lift Station 2.

In addition to cleaning IT downstream of Lift Station 2 and 1, the IT was also cleaned from Lift Station 3 downstream to manhole MH40. This section of the IT was cleaned and video inspected in an effort to improve operation of the IT and determine any potential structural issues associated with the IT that may be causing historical outward gradients at the T-8 piezometer array.

#### *4.1.1.2 Video Inspection*

In general, all sections of the IT that were video inspected were in good condition with no structural issues and only minor to no visible damage resulting from root infiltration. Any damage that was observed was inconsequential and does not require repairs. It was observed during the inspection that the configuration of the IT is not a flat, straight pipeline, but instead somewhat variable in that it rises and falls and shifts side-to-side between manholes. The rise and fall of the pipe cause sections of the IT to have pockets of standing water and that result in minor surcharged conditions (less than 6-inches of groundwater) observed at a manhole.

The results of the video inspection are summarized as follow:

- The video inspection from MH10 downstream to MH8 and again from MH8 downstream to MH5 indicated only minor root infiltration. From MH5 downstream to MH4, there was no observed root infiltration. As indicated earlier, this section of the IT had minor surcharge conditions. Once the IT was cleaned, the surcharge conditions decreased but did remain to a limited extent due to the pipe rising and falling in this section which creates localized pockets of surcharged groundwater.
- From Lift Station 1 downstream to MH 10, there was substantial signs of root infiltration that were removed during cleaning with no significant damage. In addition to observing root infiltration, pea gravel was observed in the IT piping from Lift Station 1 downstream for about 10 feet. It was concluded that the pea gravel had infiltrated into the IT around the pipe connection coming from the Lift Station where groundwater was observed flowing into the pipe around the connection. The pea gravel was removed to the extent possible during cleaning and a minor amount remained in the pipe; the amount will not impede the ability of the IT to function properly. Once cleaning had been completed in this section, the significant surcharge conditions were eliminated.
- From MH23 downstream to Lift Station 1, substantial root infiltration was observed which would explain the significant surcharged conditions in this section of the IT observed prior to the cleaning activities. Aside from observing the significant root infiltration, no other issues were noted. Once cleaning was complete, the surcharge conditions in the manholes were eliminated.
- From Lift Station 2 downstream to MH23, there was minor to moderate root infiltration. No damage to the IT piping was observed. Once the cleaning was complete, the significant surcharge conditions were eliminated.
- Video inspection from Lift Station #3 downstream to MH43 could not be completed to due to an unknown obstruction for the camera. Also, the video camera was under water during the inspection which did not allow for the obstruction to be visually identified. Downstream flow through the manholes was running freely, indicating that groundwater is flowing through the IT despite the obstruction that blocked the camera (Note: the jetter-vac was able to clean this section and nothing was observed to indicate damage to the IT).

## 4.2 Well Maintenance and Replacement

Well inspections conducted during July 2024 indicated that no repairs were required at the Site.

Routine maintenance performed on other wells included repairing locks, touch-up painting and replacing J-plugs.

## 4.3 Drainage Improvement Activities

In September and October of 2024, significant drainage improvement activities were performed throughout the Site, primarily in the area near Harding Avenue starting at the section of the IT from manhole MH23 (adjacent to Harding Avenue) downstream to MH17 located on Wilson Avenue. The Harding Avenue drainage improvements activities were completed to address seasonal (late winter/early spring) flooding along Harding Avenue. Appendix G has photos of flooding that occurred in January 2024 along Harding Avenue.

The scope of the work, conducted in coordination with the City of North Tonawanda, included the construction of surface drainage retention berms, removal of several mature trees that were impacting the IT via root infiltration, raising the elevation of the Site access road, and installation of storm sewers and associated catch basins along Harding Avenue for the City of North Tonawanda.

In addition to completing the surface drainage improvements, several areas were cleared of trees and vegetative underbrush, including both cells of the engineered wetland, along the access path leading to well NP-46 on north side of the northern fence line, along the path along the eastern fence line leading to well P-29, in the area around well P-17, the line of sight path from Lift Station #3 southwest towards the retention tanks to resolve intermittent antenna communication issues, and in the area south of Harding Avenue (removed dead Ash trees and other underbrush to facilitate re-grading the area).

Figures 4.2, 4.3, 4.4, and 4.5 show the extent of the scope of work and the location where the work was completed.

### 4.3.1 Surface Drainage Retention Berms

Extensive tree removal occurred prior to the construction of the drainage retention berms. Figure 4.2 shows the section of the IT in which trees were removed. Heinz Tree and Land Services, LLC of Sanborn, New York completed the tree removal for on-site activities while the City of North Tonawanda Department of Public Works (DPW) completed tree removals in the right-of-way along Harding Avenue. Each tree on-site was cut to grade to the extent practicable. All material that could be mulched (up to 10-inches in diameter) was mulched and stored on site for future use in landscape areas around the treatment building. For the trees along Harding Avenue that the City DPW removed, they also removed the stumps in order to facilitate the later installation of a new storm sewer. Appendix G has photos of the tree removal activities. Once tree removal

was completed in the area along Harding Avenue, the construction of the drainage retention berms commenced.

Four surface drainage retention berms were constructed as a part of the Site improvements. Figure 4.3 shows the location of the berms that were installed. Hannon Land Clearing of Ransomville, New York was retained to remove the fence along Harding Avenue, clear dead Ash trees from the area south of Harding Avenue and cut down mature trees too close to the IT in the same area, construct the berms, hydroseed the berms, and provide asphalt millings to raise the access road.

Berm #1 was installed east of the water treatment building parallel to the southern fence line near wells P-6A and the T-12 piezometer array. The berm was installed to prevent surface runoff from migrating from the interior of the site to Walck Road via a north-south drainage swale. The berm area that was installed was approximately 160 feet long by 30 feet wide by 4 feet in height on the center line of the berm The berm was constructed using imported clay and covered with approximately 6-inches of topsoil from Hannon Land Clearing, Ransomville, New York. Once the berm was constructed, it was hydro-seeded with a contractor mix of fescue, rye, and Kentucky blue grass. Appendix G has photographs of the berm and work activities.

Berm #2 was installed north of Lift Station #2 in a low-lying area along the fence line to eliminate the potential for surface runoff from rain and snowmelt from leaving the site along the fence line. The berm area that was installed was approximately 300 feet long by 20 feet wide by 2 feet in height on the western edge and tapering down to about 8-inches on height on the eastern edge. The berm was constructed using imported clay and covered with approximately 6-inches of topsoil from Hannon Land Clearing, Ransomville, New York. The soils were analyzed by NYSDOH NELAP (NELAP New York ID #10145) certified laboratory ALS Environmental (ALS) located in Rochester, New York. Appendix F contains the lab results and Table F.1, which compares the lab results to the DER-10, Appendix 5 – Allowable Constituent Levels for Imported Fill or Soil for a Commercial or Industrial Use site. The results of the testing for both the clay and the topsoil indicate that it was compliant with Appendix 5 requirements. Once the berm was constructed, it was hydro-seeded with a contractor mix of fescue, rye, and Kentucky blue grass. Appendix G has photographs of the berm and project work activities.

Berm #3 was the largest and ran parallel along the fence line from manhole MH23 (on Harding Avenue) downstream nearly to manhole MH17 (on Wilson Avenue). The total linear distance of the berm was approximately 820 feet. The berm varied in height depending on the surface topography along the fence line from approximately 4 feet thick near MH23 to approximately 2.5 feet thick near MH17. The target elevation of the new berm was 576.5 feet which is the ground surface elevation to the east of manhole MH23. The width of the berm varied from approximately 25 feet to as wide as 45 feet near MH19, however the average width was approximately 30 feet. The berm was constructed to slope over the 30-foot width from the highpoint at the fence line inward to the property where it was blended to match the existing surface topography. The berm slopes sharply downward over a 3-foot width at the fence line to the existing grade outside the property. Once the clay berm had been constructed, it was covered with approximately 6-inches

of topsoil. Once the berm was constructed, it was hydro-seeded with a contractor mix of fescue, rye, and Kentucky blue grass. To facilitate the installation of the berm along Harding Avenue from MH23 to MH19, the fence was removed and recycled and replaced with a new fence at the end of the project. In addition to removing the fence, manholes MH23 and MH19 were also raised since both sit in the high point of the berm. MH23 was raised 3 feet (to a new elevation of 577.44 ft) while MH19 was raised 2.5 feet (new elevation of 577.25). Stimm Associates, Inc, of Buffalo, New York was retained to install the manhole extensions. Once the berm was complete, it provides for an area of approximately 70,700 square feet for the retention of rain and snow melt and surface runoff from the interior of the site. With an average depth of 2.5 feet for the area, this equates to a rough holding capacity of 1.32M gallons. Appendix G has photographs of the berm and work activities.

Berm #4 identified on Figure 4.3 is not a berm so much as an area where a drainage swale was brought to the surrounding existing grade. The drainage swale was filled to eliminate a capture point for surface runoff that could then flow east to west along the ditch to off-Site areas along Wilson Avenue. The swale was filled with clay and then covered with approximately 6-inches of topsoil.

In addition to completing the drainage retention berms, GSH also assisted the City of North Tonawanda with the installation of approximately 630 linear feet of new 8-inch HDPE storm sewer and four 24-inch by 24-inch by 48-inch-high, square catch basins and one flared endpoint along the 630-foot length of storm sewer. Figure 4.4 shows the locations of the catch basins and the storm sewer that were installed in the City of North Tonawanda right-of-way. This work was completed as a component of a larger storm water management effort that the City of North Tonawanda was completing at the eastern end of Harding Avenue to eliminate off-Site surface water drainage onto the Durez NT site and contributing to flooding issues along Harding Avenue.

Stimm Associates, Inc. of Buffalo, New York was retained to install the storm sewer and catch basins. The 8-inch HDPE piping was installed approximately 5 feet below grade in a bed of pea gravel and then covered to within 1 foot of grade with #2 run-of-crusher. The granular materials were supplied by the City of North Tonawanda. The remainder of the excavation was backfilled grade with the excavated soil and topsoil and then hydroseeded. The soil was placed back in the reverse order to how it was removed with deeper materials placed into the excavation first and ending with the upper materials and topsoil placed on top of the excavation. Any excess topsoil material excavated during the storm sewer installation was reused to grade the surface area in the same location. The excess excavated topsoil is estimated to be approximately 30 to 40 yards and consisted of clean, dark brown topsoil and a limited amount of brown sandy, silty clay. No material was disposed or removed from the Site. The City of North Tonawanda will complete the installation in 2025 by installing paving from the street to the catch basin since the catch basins sit approximately 3 feet from the streets edge due to a natural gas utility line running beneath the edge of the street pavement. Appendix G has photos of the storm sewer installation activities.

No further drainage improvements to the aforementioned areas are anticipated for 2025, however, GSH will monitor the improvement areas as well as the remainder of the site.

## 4.4 Process Activities

Activities that were performed during 2024 related to the Site's collection and treatment process are listed below:

- Performed as needed preventative maintenance on Site equipment throughout the year,
- Relaced approximately 150 feet of 4-inch steel backwash pipe from treatment building to top of decanter with CPVC piping,
- Installed new pipe insulation along backwash pipe from treatment building to decanter,
- Replaced approximately 90 feet of 4-inch steel main raw water feed piping from the treatment building to the top of the decanter with CPVC piping
- Installed new pipe insulation on main raw water feed line
- Installed heat trace “on” indicator lights on the backwash and the main raw water feed piping
- Replaced retention tank water level sensors from pressure transducers to pulse doppler units,
- Repaired a broken pipe in Lift Station #1
- Completed a carbon change on one 20,000-pound main treatment bed and both 2,500-pound sacrificial carbon beds
- Completed maintenance on multi-media filtration units and replaced filter media in the three units
- Shipped for regeneration 25,000-pounds of spent activated carbon (manifest 009193764SKS)
- Shipped spent filter media solids for off-Site hazardous waste disposal (manifest 019275468FLE)
- Shipped miscellaneous piping debris for off-Site hazardous waste disposal (manifest 008991848SKS).

The tracking of hazardous waste is performed by regulated hazardous waste manifests. A summary of the Site’s annual hazardous waste generation is reported to the NYSDEC in the *Annual Hazardous Waste Report*. The *Annual Hazardous Waste Report* summarizes the quantities, transporters, and disposal methods.

A total of 30,104.39 pounds of hazardous waste was generated from Site activities in 2024. The waste materials were sent off Site for disposal in accordance with applicable laws and regulations. The waste generated consisted of piping debris, spent filter media, and a spent activated carbon. Copies of the disposal manifests are in Appendix H.

## 4.5 Non-Process Activities

Activities that were performed on Site during the year that were not part of the collection and/or treatment process are as follows:

- Performed Site beautification and maintenance of shrubs and bushes around the Treatment Process Building and mowed grassed areas,
- Performed annual backflow preventer inspection,
- Removed downed trees and branches,
- Completed drainage improvements along Harding Avenue and other areas of the Site
- Installed storm sewers and catch basins for the City of North Tonawanda as a component of the Site drainage improvements
- Fence replacement along Harding Avenue as a component of the Site drainage improvements

# 5. CONCLUSIONS

## 5.1 Summary

The purpose and primary design objective of the IT is to capture and collect groundwater that could otherwise migrate off the Site and to capture and collect groundwater located outside the Site by creating a hydraulic gradient toward the trench. Approximately 37.9 million gallons of groundwater from the IT were collected, treated, and discharged in calendar year 2024. The 2024 groundwater contours and measured water levels at the piezometer clusters indicate that an inward gradient to the IT is being maintained. Therefore, the purpose and primary objective of the IT are being met.

The IT groundwater monitoring program is conducted to collect the hydraulic and groundwater chemical data necessary to evaluate the effectiveness of the IT and long-term trends in groundwater chemistry in selected monitoring wells. The hydraulic data collected in 2024 indicate that the IT is functioning effectively. The chemical groundwater data collected in 2024 demonstrate that the IT continues to intercept potentially impacted groundwater and prevent it from migrating off the Site.

The analytical results from the 2024 groundwater monitoring event showed no detectable concentrations of VOCs or total recoverable phenolics above the laboratory RLs. A comparison of the historical groundwater data and the April 2024 sample results indicate that the April 2024 results are within the historical range for the Site and that the IT continues to prevent off-Site migration of Site groundwater.

In 2024, the NAPL presence at piezometer T-2A was monitored through an annual measurement and semiannual water level rounds at select wells to demonstrate an inward gradient in the vicinity of T-2A (as indicated by a lower groundwater elevation in T-2A than monitoring wells farther outside of the IT besides T-2A). A NAPL presence check was performed on March 7, 2024, and again on September 10, 2024. No NAPL was observed to be present during those events. Therefore, no additional NAPL was removed.

During the March 2024 hydraulic monitoring event, an outward gradient was observed at piezometers T-3, T-5 and T-6. During the September 2024 hydraulic monitoring event, an inward gradient was observed at all piezometer arrays including at piezometer T-8 which has had a history of demonstrating an outward gradient. During both events, the T-8 piezometer array demonstrated a marginal inward gradient. As such GSH recommends continuing to monitor the T-8 piezometer array semiannually as required. GSH cleaned the IT and removed a large number of trees growing above the IT in 2024 to ensure inward gradients were observed year-round for the IT as well as to reduce the potential of the IT becoming obstructed with root infiltration and the need for future cleaning.

In addition to completing the cleaning and inspection of the IT, GSH completed surface drainage improvement activities near the Harding Avenue area to mitigate to the extent possible potential for surface runoff into the drainage features along Harding Avenue. Additional minor drainage

and grading improvements were completed in other areas of the Site to ensure that surface runoff remains on Site and infiltrates into the ground for capture by the IT.

In 2025, GSH will continue to monitor the IT and treatment systems in accordance with NYSDEC approved site documents and permits. GSH will also continue to monitor site drainage conditions and fence lines for.

# 6. RECOMMENDATIONS

Based on the performance of the system and historical data trends, GSH has no additional recommendations for program changes at this time. GSH will continue to monitor and evaluate the IT and Durez NT treatment systems for Site improvements associated with the operation, maintenance, and monitoring activities and make recommendations to the NYSDEC as appropriate.

# Tables

## Table 2.1

## 2024 Precipitation Data
## Durez North Tonawanda
## Glenn Springs Holdings, Inc.
## North Tonawanda, New York

| Month | Niagara Falls (Inches of Water) | Buffalo (Inches of Water) |
|---|---|---|
| January | 2.18 | 5.67 |
| February | 0.30 | 1.04 |
| March | 0.67 | 2.12 |
| April | 2.83 | 4.58 |
| May | 1.63 | 2.61 |
| June | 4.00 | 4.78 |
| July | 3.75 | 2.87 |
| August | 2.56 | 2.38 |
| September | 2.11 | 2.99 |
| October | 1.76 | 1.94 |
| November | 2.48 | 2.19 |
| December | 2.33 | 3.55 |
| **Total** | **26.60** | **36.72** |

Notes:
Data shown are for Niagara Falls and Buffalo, New York, obtained from the National Oceanic & Atmospheric Administration

## Table 2.2

## 2024 Groundwater Elevations
## Durez North Tonawanda
## Glenn Springs Holdings, Inc.
## North Tonawanda, New York

| Well ID | Reference Elevation (ft. AMSL) | Bottom of Well Elevation (ft. AMSL) | March 7, 2024 | September 4, 2024 |
|---|---|---|---|---|
| MW-1 | 574.52 | 565.29 | 574.35 | 569.00 |
| MW-3 | 577.01 | 564.77 | 573.41 | 568.83 |
| MW-4 | 576.40 | 564.18 | 573.64 | 569.15 |
| NP-10 | 579.79 | 567.99 | 575.16 | 572.06 |
| NP-13 | 576.69 | 567.72 | 574.22 | 568.29 |
| NP-15 | 578.91 | 568.28 | 575.99 | 571.01 |
| NP-16 | 578.35 | 570.91 | 576.05 | Dry, <570.91 |
| NP-19 | 576.66 | 568.86 | 571.66 | Dry, <568.786 |
| NP-2 | 577.37 | 567.64 | Dry, <569.14 | 572.75 |
| NP-20 | 577.62 | 569.09 | 569.14 | Dry, <569.136 |
| NP-21 | 576.90 | 568.62 | 573.35 | 572.38 |
| NP-22A | 577.63 | 565.69 | 573.61 | 568.87 |
| NP-23 | 577.92 | 569.03 | 569.42 | 569.30 |
| NP-24 | 578.97 | 569.14 | 574.56 | 571.52 |
| NP-25 | 578.33 | 568.35 | 573.48 | 573.75 |
| NP-26 | 577.71 | 571.13 | 574.55 | 572.87 |
| NP-27 | 577.22 | 567.37 | 571.10 | 567.33 |
| NP-32 | 577.25 | 571.45 | 574.62 | Dry, <571.37 |
| NP-35 | 577.42 | 567.50 | 571.63 | 569.52 |
| NP-37 | 577.45 | 571.10 | 571.25 | 571.24 |
| NP-38 | 578.09 | 571.21 | 574.67 | Dry, <571.16 |
| NP-4 | 577.16 | 567.81 | 576.83 | 576.74 |
| NP-41 | 577.65 | 570.97 | 574.04 | Dry, <570.86 |
| NP-42 | 576.58 | 570.15 | 570.70 | 570.69 |
| NP-43 | 577.08 | 571.12 | 573.71 | Dry, <570.11 |
| NP-44 | 576.63 | 570.31 | 566.33 | 565.83 |
| NP-45 | 576.33 | 572.66 | 567.89 | 567.11 |
| NP-46 | 576.87 | 567.71 | 571.93 | 567.81 |
| NP-51 | 577.36 | 568.38 | 572.69 | 572.65 |
| NP-6 | 575.21 | 568.87 | 571.12 | 571.29 |
| NP-8 | 577.20 | 568.37 | 574.28 | 570.92 |
| P-1 | 578.88 | 571.27 | 574.31 | 573.83 |
| P-11 | 580.14 | 569.95 | 575.57 | 573.87 |
| P-13 | 581.43 | 568.54 | 576.14 | 574.44 |
| P-16 | 578.32 | 570.99 | 574.98 | 575.00 |
| P-17 | 577.46 | 572.00 | 574.71 | 575.22 |
| P-1-96 | 574.93 | 567.85 | 571.15 | 568.02 |
| P-19A | 580.01 | 567.83 | 573.91 | 571.52 |
| P-23 | 578.83 | 571.70 | 573.91 | Dry, <571.68 |
| P-27 | 580.25 | 569.50 | 574.22 | 572.25 |
| P-29 | 578.74 | 570.98 | 575.86 | 572.82 |
| P-2-96 | 574.57 | 568.49 | 571.55 | Dry, <568.56 |
| P-30 | 579.28 | 571.28 | 572.66 | 572.67 |
| P-31 | 578.15 | 569.10 | 570.18 | 569.51 |
| P-32A | 577.67 | 565.70 | 569.55 | 568.84 |
| P-34 | 576.12 | 566.39 | 572.82 | 568.55 |
| P-3-96 | 574.42 | 567.76 | 568.95 | Dry, <567.87 |
| P-6A | 578.93 | 566.13 | 572.94 | 570.96 |
| P-7 | 577.46 | 567.91 | 573.75 | 572.17 |
| SP-3 | 575.30 | 565.77 | 569.73 | 568.78 |

## Table 2.2

## 2024 Groundwater Elevations
## Durez North Tonawanda
## Glenn Springs Holdings, Inc.
## North Tonawanda, New York

| Well ID | Reference Elevation (ft. AMSL) | Bottom of Well Elevation (ft. AMSL) | March 7, 2024 | September 4, 2024 |
|---|---|---|---|---|
| T-10A | 576.64 | 569.73 | 571.69 | 570.12 |
| T-10B | 577.29 | 567.69 | 569.54 | 567.68 |
| T-10C | 577.00 | 569.71 | 570.43 | 570.04 |
| T-11A | 577.10 | 569.56 | 569.99 | 569.67 |
| T-11B | 577.27 | 565.89 | 569.29 | Dry, <566.246 |
| T-11C | 577.69 | 570.54 | 571.01 | Dry, <570.51 |
| T-12A | 574.64 | 567.41 | 568.54 | 568.42 |
| T-12B | 574.92 | 563.81 | 565.97 | 564.07 |
| T-12C | 575.45 | 568.43 | 571.13 | 569.90 |
| T-13A | 575.09 | 568.18 | 568.46 | 568.17 |
| T-13B | 575.07 | 561.78 | 565.83 | 562.27 |
| T-13C | 574.98 | 569.39 | 570.29 | Dry, <569.616 |
| T-2A | 577.86 | 565.94 | 571.21 | 568.04 |
| T-2B | 578.73 | 563.90 | 566.13 | Dry, <563.951 |
| T-2C | 578.81 | 570.28 | 570.69 | Dry, <570.226 |
| T-3A | 577.71 | 569.02 | 573.81 | 568.98 |
| T-3B | 577.92 | 564.26 | 574.25 | 566.74 |
| T-3C | 578.00 | 565.83 | 573.93 | 567.89 |
| T-4A | 579.68 | 569.95 | 574.17 | Dry, <569.966 |
| T-4B | 579.72 | 565.62 | 573.82 | Dry, <565.586 |
| T-4C | 580.17 | 568.21 | 574.22 | Dry, <570.646 |
| T-5A | 579.40 | 570.75 | 571.92 | Dry, <570.98 |
| T-5B | 578.63 | 564.14 | 574.10 | 565.91 |
| T-5C | 575.74 | 572.41 | 574.87 | 572.81 |
| T-6A | 578.98 | 569.94 | 574.01 | Dry, <569.98 |
| T-6B | 579.22 | 565.18 | 574.08 | 565.98 |
| T-6C | 580.41 | 568.62 | 575.19 | 569.28 |
| T-7A | 578.77 | 571.52 | 574.09 | Dry, <569.47 |
| T-7B | 576.07 | 570.13 | 571.94 | Dry, <565.81 |
| T-7C | 576.72 | 571.33 | 572.33 | 567.15 |
| T-8A | 575.87 | 571.11 | 574.23 | Dry, <571.02 |
| T-8B | 575.97 | 565.99 | 574.16 | 570.24 |
| T-8C | 578.82 | 572.78 | 573.70 | 569.22 |
| T-9A | 579.12 | 571.04 | 574.07 | Dry, <571 |
| T-9B | 575.91 | 568.43 | 571.26 | 568.44 |
| T-9C | 578.24 | 571.79 | 575.22 | Dry, <571.81 |

Notes:
ft. AMSL - Feet above mean sea level
Dry - No water found in well at time of measurement
NM - Not measured

## Table 2.3

## 2024 T-2A NAPL Presence - Hydraulic Monitoring
## Durez North Tonawanda
## Glenn Springs Holdings, Inc.
## North Tonawanda, New York

| Well ID | Groundwater Elevations | |
|---|---|---|
| | March 7, 2024 | September 4, 2024 |
| NP-13 | 574.22 | 568.29 |
| NP-19 | 571.66 | Dry, <568.786 |
| NP-20 | 569.14 | Dry, <569.136 |
| NP-27 | 571.10 | 567.33 |
| NP-35 | 571.63 | 569.52 |
| NP-4 | 576.83 | 576.74 |
| P-1 | 574.31 | 573.83 |
| P-1-96 | 571.15 | 568.02 |
| P-2-96 | 571.55 | Dry, <568.56 |
| P-3-96 | 568.95 | Dry, <567.87 |
| T-12A | 568.54 | 568.42 |
| T-12B | 565.97 | 564.07 |
| T-12C | 571.13 | 569.90 |
| T-13A | 568.46 | 568.17 |
| T-13B | 565.83 | 562.27 |
| T-13C | 570.29 | Dry, <569.616 |
| T-2A | 571.21 | 568.04 |
| T-2B | 566.13 | Dry, <563.951 |
| T-2C | 570.69 | Dry, <570.226 |
| T-3A | 573.81 | 568.98 |
| T-3B | 574.25 | 566.74 |
| T-3C | 573.93 | 567.89 |

Notes:
Elevations shown are in feet above mean sea level
Dry - No water found in well at time of measurement
NAPL - Non-Aqueous Phase Liquid
NM - Not measured

## Table 2.4

## T-2A NAPL Pumping - 2008-2024
## Durez North Tonawanda
## Glenn Springs Holdings, Inc.
## North Tonawanda, New York

| Date | NAPL Extracted (ounces) | NAPL Thickness (inches) |
|---|---|---|
| 10/29/2008 | 32 | NM |
| 10/30/2008 | 8 | NM |
| 10/31/2008 | 8 | NM |
| 11/3/2008 | 8 | NM |
| 11/11/2008 | 8 | NM |
| 11/18/2008 | 6 | 3 |
| 12/3/2008 | 6 | 3 |
| 12/30/2008 | 6 | 3 |
| 03/31/2009 | 6 | 3 |
| 4/14/2009 | 6 | 3 |
| 04/28/2009 | 6 | 3 |
| 05/14/2009 | 5 | 3 |
| 05/28/2009 | 3 | 2 |
| 06/10/2009 | 3 | 2 |
| 06/16/2009 | 3 | 2 |
| 06/24/2009 | 3 | 3 |
| 07/07/2009 | 3 | 3 |
| 07/15/2009 | 3 | 3 |
| 07/31/2009 | 1 | 1 |
| 08/14/2009 | 1 | 1 |
| 08/31/2009 | 1 | 1 |
| 09/08/2009 | 1 | 1 |
| 09/24/2009 | 1 | 1 |
| 10/8/2009 | 1 | 1 |
| 10/22/2009 | 1 | 1 |
| 11/5/2009 | 1 | 1 |
| 11/18/2009 | 1 | 1 |
| 11/25/2009 | 1 | 1 |
| 12/9/2009 | 1 | 1 |
| 12/23/2009 | 1 | 1 |
| 04/06/2010 | 1 | 1 |
| 04/19/2010 | 1 | 1 |
| 05/03/2010 | 1 | 1 |
| 05/19/2010 | 1 | 1 |
| 06/02/2010 | 1 | 1 |
| 06/16/2010 | 1 | 1 |
| 06/30/2010 | 1 | 1 |
| 07/13/2010 | 1 | 1 |
| 03/28/2011 | 1 | 1 |
| 10/4/2011 | 0.2 | 0.2 |
| 03/23/2012 | 2 | 0.04 |
| 06/11/2012 | 2 | 0.02 |
| 08/14/2012 | 2 | 0.02 |
| 11/06/2012 | 8 | 0.08 |
| 02/06/2013 | 0 | 1.2 |
| 05/03/2013 | 0 | 0.2 |
| 08/01/2013 | 0 | 0.3 |
| 11/06/2013 | 0 | Trace |
| 02/24/2014 | 0 | 0.8 |
| 05/23/2014 | 0 | 0.8 |

## Table 2.4

## T-2A NAPL Pumping - 2008-2024
## Durez North Tonawanda
## Glenn Springs Holdings, Inc.
## North Tonawanda, New York

| Date | NAPL Extracted (ounces) | NAPL Thickness (inches) |
|---|---|---|
| 08/08/2014 | 0 | 27.0* |
| 11/19/2014 | 0 | 0.5 |
| 02/19/2015 | 0 | 0.1 |
| 04/08/2015 | 0 | 0.17 |
| 09/02/2015 | 0 | 0.17 |
| 11/19/2015 | 0 | 0.36 |
| 02/04/2016 | 0 | 0.15 |
| 05/04/2016 | 0 | 0.11 |
| 08/12/2016 | 0 | 0.11 |
| 11/30/2016 | 0 | Trace |
| 02/10/2017 | 0 | 0.03 |
| 05/26/2017 | 0 | 0.09 |
| 08/02/2017 | 0 | Trace |
| 12/07/2017 | 0 | Trace |
| 11/21/2018 | 0 | Trace |
| 11/12/2019 | 0 | 0.24 |
| 08/05/2020 | 0 | 0.48 |
| 08/25/2021 | 0 | Trace |
| 05/21/2022 | 0 | Trace |
| 04/19/2023 | 0.1 | Trace |
| 04/26/2023 | 0 | Trace |
| 09/14/2023 | 0 | None |
| 03/07/2024 | 0 | None |
| 09/10/2024 | 0 | None |
| **Total NAPL Removed:** | **158.3 ounces** | |

Notes:
NAPL - Non-Aqueous Phase Liquid
* - NAPL thickness represents an outlier reading with possible measurement e
NM - Not measured

## Table 2.5

## 2024 Groundwater Monitoring Analytical Results
## Durez North Tonawanda
## Glenn Springs Holdings, Inc.
## North Tonawanda, New York

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | Sample Location: | NP-22A[3] | NP-22A[3] | NP-46 | P-32A |
| | | | Sample ID: | NP-22A-0424 | NP-70-0424 | NP-46-0424 | P-32A-0424 |
| | | | Sample Date: | 4/10/2024 | 4/10/2024 Duplicate | 4/10/2024 | 4/10/2024 |
| **Parameter** [1] | **Groundwater Standard** [2] | **Units** | **Reporting Limit** | | | | |
| **Volatile Organic Compounds** | | | | | | | |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1.0 | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1.0 | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1.0 | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1.0 | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 2-Chlorotoluene | 5 | µg/L | 1.0 | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Benzene | 1 | µg/L | 1.0 | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Chlorobenzene | 5 | µg/L | 1.0 | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Toluene | 5 | µg/L | 1.0 | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| **General Chemistry** | | | | | | | |
| Phenolics (total) | 0.001 | mg/L | 0.0050 | 0.0050 U | 0.0050 U | 0.0050 U | 0.0050 U |
| Total organic carbon (TOC) | - | mg/L | 1.0 | 4.5 | 4.5 | 2.0 | 1.9 |
| **Field Parameters** | | | | | | | |
| pH, field | 6.5-8.5 | s.u. | - | 6.70 | 6.70 | 6.76 | 7.16 |
| Temperature, field | - | deg C (deg F) | - | 10.77 (51.39) | 10.77 (51.39) | 13.09 (55.56) | 15.18 (59.32) |
| Conductivity, field | - | mS/cm | - | 5.62 | 5.62 | 0.890 | 3.26 |
| Turbidity, field | - | NTU | - | 3.57 | 3.57 | 4.55 | 3.14 |
| Dissolved oxygen (DO), field | - | mg/L | - | 0.89 | 0.89 | 5.18 | 3.45 |
| Oxidation/reduction potential (ORP), | - | mV | - | -8 | -8 | 212 | 176 |

Notes:
(1) - Monitoring wells and compounds are in accordance with Appendix B, Durez Partial Consent Judgement; except analyses for
(2) - Total Recoverable Phenolics were reported as Phenols in February 1984
(3) - Groundwater standards are NYS Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998
NP-22A was installed in November 1993, approximately 10 feet from the former location of NP-22
µg/L - Micrograms per liter
mg/L - Milligrams per liter
s.u. - Standard Unit
mS/cm- Millisiemens per centimeter
NTU - Nephelometric Turbidity Unit
mV - millivolts
U - Not detected at associated value
- Not applicable

**Table 3.1**

**Amount of Groundwter Collected, Treated, and Discharged**
**Durez North Tonawanda**
**Glenn Springs Holdings, Inc.**
**North Tonawanda, New York**

| | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|---|
| **January** | 3,485,190 | 3,854,930 | 2,650,700 | 5,335,740 | 3,231,360 | 4,586,280 | 1,934,470 | 3,048,280 |
| **February** | 4,612,420 | 2,209,340 | 2,978,010 | 4,444,102 | 4,124,780 | 3,409,460 | 986,810 | 2,897,631 |
| **March** | 3,881,280 | 5,066,000 | 6,251,990 | 2,705,340 | 3,531,350 | 4,826,570 | 4,195,900 | 5,775,869 |
| **April** | 4,021,260 | 3,996,780 | 5,471,000 | 2,535,380 | 3,691,220 | 5,182,290 | 5,870,300 | 4,796,230 |
| **May** | 1,930,190 | 2,023,190 | 6,065,870 | 2,810,520 | 2,280,410 | 5,079,766 | 2,141,730 | 1,851,760 |
| **June** | 595,340 | 1,693,990 | 3,351,220 | 857,290 | 4,342,820 | 1,485,230 | 1,963,520 | 582,440 |
| **July** | 2,080,260 | 646,180 | 1,275,310 | 224,970 | 2,947,920 | 697,720 | 1,409,860 | 182,150 |
| **August** | 2,157,280 | 669,660 | 272,930 | 205,560 | 1,234,630 | 837,390 | 539,320 | 428,300 |
| **September** | 695,660 | 313,300 | 715,090 | 213,460 | 942,990 | 480,540 | 773,640 | 189,880 |
| **October** | 1,179,660 | 0 | 3,694,708 | 1,355,530 | 4,396,380 | 409,690 | 1,331,590 | 521,980 |
| **November** | 2,092,380 | 1,783,707 | 2,620,180 | 1,694,640 | 4,239,560 | 286,940 | 1,337,830 | 575,645 |
| **December** | 5,686,910 | 3,022,380 | 5,363,970 | 2,699,450 | 3,946,630 | 1,726,420 | 1,708,220 | 1,763,175 |
| **Total** | **32,417,830** | **25,279,457** | **40,710,978** | **25,081,982** | **38,910,050** | **29,008,296** | **24,193,190** | **22,613,340** |

Note:
Monthly and Yearly volumetric totals are in gallons

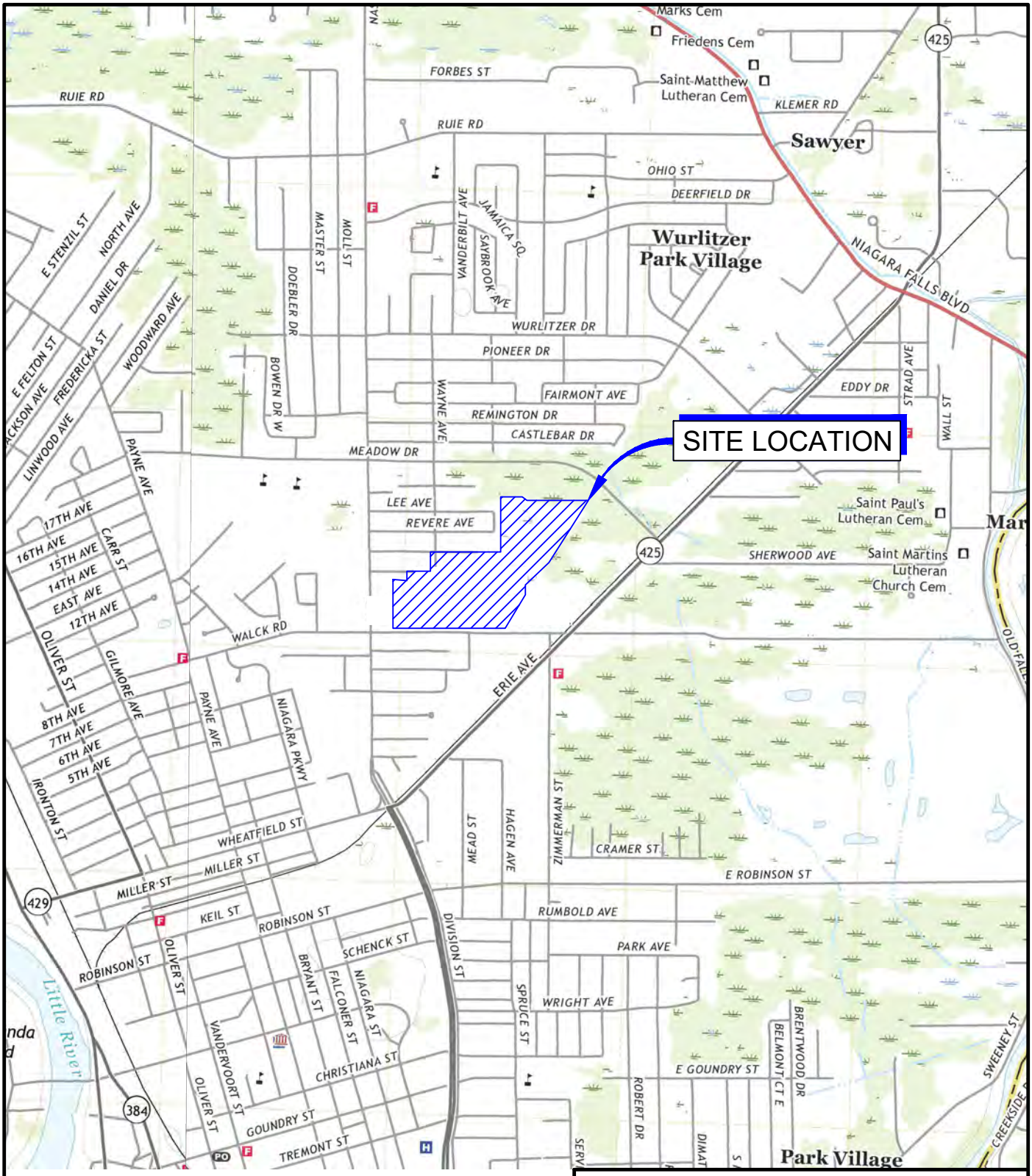
**Table 3.1**

**Amount of Groundwter Collected, Treated, and Discharged**
**Durez North Tonawanda**
**Glenn Springs Holdings, Inc.**
**North Tonawanda, New York**

| | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|
| **January** | 3,145,950 | 4,550,700 | 4,361,440 | 5,541,190 | 3,580,021 | 2,881,880 | 5,812,375 | 3,233,895 |
| **February** | 2,599,070 | 4,004,679 | 4,596,070 | 4,870,160 | 1,180,919 | 3,423,608 | 3,996,489 | 0 |
| **March** | 4,298,730 | 5,187,190 | 4,649,250 | 5,149,140 | 3,538,430 | 5,451,527 | 5,898,348 | 4,360,483 |
| **April** | 5,191,048 | 5,309,607 | 4,698,900 | 3,841,705 | 2,176,840 | 5,263,058 | 4,846,879 | 5,048,000 |
| **May** | 5,559,150 | 3,563,278 | 4,949,220 | 3,209,035 | 1,858,220 | 5,214,183 | 3,447,446 | 4,444,599 |
| **June** | 2,256,230 | 915,630 | 1,971,240 | 1,149,370 | 1,064,800 | 2,735,077 | 2,725,274 | 3,415,631 |
| **July** | 1,295,926 | 116,300 | 360,630 | 735,150 | 2,441,750 | 1,836,383 | 2,546,831 | 3,499,965 |
| **August** | 2,003,040 | 428,220 | 1,385,590 | 545,670 | 1,134,480 | 1,308,156 | 3,473,990 | 2,793,881 |
| **September** | 586,360 | 550,600 | 772,620 | 197,160 | 1,753,210 | 1,765,447 | 1,382,112 | 2,159,035 |
| **October** | 1,996,940 | 659,860 | 1,367,960 | 291,870 | 1,973,280 | 1,855,375 | 1,270,055 | 2,246,750 |
| **November** | 3,937,280 | 3,534,687 | 3,152,030 | 875,099 | 4,027,370 | 3,011,779 | 1,411,136 | 2,585,885 |
| **December** | 2,814,870 | 4,117,818 | 5,043,910 | 2,180,211 | 3,263,500 | 4,040,583 | 3,800,068 | 4,137,070 |
| **Total** | **35,684,594** | **32,938,569** | **37,308,860** | **28,585,760** | **27,992,820** | **38,787,056** | **40,611,002** | **37,925,195** |

Note:
Monthly and Yearly volumetric totals are in gallons

# Figures




DATA SOURCE:
USGS QUAD MAPS; TONAWANDA WEST, NY, 2019
AND TONAWANDA EAST, NY, 2019.

0 2,000'
SCALE IN FEET

**SITE LOCATION**

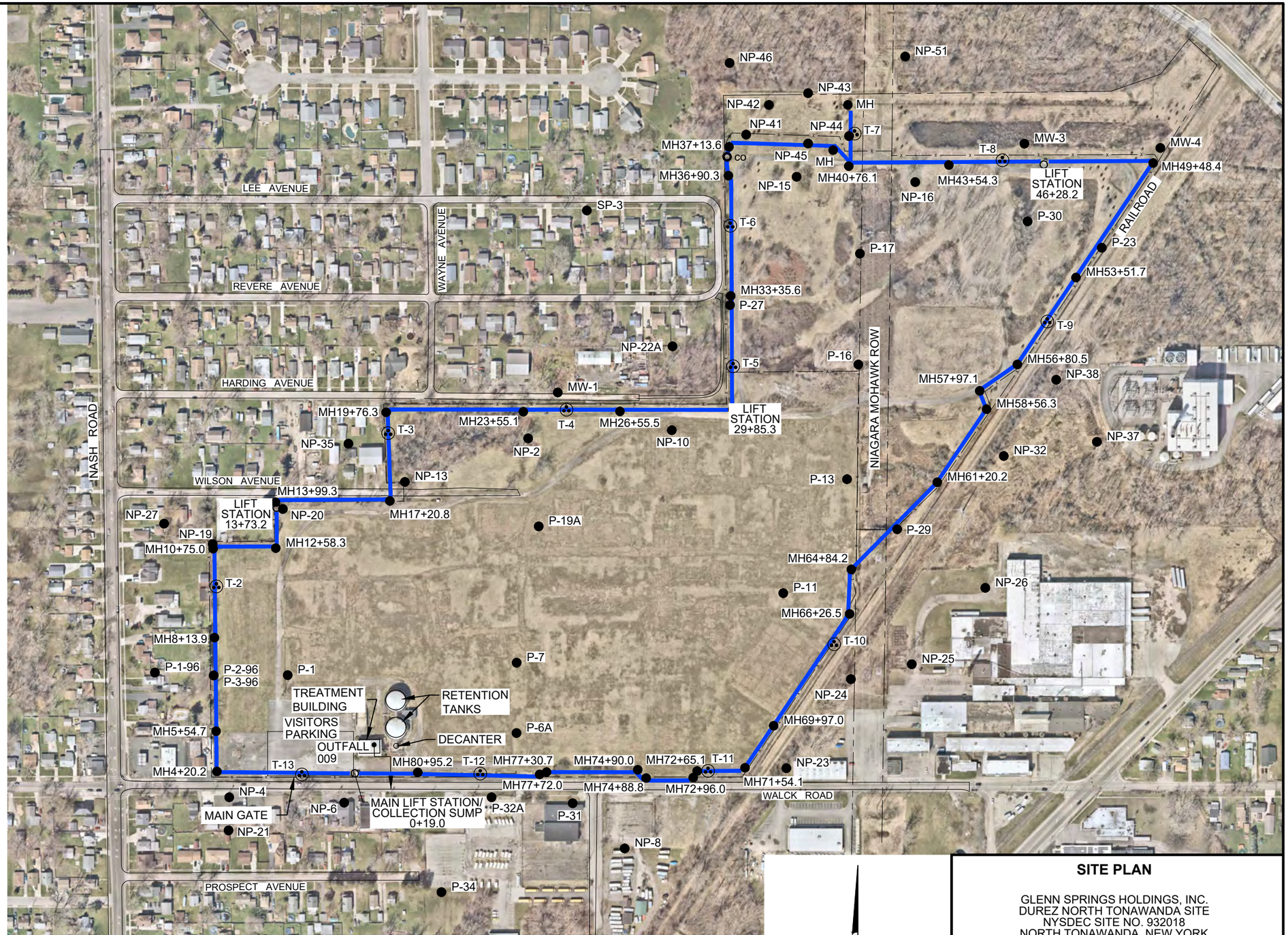
GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

FIGURE 1.1

PROJECT NO: TR1045 | JANUARY 2025

\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-001 - MJerome 11/11/24




LEGEND

- FENCE LINE
- INTERCEPTOR TRENCH
- MONITORING WELL
- TRENCH PIEZOMETER
- MANHOLE

0 300'

SCALE IN FEET

**SITE PLAN**

GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

FIGURE 1.2

PROJECT NO: TR1045 | JANUARY 2025

DATA SOURCE: GHD, 2021 PERIODIC REVIEW REPORT, SITE PLAN, DECEMBER 2021.
IMAGERY SOURCE: NEARMAP, DATE OF PHOTOGRAPHY 2024-03-30.

\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-002 - MJerome 1/2/25

## WATER LEVELS AT INTERCEPTOR TRENCH (IT)

MEASURED

| TRENCH PIEZOMETER | A | B | C |
|---|---|---|---|
| T-2 | 571.21 | 566.13 | 570.69 |
| T-3 | 573.81 | 574.25 | 573.93 |
| T-4 | 574.17 | 573.82 | 574.22 |
| T-5 | 571.92 | 574.10 | 574.87 |
| T-6 | 574.01 | 574.08 | 575.19 |
| T-7 | 574.09 | 571.94 | 572.33 |
| T-8 | 574.23 | 574.16 | 573.70 |
| T-9 | 574.07 | 571.26 | 575.22 |
| T-10 | 571.69 | 569.54 | 570.43 |
| T-11 | 569.99 | 569.29 | 571.01 |
| T-12 | 568.54 | 565.97 | 571.13 |
| T-13 | 568.46 | 565.83 | 570.29 |

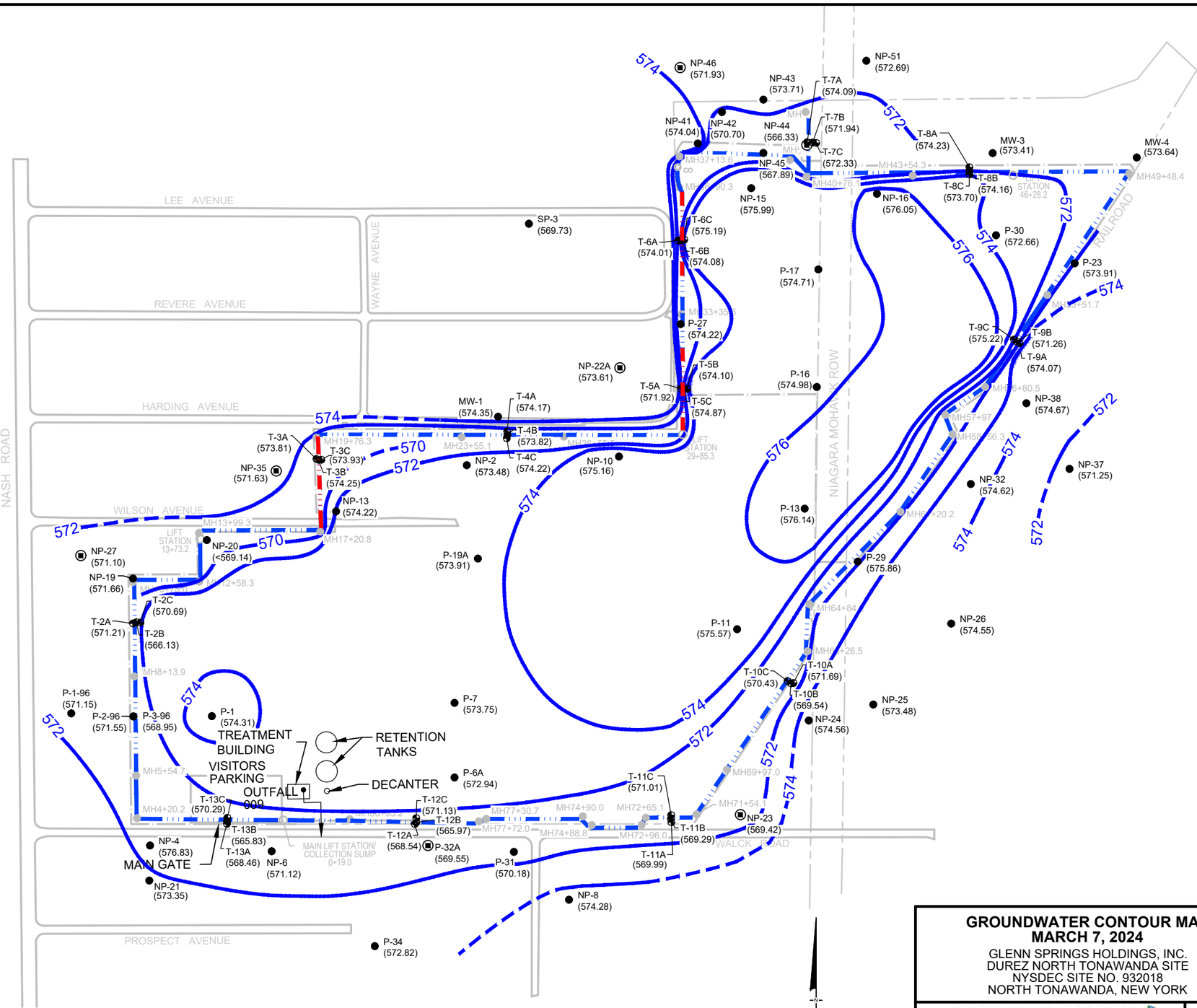
KEY

A OFFSITE SIDE OF IT
B IN IT BACKFILL
C PLANT SIDE OF IT

## LEGEND

- INTERCEPTOR TRENCH INWARD GRADIENT (SEE NOTE 1)
- INTERCEPTOR TRENCH OUTWARD GRADIENT (SEE NOTE 2)
- 572 GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- MONITORING WELL
- (571.15) GROUNDWATER ELEVATION (ft AMSL)
- PIEZOMETER
- MONITORING WELL PART OF GROUNDWATER CHEMISTRY MONITORING PROGRAM
- MANHOLE
- (<569.14) DRY DEPTH ELEVATION (ft AMSL)

NOTES:
1. INWARD GRADIENT INDICATES WATER LEVELS AT TRENCH PIEZOMETER B (IN IT BACKFILL) IS LOWER THAN THE CORRESPONDING TRENCH PIEZOMETER A (OFFSITE SIDE OF IT).
2. OUTWARD GRADIENT INDICATES WATER LEVELS AT TRENCH PIEZOMETER B IS EQUAL TO OR HIGHER THAN THE CORRESPONDING TRENCH PIEZOMETER A.




**GROUNDWATER CONTOUR MAP**
**MARCH 7, 2024**
GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

PROJECT NO: TR1045 | JANUARY 2025 | FIGURE 2.1

DATA SOURCE: GHD, 2021 PERIODIC REVIEW REPORT, SITE PLAN, DECEMBER 2021.

\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-003 - MJerome 1/27/25

## WATER LEVELS AT INTERCEPTOR TRENCH (IT)

MEASURED

| TRENCH PIEZOMETER | A | B | C |
|---|---|---|---|
| T-2 | 568.04 | <563.95 | <570.23 |
| T-3 | 568.98 | 566.74 | 567.89 |
| T-4 | <569.97 | <565.59 | <570.65 |
| T-5 | <570.98 | 565.91 | 572.81 |
| T-6 | <569.98 | 565.98 | 569.28 |
| T-7 | <569.47 | <565.81 | 567.15 |
| T-8 | <571.02 | 570.24 | 569.22 |
| T-9 | <571.00 | 568.44 | <571.81 |
| T-10 | 570.12 | 567.68 | 570.04 |
| T-11 | 569.67 | <566.25 | <570.51 |
| T-12 | 568.42 | 564.07 | 569.90 |
| T-13 | 568.17 | 562.27 | <569.62 |

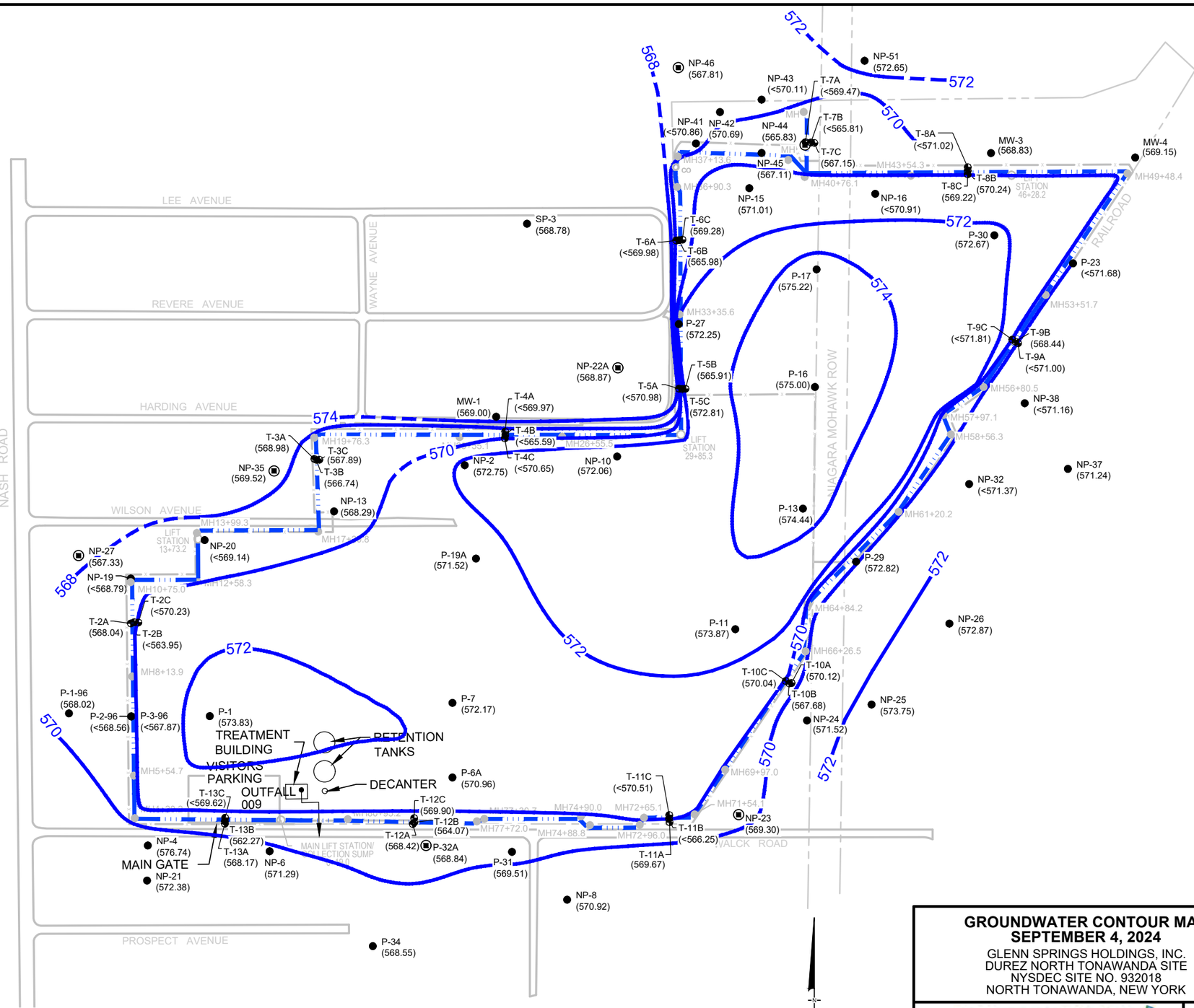
KEY

A OFFSITE SIDE OF IT
B IN IT BACKFILL
C PLANT SIDE OF IT

## LEGEND

- INTERCEPTOR TRENCH INWARD GRADIENT (SEE NOTE 1)
- INTERCEPTOR TRENCH OUTWARD GRADIENT (SEE NOTE 2)
- 572 GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
- MONITORING WELL
- (562.27) GROUNDWATER ELEVATION (ft AMSL)
- PIEZOMETER
- MONITORING WELL PART OF GROUNDWATER CHEMISTRY MONITORING PROGRAM
- MANHOLE
- (<569.62) DRY DEPTH ELEVATION (ft AMSL)

NOTES:
1. INWARD GRADIENT INDICATES WATER LEVELS AT TRENCH PIEZOMETER B (IN IT BACKFILL) IS LOWER THAN THE CORRESPONDING TRENCH PIEZOMETER A (OFFSITE SIDE OF IT).
2. OUTWARD GRADIENT INDICATES WATER LEVELS AT TRENCH PIEZOMETER B IS EQUAL TO OR HIGHER THAN THE CORRESPONDING TRENCH PIEZOMETER A.




**GROUNDWATER CONTOUR MAP**
**SEPTEMBER 4, 2024**
GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

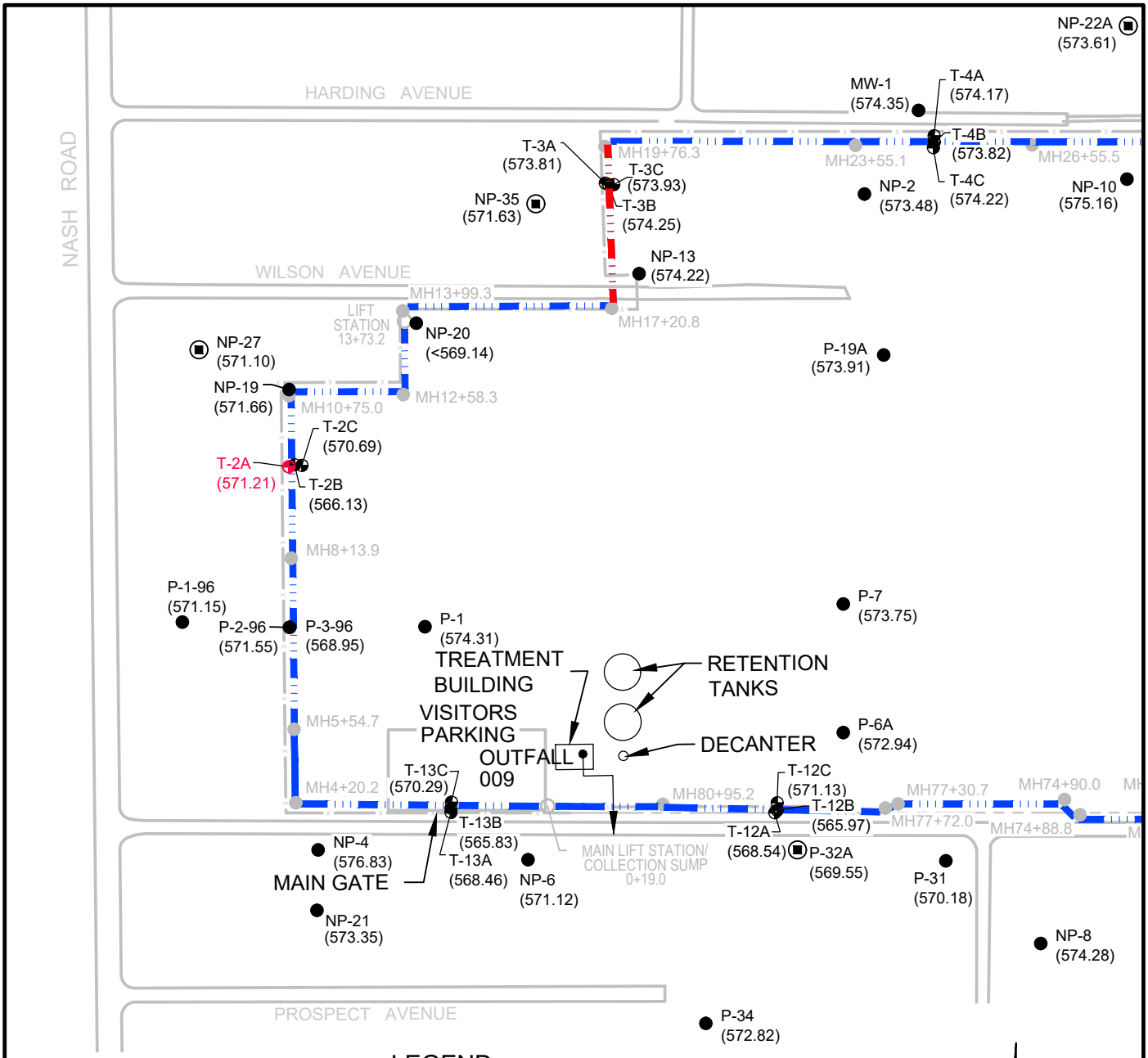
B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

FIGURE 2.2

PROJECT NO: TR1045 | JANUARY 2025

DATA SOURCE: GHD, 2021 PERIODIC REVIEW REPORT, SITE PLAN, DECEMBER 2021.

\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-004 - MJerome 1/27/25




NOTES:

1. INWARD GRADIENT INDICATES WATER LEVELS AT TRENCH PIEZOMETER B (IN IT BACKFILL) IS LOWER THAN THE CORRESPONDING TRENCH PIEZOMETER A (OFFSITE SIDE OF IT).
2. OUTWARD GRADIENT INDICATES WATER LEVELS AT TRENCH PIEZOMETER B IS EQUAL TO OR HIGHER THAN THE CORRESPONDING TRENCH PIEZOMETER A.

# GROUNDWATER ELEVATIONS NEAR T-2A MARCH 7, 2024

GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

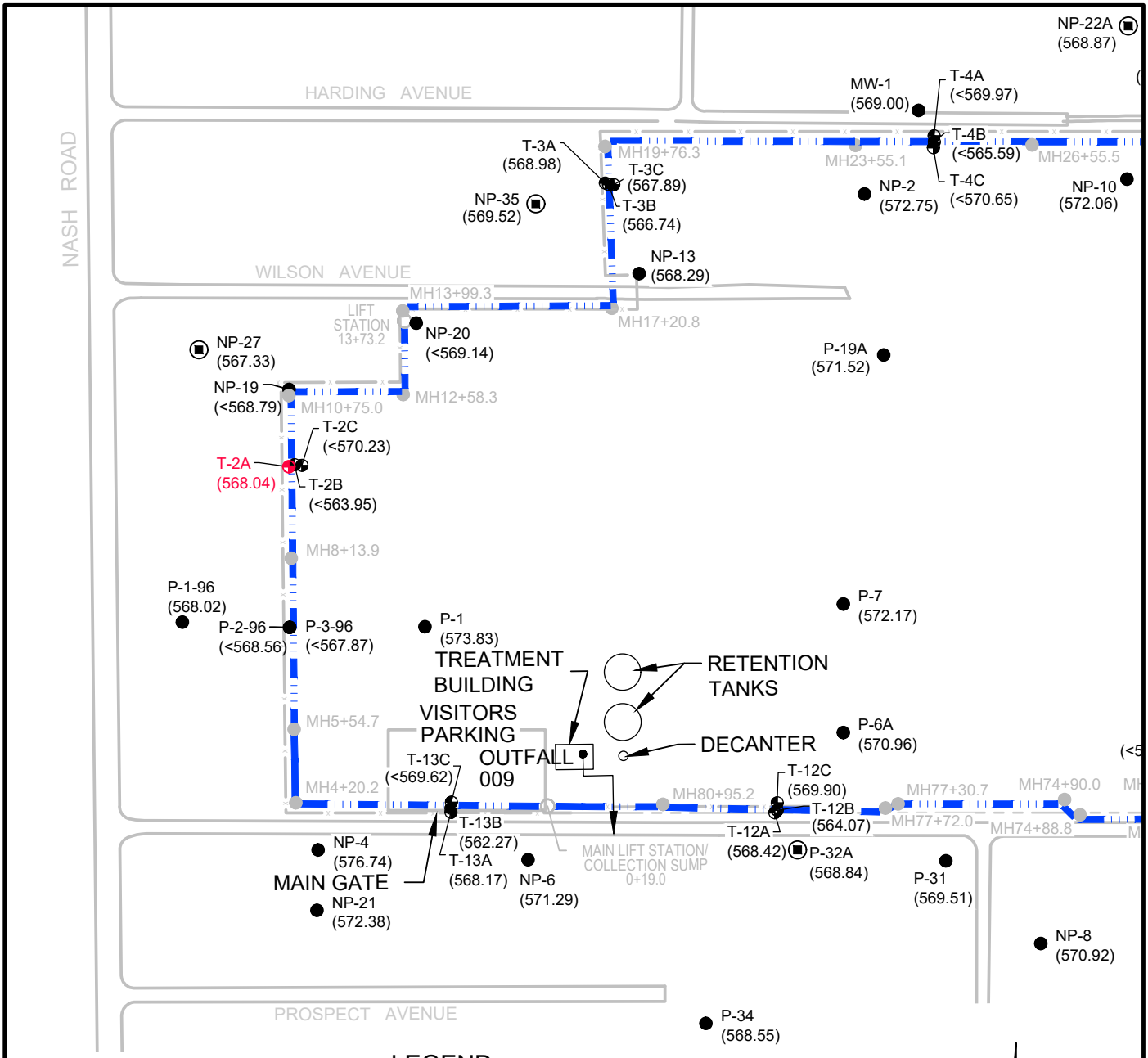
B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

FIGURE 2.3

PROJECT NO: TR1045 | JANUARY 2025

DATA SOURCE: GHD, 2021 PERIODIC REVIEW REPORT, SITE PLAN, DECEMBER 2021.

\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-003 - MJerome 1/27/25




NOTES:
1. INWARD GRADIENT INDICATES WATER LEVELS AT TRENCH PIEZOMETER B (IN IT BACKFILL) IS LOWER THAN THE CORRESPONDING TRENCH PIEZOMETER A (OFFSITE SIDE OF IT).
2. OUTWARD GRADIENT INDICATES WATER LEVELS AT TRENCH PIEZOMETER B IS EQUAL TO OR HIGHER THAN THE CORRESPONDING TRENCH PIEZOMETER A.

# GROUNDWATER ELEVATIONS NEAR T-2A SEPTEMBER 4, 2024

GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

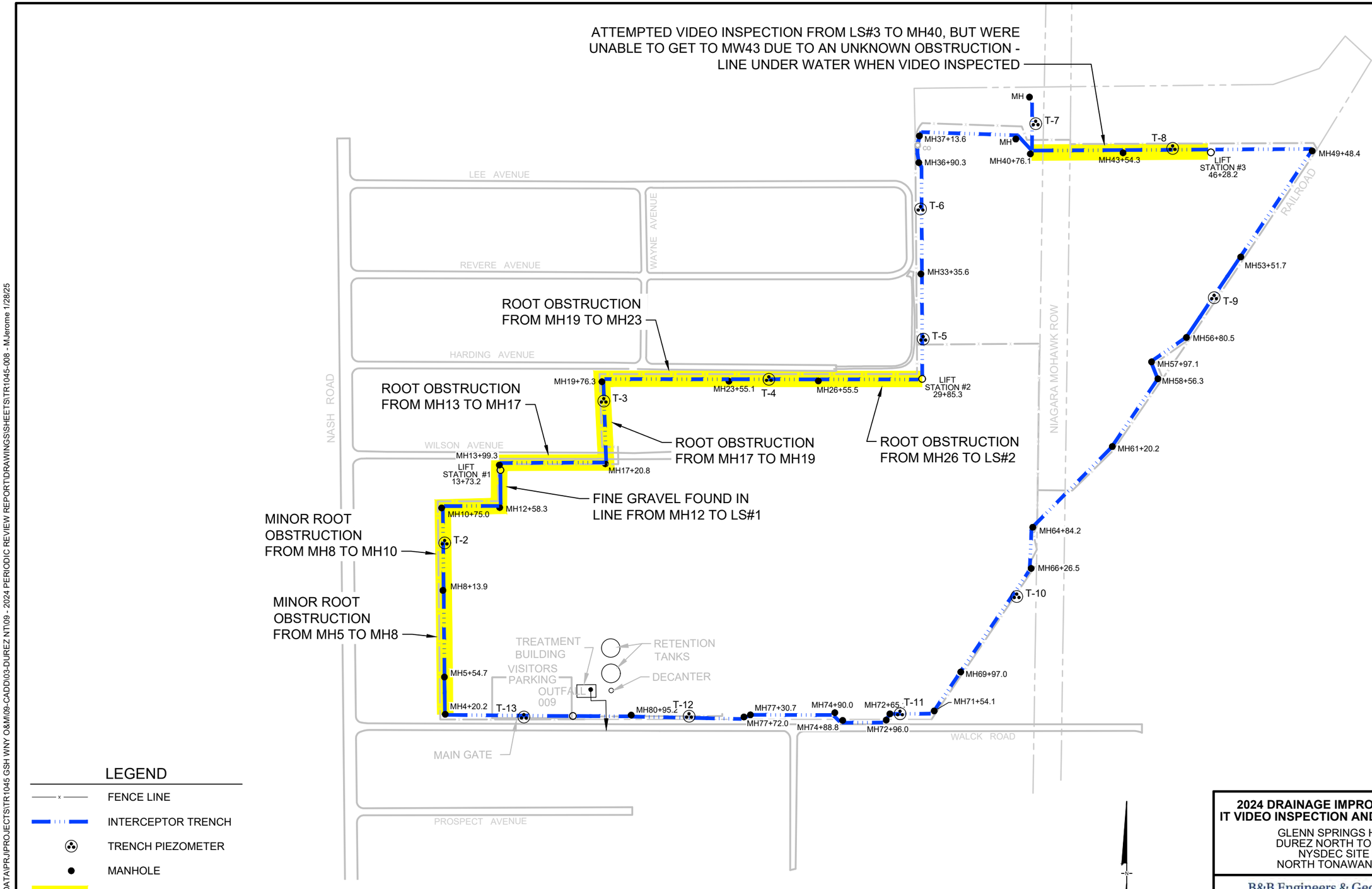
B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

FIGURE 2.4

PROJECT NO: TR1045 | JANUARY 2025

DATA SOURCE: GHD, 2021 PERIODIC REVIEW REPORT, SITE PLAN, DECEMBER 2021.

\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-004 - MJerome 1/27/25




\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-008 - MJerome 1/28/25

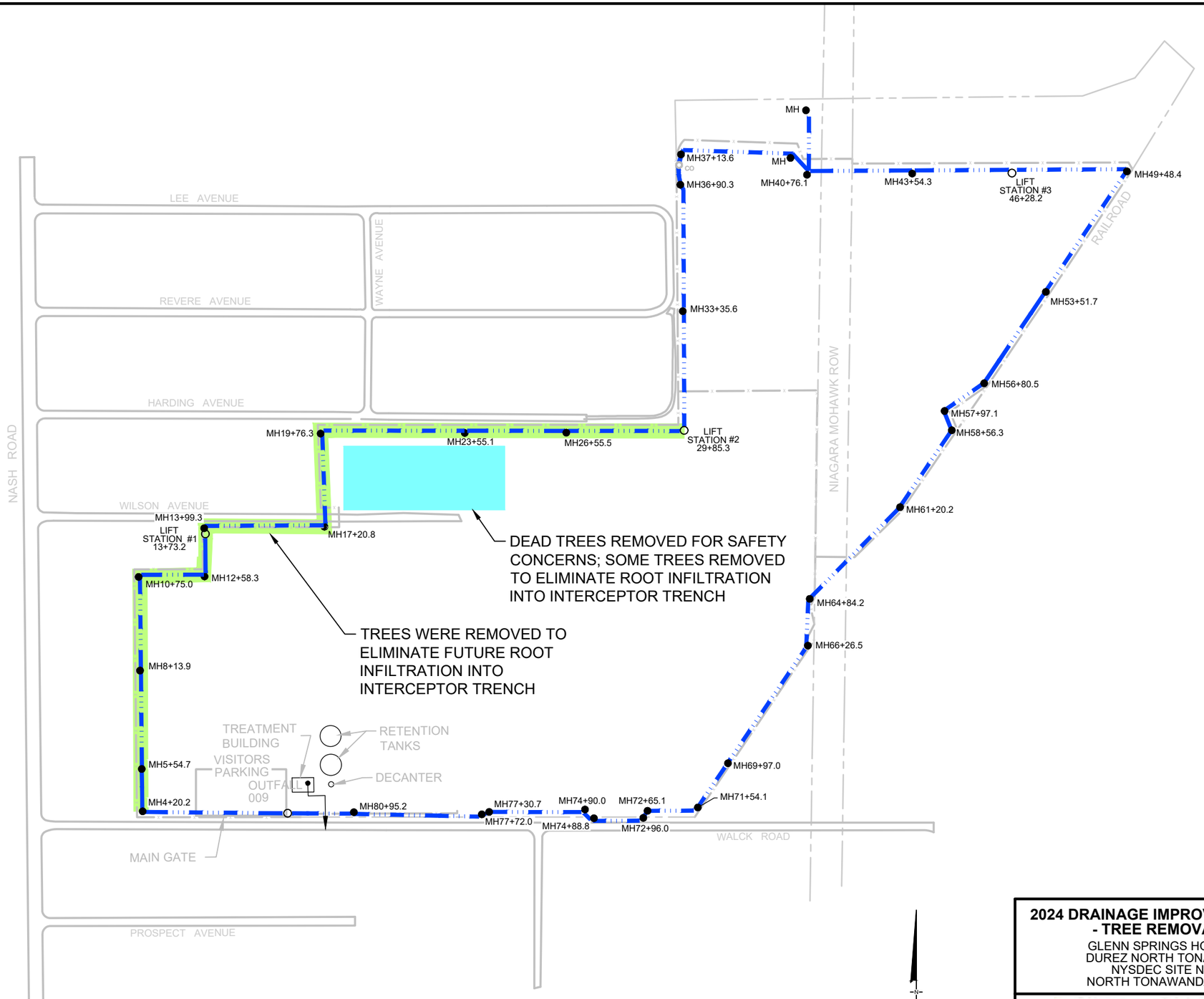
**2024 DRAINAGE IMPROVEMENT PROJECT - IT VIDEO INSPECTION AND CLEANOUT FINDINGS**

GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

FIGURE 4.1

PROJECT NO: TR1045 | JANUARY 2025




## LEGEND

- FENCE LINE
- INTERCEPTOR TRENCH
- MANHOLE
- GENERAL TREE REMOVAL
- FENCELINE TREE REMOVAL

NOTE:
1. TREE REMOVAL AREAS ARE APPROXIMATE.

0 300'
SCALE IN FEET

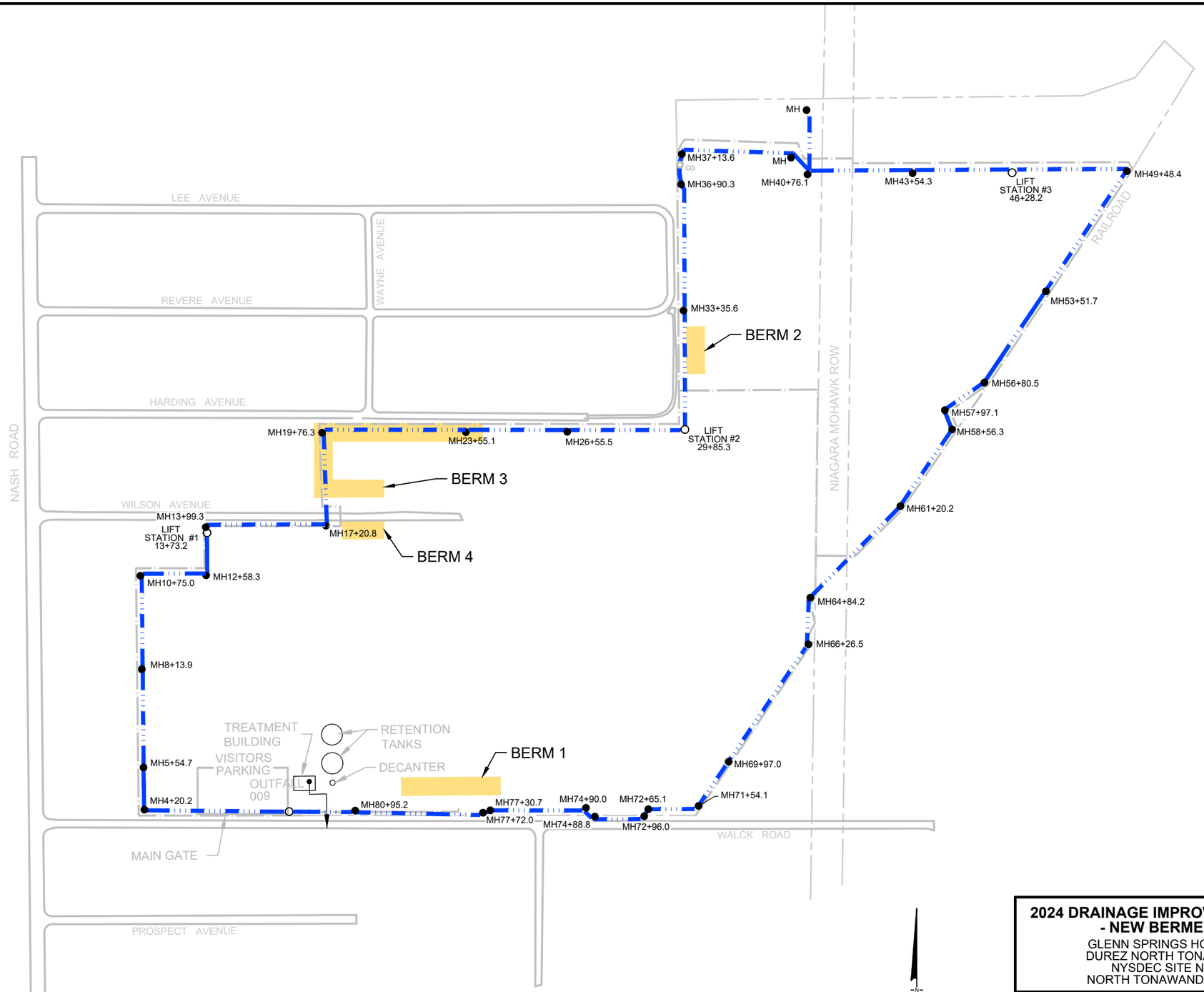
# 2024 DRAINAGE IMPROVEMENT PROJECT - TREE REMOVAL AREAS

GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

PROJECT NO: TR1045 | JANUARY 2025

FIGURE 4.2




## LEGEND

- FENCE LINE
- INTERCEPTOR TRENCH
- MANHOLE
- NEW BERMED AREA

NOTE:
1. NEW BERMED AREAS ARE APPROXIMATE.

0 300'
SCALE IN FEET

**2024 DRAINAGE IMPROVEMENT PROJECT - NEW BERMED AREAS**

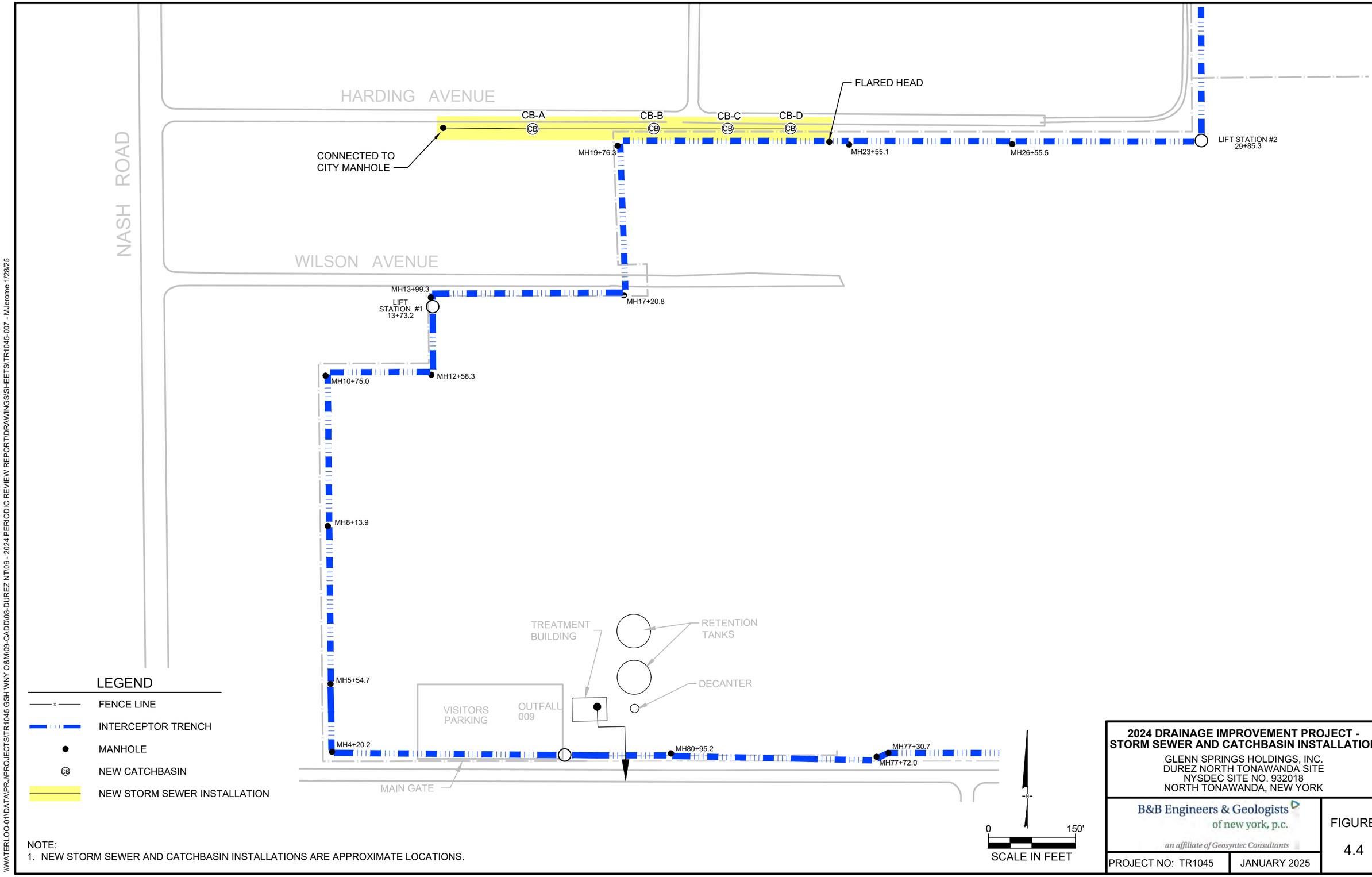
GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

FIGURE 4.3

PROJECT NO: TR1045 | JANUARY 2025

\\WATERLOO-01\DATA\PRJPROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-006 - MJerome 1/29/25




NOTE:
1. NEW STORM SEWER AND CATCHBASIN INSTALLATIONS ARE APPROXIMATE LOCATIONS.

**2024 DRAINAGE IMPROVEMENT PROJECT - STORM SEWER AND CATCHBASIN INSTALLATION**

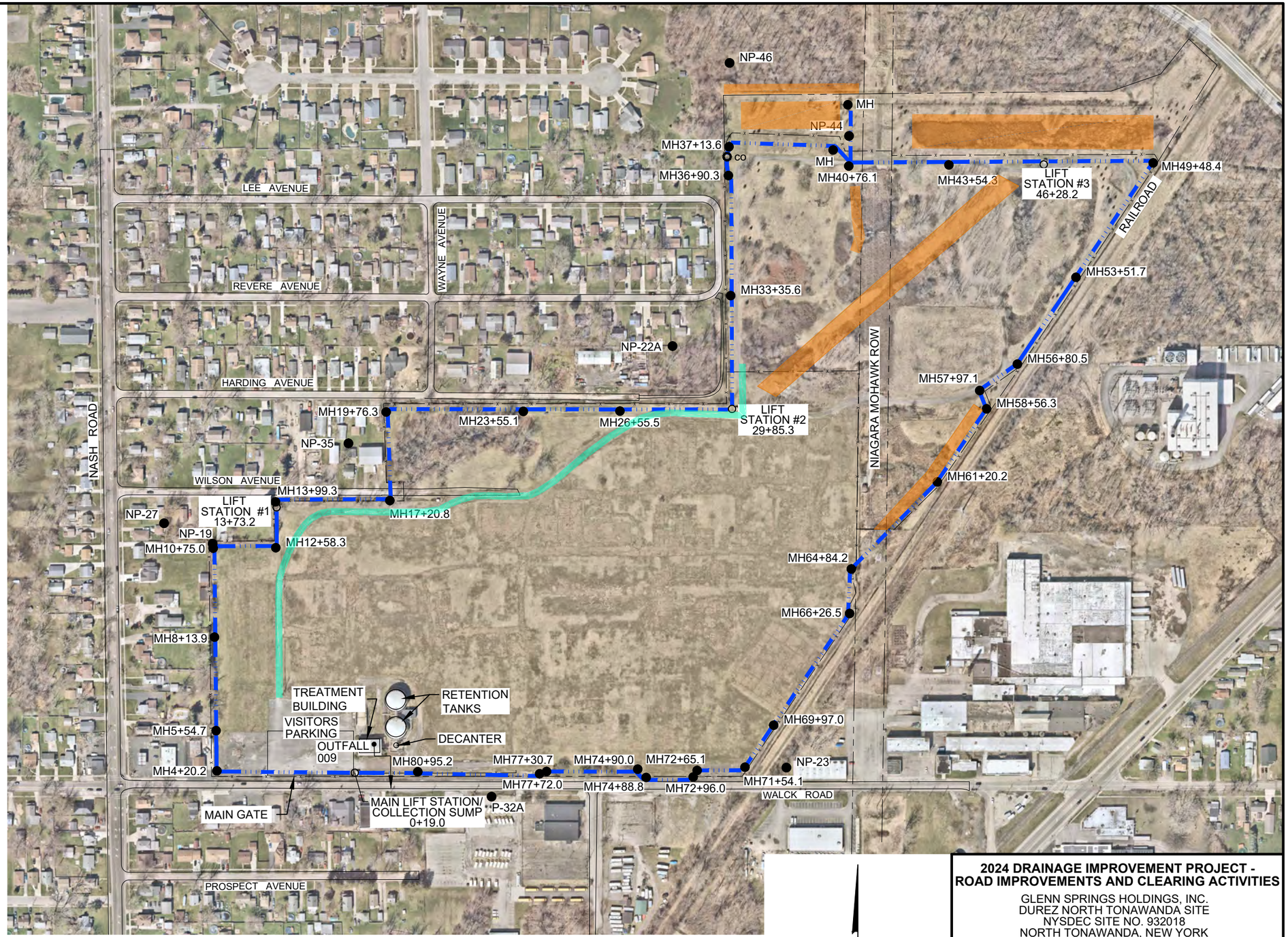
GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

B&B Engineers & Geologists of new york, p.c.
*an affiliate of Geosyntec Consultants*

FIGURE 4.4

PROJECT NO: TR1045 | JANUARY 2025

\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-007 - MJerome 1/28/25




## LEGEND

- FENCE LINE
- INTERCEPTOR TRENCH
- MANHOLE
- ROAD IMPROVEMENTS
- CLEARING ACTIVITIES

NOTE:
1. ROAD IMPROVEMENTS AND CLEARING ACTIVITIES ARE APPROXIMATE LOCATIONS.

IMAGERY SOURCE: NEARMAP, DATE OF PHOTOGRAPHY 2024-03-30.

0 300'
SCALE IN FEET

**2024 DRAINAGE IMPROVEMENT PROJECT - ROAD IMPROVEMENTS AND CLEARING ACTIVITIES**

GLENN SPRINGS HOLDINGS, INC.
DUREZ NORTH TONAWANDA SITE
NYSDEC SITE NO. 932018
NORTH TONAWANDA, NEW YORK

B&B Engineers & Geologists of new york, p.c.
an affiliate of Geosyntec Consultants

FIGURE 4.5

PROJECT NO: TR1045 | JANUARY 2025

\\WATERLOO-01\DATA\PRJ\PROJECTS\TR1045 GSH WNY O&M\09-CADD\03-DUREZ NT\09 - 2024 PERIODIC REVIEW REPORT\DRAWINGS\SHEETS\TR1045-009 - MJerome 1/29/25

# Appendix A
# 2024 Institutional and Engineering Controls Certification Form

**NEW YORK ST ATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**
**Division of Environmental Remediation**
**625 Broadway, 11th Floor, Albany, NY 12233-7020**
**P: (518)402-9543 | F: (518)402-9547**
**www.dec.ny.gov**

11/12/2024

Joseph Branch
Project Manager
OCC/Glenn Springs Holdings, Inc.
7601 Old Channel Trail
Montague, MI 49437
Joseph_Branch@oxy.com

**Re: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal**
**Site Name:** Durez Div. - Occidental Chemical Corp.
**Site No.:** 932018
**Site Address:** Walck Road/River Road
North Tonawanda, NY 14120

Dear Joseph Branch:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of, and compliance with, site-specific SM requirements. Section 6.3(b) of DER-10 *Technical Guidance for Site Investigation and Remediation* (available online at http://www.dec.ny.gov/regulations/67386.html) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **January 30, 2025**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Professional Engineer (PE). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.

All site-related documents and data, including the PRR, must be submitted in electronic format to the Department of Environmental Conservation. The required format for documents is an Adobe PDF file with optical character recognition and no password protection. Data must be submitted as an electronic data deliverable (EDD) according to the instructions on the following webpage:

https://www.dec.ny.gov/chemical/62440.html

Documents may be submitted to the project manager either through electronic mail or by using the Department's file transfer service at the following webpage:

https://fts.dec.state.ny.us/fts/

The Department will not approve the PRR unless all documents and data generated in support of the PRR have been submitted using the required formats and protocols.

You may contact Benjamin Mcpherson, the Project Manager, at 716-851-7235 or benjamin.mcpherson@dec.ny.gov with any questions or concerns about the site. Please notify the project manager before conducting inspections or field work. You may also write to the project manager at the following address:

New York State Department of Environmental Conservation
700 Delaware Ave
Buffalo, NY 14209-2202

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/ enclosures

Occidental Chemical Corporation - joseph_branch@oxy.com

ec: w/ enclosures

Benjamin Mcpherson, Project Manager

Andrea Caprio, Hazardous Waste Remediation Supervisor, Region 9

GHD - Margaret Popek - margaret.popek@ghd.com
GHD - John Pentilchuk - John.Pentilchuk@ghd.com
B&B Engineers and Geologists of New York, P.C. - Dennis Hoyt - dhoyt@geosyntec.com

The following parcel owner did not receive an ec:

National Grid - Parcel Owner
Oar Marina, Llc - Parcel Owner

**Enclosure 1**

**Certification Instructions**

**I. Verification of Site Details** (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

**II. Certification of Institutional Controls/ Engineering Controls (IC/ECs)**(Boxes 3, 4, and 5)

1.1.1. Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

2. In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

3. If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

**III. IC/EC Certification by Signature (**Box 6 and Box 7**):**

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- For the Institutional Controls on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner or designated representative.

- For the Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the 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. 932018**

**Site Name Durez Div. - Occidental Chemical Corp.**

Site Address: Walck Road/River Road Zip Code: 14120
City/Town: North Tonawanda
County: Niagara
Site Acreage: ~~79.300~~ 72.23

Walck Road = 67.45 acres
River Road (Inlet) = 4.78 acres

Reporting Period: January 1, 2024 to December 31, 2024

| | YES | NO |
|---|---|---|
| 1. Is the information above correct? | ☐ | ☒ |
| 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? | ☐ | ☒ |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? | ☐ | ☒ |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? | ☐ | ☒ |
| **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? | ☐ | ☒ |

**Box 2**

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

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

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

Signature of Owner, Remedial Party or Designated Representative Date

**SITE NO. 932018** **Box 3**

**Description of Institutional Controls**

| Parcel | Owner | Institutional Control |
|---|---|---|
| **181.20-2-9** | Oar Marina, LLC | |
| | | Monitoring Plan<br>O&M Plan |

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans. At the Inlet Site, site management includes groundwater quality monitoring, NAPL removal from extraction wells during the off-boating season, and maintenance of the cover system.

Groundwater Quality Monitoring; Durez Third Stipulation and PCJ and associated minor changes to the PCJ (currently minor change number 10, Rev.2, September 1999).

DNAPL Removal: Inlet Monitoring Plan, GHD 2019.

| | | |
|---|---|---|
| **182.06-3-19** | Occidental Chemical Corporation | |
| | | Monitoring Plan<br>O&M Plan |

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

| | | |
|---|---|---|
| **182.06-3-20** | Occidental Chemical Corporation | |
| | | Monitoring Plan<br>O&M Plan |

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

| | | |
|---|---|---|
| **182.06-3-21** | Occidental Chemical Corporation | |
| | | Monitoring Plan<br>O&M Plan |

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

| | | |
|---|---|---|
| **182.07-1-14** | Occidental Chemical Corporation | |
| | | Monitoring Plan<br>O&M Plan |

Record of Decision (ROD); February 25, 1989.

Appendix B, Durez Partial Consent Judgement (PCJ) "Monitoring, Operations,and Maintenance Plan" (1989) Subsequent Minor Modification #10, Rev. 2 "Minor Change to Appendix B" Monitoring, Operations, and Maintenace Plan"(September 1999) (Minor Change No. 10) groundwater monitoring.

PCJ 1992; amended by Minor Change No. 5 to allow for semi-annual reporting to the NYSDEC on quarterly hydraulic groundwater data.

Plant Site: OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, groundwater monitoring wells, fencing/access points and the panhandle area.

**182.32.-1-47** Occidental Chemical Corporation

Monitoring Plan
O&M Plan

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

**p/o 182.07-1-17** National Grid

Monitoring Plan
O&M Plan

Site Operation, Maintenance and Monitoring (OMM) is conducted by the RP in accordance with the February 1989 Record of Decision and approved work plans.

**Box 4**

**Description of Engineering Controls**

| Parcel | Engineering Control |
|---|---|
| **181.20-2-9** | Cover System<br>Groundwater Containment<br>Monitoring Wells<br>Subsurface Barriers |

Sheet pile wall, NAPL extraction wells and cover system.

| | |
|---|---|
| **182.06-3-19** | Groundwater Treatment System<br>Cover System<br>Groundwater Containment<br>Leachate Collection<br>Fencing/Access Control |

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, goundwater monitoring wells, fencing/access points and the panhandle area.

| | |
|---|---|
| **182.06-3-20** | Groundwater Treatment System<br>Cover System<br>Groundwater Containment<br>Leachate Collection<br>Fencing/Access Control |

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, groundwater monitoring wells,fencing/access points and the panhandle area.

**182.06-3-21**

| Parcel | Engineering Control |
|---|---|
| | Groundwater Treatment System<br>Cover System<br>Groundwater Containment<br>Leachate Collection<br>Fencing/Access Control |

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, goundwater monitoring wells, fencing/access points and the panhandle area.

**182.07-1-14**

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

Soil cover system with encompassing groundwater interceptor trench and conveyance to an onsite treatment plant.

**182.32.-1-47**

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

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, groundwater monitoring wells, fencing/access points and the panhandle area.

**p/o 182.07-1-17**

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

At the Plant Site, OMM includes operation, maintenance and monitoring of the cover system, groundwater collection system, groundwater conveyance system, groundwater treatment system, groundwater monitoring wells and fencing/access points. The Right Of Way (ROW) for National Grid is on site. Reporting is done by the RP; OCC/Glenn Springs Holdings, Inc.

**Box 5**

**Periodic Review Report (PRR) Certification Statements**

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

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

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

| YES | NO |
|---|---|
| ☐ | ☐ |

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. 932018**

**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 Branch (print name) at 7601 Old Channel Trail (print business address),

am certifying as Owner (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

1-29-2025
Date

NT

**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 Ian Richardson , P.E., P.Eng. at B&B Engineers & Geologists of New York P.C. PO Box 351 Ransomville, NY 14131,
print name — print business address

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


| Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification | Stamp (Required for PE) | Date |
|---|---|---|
| | | 29 January 2024 |

**Enclosure 3**
**Periodic Review Report (PRR) General Guidance**

I. Executive Summary: (1/2-page or less)
   A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
   B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
      1. progress made during the reporting period toward meeting the remedial objectives for the site
      2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
   C. Compliance
      1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
      2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
   D. Recommendations
      1. recommend whether any changes to the SMP are needed
      2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
      3. recommend whether the requirements for discontinuing site management have been met.

II. Site Overview (one page or less)
   A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
   B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.

III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
   Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations and should be presented simply and concisely.

IV. IC/EC Plan Compliance Report (if applicable)
   A. IC/EC Requirements and Compliance
      1. Describe each control, its objective, and how performance of the control is evaluated.
      2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
      3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
      4. Conclusions and recommendations for changes.
   B. IC/EC Certification
      1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).

V. Monitoring Plan Compliance Report (if applicable)
   A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
   B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
   C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
   D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
   E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.

VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
   A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
   B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.

C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as designed/expected.
D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.
E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;
   1. whether all requirements of each plan were met during the reporting period
   2. any requirements not met
   3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals
   1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
   2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

# Appendix B
# Monitoring Well Purge Records

B&B Engineers & Geologists
of new york, p.c.

*an affiliate of Geosyntec Consultants*

# Monitoring Well Record for Low-Flow Purging

**Project Data:** **Project Name:** DUREZ NT ANNUAL
**Project Number:** TR1045-15A-410

**Well Data:** **Well No.:** NP-35
**Constructed Well Depth (m/ft):**
**Measured Well Depth (m/ft):**

**Date:** 4/10/2024
**Personal:** S GARDNER
**Well Diameter, D (cm/in):** 1.25"
**Initial Depth to Water (m/ft):** 5.35
**Start Purge Time:** 1151

| Time | Pumping Rate (mL/min) | Depth to Water (m/ft) | Drawdown from Initial Water Level[3] (m/ft) Precision regular[5]: | Temp (°C) ±3% | Conductivity (mS/cm) ±3% | Turbidity (NTU) ±10% | DO (mg/L) ±10% | pH (Units) ±0.1 | ORP (mV) ±10 |
|---|---|---|---|---|---|---|---|---|---|
| 1158 | 64 | 7.23 | 1.88 | 14.93 | 0.305 | 48.9 | 2.46 | 8.65 | 100 |
| 1203 | 64 | 8.35 | 3.00 | 14.21 | 0.297 | 34.5 | 1.47 | 8.80 | 88 |
| 1208 | | 9.60 | 4.25 | 14.07 | 0.292 | 30.1 | 1.13 | 8.84 | 84 |
| | | | | | | | | | |
| *1211 WELL WENT DRY WHILE PURGING | | | | W/L 9.74 | BOTTOM | 9.97 | INSUFFICIENT VOLUME | | |
| FOR SAMPLE | | | | | | | | | |
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**Sample ID:**

**Sample Time:**

**Notes:**
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2ft) above any sediment accumulated at the well bottom.
(2) The wall screen volume will be based on a 1.52 m (5ft) screen length (L). For metric units $V_a=n*(r^2)*L$ in mL, where (r=D/2) and L are in cm.
For Imperial units, $V_a=n*(r^2)*L)(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs.
(5) For conductivity, the average value of three readings ±3%

Sharon Gardner

B&B Engineers & Geologists of new york, p.c.

*an affiliate of Geosyntec Consultants*

**Monitoring Well Record for Low-Flow Purging**

**Project Data:** **Project Name:** DUREZ NT ANNUAL
**Project Number:** TR1045-15A-A10

**Well Data:** **Well No.:** NP-AA
**Constructed Well Depth (m/ft):**
**Measured Well Depth (m/ft):**

**Date:** 4/10/2024
**Personal:** S GARDNER
**Well Diameter, D (cm/in):** 1.25"
**Initial Depth to Water (m/ft):** 10.30
**Start Purge Time:** 1348

| Time | Pumping Rate (mL/min) | Depth to Water (m/ft) | Drawdown from Initial Water Level[3] (m/ft) | Temp (°C) | Conductivity (mS/cm) | Turbidity (NTU) | DO (mg/L) | pH (Units) | ORP (mV) |
|---|---|---|---|---|---|---|---|---|---|
| | | | Precision regular[5]: | ±3% | ±3% | ±10% | ±10% | ±0.1 | ±10 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| *1349 WELL WENT DRY WHILE PURGING W/L 10.82 BOTTOM 10.92 INSUFFICIENT VOLUME FOR READINGS AND SAMPLE | | | | | | | | | |
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**Sample ID:**

**Sample Time:**

**Notes:**
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2ft) above any sediment accumulated at the well bottom.
(2) The wall screen volume will be based on a 1.52 m (5ft) screen length (L). For metric units $V_n=n*(r^2)*L$ in mL, where (r=D/2) and L are in cm.
For Imperial units, $V_n=n*(r^2)*L)(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs.
(5) For conductivity, the average value of three readings ±3 %

Shawn Gardner

B&B Engineers & Geologists of new york, p.c.

*an affiliate of Geosyntec Consultants*

**Monitoring Well Record for Low-Flow Purging**

**Project Data:** **Project Name:** DUREZ NT ANNUAL
**Project Number:** TR1045-15A-A10

**Well Data:** **Well No.:** NP-23
**Constructed Well Depth (m/ft):**
**Measured Well Depth (m/ft):**

**Date:** 4/10/2023
**Personal:** S GARDNER
**Well Diameter, D (cm/in):** 1.25"
**Initial Depth to Water (m/ft):** 8.66
**Start Purge Time:**

| Time | Pumping Rate (mL/min) | Depth to Water (m/ft) | Drawdown from Initial Water Level[3] (m/ft) | Temp (°C) | Conductivity (mS/cm) | Turbidity (NTU) | DO (mg/L) | pH (Units) | ORP (mV) |
|---|---|---|---|---|---|---|---|---|---|
| | | | Precision regular[5]: | ±3% | ±3% | ±10% | ±10% | ±0.1 | ±10 |
| | | | | | | | | | |
| | | | | | | | | | |
| | * INSUFFICIENT VOLUME FOR READINGS AND SAMPLING | | | | | | | | |
| | | | | | | | | | |
| | BOTTOM OF WELL | | 8.93 | NO SAMPLE TAKEN | | | | | |
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**Sample ID:**

**Sample Time:**

**Notes:**

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2ft) above any sediment accumulated at the well bottom.
(2) The wall screen volume will be based on a 1.52 m (5ft) screen length (L). For metric units $V_n=n*(r^2)*L$ in mL, where (r=D/2) and L are in cm. For Imperial units, $V_n=n*(r^2)*L)(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs.
(5) For conductivity, the average value of three readings ±3%



Sharon Gardner

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# Monitoring Well Record for Low-Flow Purging

**Project Data:**
**Project Name:** DUREZ NT ANNUAL
**Project Number:** TR1045-15A-410

**Well Data:**
**Well No.:** NP-27
**Constructed Well Depth (m/ft):**
**Measured Well Depth (m/ft):**

**Date:** 4/10/2024
**Personal:** S GARDNER
**Well Diameter, D (cm/in):** 1.25"
**Initial Depth to Water (m/ft):** 5.35
**Start Purge Time:** 1120

| Time | Pumping Rate (mL/min) | Depth to Water (m/ft) | Drawdown from Initial Water Level[3] (m/ft) Precision regular[5]: | Temp (°C) ±3% | Conductivity (mS/cm) ±3% | Turbidity (NTU) ±10% | DO (mg/L) ±10% | pH (Units) ±0.1 | ORP (mV) ±10 |
|---|---|---|---|---|---|---|---|---|---|
| 1124 | 78 | 7.10 | 1.75 | 15.35 | 0.800 | 26.1 | 2.05 | 7.76 | -11 |
| 1129 | 80 | 9.04 | 3.69 | 14.76 | 0.655 | 13.5 | 1.16 | 8.00 | 19 |
| | | | | | | | | | |
| *1132 WELL WENT DRY WHILE PURGING | | | | W/L 9.71 | BOTTOM 9.82 | INSUFFICIENT VOLUME | | | |
| FOR SAMPLE | | | | | | | | | |

**Sample ID:**

**Sample Time:**

**Notes:**
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2ft) above any sediment accumulated at the well bottom.
(2) The wall screen volume will be based on a 1.52 m (5ft) screen length (L). For metric units $V_n=n*(r^2)*L$ in mL, where (r=D/2) and L are in cm.
For Imperial units, $V_n=n*(r^2)*L)(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs.
(5) For conductivity, the average value of three readings ±3%

Sharon Gardner

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**Monitoring Well Record for Low-Flow Purging** DUP

**Project Data:** **Project Name:** DUREZ NT ANNUAL
**Project Number:** TR1045-15A-410

**Well Data:** **Well No.:** NP-22A
**Constructed Well Depth (m/ft):**
**Measured Well Depth (m/ft):**

**Date:** 4/10/2024
**Personal:** S GARDNER
**Well Diameter, D (cm/in):** 2"
**Initial Depth to Water (m/ft):** 3.61
**Start Purge Time:** 0954

| Time | Pumping Rate (mL/min) | Depth to Water (m/ft) | Drawdown from Initial Water Level[3] (m/ft) Precision regular[5]: | Temp (°C) ±3% | Conductivity (mS/cm) ±3% | Turbidity (NTU) ±10% | DO (mg/L) ±10% | pH (Units) ±0.1 | ORP (mV) ±10 |
|---|---|---|---|---|---|---|---|---|---|
| 1006 | 96 | 4.05 | 0.44 | 14.59 | 7.35 | 6.44 | 1.94 | 6.66 | 183 |
| 1011 | 96 | 4.09 | 0.48 | 12.03 | 7.69 | 4.43 | 1.23 | 6.68 | 184 |
| 1016 | | 4.12 | 0.51 | 11.36 | 7.75 | 3.96 | 0.92 | 6.64 | 76 |
| 1021 | 96 | 4.14 | 0.53 | 11.28 | 7.68 | 4.32 | 1.11 | 6.64 | 56 |
| 1026 | | 4.14 | 0.53 | 11.09 | 6.70 | 4.81 | 0.79 | 6.65 | 54 |
| 1031 | | 4.14 | 0.53 | 10.97 | 5.85 | 5.12 | 0.78 | 6.66 | 47 |
| 1036 | 96 | 4.14 | 0.53 | 10.90 | 5.68 | 4.27 | 0.76 | 6.67 | 43 |
| 1041 | 96 | 4.14 | 0.53 | 10.81 | 5.63 | 4.74 | 0.83 | 6.68 | -4 |
| 1046 | 96 | 4.14 | 0.53 | 10.75 | 5.63 | 3.31 | 0.87 | 6.70 | -5 |
| 1051 | | 4.14 | 0.53 | 10.77 | 5.62 | 3.57 | 0.89 | 6.70 | -8 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**Sample ID:** NP-22A-0424 BLIND DUPLICATE - NP-70-0424

**Sample Time:** 1055
TIME 1055

Notes:
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2ft) above any sediment accumulated at the well bottom.
(2) The wall screen volume will be based on a 1.52 m (5ft) screen length (L). For metric units $V_n=n*(r^2)*L$ in mL, where (r=D/2) and L are in cm.
For Imperial units, $V_n=n*(r^2)*L)(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs.
(5) For conductivity, the average value of three readings ±3%

Sharon Gardner

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**Monitoring Well Record for Low-Flow Purging** MS/MSD

**Project Data:** **Project Name:** DUREZ NT ANNUAL
**Project Number:** TR1045-1SA-A10

**Well Data:** **Well No.:** P-32A
**Constructed Well Depth (m/ft):**
**Measured Well Depth (m/ft):**

**Date:** 4/10/2024
**Personal:** S GARDNER
**Well Diameter, D (cm/in):** 2"
**Initial Depth to Water (m/ft):** 8.38
**Start Purge Time:** 1231

| Time | Pumping Rate (mL/min) | Depth to Water (m/ft) | Drawdown from Initial Water Level[3] (m/ft) Precision regular[5]: | Temp (°C) ±3% | Conductivity (mS/cm) ±3% | Turbidity (NTU) ±10% | DO (mg/L) ±10% | pH (Units) ±0.1 | ORP (mV) ±10 |
|---|---|---|---|---|---|---|---|---|---|
| 1240 | 100 | 8.44 | 0.06 | 16.11 | 3.25 | 6.46 | 5.93 | 7.30 | 170 |
| 1245 | 100 | 8.44 | 0.06 | 15.25 | 3.30 | 3.65 | 3.61 | 7.19 | 174 |
| 1250 | | 8.44 | 0.06 | 15.06 | 3.30 | 3.43 | 3.40 | 7.17 | 176 |
| 1255 | 100 | 8.44 | 0.06 | 15.18 | 3.26 | 3.14 | 3.45 | 7.16 | 176 |
| | | | | | | | | | |
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| | | | | | | | | | |

**Sample ID:** P-32A-0424 **Sample Time:** 1300

**Notes:**
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2ft) above any sediment accumulated at the well bottom.
(2) The wall screen volume will be based on a 1.52 m (5ft) screen length (L). For metric units $V_a=n*(r^2)*L$ in mL, where (r=D/2) and L are in cm.
For Imperial units, $V_a=n*(r^2)*L)(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs.
(5) For conductivity, the average value of three readings ±3%

Sharon Gardner

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*an affiliate of Geosyntec Consultants*

**Monitoring Well Record for Low-Flow Purging**

**Project Data:** **Project Name:** DUREZ NT ANNUAL
**Project Number:** TR1045-15A-410

**Date:** 4/10/2024
**Personal:** S GARDNER

**Well Data:** **Well No.:** NP-46
**Constructed Well Depth (m/ft):**
**Measured Well Depth (m/ft):**

**Well Diameter, D (cm/in):** 1.25"
**Initial Depth to Water (m/ft):** 4.46
**Start Purge Time:** 1413

| Time | Pumping Rate (mL/min) | Depth to Water (m/ft) | Drawdown from Initial Water Level[3] (m/ft) | Temp (°C) | Conductivity (mS/cm) | Turbidity (NTU) | DO (mg/L) | pH (Units) | ORP (mV) |
|---|---|---|---|---|---|---|---|---|---|
| | | | Precision regular[5]: | ±3% | ±3% | ±10% | ±10% | ±0.1 | ±10 |
| 1420 | 96 | 4.55 | 0.09 | 18.09 | 0.872 | 9.75 | 6.11 | 6.86 | 180 |
| 1425 | 96 | 4.55 | 0.09 | 13.66 | 0.903 | 8.82 | 5.38 | 6.79 | 200 |
| 1430 | | 4.55 | 0.09 | 13.24 | 0.892 | 3.80 | 5.29 | 6.78 | 206 |
| 1435 | | 4.55 | 0.09 | 13.16 | 0.893 | 3.08 | 5.21 | 6.76 | 210 |
| 1440 | 96 | 4.55 | 0.09 | 13.09 | 0.890 | 4.55 | 5.18 | 6.76 | 212 |
| | | | | | | | | | |
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**Sample ID:** NP-46-0424
**Sample Time:** 1445

**Notes:**
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2ft) above any sediment accumulated at the well bottom.
(2) The wall screen volume will be based on a 1.52 m (5ft) screen length (L). For metric units $V_n=n*(r^2)*L$ in mL, where (r=D/2) and L are in cm. For Imperial units, $V_n=n*(r^2)*L)(2.54)^3$, where r and L are in inches
(3) The drawdown from the initial water level should not exceed 0.1 m (0.3ft). The pumping rate should not exceed 500 mL/min.
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = Vp/Vs.
(5) For conductivity, the average value of three readings ±3%

Shaun Gardner

# Appendix C
# Quality Assurance/Quality Control Report

# Data Verification Report

**May 01, 2024**

| | | | |
|---|---|---|---|
| **To** | Joseph Branch | **Project No.** | 11223794 |
| **Copy to** | Dennis Hoyt, Christa Bucior | **DVR No.** | 69 |
| **Alicia Ferber** | Alicia Ferber/eew | **Contact No.** | 720-245-2755 |
| **Project Name** | Glenn Springs Holdings, Inc. - Durez NT | **Email** | Alicia.ferber@ghd.com |
| **Subject** | Analytical Results and Data Verification<br>Annual SPDES<br>Glenn Springs Holdings, Inc. - Durez NT<br>North Tonawanda, New York<br>April 2024 | | |



## 1. Introduction

This document details a data verification of analytical results for water samples collected in support of the Annual SPDES event at the NT Durez site during April 2024. Samples were submitted to ALS Environmental (ALS) located in Rochester, New York. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody form, finished report forms, method blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/ matrix spike samples (MS), and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 1 and applicable guidance from the documents entitled:

1. “National Functional Guidelines for Inorganic Superfund Methods Data Review", Environmental Protection Agency (EPA) 542-R-20-006, November 2020.
2. National Functional Guidelines for Organic Superfund Methods Data Review", EPA 540-R-20-005, November 2020

Items 1 and 2 will subsequently be referred to as the "Guidelines" in this report.

# 2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. The sample chain of custody document and analytical report were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly preserved, delivered on ice and stored by the laboratory at the required temperature (0-6°C).

# 3. Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

# 4. Surrogate Spike Recoveries - Organic Analyses

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for volatile organic compound (VOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries were within the laboratory control limits.

# 5. Laboratory Control Sample Analyses

LCS are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects.

For this study, LCS were analyzed at a minimum frequency of 1 per analytical batch.

The LCS contained all compounds/analytes of interest. All LCS recoveries were within the laboratory control limits, demonstrating acceptable analytical accuracy.

# 6. Field QA/QC Samples

The field QA/QC consisted of 1 trip blank sample, and 1 field duplicate sample.

**Trip Blank Sample Analysis**

To evaluate contamination from sample collection, transportation, storage, and analytical activities, 1 trip blank sample was submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest.

**Field Duplicate Sample Analysis**

To assess the analytical and sampling protocol precision, 1 field duplicate sample set was collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water.

All field duplicate results met the above criteria, demonstrating acceptable sampling and analytical precision.

# 7. Analyte Reporting

The laboratory reported detected results down to the laboratory's sample-specific method detection limit (MDL) for each analyte. No positive analyte detections less than the RL but greater than the sample-specific MDL were reported. Non-detect results were presented as non-detect at the RL in Table 2.

# 8. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

Regards,

**Alicia Ferber**
Digital Intelligence - Data Management Team - Data Validator

**Table 1**

**Sample Collection and Analysis Summary**
**Annual SPDES**
**Glenn Springs Holdings, Inc. - Durez NT**
**North Tonawanda, NY**
**April 2024**

| Sample Delivery Group | Sample Identification | Location | Matrix | Collection Date (mm/dd/yyyy) | Collection Time (hr:min) | Analysis/Parameters | | | Comments |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | VOC | Phenolics | TOC | |
| R2402980 | NP-22A-0424 | NP-22A | Groundwater | 04/10/2024 | 10:55 | X | X | X | MS/MSD |
| | NP-46-0424 | NP-46 | Groundwater | 04/10/2024 | 14:45 | X | X | X | |
| | NP-70-0424 | NP-22A | Groundwater | 04/10/2024 | 10:55 | X | X | X | FD(NP-22A-0424) |
| | NTTRIP041024 | Trip Blank | Water Quality Control Matrix | 04/10/2024 | 09:30 | X | | | Trip Blank |
| | P-32A-0424 | P-32A | Groundwater | 04/10/2024 | 13:00 | X | X | X | |

Notes:

FD - Field Duplicate Sample of sample in parenthesis
MS/MSD - Matrix Spike/Matrix Spike Duplicate
VOC - Volatile Organic Compounds
TOC - Total Organic Carbon

**Table 2**

**Analytical Results Summary**
**Annual SPDES**
**Glenn Springs Holdings, Inc. - Durez NT**
**North Tonawanda, NY**
**April 2024**

| **Location ID:** | | **NP-22A** | **NP-22A** | **NP-46** | **P-32A** |
|---|---|---|---|---|---|
| **Sample Name:** | | **NP-22A-0424** | **NP-70-0424** | **NP-46-0424** | **P-32A-0424** |
| **Sample Date:** | | **04/10/2024** | **04/10/2024** | **04/10/2024** | **04/10/2024** |
| | | | **Duplicate** | | |
| **Parameters** | **Unit** | | | | |
| **Volatile Organic Compounds** | | | | | |
| 1,2,3-Trichlorobenzene | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 1,2,4-Trichlorobenzene | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 1,2-Dichlorobenzene | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 1,4-Dichlorobenzene | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 2-Chlorotoluene | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Benzene | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Chlorobenzene | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| Toluene | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| **General Chemistry** | | | | | |
| Phenolics (total) | mg/L | 0.0050 U | 0.0050 U | 0.0050 U | 0.0050 U |
| Total organic carbon (TOC) | mg/L | 4.5 | 4.5 | 2.0 | 1.9 |

Note:

U - Not detected at the associated reporting limit

**Table 3**

**Analytical Methods**
**Annual SPDES**
**Glenn Springs Holdings, Inc. - Durez NT**
**North Tonawanda, NY**
**April 2024**

| Parameter | Method | Matrix | Collection or Extraction to Analysis (Days) |
|---|---|---|---|
| Volatile Organic Compounds | EPA 624 | Groundwater | 14 |
| Phenolics | EPA 420.4 | Groundwater | 28 |
| TotaL Organic Carbon (TOC) | SM5310B | Groundwater | 28 |

Method References:

EPA - “Methods for Chemical Analysis of Water and Waste,” EPA-600/4-79-020, revised March 1983, with subsequent revisions

SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions

# Appendix D
# Historical Groundwater Chemistry Monitoring Analytical Results

**Appendix D**
**Table D.1**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-22/NP-22A**

| Parameter [1] | Groundwater Standard [2] | Units | Feb-84 | Jun-93 | Oct-93 | Dec-94 | Mar-95 | Jun-95 | Sep-95 | Dec-95 | Mar-96 | Jun-96 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | U | Dry | Dry | 1 U | 5 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U |
| Toluene | 5 | µg/L | U | Dry | Dry | 1 U | 5 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U |
| Monochlorobenzene | 5 | µg/L | U | Dry | Dry | 1 U | 5 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U |
| 2-Chlorotoluene | 5 | µg/L | U | Dry | Dry | 1 U | 5 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | U | Dry | Dry | 1 U | 5 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | U | Dry | Dry | 1 U | 5 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | U | Dry | Dry | 1 U | 5 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | U | Dry | Dry | 1 U | 5 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U |
| Total Targeted Organics | NA | µg/L | 0 | Dry | Dry | 0 | 0 | 0 | 0/0 | 0/0 | 0/0 | 0/0 |
| Total Recoverable Phenolics | 1 | µg/L | 1 | Dry | Dry | 15 | 13 | 9 | 5 U/5 U | 5 U/5 U | 5 U/5 U | 5 U/5 U |
| TOC | NA | mg/L | 4 | Dry | Dry | 7.4 | 3.5 | 4.6 U | 6.0/4.6 | 3.6/3.6 | 2.7/3.0 | 2.2/2.0 |
| pH | 6.5 - 8.5 | S.U. | 6.6 | Dry | Dry | 7.5 | 6.92 | 6.63 | 7.55 | 7.75 | 6.69 | 7.88 |
| Conductivity | NA | mS/cm | 1,500 | Dry | Dry | 758 | 682 | 804 | 944 | 536 | 906 | 568 |
| Temperature | NA | Celsius | 3 | Dry | Dry | 6.4 | 5.6 | 20.6 | 16.2 | 5.0 | 4.4 | 16.1 |

| Parameter [1] | Groundwater Standard [2] | Units | Sep-96 | Dec-96 | Mar-97 | Jun-97 | Sep-97 | Dec-97 | Mar-98 | Jun-98 | Sep-98 | Dec-98 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry | 1 U | Dry |
| Toluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry | 1 U | Dry |
| Monochlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry | 1 U | Dry |
| 2-Chlorotoluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry | 1 U | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry | 1 U | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry | 1 U | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry | 1 U | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry | 1 U | Dry |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Dry | 0 | Dry |
| Total Recoverable Phenolics | 1 | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | Dry | 5 U | Dry |
| TOC | NA | mg/L | 14 | 3.7 J | 5.3 | 1.4 | 3.2 | 2.7 | 1.6 | Dry | 74.8 | Dry |
| pH | 6.5 - 8.5 | S.U. | 6.61 | 7.48 | 7.33 | 7.46 | 7.32 | 7.8 | 7.1 | Dry | 7.32 | Dry |
| Conductivity | NA | mS/cm | 680 | 890 | 900 | 860 | 1100 | 950 | 790 | Dry | 850 | Dry |
| Temperature | NA | Celsius | 15.5 | 7.9 | 5.1 | 14.4 | 13.8 | 7.2 | 5.0 | Dry | 16.2 | Dry |

**Appendix D**
**Table D.1**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-22/NP-22A**

| Parameter [1] | Groundwater Standard [2] | Units | Mar-99 | Jun-99 | Sep-99 | Dec-99 | Apr-00 | May-01 | Apr-02 | May-03 | May-04 | Jul-05 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1.00 U | 1.0 U |
| Toluene | 5 | µg/L | 1 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1.00 U | 1.0 U |
| Monochlorobenzene | 5 | µg/L | 1 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1.00 U | 1.0 U |
| 2-Chlorotoluene | 5 | µg/L | 1 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1.00 U | 1.0 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1.00 U | 1.0 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1.00 U | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1.00 U | 1.0 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1.00 U | 1.0 U |
| Total Targeted Organics | - | µg/L | 0 | 0 | Dry | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | **6 J** | **13** | Dry | **9** | 5 U | 5 U | **239** | **7.66** | 5 U | **29** |
| TOC | - | mg/L | 2.6 U | 2.78 | Dry | 2.28 | 2.9 | 5.1 | 4.6 | 3.8 | 4.9 | 3.7 |
| pH | 6.5 - 8.5 | S.U. | **4.68** | **6.24** | Dry | **6.4** | **5.82** | **6.31** | 7.46 | 6.58 | 6.99 | 7.08 |
| Conductivity | - | mS/cm | 600 | 800 | Dry | 8090 | 765 | 820 | 937 | 561 | 920 | 72.5 |
| Temperature | - | Celsius | 6.2 | 11.2 | Dry | 10 | 5.5 | 10.4 | 8 | 6.8 | 10.3 | 11 |

| Parameter [1] | Groundwater Standard [2] | Units | Aug-06 | Jun-07 | Aug-08 | Apr-09 | May-10 | May-11 | Apr-12 | Apr-13 | Apr-14 | Apr-15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | 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 | 1.0 U |
| Toluene | 5 | 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 | 1.0 U |
| Monochlorobenzene | 5 | 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 | 1.0 U |
| 2-Chlorotoluene | 5 | µg/L | 1.0 U | 0.32 J | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U |
| 1,4-Dichlorobenzene | 3 | 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 | 1.0 U |
| 1,2-Dichlorobenzene | 3 | 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 | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | 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 | 1.0 U |
| 1,2,3-Trichlorobenzene | 5 | 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 | 1.0 U |
| Total Targeted Organics | NA | µg/L | 0 | 0.32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 10 U | 10 U | 10 U | 10U | **34** | **12** | 10 U | 0.01 | **14** | 10 U |
| TOC | NA | mg/L | 2.9 | 3.4 | 2.8 | 2.02 | 3.5 | 2.7 | 2.8 | 2.4 | 2.4 | 1.6 |
| pH | 6.5 - 8.5 | S.U. | 6.96 | 6.82 | 6.78 | 7.89 | 8.14 | 6.95 | 5.73 | 7.28 | 7.28 | 7.05 |
| Conductivity | NA | mS/cm | 712 | 960 | 1041 | 10180 | 1030 | 902 | 944 | 1.242 | 1.242 | 0.78 |
| Temperature | NA | Celsius | 15.4 | 10.3 | 16.1 | 9.33 | 9.98 | 9.51 | 9.87 | 7.84 | 7.84 | 9.8 |

**Appendix D**
**Table D.1**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-22/NP-22A**

| Parameter [1] | Groundwater Standard [2] | Units | Apr-16 | Apr-17 | Apr-18 | Apr-19 | May-20 | Apr-21 | May-22 | Apr-23 | Apr-24 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | 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/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U |
| Toluene | 5 | 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/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U |
| Monochlorobenzene | 5 | 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/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U |
| 2-Chlorotoluene | 5 | 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/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U |
| 1,4-Dichlorobenzene | 3 | 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/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U |
| 1,2-Dichlorobenzene | 3 | 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/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U |
| 1,2,4-Trichlorobenzene | 5 | 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/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U |
| 1,2,3-Trichlorobenzene | 5 | 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/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U | 1.0 U/1.0 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 | 0/0 |
| Total Recoverable Phenolics | 1 | µg/L | 5.0 U | 5.0 U | 5.0 U/5.0 U | 5.0 U/5.0 U | 5.0 U/5.0 U | 5.0 U/5.0 U | 5.0 U/5.0 U | 5.0 U/5.0 U | 5.0 U/5.0 U |
| TOC | NA | mg/L | 10.5 | 3.3 | 2.7/2.6 | 3.0/3.0 | 3.5/3.9 | 2.0/2.3 | 47.3/3.9 | 1.0/4.1 | 4.5/4.5 |
| pH | 6.5 - 8.5 | S.U. | 6.98 | 6.28 | 6.27 | 6.85 | 8.31 | 7.18 | 7.01 | 6.76 | 6.70 |
| Conductivity | NA | mS/cm | 0.94 | 0.97 | 1.19 | 1.05 | 1.71 | 5.05 | 4.13 | 4.19 | 5.62 |
| Temperature | NA | Celsius | 6.3 | 7.6 | 3.9 | 9.5 | 12.9 | 8.1 | 11.7 | 7.2 | 10.77 |

Notes:

[1] - Monitoring wells and compounds are in accordance with Appendix B, Durez Partial Consent Judgment; except analyses for Total Recoverable Phenolics were reported in Phenols in February 1984

[2] - Groundwater standards are New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998

- Interceptor Trench operation began in October 1990; first full month of operation was November 1990; represented by dashed vertical line above
- NP-22A was installed in November 1993, approximately 10 feet from the former location of NP-22

Dry - Dry well or insufficient sample for analyses
J - Estimated at associated value
NA - Not analyzed or not available
S.U. - Standard Unit
TOC - Total Organic Carbon
U - Not detected at associated value
µg/L - Micrograms per liter
mS/cm - Microsiemens per centimeter
 - Concentration exceeds New York State water quality standards

**Appendix D**
**Table D.2**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-23**

| Parameter [1] | Groundwater Standard [2] | Units | Sum-83 | Jan-89 | Dec-93 | Mar-94 | Jun-94 | Sep-94 | Dec-94 | Mar-95 | Jun-95 | Sep-95 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 9 | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | Dry |
| Toluene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | Dry |
| Monochlorobenzene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | Dry |
| 2-Chlorotoluene | 5 | µg/L | 2 | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | U | 4 | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | U | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 3 | 1 | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | Dry |
| Total Targeted Organics | - | µg/L | 14 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Dry |
| Total Recoverable Phenolics | 1 | µg/L | I | NA | 5 U | 5 U | 27 | 10 | 2 | 5 U | 5 U | Dry |
| TOC | - | mg/L | I | NA | 3 | 6.7 | 3.8 | 8.5 | 4.5 | 2.8 | I | Dry |
| pH | 6.5 - 8.5 | S.U. | 7 | 6.5 | 8.25 | 7.68 | 7.7 | 7.45 | 7.75 | 7 | 6.71 | Dry |
| Conductivity | - | mS/cm | 610 | 3100 | 486 | 1440 | 740 | 870 | 851 | 356 | 430 | Dry |
| Temperature | - | Celsius | 20 | 5.7 | 7.5 | 8.8 | 19.3 | 12.1 | 7.8 | 6 | 21.3 | Dry |

| Parameter [1] | Groundwater Standard [2] | Units | Dec-95 | Mar-96 | Jun-96 | Sep-96 | Dec-96 | Mar-97 | Jun-97 | Sep-97 | Dec-97 | Mar-98 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Toluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Monochlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 2-Chlorotoluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Total Targeted Organics | - | µg/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TOC | - | mg/L | 5.2 | 2.3 | 2.1 | 4.6 | 3.8 J | 41 | 1.1 | 8.8 | 3.9 | 2.0 |
| pH | 6.5 - 8.5 | S.U. | 7.56 | 6.53 | 7.57 | 6.53 | 7.17 | 7.82 | 7.47 | 7.53 | 7.11 | 7.30 |
| Conductivity | - | mS/cm | 480 | 770 | 388 | 480 | 896 | 425 | 400 | 820 | 600 | 1055 |
| Temperature | - | Celsius | 5.4 | 3.9 | 16.7 | 16.4 | 7.9 | 5.0 | 15.1 | 16.2 | 8.8 | 6.8 |

**Appendix D**
**Table D.2**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-23**

| Parameter [1] | Groundwater Standard [2] | Units | Jun-98 | Sep-98 | Dec-98 | Mar-99 | Jun-99 | Sep-99 | Dec-99 | Apr-00 | May-01 | Apr-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| TOC | - | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Conductivity | NA | mS/cm | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |

| Parameter [1] | Groundwater Standard [2] | Units | May-03 | May-04 | Jul-05 | Aug-06 | Jun-07 | Aug-08 | Apr-09 | May-10 | May-11 | Apr-12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | 0 | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | 10 U | Dry | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | 18.6 | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | 7.74 | Dry | Dry | Dry | Dry |
| Conductivity | NA | mS/cm | Dry | Dry | Dry | Dry | Dry | 443 | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | 20.8 | Dry | Dry | Dry | Dry |

**Appendix D**
**Table D.2**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-23**

| Parameter [1] | Groundwater Standard [2] | Units | Apr-13 | Apr-14 | Apr-15 | Apr-16 | Apr-17 | Apr-18 | Apr-19 | May-20 | Apr-21 | May-22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Conductivity | NA | mS/cm | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |

| Parameter [1] | Groundwater Standard [2] | Units | Apr-23 | Apr-24 |
|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry |
| Conductivity | NA | mS/cm | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry |

Notes:

(1) - Monitoring wells and compounds are in accordance with Appendix B, Durez Partial Consent Judgment; except analyses for Total Recoverable Phenolics were reported as Phenols in February 1984
(2) - Groundwater standards are New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998
- Interceptor Trench operation began in October 1990; first full month of operation was November 1990
Dry - Dry well or insufficient sample for analyses
J - Estimated at associated value
I - Data unavailable
NA - Not analyzed or not available
S.U. - Standard Unit
TOC - Total Organic Carbon
U - Not detected at associated value
µg/L - Micrograms per liter
mS/cm - Microsiemens per centimeter
- Concentration exceeds New York State water quality standards

**Appendix D**
**Table D.3**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-27**

| Parameter [1] | Groundwater Standard [2] | Units | Sum-83 | Dec-93 | Mar-94 | Jun-94 | Sep-94 | Dec-94 | Mar-95 | Jun-95 | Sep-95 | Dec-95 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry | 1 U |
| Toluene | 5 | µg/L | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry | 1 U |
| Monochlorobenzene | 5 | µg/L | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry | 1 U |
| 2-Chlorotoluene | 5 | µg/L | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry | 1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry | 1 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | Dry | 0 | 0 | 0 | Dry | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 14 U | 3 | 5 U | 5 | Dry | 6 | 5 U | 5 U | Dry | 5 U |
| TOC | NA | mg/L | 4 | 2.4 | 11 | 2.9 | Dry | 5 | 1.6 | 2.6 | Dry | 3.4 |
| pH | 6.5 - 8.5 | S.U. | 6.8 | 7.58 | 7.48 | 6.96 | Dry | 7.43 | 7.46 | 6.41 | Dry | 7.52 |
| Conductivity | NA | mS/cm | 1,570 | 805 | 1890 | 840 | Dry | 716 | 546 | 631 | Dry | 555 |
| Temperature | NA | Celsius | 15 | 7.4 | 8.6 | 17.5 | Dry | 7.6 | 5.7 | 20.2 | Dry | 4.1 |

| | | | Mar-96 | Jun-96 | Sep-96 | Dec-96 | Mar-97 | Jun-97 | Sep-97 | Dec-97 | Mar-98 | Jun-98 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry |
| Toluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry |
| Monochlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry |
| 2-Chlorotoluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | Dry |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Dry |
| Total Recoverable Phenolics | 1 | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | Dry |
| TOC | NA | mg/L | 1.2 | 1.1 | 2.9 | 4.2 J | 3.7 | 1 U | 2.4 | 3.0 | 1.3 | Dry |
| pH | 6.5 - 8.5 | S.U. | 6.85 | 7.37 | 6.94 | 7.34 | 7.42 | 8.01 | 7.27 | 7.13 | 7.28 | Dry |
| Conductivity | NA | mS/cm | 780 | 600 | 630 | 990 | 920 | 910 | 1000 | 850 | 820 | Dry |
| Temperature | NA | Celsius | 3.9 | 16.9 | 17.8 | 8.7 | 4.5 | 16.1 | 15.4 | 6.2 | 5.9 | Dry |

**Appendix D**
**Table D.3**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-27**

| Parameter [1] | Groundwater Standard [2] | Units | Sep-98 | Dec-98 | Mar-99 | Jun-99 | Sep-99 | Dec-99 | Apr-00 | May-01 | Apr-02 | May-03 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Conductivity | NA | mS/cm | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |

| | | | May-04 | Jul-05 | Aug-06 | Jun-07 | Aug-08 | Apr-09 | May-10 | May-11 | Apr-12 | Apr-13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | 1.0 U | Dry | 1.0 U | Dry | 1.0 U | 1.0 U |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | 1.0 U | Dry | 1.0 U | Dry | 1.0 U | 1.0 U |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | 1.0 U | Dry | 1.0 U | Dry | 1.0 U | 1.0 U |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | 6.0 U | Dry | 1.0 U | Dry | 1.0 U | 1.0 U |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | 1.0 U | Dry | 1.0 U | Dry | 1.0 U | 1.0 U |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | 1.0 U | Dry | 1.0 U | Dry | 1.0 U | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | 1.0 U | Dry | 1.0 U | Dry | 1.1 | 1.0 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | 1.0 U | Dry | 1.0 U | Dry | 1.0 U | 1.0 U |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | 0 | Dry | 0 | Dry | 1.1 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | 12 U | Dry | 25U | Dry | 10 U | 0.01 |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | 19.9 | Dry | 1.5 | Dry | 1.9 | 9.4 |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | 6.74 | Dry | NA | Dry | 7.05 | 7.85 |
| Conductivity | NA | mS/cm | Dry | Dry | Dry | Dry | 930 | Dry | NA | Dry | 504 | 0.627 |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | 19.2 | Dry | NA | Dry | 11.52 | 6.9 |

**Appendix D**
**Table D.3**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-27**

| Parameter [1] | Groundwater Standard [2] | Units | Apr-14 | Apr-15 | Apr-16 | Apr-17 | Apr-18 | Apr-19 | May-20 | Apr-21 | May-22 | Apr-23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | Dry | 1.0 U | 1.0 U | Dry |
| Toluene | 5 | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | Dry | 1.0 U | 1.0 U | Dry |
| Monochlorobenzene | 5 | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | Dry | 1.0 U | 1.0 U | Dry |
| 2-Chlorotoluene | 5 | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | Dry | 1.0 U | 1.0 U | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | Dry | 1.0 U | 1.0 U | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | Dry | 1.0 U | 1.0 U | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | Dry | 1.0 U | 1.0 U | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U | Dry | 1.0 U | 1.0 U | Dry |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0 | 0 | Dry | 0 | 0 | Dry |
| Total Recoverable Phenolics | 1 | µg/L | 3.1 J | 10 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U | Dry | 5.0 U | 5.0 U | Dry |
| TOC | NA | mg/L | 1.6 | 1.0 | 11.3 | 2.4 | 2.5 | 1.6 | Dry | 2.0 | 4.1 | Dry |
| pH | 6.5 - 8.5 | S.U. | 7.85 | 7.74 | 7.62 | 6.62 | 7.93 | 6.84 | Dry | 7.69 | 8.18 | Dry |
| Conductivity | NA | mS/cm | 0.627 | 0.647 | 0.556 | 0.69 | 0.487 | 0.581 | Dry | 0.85 | 0.64 | Dry |
| Temperature | NA | Celsius | 6.9 | 6.9 | 5.9 | 6.8 | 5.3 | 7.3 | Dry | 7.6 | 10.3 | Dry |

| Parameter [1] | Groundwater Standard [2] | Units | Apr-24 |
|---|---|---|---|
| Benzene | 1 | µg/L | Dry |
| Toluene | 5 | µg/L | Dry |
| Monochlorobenzene | 5 | µg/L | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry |
| Total Targeted Organics | NA | µg/L | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry |
| TOC | NA | mg/L | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry |
| Conductivity | NA | mS/cm | Dry |
| Temperature | NA | Celsius | Dry |

Notes:

(1) - Monitoring wells and compounds are in accordance with Appendix B, Durez Partial Consent Judgment; except analyses for Total Recoverable Phenolics were reported as Phenols in February 1984
(2) - Groundwater standards are New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998
- Interceptor Trench operation began in October 1990; first full month of operation was November 1990
Dry - Dry well or insufficient sample for analyses
J - Estimated at associated value
NA - Not analyzed or not available
S.U. - Standard Unit
TOC - Total Organic Carbon
U - Not detected at associated value
µg/L - Micrograms per liter
mS/cm - Microsiemens per centimeter
- Concentration exceeds New York State water quality standards

**Appendix D**
**Table D.4**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**P32A**

| Parameter [1] | Groundwater Standard [2] | Units | Sum-83 | Jan-89 | Jun-93 | Oct-93 | Jun-94 | Sep-94 | Dec-94 | Mar-95 | Jun-95 | Sep-95 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 7 | 1 | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U |
| Toluene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U |
| Monochlorobenzene | 5 | µg/L | 310 | 25 | 5 | 10 | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U |
| 2-Chlorotoluene | 5 | µg/L | 2 | U | 2 | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 120 | 7 | 3 | 12 | 1 U | 1 U | 1 U | 5 U | 1 U | 3 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 82 | 10 | 3 | 3 | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U |
| Total Targeted Organics | NA | µg/L | 521 | 43 | 13 | 25 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 14 U | 30 | 1 | 1 | 5 | 19 | 16 | 5 U | 5 U | 5 U |
| TOC | NA | mg/L | 4 | 28 | 1 | 1 | 3.8 | 11 | 9.3 | 3.4 | 4.7 | 3.4 |
| pH | 6.5 - 8.5 | S.U. | 7.1 | 6.2 | 1 | 1 | 7.04 | 7.1 | 7.48 | 6.82 | 6.2 | 7.29 |
| Conductivity | NA | mS/cm | 1,940 | 100000 | 1 | 1 | 8120 | 759 | 6150 | 3830 | 951 | 12740 |
| Temperature | NA | Celsius | 20 | 12 | 1 | 1 | 20.2 | 6.3 | 10.3 | 8.2 | 18.6 | 20.2 |

| | | | Dec-95 | Mar-96 | Jun-96 | Sep-96 | Dec-96 | Mar-97 | Jun-97 | Sep-97 | Dec-97 | Mar-98 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Toluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Monochlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 2-Chlorotoluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TOC | NA | mg/L | 3.4 | 5.4 | 3.4 | 5.7 | 5.2 | 6.2 | 1.9 | 2.5 | 3.9 | 2.3 |
| pH | 6.5 - 8.5 | S.U. | 7.43 | 6.54 | 7.38 | 6.72 | 6.84 | 7.11 | 7.27 | 7.04 | 6.79 | 7.30 |
| Conductivity | NA | mS/cm | 5,310 | 4910 | 2460 | 2810 | 8120 | 3000 | 6200 | 4700 | 6200 | 5200 |
| Temperature | NA | Celsius | 6.9 | 4.4 | 16.1 | 16.9 | 11.3 | 6.2 | 15.1 | 17.7 | 10.9 | 7.2 |

**Appendix D**
**Table D.4**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**P32A**

| Parameter [1] | Groundwater Standard [2] | Units | Jun-98 | Sep-98 | Dec-98 | Mar-99 | Jun-99 | Sep-99 | Dec-99 | Apr-00 | May-01 | Apr-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Toluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Monochlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 2-Chlorotoluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 5 U | 5 U | 5 U | 5 U | **28** | **5** | **10** | 5 U | 5 U | **185** |
| TOC | NA | mg/L | 3.7 | 76.8 | 4 | 3.0 U | 3.23 | 1 U.0 | 4.39 | 3 | 4.2 | 2.7 |
| pH | 6.5 - 8.5 | S.U. | 7.34 | 7.18 | 6.9 | **6.12** | 6.8 | - | 6.86 | 6.78 | 6.97 | 7.65 |
| Conductivity | NA | mS/cm | 4,000 | 4300 | 4000 | 3000 | 3500 | 3670 | 3570 | 3700 | 2520 | 3270 |
| Temperature | NA | Celsius | 16.7 | 17.1 | 14.1 | 5.5 | 16.9 | 20 | 12.8 | 6.5 | 13.5 | 9.3 |

| Parameter [1] | Groundwater Standard [2] | Units | May-03 | May-04 | Jul-05 | Aug-06 | Jun-07 | Aug-08 | Apr-09 | May-10 | May-11 | Apr-12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1.00 U | 1.00 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/1.0 U |
| Toluene | 5 | µg/L | 1.00 U | 1.00 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/1.0 U |
| Monochlorobenzene | 5 | µg/L | 1.00 U | 1.00 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/1.0 U |
| 2-Chlorotoluene | 5 | µg/L | 1.00 U | 1.00 U | 1.0 U | 1.0 U | 0.33 J | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U/1.0 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1.00 U | 1.00 U | 1.0 U | 1.0 U | 0.36 J | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U/1.0 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1.00 U | 1.00 U | 1.0 U | 1.0 U | 0.23 J | 1.0 U | 1.0 U | 1.0 U | 1.0 U | 1.0 U/1.0 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1.00 U | 1.00 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/1.0 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1.00 U | 1.00 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/1.0 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0.92 | 0 | 0 | 0 | 0 | 0/0 |
| Total Recoverable Phenolics | 1 | µg/L | 5 U | 5 U | 10 U | 10 U | 10 U | 10 U | 10 U | 26 U | **79** | 10 U/10 U |
| TOC | NA | mg/L | 3.6 | 4.3 | 3.3 | 2.2 | 3.9 | 3.1 | 2.31 | 2.5 | 2 | 2.0/1.9 |
| pH | 6.5 - 8.5 | S.U. | 7.35 | 7.17 | 7.28 | 7.42 | 6.87 | 6.82 | 8.12 | NA | 7.23 | 6.96 |
| Conductivity | NA | mS/cm | 3570 | 4290 | 3110 | 2270 | 3960 | 4180 | 3210 | NA | 5440 | 3790 |
| Temperature | NA | Celsius | 8.3 | 12 | 17.1 | 21.5 | 13.1 | 19.2 | 11.16 | NA | 10.44 | 11.58 |

**Appendix D**
**Table D.4**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**P32A**

| Parameter [1] | Groundwater Standard [2] | Units | Apr-13 | Apr-14 | Apr-15 | Apr-16 | Apr-17 | Apr-18 | Apr-19 | May-20 | Apr-21 | May-22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1.00 U | 1.00 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 | 1.0 U |
| Toluene | 5 | µg/L | 1.00 U | 1.00 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 | 1.0 U |
| Monochlorobenzene | 5 | µg/L | 1.00 U | 1.00 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 | 1.0 U |
| 2-Chlorotoluene | 5 | µg/L | 1.00 U | 1.00 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 | 1.0 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1.00 U | 1.00 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 | 1.0 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1.00 U | 1.00 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 | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1.00 U | 1.00 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 | 1.0 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1.00 U | 1.00 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 | 1.0 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0/0 | 0 | 0 | 0 | 1.0 U | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 0.01 | **4.1 J** | 10 U | **3.5 J** | 5 U/5 U | 5.0 U | 5.0 U | 5.0 U | 1.0 U | 5.0 U |
| TOC | NA | mg/L | 2.3 | 2.4 | 1.6 | 9.4 | 2.6/2.6 | 2.6 | 2.2 | 2.3 | 2.2 | 1.7 |
| pH | 6.5 - 8.5 | S.U. | 7.42 | 7.28 | 7.41 | 7.05 | 6.76 | 5.57 | 6.06 | 8.61 | 8.61 | 7.31 |
| Conductivity | NA | mS/cm | 3 | 1 | 2.9 | 3.18 | 3.12 | 4.88 | 4.32 | 4.14 | 1.0/4.5 | 4.4 |
| Temperature | NA | Celsius | 9.27 | 7.84 | 10.2 | 7.9 | 8.3 | 6.5 | 10.4 | 16.0 | 9.9 | 13.3 |

| Parameter [1] | Groundwater Standard [2] | Units | Apr-23 | Apr-24 |
|---|---|---|---|---|
| Benzene | 1 | µg/L | 1.00 U | 1.0 U |
| Toluene | 5 | µg/L | 1.00 U | 1.0 U |
| Monochlorobenzene | 5 | µg/L | 1.00 U | 1.0 U |
| 2-Chlorotoluene | 5 | µg/L | 1.00 U | 1.0 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1.00 U | 1.0 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1.00 U | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1.00 U | 1.0 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1.00 U | 1.0 U |
| Total Targeted Organics | NA | µg/L | 0 | 0/0 |
| Total Recoverable Phenolics | 1 | µg/L | 5.00 U | 5.0 U |
| TOC | NA | mg/L | 2.6 | 1.9 |
| pH | 6.5 - 8.5 | S.U. | 7.28 | 7.16 |
| Conductivity | NA | mS/cm | 4 | 3.260 |
| Temperature | NA | Celsius | 10.8 | 15.18 |

Notes:

(1) - Monitoring wells and compounds are in accordance with Appendix B, Durez Partial Consent Judgment; except analyses for Total Recoverable Phenolics were reported as Phenols in February 1984
(2) - Groundwater standards are New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998
- Interceptor Trench operation began in October 1990; first full month of operation was November 1990
Dry - Dry well or insufficient sample for analyses
J - Estimated at associated value
NA - Not analyzed or not available
S.U. - Standard Unit
TOC - Total Organic Carbon
U - Not detected at associated value
µg/L - Micrograms per liter
mS/cm - Microsiemens per centimeter
**4.1 J** - Concentration exceeds New York State water quality standards

**Appendix D**
**Table D.5**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-35**

| Parameter [1] | Groundwater Standard [2] | Units | Sum-83 | Dec-93 | Mar-94 | Jun-94 | Sep-94 | Dec-94 | Mar-95 | Jun-95 | Sep-95 | Dec-95 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U |
| Toluene | 5 | µg/L | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U |
| Monochlorobenzene | 5 | µg/L | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U |
| 2-Chlorotoluene | 5 | µg/L | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | U | 1 U | 1 U | 1 U | 1 U | 1 U | 5 U | 1 U | 1 U | 1 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 14 U | **11** | 5 U | **80** | **14** | **12** | **10** | 5 U | 5 U | 5 U |
| TOC | NA | mg/L | 4 | 4 | 11 | 5.5 | 7 | 10 | 4.4 | 11 | 10.6 | 8.6 |
| pH | 6.5 - 8.5 | S.U. | 6.9 | 7.27 | 8.2 | 7.08 | **6.45** | 7.34 | 7.02 | 6.94 | 7.46 | 7.42 |
| Conductivity | NA | umhos/cm | 930 | 876 | 1590 | 920 | 740 | 825 | 499 | 694 | 905 | 696 |
| Temperature | NA | Celsius | 21 | 8 | 8.1 | 17.9 | 20 | 6.1 | 5.9 | 18.3 | 21.05 | 4.9 |

| Parameter [1] | Groundwater Standard [2] | Units | Mar-96 | Jun-96 | Sep-96 | Dec-96 | Mar-97 | Jun-97 | Sep-97 | Dec-97 | Mar-98 | Jun-84 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1 U | 1 U | 1 U/1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U | 1 U/1 U | Dry |
| Toluene | 5 | µg/L | 1 U | 1 U | 1.9/1.6 J | 1 U | 1 U | 1 U | 1 U/1 U | 1 U | 1 U/1 U | Dry |
| Monochlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U/1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U | 1 U/1 U | Dry |
| 2-Chlorotoluene | 5 | µg/L | 1 U | 1 U | 1 U/1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U | 1 U/1 U | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U/1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U | 1 U/1 U | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U/1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U | 1 U/1 U | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U/1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U | 1 U/1 U | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1 U | 1 U | 1 U/1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U | 1 U/1 U | Dry |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 1.9/1.6 J | 0 | 0 | 0 | 0/0 | 0 | 0/0 | Dry |
| Total Recoverable Phenolics | 1 | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U/5 U | 5 U | 5 U/5 U | Dry |
| TOC | NA | mg/L | 2.8 | 2.4 | 4.4 | 4.2 J | 6.2 | 1.6/1.7 | 4.0/4.2 | 4.2 | 2.5/2.4 | Dry |
| pH | 6.5 - 8.5 | S.U. | 6.77 | 7.86 | 6.93 | 7.71 | 7.47 | 7.92 | 7.22 | **8.66** | 7.20 | Dry |
| Conductivity | NA | umhos/cm | 790 | 596 | 680 | 1000 | 1000 | 900 | 1100 | 1000 | 890 | Dry |
| Temperature | NA | Celsius | 3.9 | 20.5 | 17.3 | 7.9 | 4.7 | 18.0 | 16.8 | 5.3 | 5.9 | Dry |

**Appendix D**
**Table D.5**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-35**

| Parameter [1] | Groundwater Standard [2] | Units | Sep-98 | Dec-98 | Mar-99 | Jun-99 | Sep-99 | Dec-99 | Apr-00 | May-01 | Apr-02 | May-03 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | 1 U | 1 U | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1.5 | 1 U | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1 U | 1 U | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1 U | 1 U | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | 1 U | 1 U | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | 1 U | 1 U | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1 U | 1 U | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | 1 U | 1 U | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | 1.5 | 0 | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | 69 | 5 U | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | 3.52 | 3.1 | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | 6.68 | 6.3 | Dry | Dry | Dry |
| Conductivity | NA | umhos/cm | Dry | Dry | Dry | Dry | Dry | 6863 | 564 | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | 9.8 | 6.7 | Dry | Dry | Dry |

| | | | May-04 | Jul-05 | Aug-06 | Jun-07 | Aug-08 | Apr-09 | May-10 | May-11 | Apr-12 | Apr-13 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Conductivity | NA | umhos/cm | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |

**Appendix D**
**Table D.5**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-35**

| Parameter [1] | Groundwater Standard [2] | Units | Apr-14 | Apr-15 | Apr-16 | Apr-17 | Apr-18 | Apr-19 | May-20 | Apr-21 | May-22 | Apr-23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Conductivity | NA | umhos/cm | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |

| Parameter [1] | Groundwater Standard [2] | Units | Apr-24 | |
|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | |
| Toluene | 5 | µg/L | Dry | |
| Monochlorobenzene | 5 | µg/L | Dry | |
| 2-Chlorotoluene | 5 | µg/L | Dry | |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | |
| Total Targeted Organics | NA | µg/L | Dry | |
| Total Recoverable Phenolics | 1 | µg/L | Dry | |
| TOC | NA | mg/L | Dry | |
| pH | 6.5 - 8.5 | S.U. | Dry | |
| Conductivity | NA | umhos/cm | Dry | |
| Temperature | NA | Celsius | Dry | 1.0/4.5 |

Notes:

(1) - Monitoring wells and compounds are in accordance with Appendix B, Durez Partial Consent Judgment; except analyses for Total Recoverable Phenolics were reported as Phenols in February 1984
(2) - Groundwater standards are New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998
- Interceptor Trench operation began in October 1990; first full month of operation was November 1990
Dry - Dry well or insufficient sample for analyses
J - Estimated at associated value
NA - Not analyzed or not available
S.U. - Standard Unit
TOC - Total Organic Carbon
U - Not detected at associated value
µg/L - Micrograms per liter
mS/cm - Microsiemens per centimeter
- Concentration exceeds New York State water quality standards

**Appendix D**
**Table D.6**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-44**

| Parameter [1] | Groundwater Standard [2] | Units | May-85 | Dec-85 | Dec-88 | Jun-93 | Oct-93 | Dec-93 | Mar-94 | Jun-94 | Sep-94 | Dec-94 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 700 | 70 | 920 | 1 U | Dry | Dry | Dry | 1 U | Dry | 1 U |
| Toluene | 5 | µg/L | 13 | 2 | 6 | 1 U | Dry | Dry | Dry | 1 U | Dry | 1 U |
| Monochlorobenzene | 5 | µg/L | 9500 | 2500 | 14000 | 1 U | Dry | Dry | Dry | 1 U | Dry | 1 U |
| 2-Chlorotoluene | 5 | µg/L | U | 1 | 3 | 1 U | Dry | Dry | Dry | 1 U | Dry | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 2700 | 2900 | 2900 | 1 U | Dry | Dry | Dry | 1 U | Dry | 1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 700 | 990 | 1100 | 1 U | Dry | Dry | Dry | 1 U | Dry | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 31 | 48 | 39 | 1 U | Dry | Dry | Dry | 1 U | Dry | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 15 | 14 | 2 | 1 U | Dry | Dry | Dry | 1 U | Dry | 1 U |
| Total Targeted Organics | NA | µg/L | 13659 | 6525 | 18970 | 0 | Dry | Dry | Dry | 0 | Dry | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 1750 | 4650 | 600 | NA | Dry | Dry | Dry | 24 | Dry | 5 |
| TOC | NA | mg/L | 131 | 33 | 19 | 9.4 | Dry | Dry | Dry | 8.8 | Dry | 12 |
| pH | 6.5 - 8.5 | S.U. | 7.7 | 6.8 | 6.9 | 7.01 | Dry | Dry | Dry | 1 | Dry | 7.15 |
| Conductivity | NA | umhos/cm | 140 | 1430 | NA | 885 | Dry | Dry | Dry | 1 | Dry | 1234 |
| Temperature | NA | Celsius | 19 | 10 | NA | 15 | Dry | Dry | Dry | 1 | Dry | 6.5 |

| Parameter [1] | Groundwater Standard [2] | Units | Mar-95 | Jun-95 | Sep-95 | Dec-95 | Mar-96 | Jun-96 | Sep-96 | Dec-96 | Mar-97 | Jun-97 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 5 U | 1 U | Dry | 1 U | 1 U | 0.22 J | 1 U | 1 U | 1 U | 1 U |
| Toluene | 5 | µg/L | 5 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Monochlorobenzene | 5 | µg/L | 5 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1.9 |
| 2-Chlorotoluene | 5 | µg/L | 5 U | 1 U | Dry | 1 U | 1 U | 1.4 | 1 U | 1 U | 1 U | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 5 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 5 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 5 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 5 U | 1 U | Dry | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U | 1 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | Dry | 0 | 0 | 1.6 J | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | **17** | **11** | Dry | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| TOC | NA | mg/L | 5.8 | 7.1 | Dry | 9.1 | 2.4 | 2.2 | 6.2 | 3.2 | 6.1 | 1.3 |
| pH | 6.5 - 8.5 | S.U. | **6.06** | **6.3** | Dry | 7.56 | 7.14 | 8.01 | 6.63 | 7.38 | 7.12 | 7.73 |
| Conductivity | NA | umhos/cm | 1234 | 868 | Dry | 1080 | 965 | 832 | 1020 | 1200 | 1000 | 980 |
| Temperature | NA | Celsius | 6.5 | 20.2 | Dry | 4.3 | 3.3 | 20 | 16.2 | 7.2 | 3.5 | 19.0 |

**Appendix D**
**Table D.6**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-44**

| Parameter [1] | Groundwater Standard [2] | Units | Sep-97 | Dec-97 | Mar-98 | Jun-98 | Sep-98 | Dec-98 | Mar-99 | Jun-99 | Sep-99 | Dec-99 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | 1 U/1 U | 1 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | 1 U/1 U | 1 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | 1 U/1 U | 1 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | 1 U/1 U | 1 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | 1 U/1 U | 1 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | 1 U/1 U | 1 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | 1 U/1 U | 1 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | 1 U/1 U | 1 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | 0/0 | 0 | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | 5 U/5 U | 5 U | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | 3.4/3.6 | 1.8 | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | 7.18 | 7.10 | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Conductivity | NA | umhos/cm | Dry | 1000 | 1000 | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | 7.0 | 3.5 | Dry | Dry | Dry | Dry | Dry | Dry | Dry |

| | | | Apr-00 | May-01 | Apr-02 | May-03 | May-04 | Jul-05 | Aug-06 | Jun-07 | Aug-08 | Apr-09 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 0.26 J | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 0.26 J | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 0.14 J | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 0.66 | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | NA | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | NA | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 6.52 | Dry |
| Conductivity | NA | umhos/cm | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 443 | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 23.1 | Dry |

**Appendix D**
**Table D.6**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-44**

| Parameter [1] | Groundwater Standard [2] | Units | May-10 | May-11 | Apr-12 | Apr-13 | Apr-14 | Apr-15 | Apr-16 | Apr-17 | Apr-18 | Apr-19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Conductivity | NA | umhos/cm | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry |

| Parameter | Groundwater Standard | Units | May-20 | Apr-21 | May-22 | Apr-23 | Apr-24 |
|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry |
| Conductivity | NA | umhos/cm | Dry | Dry | Dry | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry |

Notes:

(1) - Monitoring wells and compounds are in accordance with Appendix B, Durez Partial Consent Judgment; except analyses for Total Recoverable Phenolics were reported as Phenols in February 1984
(2) - Groundwater standards are New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998
- Interceptor Trench operation began in October 1990; first full month of operation was November 1990
Dry - Dry well or insufficient sample for analyses
J - Estimated at associated value
NA - Not analyzed or not available
S.U. - Standard Unit
TOC - Total Organic Carbon
U - Not detected at associated value
µg/L - Micrograms per liter
mS/cm - Microsiemens per centimeter
- Concentration exceeds New York State water quality standards

**Appendix D**
**Table D.7**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-46**

| Parameter [1] | Groundwater Standard [2] | Units | Dec-85 | Jan-89 | Dec-93 | Mar-94 | Jun-94 | Sep-94 | Dec-94 | Mar-95 | Jun-95 | Sep-95 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | U | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry |
| Toluene | 5 | µg/L | 10 U | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry |
| Monochlorobenzene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry |
| 2-Chlorotoluene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | U | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | U | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | U | U | 1 U | 1 U | 1 U | Dry | 1 U | 5 U | 1 U | Dry |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0 | Dry | 0 | 0 | 0 | Dry |
| Total Recoverable Phenolics | 1 | µg/L | 500 U | NA | **6** | 5 U | **5** | Dry | **5** | 5 U | 5 U | Dry |
| TOC | NA | mg/L | 10 U | NA | 2.1 | 7.8 | 3.1 | Dry | 11 | 3.6 | 3.1 | Dry |
| pH | 6.5 - 8.5 | S.U. | 6 | 6.8 | 7.18 | 7.32 | 7.27 | Dry | 7.13 | 7 | 6.58 | Dry |
| Conductivity | NA | mS/cm | 1,045 | 11000 | 912 | 2030 | 990 | Dry | 927 | 650 | 810 | Dry |
| Temperature | NA | Celsius | 14 | NA | 8.3 | 8.1 | 17.4 | Dry | 6.9 | 5 | 16.9 | Dry |

| Parameter | Groundwater Standard | Units | Dec-95 | Mar-96 | Jun-96 | Sep-96 | Dec-96 | Mar-97 | Jun-97 | Sep-97 | Dec-97 | Mar-98 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | Dry | 1 U | 1 U |
| Toluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | Dry | 1 U | 1 U |
| 2-Chlorotoluene | 5 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | Dry | 1 U | 1 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | Dry | 1 U | 1 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1 U | 1 U | 1 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | Dry | 1 U | 1 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1 U | 1.3 | 1 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | Dry | 1 U | 1 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1 U | 1.2 | 1 U | 1 U | 1 U/1 U | 1 U/1 U | 1 U/1 U | Dry | 1 U | 1 U |
| Total Targeted Organics | NA | µg/L | 0 | 2.5 | 0 | 0 | 0/0 | 0/0 | 0/0 | Dry | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 5 U | 5 U | 5 U | 5 U | 5 U/5 U | 5 U/5 U | 5 U/5 U | Dry | 5 U | 5 U |
| TOC | NA | mg/L | 3.4 | 1.4 | 1.7 | 2.8 | 3.2 J/3.7 J | 5.8 J/3.6 J | 1 U | Dry | 2.3 | 1.2 |
| pH | 6.5 - 8.5 | S.U. | 7.71 | 6.95 | 7.52 | **6.28** | 7.09 | 7.06 | 7.00 | Dry | 7.2 | 6.85 |
| Conductivity | NA | mS/cm | 724 | 870 | 786 | 830 | 1100 | 1000 | 1000 | Dry | 1000 | 990 |
| Temperature | NA | Celsius | 5.3 | 3.9 | 18.9 | 14.9 | 7.2 | 3.7 | 12.5 | Dry | 6.3 | 4.5 |

**Appendix D**
**Table D.7**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-46**

| Parameter [1] | Groundwater Standard [2] | Units | Jun-98 | Sep-98 | Dec-98 | Mar-99 | Jun-99 | Sep-99 | Dec-99 | Apr-00 | May-01 | Apr-02 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 U | Dry | Dry |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 U | Dry | Dry |
| Monochlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 | Dry | Dry |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 U | Dry | Dry |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 U | Dry | Dry |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 U | Dry | Dry |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 U | Dry | Dry |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 U | Dry | Dry |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 1 | Dry | Dry |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 5 U | Dry | Dry |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 5.8 | Dry | Dry |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | Dry | **5.52** | Dry | Dry |
| Conductivity | NA | mS/cm | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 806 | Dry | Dry |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | Dry | 5.8 | Dry | Dry |

| Parameter | Groundwater Standard | Units | May-03 | May-04 | Jul-05 | Aug-06 | Jun-07 | Aug-08 | Apr-09 | May-10 | May-11 | Apr-12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | 1.0 U | 1.0 U/1.0 U | 1.0 U |
| Toluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | 1.0 U | 1.0 U/1.0 U | 1.0 U |
| 2-Chlorotoluene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | 1.0 U | 1.0 U/1.0 U | 1.0 U |
| 1,4-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | 1.0 U | 1.0 U/1.0 U | 1.0 U |
| 1,2-Dichlorobenzene | 3 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | 1.0 U | 1.0 U/1.0 U | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | 1.0 U | 1.0 U/1.0 U | 1.0 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 1.0 U | 1.0 U | 1.0 U/1.0 U | 1.0 U |
| Total Targeted Organics | NA | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 0 | 0 | 0/0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | Dry | Dry | Dry | Dry | Dry | Dry | 10 U | 26 U | **9.4 J/14** | 10 U |
| TOC | NA | mg/L | Dry | Dry | Dry | Dry | Dry | Dry | 1.67 | 1.6 | 1.9/1.8 | 2.1 |
| pH | 6.5 - 8.5 | S.U. | Dry | Dry | Dry | Dry | Dry | Dry | 7.73 | **8.73** | 6.83 | 6.69 |
| Conductivity | NA | mS/cm | Dry | Dry | Dry | Dry | Dry | Dry | 1013 | 1045 | 931 | 960 |
| Temperature | NA | Celsius | Dry | Dry | Dry | Dry | Dry | Dry | 11.8 | 11.49 | 8.72 | 10.43 |

**Appendix D**
**Table D.7**

**Groundwater Chemistry Monitoring Analytical Results**
**Durez Interceptor Trench**
**North Tonawanda, New York**
**NP-46**

| Parameter [1] | Groundwater Standard [2] | Units | Apr-13 | Apr-14 | Apr-15 | Apr-16 | Apr-17 | Apr-18 | Apr-19 | May-20 | Apr-24 | May-22 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 1 | 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 | 1.0 U |
| Toluene | 5 | 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 | 1.0 U |
| Monochlorobenzene | 5 | 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 | 1.0 U |
| 2-Chlorotoluene | 5 | 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 | 1.0 U |
| 1,4-Dichlorobenzene | 3 | 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 | 1.0 U |
| 1,2-Dichlorobenzene | 3 | 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 | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | 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 | 1.0 U |
| 1,2,3-Trichlorobenzene | 5 | 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 | 1.0 U |
| Total Targeted Organics | NA | µg/L | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Recoverable Phenolics | 1 | µg/L | 0.01 | **4.4 J** | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U | 5.0 U |
| TOC | NA | mg/L | 2.1 | 3.2 | 10.4 | 10.4 | 2.3 | 3.2 | 3.3 | 3.1 | 1.0/4.5 | 2.3 |
| pH | 6.5 - 8.5 | S.U. | 7.24 | 7.24 | 6.75 | 6.75 | 6.18 | 7.02 | 5.99 | 7.78 | 8.69 | 7.0 |
| Conductivity | NA | mS/cm | 0.888 | 0.888 | 0.87 | 0.87 | 0.85 | 1.00 | 0.96 | 1.00 | 1.06 | 1.01 |
| Temperature | NA | Celsius | 9.1 | 9.1 | 6.9 | 6.9 | 7.8 | 5.1 | 7.7 | 14.7 | 9.7 | 11.7 |

| Parameter [1] | Groundwater Standard [2] | Units | Apr-23 | Apr-24 |
|---|---|---|---|---|
| Benzene | 1 | µg/L | 1.0 U | 1.0 U |
| Toluene | 5 | µg/L | 1.0 U | 1.0 U |
| Monochlorobenzene | 5 | µg/L | 1.0 U | 1.0 U |
| 2-Chlorotoluene | 5 | µg/L | 1.0 U | 1.0 U |
| 1,4-Dichlorobenzene | 3 | µg/L | 1.0 U | 1.0 U |
| 1,2-Dichlorobenzene | 3 | µg/L | 1.0 U | 1.0 U |
| 1,2,4-Trichlorobenzene | 5 | µg/L | 1.0 U | 1.0 U |
| 1,2,3-Trichlorobenzene | 5 | µg/L | 1.0 U | 1.0 U |
| Total Targeted Organics | NA | µg/L | 0 | 0/0 |
| Total Recoverable Phenolics | 1 | µg/L | 5.00 U | 5.0 U |
| TOC | NA | mg/L | 2.2 | 2.0 |
| pH | 6.5 - 8.5 | S.U. | 6.97 | 6.76 |
| Conductivity | NA | mS/cm | 0.97 | 0.890 |
| Temperature | NA | Celsius | 6.7 | 13.09 |

Notes:

(1) - Monitoring wells and compounds are in accordance with Appendix B, Durez Partial Consent Judgment; except analyses for Total Recoverable Phenolics were reported as Phenols in February 1984
(2) - Groundwater standards are New York State Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, June 1998
- Interceptor Trench operation began in October 1990; first full month of operation was November 1990
Dry - Dry well or insufficient sample for analyses
J - Estimated at associated value
NA - Not analyzed or not available
S.U. - Standard Unit
TOC - Total Organic Carbon
U - Not detected at associated value
µg/L - Micrograms per liter
mS/cm - Microsiemens per centimeter
[ ] - Concentration exceeds New York State water quality standards

# Appendix E
# Landfill Cap, Site Cover, and Fence Inspection and IT System Manhole and NAPL Collection Well Inspection Forms

# Glenn Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

## Semiannual Site Cover and Fence Inspection

Site: ~~6/26/24~~ Durez NT Weather: 78°F Sunny

Date: 6/26/24 Wind: 7mph SW

Inspector: CB, SG, JA

| | Inspection Item | Applicable to Site | Inspect For | |
|---|---|---|---|---|
| 1. | Landfill Cap | Y / (N) | - Signs of erosion (cap, ditches, swales) | Y / N |
| | | | - Exposure of the HDPE Liner | Y / N |
| | | | - Areas of insufficient grass coverage | Y / N |
| | | | - Signs of dead/dying grass | Y / N |
| | | | - Presence of washouts | Y / N |
| | | | - Settlement causing ponding of water | Y / N |
| | | | - Signs of slope instability | Y / N |
| | | | - Signs of burrowing by animals | Y / N |
| | | | - Presence of rooting trees (cap, ditches, swales) | Y / N |
| | | | - Signs of poor drainage in ditches/swales | Y / N |
| 2. | Site Cover | (Y) / N | - Signs of erosion (cap, ditches, swales) | Y / (N) |
| | | | - Areas of insufficient asphalt, grass, vegetation cover | Y / (N) |
| | | | - Signs of dead/ dying grass/ vegetation | Y / (N) |
| | | | - Presence of Washouts | Y / (N) |
| | | | - Settlement causing ponding of water | Y / (N) |
| | | | - Signs of slope instability | Y / (N) |
| | | | - Signs of burrowing by animals | (Y) / N |
| | | | - Presence of rooting trees (cap, ditches, swales) | Y / (N) |
| | | | - Signs of poor drainage in ditches/swales | Y / (N) |
| 3. | Perimeter Fence | (Y) / N | - Breaches in the fence | Y / (N) |
| | | | - Gates secure | (Y) / N |
| | | | - Locks in place | (Y) / N |
| | | | - Missing or illegible signage | Y / (N) |

Comments/ Remarks (Note: If repair/maintenance is recommended, describe its location/extent below)

Presence of burrowing animals along fence on east side

Notes:
HDPE – High Density Polyethylene

Signature: Claudia Bucio

**Glenn Springs Holdings, Inc.**
A subsidiary of Occidental Petroleum

Durez North Tonawanda Semiannual IT System Inspections

Date: 6/26/24 Checked by: CB, SG, JA

| Station Number | Manhole | | | DTW | | NAPL Well | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Condition | Visible Chemistry | Sediment | Water Depth | Flow Speed | NAPL | Amount Removed | Date Removed | |
| Main Lift Station | Good | N | N | 11.24 | No Flow | N | N/A | N/A | |
| MH-4+20 | Good | N | N | 13.51' | Fast | N | N/A | N/A | |
| MH-5+54 | Good | N | N | 12.19 | Slow | N | N/A | N/A | |
| MH-8+13 | Good | N | Y | 11.37 | Slow | N | N/A | N/A | |
| MH-10+75 | Good | N | Y | 4.23 | Slow | N | N/A | N/A | |
| MH-12+58 | Good | N | N | 4.06 | Slow | N | N/A | N/A | |
| Lift Station #1 | Good | N | N | 14.42 | Fast | N | N/A | N/A | |
| MH-13+99 | Good | N | N | 10 8.80 | Slow | N | N/A | N/A | |
| MH-17+20 | Good | N | N | 8.80 | Slow | N | N/A | N/A | |
| MH-19+78 | Good | N | N | 4.80 | Slow | N | N/A | N/A | |
| MH-23+55 | Good | N | N | 4.41 | Slow | N | N/A | N/A | |
| MH-26_55 | Good | N | N | 6.93 | Slow | N | N/A | N/A | |
| Lift Station #2 | Good | N | N | 14.91 | Fast | N | N/A | N/A | |
| MH-33+35 | Good | N | N | 12.01 | Fast | N | N/A | N/A | |
| MH-37+13 | Good | N | Y | 9.72 | Slow | N | N/A | N/A | |
| MH-40+70 | Good | N | N | 9.92 | Slow | N | N/A | N/A | |
| MH-43+54 | Good | N | Y | 10.09 | No Flow | N | N/A | N/A | |
| Lift Station #3 | Good | N | N | 13.21 | No Flow | N | N/A | N/A | |
| MH-49+48 | Good | N | N | 11.53 | No Flow | N | N/A | N/A | |
| MH-53+51 | Good | N | Y | 9.77 | No Flow | N | N/A | N/A | |
| MH-56+60 | Good | N | Y | DRY | No Flow | N | N/A | N/A | |
| MH-57+97 | | | | | | | | | } can't locate will look in fall once vegetation dies |
| MH-58+56 | | | | | | | | | |
| MH-61+20 | | | | | | | | | |
| MH-64+84 | Good | N | Y | 11.21 | Slow | N | N/A | N/A | |
| MH-66+28 | Good | N | Y | 9.20 | No Flow | N | N/A | N/A | |
| MH-69+97 | Good | N | Y | 11.93 | No Flow | N | N/A | N/A | |
| MH-71+54 | Good | N | Y | 12.94 | No Flow | N | N/A | N/A | |
| MH-72+65 | Good | N | Y | 11.04 | Slow | N | N/A | N/A | |
| MH-72+96 | Good | N | Y | 9.36 | No Flow | N | N/A | N/A | |
| MH-74+68 | Good | N | Y | 8.75 | Slow | N | N/A | N/A | |
| MH-74+90 | Good | N | Y | 9.57 | No Flow | N | N/A | N/A | |
| MH-77+39 | Good | N | N | 10.46 | Slow | N | N/A | N/A | |
| MH-77+72 | Good | N | N | 10.65 | Slow | N | N/A | N/A | |
| MH-80+95 | Good | N | Y | 11.57 | No Flow | N | N/A | N/A | |
| MH-36+90 | Good | N | Y | 10.32 | Slow | N | N/A | N/A | |

Signature: Christa Bucior

# Glenn Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

## Semiannual Site Cover and Fence Inspection

Site: DUKE2 NT

Weather: 55-58°F CLOUDS + WIND

Date: 11/11/2024

WINDS WSW 20-30 MPH

Inspector: JA, SG

| | Inspection Item | Applicable to Site | Inspect For | |
|---|---|---|---|---|
| 1. | Landfill Cap | Y / (N) | - Signs of erosion (cap, ditches, swales) | Y / N |
| | | | - Exposure of the HDPE Liner | Y / N |
| | | | - Areas of insufficient grass coverage | Y / N |
| | | | - Signs of dead/dying grass | Y / N |
| | | | - Presence of washouts | Y / N |
| | | | - Settlement causing ponding of water | Y / N |
| | | | - Signs of slope instability | Y / N |
| | | | - Signs of burrowing by animals | Y / N |
| | | | - Presence of rooting trees (cap, ditches, swales) | Y / N |
| | | | - Signs of poor drainage in ditches/swales | Y / N |
| 2. | Site Cover | (Y) / N | - Signs of erosion (cap, ditches, swales) | Y / (N) |
| | | | - Areas of insufficient asphalt, grass, vegetation cover | Y / (N) |
| | | | - Signs of dead/ dying grass/ vegetation | Y / (N) |
| | | | - Presence of Washouts | (Y) / N |
| | | | - Settlement causing ponding of water | Y / (N) |
| | | | - Signs of slope instability | Y / (N) |
| | | | - Signs of burrowing by animals | (Y) / N |
| | | | - Presence of rooting trees (cap, ditches, swales) | Y / (N) |
| | | | - Signs of poor drainage in ditches/swales | Y / (N) |
| 3. | Perimeter Fence | (Y) / N | - Breaches in the fence | Y / (N) |
| | | | - Gates secure | (Y) / N |
| | | | - Locks in place | (Y) / N |
| | | | - Missing or illegible signage | Y / (N) |

Comments/ Remarks (Note: If repair/maintenance is recommended, describe its location/extent below)

- PRESENCE OF BURROWING ANIMALS ALONG FENCELINE ON EAST SIDE OF SITE.
- SOIL COVER OVER FOUNDATION WASHED OUT EXPOSING FOUNDATION. HOLES ARE STAKED, LOCATED ON EAST SIDE OF SITE.

Notes:
HDPE – High Density Polyethylene

Signature: [signature]

**Glenn Springs Holdings, Inc.**
A subsidiary of Occidental Petroleum

**Durez North Tonawanda Semiannual IT System Inspections**

Date: 11/12/2024 Checked By: J. ADAMS, S. GARDNER

| Station Number | Manhole | | | DTW | | NAPL Well | | |
|---|---|---|---|---|---|---|---|---|
| | Condition | Visible Chemistry | Sediment | Water Depth | Flow Speed | NAPL | Amount Removed | Date Removed |
| Main Lift Station | GOOD | N | N | 14.98 | NO FLOW | N | N/A | N/A |
| MH-4+20 | GOOD | N | N | 13.53 | FAST | N | N/A | N/A |
| MH-5+54 | GOOD | N | N | 12.27 | SLOW | N | N/A | N/A |
| MH-8+13 | GOOD | N | N | 11.50 | SLOW | N | N/A | N/A |
| MH-10+75 | GOOD | N | N | 11.28 | FAST | N | N/A | N/A |
| MH-12+58 | GOOD | N | N | 11.53 | SLOW | N | N/A | N/A |
| Lift Station #1 | GOOD | N | N | 14.19 | FAST | N | N/A | N/A |
| MH-13+99 | GOOD | N | N | 12.63 | FAST | N | N/A | N/A |
| MH-17+20 | GOOD | N | N | 11.32 | MOD | N | N/A | N/A |
| MH-19+78 | GOOD | N | N | 12.33 | MOD | N | N/A | N/A |
| MH-23+55 | GOOD | N | N | 12.44 | SLOW | N | N/A | N/A |
| MH-26_55 | GOOD | N | N | 11.44 | SLOW | N | N/A | N/A |
| Lift Station #2 | GOOD | N | N | 13.73 | SLOW | N | N/A | N/A |
| MH-33+35 | GOOD | N | N | DRY | NO FLOW | N | N/A | N/A |
| MH-37+13 | GOOD | N | N | 9.29 10.43 | SLOW | N | N/A | N/A |
| MH-40+70 | GOOD | N | N | 10.09 | SLOW | N | N/A | N/A |
| MH-43+54 | GOOD | N | Y | 10.24 | NO FLOW | N | N/A | N/A |
| Lift Station #3 | GOOD | N | N | 13.50 | NO FLOW | N | N/A | N/A |
| MH-49+48 | GOOD | N | N | DRY | NO FLOW | N | N/A | N/A |
| MH-53+51 | GOOD | N | Y | 9.78 | NO FLOW | N | N/A | N/A |
| MH-56+60 | GOOD | N | N | DRY | NO FLOW | N | N/A | N/A |
| MH-57+97 | GOOD | N | Y | DRY | NO FLOW | N | N/A | N/A |
| MH-58+56 | GOOD | N | N | DRY | NO FLOW | N | N/A | N/A |
| MH-61+20 | GOOD | N | N | DRY | NO FLOW | N | N/A | N/A |
| MH-64+84 | GOOD | N | Y | 11.47 | NO FLOW | N | N/A | N/A |
| MH-66+28 | GOOD | N | Y | DRY | NO FLOW | N | N/A | N/A |
| MH-69+97 | GOOD | N | Y | 12.00 | NO FLOW | N | N/A | N/A |
| MH-71+54 | GOOD | N | N | DRY | NO FLOW | N | N/A | N/A |
| MH-72+65 | GOOD | N | Y | 11.25 | SLOW | N | N/A | N/A |
| MH-72+96 | GOOD | N | Y | 10.23 | NO FLOW | N | N/A | N/A |
| MH-74+68 | GOOD | N | Y | 10.02 | NO FLOW | N | N/A | N/A |
| MH-74+90 | GOOD | N | Y | 10.87 | SLOW | N | N/A | N/A |
| MH-77+39 | GOOD | N | N | 10.47 | SLOW | N | N/A | N/A |
| MH-77+72 | GOOD | N | Y | 10.68 | SLOW | N | N/A | N/A |
| MH-80+95 | GOOD | N | N | 12.08 | SLOW | N | N/A | N/A |
| MH30+90 | GOOD | N | N | 10.43 | SLOW | N | N/A | N/A |

# Appendix F
# Imported Fill Documentation

**Appendix F**
**Table F.1**

**2024 Imported Soil Analysis**
**Durez North Tonawanda**
**Glenn Springs Holdings, Inc.**
**North Tonawanda, New York**

| Parameter | Units | Commercial or Industrial Use SCOs [1] | Laboratory Results | | NYSDEC TAGM 4046 Eastern USA Background [3] | USEPA Avg .Trace Chemical Element Content of Natural Soils [2] |
|---|---|---|---|---|---|---|
| | | | Imported Topsoil Fill | Imported Clay Fill | | |
| **Metals** | | | | | | |
| Arsenic | mg/kg | 16 | 4.6 | 4.2 | 3-12 | 5 |
| Barium | mg/kg | 400 | 122 | 128 | 15-600 | 430 |
| Beryllium | mg/kg | 47 | 0.61 | 0.74 | 0-1.75 | 6 |
| Cadmium | mg/kg | 7.5 | 0.67 | - | 0.1-1 | 0.06 |
| Chromium, | mg/kg | 19 | 17.9 | 24.4 [4] | 1.5-40 | 100 |
| Chromium, Trivalent | mg/kg | 1500 | | | | |
| Copper | mg/kg | 270 | 26.5 | 26.3 | 1-50 | 30 |
| Cyanide | mg/kg | 27 | - | - | NA | NA |
| Lead | mg/kg | 450 | 13.0 | - | NA | 10 |
| Manganese | mg/kg | 2000 | 580 | 662 | 50-5,000 | 600 |
| Mercury (total) | mg/kg | 0.73 | 0.046 | - | 0.001-0.2 | 0.03 |
| Nickel | mg/kg | 130 | 18.2 | 32.5 | 0.5-0.25 | 40 |
| Selenium | mg/kg | 4 | - | - | NA | 0.3 |
| Silver | mg/kg | 8.3 | - | - | NA | 0.05 |
| Zinc | mg/kg | 2480 | 58.3 | 66.4 | 9-50 | 50 |
| **PCBs/Pesticides** | | | | | | |
| 2,4,5-TP Acid | mg/kg | 3.8 | - | - | NA | NA |
| 4,4'-DDE | mg/kg | 17 | - | - | NA | NA |
| 4,4'-DDT | mg/kg | 47 | - | - | NA | NA |
| 4,4'-DDD | mg/kg | 14 | - | - | NA | NA |
| Aldrin | mg/kg | 0.19 | - | - | NA | NA |
| Alpha-BHC | mg/kg | 0.02 | - | - | NA | NA |
| Beta-BHC | mg/kg | 0.09 | - | - | NA | NA |
| Chlordane (alpha) | mg/kg | 2.9 | - | - | NA | NA |
| Delta-BHC | mg/kg | 0.25 | - | - | NA | NA |
| Dibenzofuran | mg/kg | 210 | - | - | NA | NA |
| Dieldrin | mg/kg | 0.1 | - | - | NA | NA |
| Endosulfan I | mg/kg | 102 | - | - | NA | NA |
| Endosulfan II | mg/kg | 102 | - | - | NA | NA |
| Endosulfan sulfate | mg/kg | 200 | - | - | NA | NA |
| Endrin | mg/kg | 0.06 | - | - | NA | NA |
| Heptachlor | mg/kg | 0.38 | - | - | NA | NA |
| Lindane | mg/kg | 0.1 | - | - | NA | NA |
| Polychlorinated | mg/kg | 1 | - | - | NA | NA |
| **SVOCs** | | | | | | |
| Acenaphthene | mg/kg | 98 | - | - | NA | NA |
| Acenaphthylene | mg/kg | 107 | - | - | NA | NA |
| Anthracene | mg/kg | 500 | - | - | NA | NA |
| Benzo(a)anthracene | mg/kg | 1 | - | - | NA | NA |
| Benzo(a)pyrene | mg/kg | 1 | - | - | NA | NA |
| Benzo(b)fluoranthen | mg/kg | 1.7 | - | - | NA | NA |
| Benzo(g,h,i)perylene | mg/kg | 500 | - | - | NA | NA |

**Appendix F**
**Table F.1**

**2024 Imported Soil Analysis**
**Durez North Tonawanda**
**Glenn Springs Holdings, Inc.**
**North Tonawanda, New York**

| Parameter | Units | Commercial or Industrial Use SCOs [1] | Laboratory Results | | NYSDEC TAGM 4046 Eastern USA Background [3] | USEPA Avg .Trace Chemical Element Content of Natural Soils [2] |
|---|---|---|---|---|---|---|
| | | | Imported Topsoil Fill | Imported Clay Fill | | |
| **SVOCs** | | | | | | |
| Benzo(k)fluoranthen | mg/kg | 1.7 | - | - | NA | NA |
| Chrysene | mg/kg | 1 | - | - | NA | NA |
| Dibenz(a,h)anthrace | mg/kg | 0.56 | - | - | NA | NA |
| Fluoranthene | mg/kg | 500 | - | - | NA | NA |
| Fluorene | mg/kg | 386 | - | - | NA | NA |
| Indeno(1,2,3- | mg/kg | 5.6 | - | - | NA | NA |
| m-Cresol(s) | mg/kg | 0.33 | - | - | NA | NA |
| Naphthalene | mg/kg | 12 | - | - | NA | NA |
| o-Cresol(s) | mg/kg | 0.33 | - | - | NA | NA |
| p-Cresol(s) | mg/kg | 0.33 | - | - | NA | NA |
| Pentachlorophenol | mg/kg | 0.8 | - | - | NA | NA |
| Phenanthrene | mg/kg | 500 | - | - | NA | NA |
| Phenol | mg/kg | 0.33 | - | - | NA | NA |
| Pyrene | mg/kg | 500 | - | - | NA | NA |
| **VOCs** | | | | | | |
| 1,1,1-Trichloroethane | mg/kg | 0.68 | - | - | NA | NA |
| 1,1-Dichloroethane | mg/kg | 0.27 | - | - | NA | NA |
| 1,1-Dichloroethene | mg/kg | 0.33 | - | - | NA | NA |
| 1,2-Dichlorobenzene | mg/kg | 1.1 | - | - | NA | NA |
| 1,2-Dichloroethane | mg/kg | 0.02 | - | - | NA | NA |
| 1,2- | mg/kg | 0.25 | - | - | NA | NA |
| 1,2- | mg/kg | 0.19 | - | - | NA | NA |
| 1,3-Dichlorobenzene | mg/kg | 2.4 | - | - | NA | NA |
| 1,4-Dichlorobenzene | mg/kg | 1.8 | - | - | NA | NA |
| 1,4-Dioxane | mg/kg | 0.1 | - | - | NA | NA |
| Acetone | mg/kg | 0.05 | - | - | NA | NA |
| Benzene | mg/kg | 0.06 | - | - | NA | NA |
| Butylbenzene | mg/kg | 12 | - | - | NA | NA |
| Carbon tetrachloride | mg/kg | 0.76 | - | - | NA | NA |
| Chlorobenzene | mg/kg | 1.1 | - | - | NA | NA |
| Chloroform | mg/kg | 0.37 | - | - | NA | NA |
| Ethylbenzene | mg/kg | 1 | - | - | NA | NA |
| Hexachlorobenzene | mg/kg | 3.2 | - | - | NA | NA |
| Methyl ethyl ketone | mg/kg | 0.12 | - | - | NA | NA |
| Methyl tert-butyl | mg/kg | 0.93 | - | - | NA | NA |
| Methylene chloride | mg/kg | 0.05 | - | - | NA | NA |
| Propylbenzene-n | mg/kg | 3.9 | - | - | NA | NA |
| Sec-Butylbenzene | mg/kg | 11 | - | - | NA | NA |
| Tert-Butylbenzene | mg/kg | 5.9 | - | - | NA | NA |
| Tetrachloroethene | mg/kg | 1.3 | - | - | NA | NA |
| Toluene | mg/kg | 0.7 | - | - | NA | NA |

**Appendix F**
**Table F.1**

**2024 Imported Soil Analysis**
**Durez North Tonawanda**
**Glenn Springs Holdings, Inc.**
**North Tonawanda, New York**

| Parameter | Units | Commercial or Industrial Use SCOs [1] | Laboratory Results | | NYSDEC TAGM 4046 Eastern USA Background [3] | USEPA Avg .Trace Chemical Element Content of Natural Soils [2] |
|---|---|---|---|---|---|---|
| | | | Imported Topsoil Fill | Imported Clay Fill | | |
| **VOCs** | | | | | | |
| Trichloroethene | mg/kg | 0.47 | - | - | NA | NA |
| Trimethylbenzene- | mg/kg | 3.6 | - | - | NA | NA |
| Trimethylbenzene- | mg/kg | 8.4 | - | - | NA | NA |
| Vinyl chloride | mg/kg | 0.02 | - | - | NA | NA |
| Xylene (mixed) | mg/kg | 1.6 | - | - | NA | NA |

Note:

- paramters was non-detect at the RL. Refer to attached laboratory report for details regarding individual RLs

1 *Appendix 5- Allowable Constituent Levels for Imported Fill or Soil, Subdivision 5.4(e)* , DER-10 Technical Guidance for Site Investigation and Remediation, New York State Department of Environmental Conservaton, Department of Environmental Remediation (DER), May 2010

2 USEPA Office of Solid Waste and Emergency Response, HAZARDOUS WASTE LAND TREATMENT, SW 874 (April 1983), Page 273, Table 6.46

3 TAGM #4046, Appendix A, Table 4, Background concentrations as reported in a 1984 survey of reference material by E. Carol McGovern, NYSDEC, January 1994

4 Chromium (total) is reported and the SCO is considered to be met due to similar historical NYS background soil concentrations of Chromium

September 18, 2024 Service Request No:R2408714

Alicia Ferber
Glenn Springs Holdings, Inc.
1526 Cole Blvd
Golden, CO 80401

**Laboratory Results for: NT Durez/281-402-D02-3100**

Dear Alicia,

Enclosed are the results of the sample(s) submitted to our laboratory September 05, 2024
For your reference, these analyses have been assigned our service request number **R2408714.**

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7475. You may also contact me via email at Meghan.Pedro@alsglobal.com.

Respectfully submitted,

**ALS Group USA, Corp. dba ALS Environmental**

Meghan Pedro
Project Manager

CC: Dennis Hoyt

ADDRESS 1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
PHONE +1 585 288 5380 | FAX +1 585 288 8475
ALS Group USA, Corp.
dba ALS Environmental

# Narrative Documents

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

**Client:** Glenn Springs Holdings, Inc.
**Project:** NT Durez/281-402-D02-3100
**Sample Matrix:** Solid

**Service Request:** R2408714
**Date Received:** 09/05/2024

## CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

**Sample Receipt:**

Two solid samples were received for analysis at ALS Environmental on 09/05/2024. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

**Semivolatiles by GC/MS:**

Method 8270E, 09/10/2024: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

**Semivoa GC:**

Method 8081B, 09/16/2024: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8081B, 09/16/2024: The control limits were exceeded for analytes in the Continuing Calibration Verification (CCV). The QC failure was most likely due to the composition of the sample(s) immediately preceding the failing CCV. In order to protect the integrity of the instrument, no further corrective action was taken. Results should be considered estimated.

Method 8081B, Samples -001 and -002: The Method Reporting Limit (MRL) was elevated due to less than optimal sample mass (15g) used in the microwave preparation process. The nature of the sample necessitated using less mass of sample to avoid overheating. Overheating causes the extraction solvent to vent out of the vessel and may cause damage to the microwave vessels.

Method 8082A, 09/16/2024: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

Method 8082A, Samples -001 and -002: The Method Reporting Limit (MRL) was elevated due to less than optimal sample mass (15g) used in the microwave preparation process. The nature of the sample necessitated using less mass of sample to avoid overheating. Overheating causes the extraction solvent to vent out of the vessel and may cause damage to the microwave vessels.

**Metals:**

When analyzed without dilution, the concentration of one or more elements in one or more samples exceeded the associated single element interference check concentration. As per section 9.9.1 of EPA 6010D, affected samples were diluted to reduce the solution concentration of the high concentration element below the interference check concentration, whether or not the high concentration element was an analyte of interest. The dilution has increased the reporting limits accordingly.

**General Chemistry:**

No significant anomalies were noted with this analysis.

**Volatiles by GC/MS:**

No significant anomalies were noted with this analysis.

Approved by Meghan Pedro Date 09/18/2024

## SAMPLE DETECTION SUMMARY

This form includes only detections above the reporting levels. For a full listing of sample results, continue to the Sample Results section of this Report.

| CLIENT ID: Topsoil Fill | | | Lab ID: R2408714-001 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Aluminum, Total | 12100 | | | 22 | mg/Kg | 6010D |
| Arsenic, Total | 4.6 | | | 1.1 | mg/Kg | 6010D |
| Barium, Total | 122 | | | 2.2 | mg/Kg | 6010D |
| Beryllium, Total | 0.61 | | | 0.33 | mg/Kg | 6010D |
| Cadmium, Total | 0.67 | | | 0.55 | mg/Kg | 6010D |
| Calcium, Total | 4290 | | | 110 | mg/Kg | 6010D |
| Chromium, Total | 17.9 | | | 1.1 | mg/Kg | 6010D |
| Cobalt, Total | 8.2 | | | 5.5 | mg/Kg | 6010D |
| Copper, Total | 26.5 | | | 2.2 | mg/Kg | 6010D |
| Iron, Total | 21800 | | | 440 | mg/Kg | 6010D |
| Lead, Total | 13.0 | | | 5.5 | mg/Kg | 6010D |
| Magnesium, Total | 3860 | | | 110 | mg/Kg | 6010D |
| Manganese, Total | 580 | | | 2.2 | mg/Kg | 6010D |
| Mercury, Total | 0.046 | | | 0.022 | mg/Kg | 7471B |
| Nickel, Total | 18.2 | | | 4.4 | mg/Kg | 6010D |
| Potassium, Total | 1560 | | | 220 | mg/Kg | 6010D |
| Total Solids | 83.9 | | | | Percent | ALS SOP |
| Vanadium, Total | 25.6 | | | 5.5 | mg/Kg | 6010D |
| Zinc, Total | 58.3 | | | 2.2 | mg/Kg | 6010D |

| CLIENT ID: Clay Fill | | | Lab ID: R2408714-002 | | | |
|---|---|---|---|---|---|---|
| **Analyte** | **Results** | **Flag** | **MDL** | **MRL** | **Units** | **Method** |
| Aluminum, Total | 16000 | | | 44 | mg/Kg | 6010D |
| Arsenic, Total | 4.2 | | | 2.2 | mg/Kg | 6010D |
| Barium, Total | 128 | | | 4.4 | mg/Kg | 6010D |
| Beryllium, Total | 0.74 | | | 0.65 | mg/Kg | 6010D |
| Calcium, Total | 46800 | | | 220 | mg/Kg | 6010D |
| Chromium, Total | 24.4 | | | 2.2 | mg/Kg | 6010D |
| Cobalt, Total | 13 | | | 11 | mg/Kg | 6010D |
| Copper, Total | 26.3 | | | 4.4 | mg/Kg | 6010D |
| Iron, Total | 32200 | | | 440 | mg/Kg | 6010D |
| Magnesium, Total | 13900 | | | 220 | mg/Kg | 6010D |
| Manganese, Total | 662 | | | 4.4 | mg/Kg | 6010D |
| Nickel, Total | 32.5 | | | 8.7 | mg/Kg | 6010D |
| Potassium, Total | 3340 | | | 440 | mg/Kg | 6010D |
| Sodium, Total | 320 | | | 220 | mg/Kg | 6010D |
| Total Solids | 84.9 | | | | Percent | ALS SOP |
| Vanadium, Total | 35 | | | 11 | mg/Kg | 6010D |
| Zinc, Total | 66.4 | | | 4.4 | mg/Kg | 6010D |

# Sample Receipt Information

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

**Client:** Glenn Springs Holdings, Inc. **Service Request:**R2408714

**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling

## SAMPLE CROSS-REFERENCE

| SAMPLE # | CLIENT SAMPLE ID | DATE | TIME |
|---|---|---|---|
| R2408714-001 | Topsoil Fill | 9/4/2024 | 0700 |
| R2408714-002 | Clay Fill | 9/4/2024 | 0710 |

# Chain of Custody / Analytical Request Form

77440

SR#:

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 • +1 585 288 5380 • alsglobal.com



| Report To: | ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER |
|---|---|
| Company: Geosyntec | Project Name: Durez NT Imported Fill |
| Contact: Dennis Hoyt | Project Number: TR1045-24 |
| Email: dhoyt@geosyntec.com | ALS Quote #: Order # 240828001 |
| Phone: 716-345-1978 | Sampler's Signature: Dennis Hoyt |
| Address: PO Box 351 | Email CC: |
| Ransomville NY 14131 | Email CC: |
| | State Samples Collected (Circle or Write): (NY), MA, PA, CT, Other: |

Preservative: 0. None; 1. HCl; 2. HNO3; 3. H2SO4; 4. NAOH; 5. Zn Acet.; 6. MeOH; 7. NaHSO4; 8. Other

| Lab ID (ALS) | Sample Collection Information: Sample ID: | Date | Time | Matrix (GW, WW, SW, DW, S, L, NA) | Number of Containers | MS/MSD? | GC/MS VOA (8260) • 624 • 524 • TCLP | GC/MS SVOA (8270) • 625 • TCLP | Pesticides (8081) • 608 • TCLP | PCBs (8082) • 608 | Herbicides - 8151 • TCLP | Metals, Total - Select Below | Metals, Dissolved - Field / In-Lab Filter | Cyanide | Notes: |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Topsoil Fill | 9/4/24 | 0700 | S | 4 | | * | * | * | * | | * | | * | |
| | ~~Tops~~ (DUP) | | | | | | | | | | | | | | |
| | Clay Fill | 9/4/24 | 0710 | S | 4 | | * | * | * | * | | * | | * | |

Special Instructions / Comments:

See SSOW for complete parameter list specific to DER-10 Imported fill testing.

**Turnaround Requirements**

____Rush (Surcharges Apply)
*Subject to Availability*
*Please Check with your PM*

____ Standard (10 Business Days)

Date Required:

**Report Requirements**

____Tier II/Cat A -Results/QC

____Tier IV/Cat B - Data Validation Report w/. Data

EDD: ____Yes ____No

EDD Type:

Metals: RCRA 8•PP 13•TAL 23•TCLP•Other (List)

VOA/SVOA Report List: TCL • BTEX • TCLP • CP-51/Stars •THM • Other: _____

Invoice To: (X Same as Report To)

PO #:

Company:

| | Relinquished By: | Received By: | Relinquished By: | Received By: | Relinquished By: | Received By: |
|---|---|---|---|---|---|---|
| Signature | Dennis Hoyt | Sarah S | | | | |
| Printed Name | Dennis Hoyt | Sarah S | | | | |
| Company | Geosyntec | ALS | | | | |
| Date/Time | 0800 / 9-4-24 | 9/5/24 1035 | | | | |

R2408714
Glenn Springs Holdings, Inc.
NT Durez/281-402-D02-3100
5



Distribution: White - Lab Copy; Yellow - Return to Originator

R2408714 5
Glenn Springs Holdings, Inc.
NT Durez/281-402-D02-3100

# Cooler Receipt and Preservation Check Form

Project/Client Geosyntec Folder Number _____

Cooler received on 9/5/24 by: SES COURIER: ALS UPS FEDEX VELOCITY CLIENT

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1 | Were **Custody seals** on outside of cooler? | Y N | 5a | Did **VOA** vials have sig* **bubbles?** | | Y N NA |
| 2 | **Custody papers** properly completed (ink, signed)? | Y N | 5b | Sig* bubbles: **Alk?** | Y N NA | **Sulfide?** Y N NA |
| 3 | Did all bottles arrive in good **condition** (unbroken)? | Y N | 6 | Where did the bottles originate? | | ALS/ROC CLIENT |
| 4 | Circle: **Wet Ice** **Dry Ice** **Gel packs** present? | Y N | 7 | Soil VOA received as: | | Bulk Encore 5035set NA |

8. Temperature Readings Date: 9/5/24 Time: 1043 ID: IR#12 IR#1 From: Temp Blank Sample Bottle

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Temp (°C) | 4.8 | | | | | | |
| Within 0-6°C? | Y N | Y N | Y N | Y N | Y N | Y N | Y N |
| If <0°C, were samples frozen? | Y N | Y N | Y N | Y N | Y N | Y N | Y N |

**If out of Temperature, note packing/ice condition:** _____ Ice melted Poorly Packed (described below) Same Day Rule

**&Client Approval to Run Samples:** _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: SMO by SES on 9/5/24 at 1045
5035 samples placed in storage location: _____ by _____ on _____ at _____ within 48 hours of sampling? Y N

Cooler Breakdown/Preservation Check**: Date: 9/6/24 Time: 1835 by: RDH

9. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
13. Were dissolved metals filtered in the field? YES NO N/A
14. Air Samples: Cassettes / Tubes Intact Y / N with MS Y / N Canisters Pressurized Tedlar® Bags Inflated N/A

| pH | Lot of test paper | Reagent | Preserved? Yes | Preserved? No | Lot Received | Exp | Sample ID Adjusted | Vol. Added | Lot Added | Final pH |
|---|---|---|---|---|---|---|---|---|---|---|
| ≥12 | | NaOH | | | | | | | | |
| ≤2 | | $HNO_3$ | | | | | | | | |
| ≤2 | | $H_2SO_4$ | | | | | | | | |
| <4 | | $NaHSO_4$ | | | | | | | | |
| 5-9 | | For 608pest | | | No=Notify for 3day | | | | | |
| Residual Chlorine (-) | | For CN, Phenol, 625, 608pest, 522 | | | If +, contact PM to add $Na_2S_2O_3$ (625, 608, CN), ascorbic (phenol). | | | | | |
| | | $Na_2S_2O_3$ | | | | | | | | |
| | | ZnAcetate | - | - | | | **VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives). | | | |
| | | HCl | ** | ** | | | | | | |

Bottle lot numbers: 030623-356, 040522-1512
Explain all Discrepancies/ Other Comments:

| | |
|---|---|
| HPROD | BULK |
| HTR | FLDT |
| SUB | HGFB |
| ALS | LL3541 |

Labels secondary reviewed by: RDH *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

# Miscellaneous Forms

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

# REPORT QUALIFIERS AND DEFINITIONS

| | |
|---|---|
| U | Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative. |
| J | Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors). |
| B | Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result. |
| E | Inorganics- Concentration is estimated due to the serial dilution was outside control limits. |
| E | Organics- Concentration has exceeded the calibration range for that specific analysis. |
| D | Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed. |
| * | Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time. |
| H | Analysis was performed out of hold time for tests that have an "immediate" hold time criteria. |
| # | Spike was diluted out. |
| + | Correlation coefficient for MSA is <0.995. |
| N | Inorganics- Matrix spike recovery was outside laboratory limits. |
| N | Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search. |
| S | Concentration has been determined using Method of Standard Additions (MSA). |
| W | Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance. |
| P | Concentration >40% difference between the two GC columns. |
| C | Confirmed by GC/MS |
| Q | DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns). |
| X | See Case Narrative for discussion. |
| MRL<br>LOQ | Method Reporting Limit. Also known as:<br>Limit of Quantitation (LOQ)<br>The lowest concentration at which the method analyte may be reliably quantified under the method conditions. |
| MDL | Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier). |
| LOD | Limit of Detection. A value at or above the MDL which has been verified to be detectable. |
| ND | Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier. |

## Rochester Lab ID # for State Accreditations[1]

| NELAP States |
|---|
| Florida ID # E87674 |
| New Hampshire ID # 2941 |
| New York ID # 10145 |
| Pennsylvania ID# 68-786 |
| Virginia #460167 |

| Non-NELAP States |
|---|
| Connecticut ID #PH0556 |
| Delaware Approved |
| Maine ID #NY01587 |
| North Carolina #36701 |
| North Carolina #676 |
| Rhode Island LAO00333 |

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory. To verify NH accredited analytes, go to https://www4.des.state.nh.us/CertifiedLabs/Certified-Method.aspx.

# ALS Laboratory Group

**Acronyms**

| | |
|---|---|
| ASTM | American Society for Testing and Materials |
| A2LA | American Association for Laboratory Accreditation |
| CARB | California Air Resources Board |
| CAS Number | Chemical Abstract Service registry Number |
| CFC | Chlorofluorocarbon |
| CFU | Colony-Forming Unit |
| DEC | Department of Environmental Conservation |
| DEQ | Department of Environmental Quality |
| DHS | Department of Health Services |
| DOE | Department of Ecology |
| DOH | Department of Health |
| EPA | U. S. Environmental Protection Agency |
| ELAP | Environmental Laboratory Accreditation Program |
| GC | Gas Chromatography |
| GC/MS | Gas Chromatography/Mass Spectrometry |
| LUFT | Leaking Underground Fuel Tank |
| M | Modified |
| MCL | Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA. |
| MDL | Method Detection Limit |
| MPN | Most Probable Number |
| MRL | Method Reporting Limit |
| NA | Not Applicable |
| NC | Not Calculated |
| NCASI | National Council of the Paper Industry for Air and Stream Improvement |
| ND | Not Detected |
| NIOSH | National Institute for Occupational Safety and Health |
| PQL | Practical Quantitation Limit |
| RCRA | Resource Conservation and Recovery Act |
| SIM | Selected Ion Monitoring |
| TPH | Total Petroleum Hydrocarbons |
| tr | Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL. |

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714
**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling

## Non-Certified Analytes

**Certifying Agency:** New York Department of Health

| Method | Matrix | Analyte |
|---|---|---|
| ALS SOP | Solid | Total Solids |

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | | |

| | | | |
|---|---|---|---|
| **Sample Name:** | Topsoil Fill | **Date Collected:** | 09/4/24 |
| **Lab Code:** | R2408714-001 | **Date Received:** | 09/5/24 |
| **Sample Matrix:** | Solid | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 6010D | CDISTEFANO | NMANSEN |
| 7471B | ECASTROVINCI | ECASTROVINCI |
| 8081B | JVANHEYNINGEN | AFELSER |
| 8082A | JVANHEYNINGEN | AFELSER |
| 8260D | | FNAEGLER |
| 8270E | JVANHEYNINGEN | AMOSES |
| 9012B | MROGERSON | MROGERSON |
| ALS SOP | | HCASTROVINCI |

| | | | |
|---|---|---|---|
| **Sample Name:** | Clay Fill | **Date Collected:** | 09/4/24 |
| **Lab Code:** | R2408714-002 | **Date Received:** | 09/5/24 |
| **Sample Matrix:** | Solid | | |

| Analysis Method | Extracted/Digested By | Analyzed By |
|---|---|---|
| 6010D | CDISTEFANO | NMANSEN |
| 7471B | ECASTROVINCI | ECASTROVINCI |
| 8081B | JVANHEYNINGEN | AFELSER |
| 8082A | JVANHEYNINGEN | AFELSER |
| 8260D | | FNAEGLER |
| 8270E | JVANHEYNINGEN | AMOSES |
| 9012B | MROGERSON | MROGERSON |
| ALS SOP | | HCASTROVINCI |

# PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

## INORGANIC

**Water/Liquid Matrix**

| Analytical Method | Preparation Method |
|---|---|
| 200.7 | 200.2 |
| 200.8 | 200.2 |
| 6010C or 6010D | 3005A/3010A |
| 6020A or 6020B | ILM05.3 |
| 9034 Sulfide Acid Soluble | 9030B |
| SM 4500-CN-N-2016 Amenable and Residual Cyanide | SM 4500-CN-G and SM 4500-CN-B,C-2016 |
| SM 4500-CN-E WAD Cyanide | SM 4500-CN-I |

**Solid/Soil/Non-Aqueous Matrix**

| Analytical Method | Preparation Method |
|---|---|
| 6010C or 6010D | 3050B |
| 6020A or 6020B | 3050B |
| 6010C or 6010D TCLP (1311) extract | 3005A/3010A |
| 6010C or 6010D SPLP (1312) extract | 3005A/3010A |
| 7199 | 3060A |
| 300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions | DI extraction |
| For analytical methods not listed, the preparation method is the same as the analytical method reference. | |

## ORGANIC

**Preparation Methods for Organic methods are listed in the header of the Results pages.**

**Regarding "Bulk/5035A":**
For soil/solid samples submitted in soil jars for Volatiles analysis, the prep method is listed as "Bulk/5035A". The lab follows the closed-system EPA 5035A protocols once the sample is transferred to a sealed vial, but collection in bulk in soil jars does not follow the collection protocols listed in EPA 5035A. In accordance with the NYSDOH technical notice of October 2012, all results or reporting limits <200 ug/kg are to be considered estimated due to potential low bias.

# Sample Results

**ALS Environmental—Rochester Laboratory**
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# Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:00 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Topsoil Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |

## Volatile Organic Compounds by GC/MS, Unp

**Analysis Method:** 8260D
**Prep Method:** Bulk/5035A

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,1-Dichloroethane | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,1-Dichloroethene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,2,4-Trimethylbenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,2-Dichlorobenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,2-Dichloroethane | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,3,5-Trimethylbenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,3-Dichlorobenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,4-Dichlorobenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| 1,4-Dioxane | 120 U | 120 | 1 | 09/09/24 14:30 | |
| Methyl Ethyl Ketone | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| p-Isopropyltoluene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Acetone | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Benzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Carbon Tetrachloride | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Chlorobenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Chloroform | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Methylene Chloride | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Ethylbenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Isopropylbenzene (Cumene) | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Methyl tert-Butyl Ether | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Naphthalene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Tetrachloroethene (PCE) | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Toluene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Trichloroethene (TCE) | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| Vinyl Chloride | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| cis-1,2-Dichloroethene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| m,p-Xylenes | 12 U | 12 | 1 | 09/09/24 14:30 | |
| n-Butylbenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| n-Propylbenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| o-Xylene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| sec-Butylbenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| tert-Butylbenzene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |
| trans-1,2-Dichloroethene | 6.0 U | 6.0 | 1 | 09/09/24 14:30 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:00 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Topsoil Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |

## Volatile Organic Compounds by GC/MS, Unp

**Analysis Method:** 8260D
**Prep Method:** Bulk/5035A

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 85 | 31 - 154 | 09/09/24 14:30 | |
| Dibromofluoromethane | 101 | 63 - 138 | 09/09/24 14:30 | |
| Toluene-d8 | 94 | 66 - 138 | 09/09/24 14:30 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:10 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Clay Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-002 | **Basis:** | Dry |

## Volatile Organic Compounds by GC/MS, Unp

**Analysis Method:** 8260D
**Prep Method:** Bulk/5035A

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,1-Dichloroethane | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,1-Dichloroethene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,2,4-Trimethylbenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,2-Dichlorobenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,2-Dichloroethane | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,3,5-Trimethylbenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,3-Dichlorobenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,4-Dichlorobenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| 1,4-Dioxane | 120 U | 120 | 1 | 09/09/24 14:53 | |
| Methyl Ethyl Ketone | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| p-Isopropyltoluene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Acetone | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Benzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Carbon Tetrachloride | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Chlorobenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Chloroform | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Methylene Chloride | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Ethylbenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Isopropylbenzene (Cumene) | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Methyl tert-Butyl Ether | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Naphthalene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Tetrachloroethene (PCE) | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Toluene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Trichloroethene (TCE) | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| Vinyl Chloride | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| cis-1,2-Dichloroethene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| m,p-Xylenes | 12 U | 12 | 1 | 09/09/24 14:53 | |
| n-Butylbenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| n-Propylbenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| o-Xylene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| sec-Butylbenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| tert-Butylbenzene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |
| trans-1,2-Dichloroethene | 5.9 U | 5.9 | 1 | 09/09/24 14:53 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:10 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Clay Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-002 | **Basis:** | Dry |

## Volatile Organic Compounds by GC/MS, Unp

**Analysis Method:** 8260D
**Prep Method:** Bulk/5035A

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 92 | 31 - 154 | 09/09/24 14:53 | |
| Dibromofluoromethane | 100 | 63 - 138 | 09/09/24 14:53 | |
| Toluene-d8 | 96 | 66 - 138 | 09/09/24 14:53 | |

# Semivolatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:00 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Topsoil Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |

## Semivolatile Organic Compounds by GC/MS using Microwave Digestion

**Analysis Method:** 8270E
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| o-Cresol | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| m,p-Cresols | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Acenaphthene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Acenaphthylene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Anthracene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Benz(a)anthracene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Benzo(a)pyrene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Benzo(b)fluoranthene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Benzo(g,h,i)perylene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Benzo(k)fluoranthene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Chrysene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Dibenz(a,h)anthracene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Dibenzofuran | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Fluoranthene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Fluorene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Hexachlorobenzene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Indeno(1,2,3-cd)pyrene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Naphthalene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Pentachlorophenol | 2000 U | 2000 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Phenanthrene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Phenol | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |
| Pyrene | 390 U | 390 | 1 | 09/10/24 05:53 | 9/9/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| 2,4,6-Tribromophenol | 70 | 18 - 123 | 09/10/24 05:53 | |
| 2-Fluorobiphenyl | 66 | 18 - 104 | 09/10/24 05:53 | |
| 2-Fluorophenol | 62 | 13 - 96 | 09/10/24 05:53 | |
| Nitrobenzene-d5 | 55 | 12 - 98 | 09/10/24 05:53 | |
| Phenol-d6 | 64 | 16 - 95 | 09/10/24 05:53 | |
| p-Terphenyl-d14 | 63 | 26 - 134 | 09/10/24 05:53 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:10 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Clay Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-002 | **Basis:** | Dry |

**Semivolatile Organic Compounds by GC/MS using Microwave Digestion**

**Analysis Method:** 8270E
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| o-Cresol | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| m,p-Cresols | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Acenaphthene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Acenaphthylene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Anthracene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Benz(a)anthracene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Benzo(a)pyrene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Benzo(b)fluoranthene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Benzo(g,h,i)perylene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Benzo(k)fluoranthene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Chrysene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Dibenz(a,h)anthracene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Dibenzofuran | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Fluoranthene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Fluorene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Hexachlorobenzene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Indeno(1,2,3-cd)pyrene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Naphthalene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Pentachlorophenol | 2000 U | 2000 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Phenanthrene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Phenol | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |
| Pyrene | 390 U | 390 | 1 | 09/10/24 07:06 | 9/9/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| 2,4,6-Tribromophenol | 46 | 18 - 123 | 09/10/24 07:06 | |
| 2-Fluorobiphenyl | 65 | 18 - 104 | 09/10/24 07:06 | |
| 2-Fluorophenol | 64 | 13 - 96 | 09/10/24 07:06 | |
| Nitrobenzene-d5 | 67 | 12 - 98 | 09/10/24 07:06 | |
| Phenol-d6 | 64 | 16 - 95 | 09/10/24 07:06 | |
| p-Terphenyl-d14 | 67 | 26 - 134 | 09/10/24 07:06 | |

# Semivolatile Organic Compounds by GC

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:00 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Topsoil Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |

## Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

**Analysis Method:** 8081B
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| 4,4'-DDD | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| 4,4'-DDE | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| 4,4'-DDT | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Aldrin | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Dieldrin | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Endosulfan I | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Endosulfan II | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Endosulfan Sulfate | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Endrin | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Endrin Aldehyde | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Endrin Ketone | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Heptachlor | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Heptachlor Epoxide | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Methoxychlor | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| Toxaphene | 72 U | 72 | 1 | 09/16/24 18:04 | 9/13/24 | |
| alpha-BHC | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| alpha-Chlordane | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| beta-BHC | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| delta-BHC | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| gamma-BHC (Lindane) | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |
| gamma-Chlordane | 3.7 U | 3.7 | 1 | 09/16/24 18:04 | 9/13/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| Decachlorobiphenyl | 88 | 10 - 159 | 09/16/24 18:04 | |
| Tetrachloro-m-xylene | 69 | 10 - 132 | 09/16/24 18:04 | |

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:10 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Clay Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-002 | **Basis:** | Dry |

## Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

**Analysis Method:** 8081B
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| 4,4'-DDD | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| 4,4'-DDE | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| 4,4'-DDT | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Aldrin | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Dieldrin | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Endosulfan I | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Endosulfan II | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Endosulfan Sulfate | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Endrin | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Endrin Aldehyde | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Endrin Ketone | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Heptachlor | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Heptachlor Epoxide | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Methoxychlor | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| Toxaphene | 68 U | 68 | 1 | 09/16/24 18:21 | 9/13/24 | |
| alpha-BHC | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| alpha-Chlordane | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| beta-BHC | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| delta-BHC | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| gamma-BHC (Lindane) | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |
| gamma-Chlordane | 3.5 U | 3.5 | 1 | 09/16/24 18:21 | 9/13/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| Decachlorobiphenyl | 53 | 10 - 159 | 09/16/24 18:21 | |
| Tetrachloro-m-xylene | 37 | 10 - 132 | 09/16/24 18:21 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:00 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Topsoil Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |

## Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

**Analysis Method:** 8082A
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| Aroclor 1016 | 72 U | 72 | 1 | 09/16/24 11:23 | 9/13/24 | |
| Aroclor 1221 | 150 U | 150 | 1 | 09/16/24 11:23 | 9/13/24 | |
| Aroclor 1232 | 72 U | 72 | 1 | 09/16/24 11:23 | 9/13/24 | |
| Aroclor 1242 | 72 U | 72 | 1 | 09/16/24 11:23 | 9/13/24 | |
| Aroclor 1248 | 72 U | 72 | 1 | 09/16/24 11:23 | 9/13/24 | |
| Aroclor 1254 | 72 U | 72 | 1 | 09/16/24 11:23 | 9/13/24 | |
| Aroclor 1260 | 72 U | 72 | 1 | 09/16/24 11:23 | 9/13/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| Decachlorobiphenyl | 76 | 10 - 138 | 09/16/24 11:23 | |
| Tetrachloro-m-xylene | 78 | 11 - 122 | 09/16/24 11:23 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:10 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Clay Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-002 | **Basis:** | Dry |

## Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

**Analysis Method:** 8082A
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| Aroclor 1016 | 68 U | 68 | 1 | 09/16/24 11:37 | 9/13/24 | |
| Aroclor 1221 | 140 U | 140 | 1 | 09/16/24 11:37 | 9/13/24 | |
| Aroclor 1232 | 68 U | 68 | 1 | 09/16/24 11:37 | 9/13/24 | |
| Aroclor 1242 | 68 U | 68 | 1 | 09/16/24 11:37 | 9/13/24 | |
| Aroclor 1248 | 68 U | 68 | 1 | 09/16/24 11:37 | 9/13/24 | |
| Aroclor 1254 | 68 U | 68 | 1 | 09/16/24 11:37 | 9/13/24 | |
| Aroclor 1260 | 68 U | 68 | 1 | 09/16/24 11:37 | 9/13/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| Decachlorobiphenyl | 42 | 10 - 138 | 09/16/24 11:37 | |
| Tetrachloro-m-xylene | 45 | 11 - 122 | 09/16/24 11:37 | |

# Metals

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:00 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Topsoil Fill | **Basis:** | Dry |
| **Lab Code:** | R2408714-001 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Aluminum, Total | 6010D | **12100** | mg/Kg | 22 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Antimony, Total | 6010D | 6.6 U | mg/Kg | 6.6 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Arsenic, Total | 6010D | **4.6** | mg/Kg | 1.1 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Barium, Total | 6010D | **122** | mg/Kg | 2.2 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Beryllium, Total | 6010D | **0.61** | mg/Kg | 0.33 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Cadmium, Total | 6010D | **0.67** | mg/Kg | 0.55 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Calcium, Total | 6010D | **4290** | mg/Kg | 110 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Chromium, Total | 6010D | **17.9** | mg/Kg | 1.1 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Cobalt, Total | 6010D | **8.2** | mg/Kg | 5.5 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Copper, Total | 6010D | **26.5** | mg/Kg | 2.2 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Iron, Total | 6010D | **21800** | mg/Kg | 440 | 20 | 09/13/24 19:10 | 09/11/24 | |
| Lead, Total | 6010D | **13.0** | mg/Kg | 5.5 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Magnesium, Total | 6010D | **3860** | mg/Kg | 110 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Manganese, Total | 6010D | **580** | mg/Kg | 2.2 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Mercury, Total | 7471B | **0.046** | mg/Kg | 0.022 | 1 | 09/12/24 11:22 | 09/11/24 | |
| Nickel, Total | 6010D | **18.2** | mg/Kg | 4.4 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Potassium, Total | 6010D | **1560** | mg/Kg | 220 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Selenium, Total | 6010D | 1.1 U | mg/Kg | 1.1 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Silver, Total | 6010D | 1.1 U | mg/Kg | 1.1 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Sodium, Total | 6010D | 110 U | mg/Kg | 110 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Thallium, Total | 6010D | 1.1 U | mg/Kg | 1.1 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Vanadium, Total | 6010D | **25.6** | mg/Kg | 5.5 | 1 | 09/13/24 01:56 | 09/11/24 | |
| Zinc, Total | 6010D | **58.3** | mg/Kg | 2.2 | 1 | 09/13/24 01:56 | 09/11/24 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:10 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Clay Fill | **Basis:** | Dry |
| **Lab Code:** | R2408714-002 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Aluminum, Total | 6010D | **16000** | mg/Kg | 44 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Antimony, Total | 6010D | 13 U | mg/Kg | 13 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Arsenic, Total | 6010D | **4.2** | mg/Kg | 2.2 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Barium, Total | 6010D | **128** | mg/Kg | 4.4 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Beryllium, Total | 6010D | **0.74** | mg/Kg | 0.65 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Cadmium, Total | 6010D | 1.1 U | mg/Kg | 1.1 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Calcium, Total | 6010D | **46800** | mg/Kg | 220 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Chromium, Total | 6010D | **24.4** | mg/Kg | 2.2 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Cobalt, Total | 6010D | **13** | mg/Kg | 11 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Copper, Total | 6010D | **26.3** | mg/Kg | 4.4 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Iron, Total | 6010D | **32200** | mg/Kg | 440 | 20 | 09/13/24 19:42 | 09/11/24 | |
| Lead, Total | 6010D | 11 U | mg/Kg | 11 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Magnesium, Total | 6010D | **13900** | mg/Kg | 220 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Manganese, Total | 6010D | **662** | mg/Kg | 4.4 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Mercury, Total | 7471B | 0.023 U | mg/Kg | 0.023 | 1 | 09/12/24 11:29 | 09/11/24 | |
| Nickel, Total | 6010D | **32.5** | mg/Kg | 8.7 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Potassium, Total | 6010D | **3340** | mg/Kg | 440 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Selenium, Total | 6010D | 2.2 U | mg/Kg | 2.2 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Silver, Total | 6010D | 2.2 U | mg/Kg | 2.2 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Sodium, Total | 6010D | **320** | mg/Kg | 220 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Thallium, Total | 6010D | 2.2 U | mg/Kg | 2.2 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Vanadium, Total | 6010D | **35** | mg/Kg | 11 | 2 | 09/13/24 19:13 | 09/11/24 | |
| Zinc, Total | 6010D | **66.4** | mg/Kg | 4.4 | 2 | 09/13/24 19:13 | 09/11/24 | |

# General Chemistry

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
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Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:00 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Topsoil Fill | **Basis:** | Dry |
| **Lab Code:** | R2408714-001 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Cyanide, Total | 9012B | 0.35 U | mg/Kg | 0.35 | 1 | 09/12/24 12:33 | 09/11/24 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:00 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Topsoil Fill | **Basis:** | As Received |
| **Lab Code:** | R2408714-001 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Total Solids | ALS SOP | **83.9** | Percent | - | 1 | 09/12/24 09:45 | NA | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:10 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Clay Fill | **Basis:** | Dry |
| **Lab Code:** | R2408714-002 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Cyanide, Total | 9012B | 0.26 U | mg/Kg | 0.26 | 1 | 09/12/24 12:34 | 09/11/24 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 07:10 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 10:35 |
| **Sample Name:** | Clay Fill | **Basis:** | As Received |
| **Lab Code:** | R2408714-002 | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Total Solids | ALS SOP | **84.9** | Percent | - | 1 | 09/12/24 09:45 | NA | |

# QC Summary Forms

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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# Volatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
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**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714

**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling

**Sample Matrix:** Solid

## SURROGATE RECOVERY SUMMARY
## Volatile Organic Compounds by GC/MS, Unp

**Analysis Method:** 8260D

**Extraction Method:** Bulk/5035A

| | | 4-Bromofluorobenzene | Dibromofluoromethane | Toluene-d8 |
|---|---|---|---|---|
| **Sample Name** | **Lab Code** | **31 - 154** | **63 - 138** | **66 - 138** |
| Topsoil Fill | R2408714-001 | 85 | 101 | 94 |
| Clay Fill | R2408714-002 | 92 | 100 | 96 |
| Lab Control Sample | RQ2411210-02 | 98 | 97 | 94 |
| Method Blank | RQ2411210-03 | 97 | 93 | 95 |
| Topsoil Fill MS | RQ2411210-04 | 95 | 102 | 97 |
| Topsoil Fill DMS | RQ2411210-05 | 93 | 103 | 97 |

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 |
| | | **Date Analyzed:** | 09/9/24 |
| | | **Date Extracted:** | NA |

## Duplicate Matrix Spike Summary
## Volatile Organic Compounds by GC/MS, Unp

| | | | |
|---|---|---|---|
| **Sample Name:** | Topsoil Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |
| **Analysis Method:** | 8260D | | |
| **Prep Method:** | Bulk/5035A | | |

| | | **Matrix Spike** RQ2411210-04 | | | **Duplicate Matrix Spike** RQ2411210-05 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| 1,1,1-Trichloroethane | 6.0 U | 47.8 | 59.6 | 80 | 44.3 | 59.6 | 74 | 44-124 | 8 | 30 |
| 1,1-Dichloroethane | 6.0 U | 52.0 | 59.6 | 87 | 48.2 | 59.6 | 81 | 41-138 | 7 | 30 |
| 1,1-Dichloroethene | 6.0 U | 46.0 | 59.6 | 77 | 42.5 | 59.6 | 71 | 46-124 | 8 | 30 |
| 1,2,4-Trimethylbenzene | 6.0 U | 46.6 | 59.6 | 78 | 40.0 | 59.6 | 67 | 15-141 | 15 | 30 |
| 1,2-Dichlorobenzene | 6.0 U | 41.3 | 59.6 | 69 | 34.4 | 59.6 | 58 | 11-152 | 17 | 30 |
| 1,2-Dichloroethane | 6.0 U | 56.0 | 59.6 | 94 | 53.8 | 59.6 | 90 | 49-119 | 4 | 30 |
| 1,3,5-Trimethylbenzene | 6.0 U | 44.4 | 59.6 | 74 | 38.2 | 59.6 | 64 | 21-148 | 14 | 30 |
| 1,3-Dichlorobenzene | 6.0 U | 40.9 | 59.6 | 69 | 34.5 | 59.6 | 58 | 13-151 | 17 | 30 |
| 1,4-Dichlorobenzene | 6.0 U | 42.8 | 59.6 | 72 | 34.4 | 59.6 | 58 | 10-151 | 22 | 30 |
| 1,4-Dioxane | 120 U | 1010 | 1190 | 85 | 1120 | 1190 | 94 | 49-188 | 10 | 30 |
| Methyl Ethyl Ketone | 6.0 U | 42.0 | 59.6 | 70 | 42.0 | 59.6 | 70 | 13-176 | <1 | 30 |
| p-Isopropyltoluene | 6.0 U | 39.5 | 59.6 | 66 | 34.4 | 59.6 | 58 | 11-141 | 13 | 30 |
| Acetone | 6.0 U | 509 E | 59.6 | 854 * | 525 E | 59.6 | 881 * | 11-183 | 3 | 30 |
| Benzene | 6.0 U | 47.8 | 59.6 | 80 | 44.3 | 59.6 | 74 | 51-123 | 8 | 30 |
| Carbon Tetrachloride | 6.0 U | 43.8 | 59.6 | 73 | 41.0 | 59.6 | 69 | 46-137 | 6 | 30 |
| Chlorobenzene | 6.0 U | 45.6 | 59.6 | 77 | 39.8 | 59.6 | 67 | 25-129 | 14 | 30 |
| Chloroform | 6.0 U | 50.8 | 59.6 | 85 | 47.1 | 59.6 | 79 | 55-118 | 7 | 30 |
| Methylene Chloride | 6.0 U | 54.4 | 59.6 | 91 | 50.2 | 59.6 | 84 | 49-125 | 8 | 30 |
| Ethylbenzene | 6.0 U | 43.0 | 59.6 | 72 | 38.7 | 59.6 | 65 | 23-132 | 10 | 30 |
| Isopropylbenzene (Cumene) | 6.0 U | 42.0 | 59.6 | 71 | 37.3 | 59.6 | 63 | 18-133 | 12 | 30 |
| Methyl tert-Butyl Ether | 6.0 U | 64.1 | 59.6 | 108 | 60.6 | 59.6 | 102 | 62-130 | 6 | 30 |
| Naphthalene | 6.0 U | 56.4 | 59.6 | 95 | 34.0 | 59.6 | 57 | 10-188 | 50* | 30 |
| Tetrachloroethene (PCE) | 6.0 U | 40.3 | 59.6 | 68 | 36.1 | 59.6 | 61 | 21-137 | 11 | 30 |
| Toluene | 6.0 U | 45.0 | 59.6 | 75 | 41.4 | 59.6 | 69 | 11-152 | 8 | 30 |
| Trichloroethene (TCE) | 6.0 U | 44.3 | 59.6 | 74 | 41.4 | 59.6 | 70 | 23-140 | 6 | 30 |
| Vinyl Chloride | 6.0 U | 51.1 | 59.6 | 86 | 48.7 | 59.6 | 82 | 59-153 | 5 | 30 |
| cis-1,2-Dichloroethene | 6.0 U | 50.8 | 59.6 | 85 | 47.2 | 59.6 | 79 | 42-129 | 7 | 30 |
| m,p-Xylenes | 12 U | 86.3 | 119 | 72 | 77.3 | 119 | 65 | 20-135 | 10 | 30 |
| n-Butylbenzene | 6.0 U | 35.5 | 59.6 | 60 | 31.0 | 59.6 | 52 | 10-168 | 14 | 30 |
| n-Propylbenzene | 6.0 U | 41.1 | 59.6 | 69 | 36.2 | 59.6 | 61 | 20-139 | 12 | 30 |
| o-Xylene | 6.0 U | 44.4 | 59.6 | 75 | 39.5 | 59.6 | 66 | 26-137 | 13 | 30 |
| sec-Butylbenzene | 6.0 U | 38.3 | 59.6 | 64 | 32.7 | 59.6 | 55 | 11-140 | 15 | 30 |
| tert-Butylbenzene | 6.0 U | 41.4 | 59.6 | 69 | 35.7 | 59.6 | 60 | 19-148 | 14 | 30 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 |
| | | **Date Analyzed:** | 09/9/24 |
| | | **Date Extracted:** | NA |

## Duplicate Matrix Spike Summary
## Volatile Organic Compounds by GC/MS, Unp

| | | | |
|---|---|---|---|
| **Sample Name:** | Topsoil Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |
| **Analysis Method:** | 8260D | | |
| **Prep Method:** | Bulk/5035A | | |

| | | **Matrix Spike** RQ2411210-04 | | | **Duplicate Matrix Spike** RQ2411210-05 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| trans-1,2-Dichloroethene | 6.0 U | 45.1 | 59.6 | 76 | 40.7 | 59.6 | 68 | 34-128 | 11 | 30 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | NA |
| **Sample Matrix:** | Solid | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | ug/Kg |
| **Lab Code:** | RQ2411210-03 | **Basis:** | Dry |

## Volatile Organic Compounds by GC/MS, Unp

**Analysis Method:** 8260D
**Prep Method:** Bulk/5035A

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Q |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,1-Dichloroethane | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,1-Dichloroethene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,2,4-Trimethylbenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,2-Dichlorobenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,2-Dichloroethane | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,3,5-Trimethylbenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,3-Dichlorobenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,4-Dichlorobenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| 1,4-Dioxane | 100 U | 100 | 1 | 09/09/24 12:02 | |
| Methyl Ethyl Ketone | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| p-Isopropyltoluene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Acetone | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Benzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Carbon Tetrachloride | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Chlorobenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Chloroform | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Methylene Chloride | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Ethylbenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Isopropylbenzene (Cumene) | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Methyl tert-Butyl Ether | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Naphthalene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Tetrachloroethene (PCE) | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Toluene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Trichloroethene (TCE) | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| Vinyl Chloride | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| cis-1,2-Dichloroethene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| m,p-Xylenes | 10 U | 10 | 1 | 09/09/24 12:02 | |
| n-Butylbenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| n-Propylbenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| o-Xylene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| sec-Butylbenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| tert-Butylbenzene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |
| trans-1,2-Dichloroethene | 5.0 U | 5.0 | 1 | 09/09/24 12:02 | |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | NA |
| **Sample Matrix:** | Solid | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | ug/Kg |
| **Lab Code:** | RQ2411210-03 | **Basis:** | Dry |

## Volatile Organic Compounds by GC/MS, Unp

**Analysis Method:** 8260D
**Prep Method:** Bulk/5035A

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| 4-Bromofluorobenzene | 97 | 31 - 154 | 09/09/24 12:02 | |
| Dibromofluoromethane | 93 | 63 - 138 | 09/09/24 12:02 | |
| Toluene-d8 | 95 | 66 - 138 | 09/09/24 12:02 | |

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714
**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling **Date Analyzed:** 09/09/24
**Sample Matrix:** Solid

## Lab Control Sample Summary
## Volatile Organic Compounds by GC/MS, Unp

**Units:**ug/Kg
**Basis:**Dry

### Lab Control Sample
RQ2411210-02

| Analyte Name | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | 8260D | 20.9 | 20.0 | 104 | 68-123 |
| 1,1-Dichloroethane | 8260D | 19.3 | 20.0 | 96 | 76-123 |
| 1,1-Dichloroethene | 8260D | 19.2 | 20.0 | 96 | 67-147 |
| 1,2,4-Trimethylbenzene | 8260D | 18.8 | 20.0 | 94 | 67-121 |
| 1,2-Dichlorobenzene | 8260D | 19.3 | 20.0 | 96 | 75-116 |
| 1,2-Dichloroethane | 8260D | 19.5 | 20.0 | 97 | 74-116 |
| 1,3,5-Trimethylbenzene | 8260D | 18.8 | 20.0 | 94 | 66-122 |
| 1,3-Dichlorobenzene | 8260D | 19.1 | 20.0 | 95 | 72-118 |
| 1,4-Dichlorobenzene | 8260D | 19.1 | 20.0 | 96 | 72-117 |
| 1,4-Dioxane | 8260D | 346 | 400 | 86 | 59-147 |
| Methyl Ethyl Ketone | 8260D | 17.8 | 20.0 | 89 | 67-129 |
| p-Isopropyltoluene | 8260D | 19.5 | 20.0 | 98 | 58-128 |
| Acetone | 8260D | 18.7 | 20.0 | 93 | 32-154 |
| Benzene | 8260D | 19.1 | 20.0 | 95 | 77-114 |
| Carbon Tetrachloride | 8260D | 20.2 | 20.0 | 101 | 51-123 |
| Chlorobenzene | 8260D | 18.5 | 20.0 | 92 | 79-115 |
| Chloroform | 8260D | 18.7 | 20.0 | 94 | 76-115 |
| Methylene Chloride | 8260D | 18.5 | 20.0 | 93 | 72-118 |
| Ethylbenzene | 8260D | 18.9 | 20.0 | 94 | 64-118 |
| Isopropylbenzene (Cumene) | 8260D | 20.1 | 20.0 | 100 | 60-123 |
| Methyl tert-Butyl Ether | 8260D | 19.1 | 20.0 | 96 | 76-118 |
| Naphthalene | 8260D | 22.9 | 20.0 | 115 | 68-127 |
| Tetrachloroethene (PCE) | 8260D | 19.3 | 20.0 | 96 | 58-124 |
| Toluene | 8260D | 18.8 | 20.0 | 94 | 72-116 |
| Trichloroethene (TCE) | 8260D | 19.5 | 20.0 | 97 | 69-118 |
| Vinyl Chloride | 8260D | 20.2 | 20.0 | 101 | 59-153 |
| cis-1,2-Dichloroethene | 8260D | 19.4 | 20.0 | 97 | 79-113 |
| m,p-Xylenes | 8260D | 37.9 | 40.0 | 95 | 68-118 |
| n-Butylbenzene | 8260D | 19.1 | 20.0 | 96 | 54-131 |
| n-Propylbenzene | 8260D | 18.7 | 20.0 | 93 | 59-126 |
| o-Xylene | 8260D | 18.4 | 20.0 | 92 | 71-116 |
| sec-Butylbenzene | 8260D | 18.6 | 20.0 | 93 | 54-128 |
| tert-Butylbenzene | 8260D | 18.9 | 20.0 | 95 | 58-123 |

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Analyzed:** | 09/09/24 |
| **Sample Matrix:** | Solid | | |

## Lab Control Sample Summary
## Volatile Organic Compounds by GC/MS, Unp

**Units:**ug/Kg
**Basis:**Dry

### Lab Control Sample
RQ2411210-02

| Analyte Name | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| trans-1,2-Dichloroethene | 8260D | 17.8 | 20.0 | 89 | 73-114 |

# Semivolatile Organic Compounds by GC/MS

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714

**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling

**Sample Matrix:** Solid

## SURROGATE RECOVERY SUMMARY

### Semivolatile Organic Compounds by GC/MS using Microwave Digestion

**Analysis Method:** 8270E

**Extraction Method:** EPA 3546

| Sample Name | Lab Code | 2,4,6-Tribromophenol 18 - 123 | 2-Fluorobiphenyl 18 - 104 | 2-Fluorophenol 13 - 96 |
|---|---|---|---|---|
| Topsoil Fill | R2408714-001 | 70 | 66 | 62 |
| Clay Fill | R2408714-002 | 46 | 65 | 64 |
| Method Blank | RQ2411178-01 | 91 | 73 | 73 |
| Lab Control Sample | RQ2411178-02 | 95 | 77 | 74 |
| Duplicate Lab Control Sample | RQ2411178-03 | 73 | 58 | 55 |
| Topsoil Fill MS | RQ2411178-04 | 31 | 29 | 28 |
| Topsoil Fill DMS | RQ2411178-05 | 40 | 35 | 34 |

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714

**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling

**Sample Matrix:** Solid

## SURROGATE RECOVERY SUMMARY

### Semivolatile Organic Compounds by GC/MS using Microwave Digestion

**Analysis Method:** 8270E

**Extraction Method:** EPA 3546

| Sample Name | Lab Code | Nitrobenzene-d5 12 - 98 | Phenol-d6 16 - 95 | p-Terphenyl-d14 26 - 134 |
|---|---|---|---|---|
| Topsoil Fill | R2408714-001 | 55 | 64 | 63 |
| Clay Fill | R2408714-002 | 67 | 64 | 67 |
| Method Blank | RQ2411178-01 | 70 | 75 | 85 |
| Lab Control Sample | RQ2411178-02 | 72 | 76 | 84 |
| Duplicate Lab Control Sample | RQ2411178-03 | 54 | 57 | 62 |
| Topsoil Fill MS | RQ2411178-04 | 28 | 28 | 29 |
| Topsoil Fill DMS | RQ2411178-05 | 35 | 36 | 36 |

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 |
| | | **Date Analyzed:** | 09/10/24 |
| | | **Date Extracted:** | 09/9/24 |

## Duplicate Matrix Spike Summary
## Semivolatile Organic Compounds by GC/MS using Microwave Digestion

| | | | |
|---|---|---|---|
| **Sample Name:** | Topsoil Fill | **Units:** | ug/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |
| **Analysis Method:** | 8270E | | |
| **Prep Method:** | EPA 3546 | | |

| | | Matrix Spike RQ2411178-04 | | | Duplicate Matrix Spike RQ2411178-05 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| o-Cresol | 390 U | 1290 | 3950 | 33 | 1650 | 3970 | 41 | 28-105 | 25 | 30 |
| m,p-Cresols | 390 U | 1400 | 3950 | 35 | 1800 | 3970 | 45 | 25-112 | 25 | 30 |
| Acenaphthene | 390 U | 1410 | 3950 | 36 | 1840 | 3970 | 46 | 34-121 | 26 | 30 |
| Acenaphthylene | 390 U | 1530 | 3950 | 39 | 1960 | 3970 | 49 | 39-124 | 25 | 30 |
| Anthracene | 390 U | 1500 | 3950 | 38 * | 1920 | 3970 | 48 * | 58-119 | 25 | 30 |
| Benz(a)anthracene | 390 U | 1500 | 3950 | 38 * | 1880 | 3970 | 47 * | 60-114 | 22 | 30 |
| Benzo(a)pyrene | 390 U | 1630 | 3950 | 41 * | 2040 | 3970 | 51 * | 72-128 | 22 | 30 |
| Benzo(b)fluoranthene | 390 U | 1550 | 3950 | 39 * | 1900 | 3970 | 48 * | 64-109 | 20 | 30 |
| Benzo(g,h,i)perylene | 390 U | 1530 | 3950 | 39 * | 1920 | 3970 | 48 * | 59-129 | 23 | 30 |
| Benzo(k)fluoranthene | 390 U | 1550 | 3950 | 39 * | 1920 | 3970 | 48 * | 70-110 | 21 | 30 |
| Chrysene | 390 U | 1540 | 3950 | 39 * | 1890 | 3970 | 48 * | 65-114 | 20 | 30 |
| Dibenz(a,h)anthracene | 390 U | 1440 | 3950 | 37 * | 1860 | 3970 | 47 * | 60-128 | 26 | 30 |
| Dibenzofuran | 390 U | 1420 | 3950 | 36 * | 1860 | 3970 | 47 | 38-124 | 27 | 30 |
| Fluoranthene | 390 U | 1500 | 3950 | 38 * | 1910 | 3970 | 48 * | 61-131 | 24 | 30 |
| Fluorene | 390 U | 1450 | 3950 | 37 * | 1900 | 3970 | 48 | 39-128 | 27 | 30 |
| Hexachlorobenzene | 390 U | 1330 | 3950 | 34 * | 1750 | 3970 | 44 | 42-135 | 27 | 30 |
| Indeno(1,2,3-cd)pyrene | 390 U | 1610 | 3950 | 41 * | 2000 | 3970 | 50 * | 60-123 | 22 | 30 |
| Naphthalene | 390 U | 1330 | 3950 | 34 | 1690 | 3970 | 43 | 21-101 | 24 | 30 |
| Pentachlorophenol | 2000 U | 1150 J | 3950 | 29 * | 1520 J | 3970 | 38 * | 46-124 | 28 | 30 |
| Phenanthrene | 390 U | 1420 | 3950 | 36 * | 1830 | 3970 | 46 * | 56-117 | 25 | 30 |
| Phenol | 390 U | 1300 | 3950 | 33 | 390 U | 3970 | 0 * | 24-102 | NC | 30 |
| Pyrene | 390 U | 1630 | 3950 | 41 * | 1930 | 3970 | 48 * | 67-118 | 17 | 30 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.**

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | NA |
| **Sample Matrix:** | Solid | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | ug/Kg |
| **Lab Code:** | RQ2411178-01 | **Basis:** | Dry |

**Semivolatile Organic Compounds by GC/MS using Microwave Digestion**

**Analysis Method:** 8270E
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| o-Cresol | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| m,p-Cresols | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Acenaphthene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Acenaphthylene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Anthracene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Benz(a)anthracene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Benzo(a)pyrene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Benzo(b)fluoranthene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Benzo(g,h,i)perylene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Benzo(k)fluoranthene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Chrysene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Dibenz(a,h)anthracene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Dibenzofuran | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Fluoranthene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Fluorene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Hexachlorobenzene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Indeno(1,2,3-cd)pyrene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Naphthalene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Pentachlorophenol | 1700 U | 1700 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Phenanthrene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Phenol | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |
| Pyrene | 330 U | 330 | 1 | 09/09/24 21:49 | 9/9/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| 2,4,6-Tribromophenol | 91 | 18 - 123 | 09/09/24 21:49 | |
| 2-Fluorobiphenyl | 73 | 18 - 104 | 09/09/24 21:49 | |
| 2-Fluorophenol | 73 | 13 - 96 | 09/09/24 21:49 | |
| Nitrobenzene-d5 | 70 | 12 - 98 | 09/09/24 21:49 | |
| Phenol-d6 | 75 | 16 - 95 | 09/09/24 21:49 | |
| p-Terphenyl-d14 | 85 | 26 - 134 | 09/09/24 21:49 | |

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714
**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling **Date Analyzed:** 09/09/24
**Sample Matrix:** Solid

## Duplicate Lab Control Sample Summary
## Semivolatile Organic Compounds by GC/MS using Microwave Digestion

**Units:**ug/Kg
**Basis:**Dry

| | | Lab Control Sample | | | Duplicate Lab Control Sample | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | RQ2411178-02 | | | RQ2411178-03 | | | | | |
| **Analyte Name** | **Analytical Method** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| o-Cresol | 8270E | 3050 | 3300 | 92 | 2290 | 3320 | 69 | 33-99 | 28 | 30 |
| m,p-Cresols | 8270E | 3060 | 3300 | 93 | 2300 | 3320 | 69 | 32-100 | 28 | 30 |
| Acenaphthene | 8270E | 3250 | 3300 | 98 | 2490 | 3320 | 75 | 41-110 | 26 | 30 |
| Acenaphthylene | 8270E | 3580 | 3300 | 108 | 2750 | 3320 | 83 | 44-122 | 26 | 30 |
| Anthracene | 8270E | 3610 | 3300 | 109 | 2750 | 3320 | 83 | 41-123 | 27 | 30 |
| Benz(a)anthracene | 8270E | 3510 | 3300 | 106 | 2610 | 3320 | 79 | 44-116 | 29 | 30 |
| Benzo(a)pyrene | 8270E | 3950 | 3300 | 119 | 2960 | 3320 | 89 | 56-146 | 29 | 30 |
| Benzo(b)fluoranthene | 8270E | 3490 | 3300 | 106 | 2570 | 3320 | 78 | 47-120 | 30 | 30 |
| Benzo(g,h,i)perylene | 8270E | 3910 | 3300 | 118 | 2960 | 3320 | 89 | 41-129 | 28 | 30 |
| Benzo(k)fluoranthene | 8270E | 3750 | 3300 | 113 | 2850 | 3320 | 86 | 49-124 | 27 | 30 |
| Chrysene | 8270E | 3510 | 3300 | 106 | 2620 | 3320 | 79 | 44-119 | 29 | 30 |
| Dibenz(a,h)anthracene | 8270E | 3860 | 3300 | 117 | 2920 | 3320 | 88 | 18-146 | 28 | 30 |
| Dibenzofuran | 8270E | 3330 | 3300 | 101 | 2560 | 3320 | 77 | 43-113 | 26 | 30 |
| Fluoranthene | 8270E | 3540 | 3300 | 107 | 2680 | 3320 | 81 | 39-128 | 28 | 30 |
| Fluorene | 8270E | 3400 | 3300 | 103 | 2610 | 3320 | 79 | 40-117 | 26 | 30 |
| Hexachlorobenzene | 8270E | 3390 | 3300 | 102 | 2570 | 3320 | 77 | 35-122 | 27 | 30 |
| Indeno(1,2,3-cd)pyrene | 8270E | 3960 | 3300 | 120 | 3040 | 3320 | 92 | 43-129 | 26 | 30 |
| Naphthalene | 8270E | 2850 | 3300 | 86 | 2140 | 3320 | 65 | 31-93 | 28 | 30 |
| Pentachlorophenol | 8270E | 2470 | 3300 | 75 | 2220 | 3320 | 67 | 36-138 | 11 | 30 |
| Phenanthrene | 8270E | 3380 | 3300 | 102 | 2600 | 3320 | 78 | 39-120 | 26 | 30 |
| Phenol | 8270E | 3000 | 3300 | 91 | 2230 | 3320 | 67 | 31-100 | 29 | 30 |
| Pyrene | 8270E | 3550 | 3300 | 107 | 2670 | 3320 | 80 | 45-125 | 28 | 30 |

# Semivolatile Organic Compounds by GC

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714

**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling

**Sample Matrix:** Solid

## SURROGATE RECOVERY SUMMARY

### Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

**Analysis Method:** 8081B

**Extraction Method:** EPA 3546

| Sample Name | Lab Code | Decachlorobiphenyl 10 - 159 | Tetrachloro-m-xylene 10 - 132 |
|---|---|---|---|
| Topsoil Fill | R2408714-001 | 88 | 69 |
| Clay Fill | R2408714-002 | 53 | 37 |
| Method Blank | RQ2411477-01 | 101 | 57 |
| Lab Control Sample | RQ2411477-02 | 101 | 63 |
| Duplicate Lab Control Sample | RQ2411477-03 | 112 | 67 |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | NA |
| **Sample Matrix:** | Solid | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | ug/Kg |
| **Lab Code:** | RQ2411477-01 | **Basis:** | Dry |

**Organochlorine Pesticides by Gas Chromatography using Microwave Extraction**

**Analysis Method:** 8081B
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| 4,4'-DDD | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| 4,4'-DDE | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| 4,4'-DDT | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Aldrin | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Dieldrin | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Endosulfan I | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Endosulfan II | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Endosulfan Sulfate | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Endrin | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Endrin Aldehyde | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Endrin Ketone | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Heptachlor | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Heptachlor Epoxide | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Methoxychlor | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| Toxaphene | 33 U | 33 | 1 | 09/16/24 17:11 | 9/13/24 | |
| alpha-BHC | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| alpha-Chlordane | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| beta-BHC | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| delta-BHC | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| gamma-BHC (Lindane) | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |
| gamma-Chlordane | 1.7 U | 1.7 | 1 | 09/16/24 17:11 | 9/13/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| Decachlorobiphenyl | 101 | 10 - 159 | 09/16/24 17:11 | |
| Tetrachloro-m-xylene | 57 | 10 - 132 | 09/16/24 17:11 | |

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714
**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling **Date Analyzed:** 09/16/24
**Sample Matrix:** Solid

## Duplicate Lab Control Sample Summary
## Organochlorine Pesticides by Gas Chromatography using Microwave Extraction

**Units:**ug/Kg
**Basis:**Dry

| | | Lab Control Sample | | | Duplicate Lab Control Sample | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | RQ2411477-02 | | | RQ2411477-03 | | | | | |
| **Analyte Name** | **Analytical Method** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| 4,4'-DDD | 8081B | 5.37 | 6.62 | 81 | 5.72 | 6.63 | 86 | 48-121 | 6 | 30 |
| 4,4'-DDE | 8081B | 5.51 | 6.62 | 83 | 5.75 | 6.63 | 87 | 51-119 | 4 | 30 |
| 4,4'-DDT | 8081B | 6.84 | 6.62 | 103 | 7.13 | 6.63 | 108 | 51-126 | 4 | 30 |
| Aldrin | 8081B | 4.90 | 6.62 | 74 | 5.48 | 6.63 | 83 | 45-109 | 11 | 30 |
| Dieldrin | 8081B | 5.42 | 6.62 | 82 | 5.79 | 6.63 | 87 | 56-111 | 7 | 30 |
| Endosulfan I | 8081B | 5.13 | 6.62 | 78 | 5.49 | 6.63 | 83 | 54-109 | 7 | 30 |
| Endosulfan II | 8081B | 5.66 | 6.62 | 85 | 6.00 | 6.63 | 91 | 50-116 | 6 | 30 |
| Endosulfan Sulfate | 8081B | 5.63 | 6.62 | 85 | 6.13 | 6.63 | 92 | 55-115 | 9 | 30 |
| Endrin | 8081B | 6.20 | 6.62 | 94 | 6.46 | 6.63 | 97 | 49-124 | 4 | 30 |
| Endrin Aldehyde | 8081B | 4.55 | 6.62 | 69 | 5.57 | 6.63 | 84 | 21-139 | 20 | 30 |
| Endrin Ketone | 8081B | 5.36 | 6.62 | 81 | 5.86 | 6.63 | 88 | 50-124 | 9 | 30 |
| Heptachlor | 8081B | 5.35 | 6.62 | 81 | 6.10 | 6.63 | 92 | 43-115 | 13 | 30 |
| Heptachlor Epoxide | 8081B | 5.55 | 6.62 | 84 | 6.08 | 6.63 | 92 | 53-113 | 9 | 30 |
| Methoxychlor | 8081B | 6.91 | 6.62 | 104 | 7.07 | 6.63 | 107 | 47-141 | 2 | 30 |
| alpha-BHC | 8081B | 4.80 | 6.62 | 72 | 5.38 | 6.63 | 81 | 44-109 | 12 | 30 |
| alpha-Chlordane | 8081B | 5.40 | 6.62 | 82 | 5.66 | 6.63 | 85 | 52-114 | 5 | 30 |
| beta-BHC | 8081B | 6.14 | 6.62 | 93 | 6.22 | 6.63 | 94 | 49-119 | 1 | 30 |
| delta-BHC | 8081B | 5.62 | 6.62 | 85 | 6.20 | 6.63 | 94 | 49-113 | 10 | 30 |
| gamma-BHC (Lindane) | 8081B | 4.72 | 6.62 | 71 | 5.00 | 6.63 | 75 | 43-112 | 6 | 30 |
| gamma-Chlordane | 8081B | 5.71 | 6.62 | 86 | 6.01 | 6.63 | 91 | 51-117 | 5 | 30 |

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714

**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling

**Sample Matrix:** Solid

## SURROGATE RECOVERY SUMMARY

## Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

**Analysis Method:** 8082A

**Extraction Method:** EPA 3546

| Sample Name | Lab Code | Decachlorobiphenyl 10 - 138 | Tetrachloro-m-xylene 11 - 122 |
|---|---|---|---|
| Topsoil Fill | R2408714-001 | 76 | 78 |
| Clay Fill | R2408714-002 | 42 | 45 |
| Method Blank | RQ2411477-01 | 83 | 67 |
| Lab Control Sample | RQ2411477-04 | 94 | 90 |
| Duplicate Lab Control Sample | RQ2411477-05 | 81 | 74 |

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | NA |
| **Sample Matrix:** | Solid | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Units:** | ug/Kg |
| **Lab Code:** | RQ2411477-01 | **Basis:** | Dry |

## Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

**Analysis Method:** 8082A
**Prep Method:** EPA 3546

| Analyte Name | Result | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|
| Aroclor 1016 | 33 U | 33 | 1 | 09/16/24 10:43 | 9/13/24 | |
| Aroclor 1221 | 67 U | 67 | 1 | 09/16/24 10:43 | 9/13/24 | |
| Aroclor 1232 | 33 U | 33 | 1 | 09/16/24 10:43 | 9/13/24 | |
| Aroclor 1242 | 33 U | 33 | 1 | 09/16/24 10:43 | 9/13/24 | |
| Aroclor 1248 | 33 U | 33 | 1 | 09/16/24 10:43 | 9/13/24 | |
| Aroclor 1254 | 33 U | 33 | 1 | 09/16/24 10:43 | 9/13/24 | |
| Aroclor 1260 | 33 U | 33 | 1 | 09/16/24 10:43 | 9/13/24 | |

| Surrogate Name | % Rec | Control Limits | Date Analyzed | Q |
|---|---|---|---|---|
| Decachlorobiphenyl | 83 | 10 - 138 | 09/16/24 10:43 | |
| Tetrachloro-m-xylene | 67 | 11 - 122 | 09/16/24 10:43 | |

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714
**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling **Date Analyzed:** 09/16/24
**Sample Matrix:** Solid

## Duplicate Lab Control Sample Summary
## Polychlorinated Biphenyls (PCBs) by GC using Microwave Extraction

**Units:**ug/Kg
**Basis:**Dry

| | | | Lab Control Sample | | Duplicate Lab Control Sample | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | RQ2411477-04 | | RQ2411477-05 | | | | | |
| **Analyte Name** | **Analytical Method** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Aroclor 1016 | 8082A | 157 | 167 | 94 | 137 | 166 | 83 | 34-141 | 13 | 30 |
| Aroclor 1260 | 8082A | 175 | 167 | 105 | 148 | 166 | 89 | 30-158 | 17 | 30 |

# Metals

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | NA |
| **Sample Matrix:** | Solid | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Basis:** | Dry |
| **Lab Code:** | R2408714-MB | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|---|
| Aluminum, Total | 6010D | 20 | U | mg/Kg | 20 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Antimony, Total | 6010D | 6.0 | U | mg/Kg | 6.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Arsenic, Total | 6010D | 1.0 | U | mg/Kg | 1.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Barium, Total | 6010D | 2.0 | U | mg/Kg | 2.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Beryllium, Total | 6010D | 0.30 | U | mg/Kg | 0.30 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Cadmium, Total | 6010D | 0.50 | U | mg/Kg | 0.50 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Calcium, Total | 6010D | 100 | U | mg/Kg | 100 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Chromium, Total | 6010D | 1.0 | U | mg/Kg | 1.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Cobalt, Total | 6010D | 5.0 | U | mg/Kg | 5.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Copper, Total | 6010D | 2.0 | U | mg/Kg | 2.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Iron, Total | 6010D | 20 | U | mg/Kg | 20 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Lead, Total | 6010D | 5.0 | U | mg/Kg | 5.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Magnesium, Total | 6010D | 100 | U | mg/Kg | 100 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Manganese, Total | 6010D | 2.0 | U | mg/Kg | 2.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Mercury, Total | 7471B | 0.020 | U | mg/Kg | 0.020 | 1 | 09/12/24 10:49 | 09/11/24 | |
| Nickel, Total | 6010D | 4.0 | U | mg/Kg | 4.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Potassium, Total | 6010D | 200 | U | mg/Kg | 200 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Selenium, Total | 6010D | 1.0 | U | mg/Kg | 1.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Silver, Total | 6010D | 1.0 | U | mg/Kg | 1.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Sodium, Total | 6010D | 100 | U | mg/Kg | 100 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Thallium, Total | 6010D | 1.0 | U | mg/Kg | 1.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Vanadium, Total | 6010D | 5.0 | U | mg/Kg | 5.0 | 1 | 09/13/24 01:04 | 09/11/24 | |
| Zinc, Total | 6010D | 2.0 | U | mg/Kg | 2.0 | 1 | 09/13/24 01:04 | 09/11/24 | |

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 |
| | | **Date Analyzed:** | 09/12/24 |
| | | **Date Extracted:** | 09/11/24 |

## Duplicate Matrix Spike Summary
## Inorganic Parameters

| | | | |
|---|---|---|---|
| **Sample Name:** | Topsoil Fill | **Units:** | mg/Kg |
| **Lab Code:** | R2408714-001 | **Basis:** | Dry |
| **Analysis Method:** | 7471B | | |
| **Prep Method:** | Method | | |

| | | Matrix Spike | | | Duplicate Matrix Spike | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | R2408714-001MS | | | R2408714-001DMS | | | | | |
| **Analyte Name** | **Sample Result** | **Result** | **Spike Amount** | **% Rec** | **Result** | **Spike Amount** | **% Rec** | **% Rec Limits** | **RPD** | **RPD Limit** |
| Mercury, Total | 0.046 | 0.134 | 0.112 | 79 * | 0.131 | 0.112 | 76 * | 80-120 | 2 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.**

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714
**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling **Date Analyzed:** 09/12/24 - 09/13/24
**Sample Matrix:** Solid

## Lab Control Sample Summary
## Inorganic Parameters

**Units:**mg/Kg
**Basis:**Dry

### Lab Control Sample
R2408714-LCS

| Analyte Name | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Aluminum, Total | 6010D | 185 | 200 | 92 | 80-120 |
| Antimony, Total | 6010D | 45.8 | 50.0 | 92 | 80-120 |
| Arsenic, Total | 6010D | 3.5 | 4.0 | 88 | 80-120 |
| Barium, Total | 6010D | 192 | 200 | 96 | 80-120 |
| Beryllium, Total | 6010D | 4.76 | 5.00 | 95 | 80-120 |
| Cadmium, Total | 6010D | 4.90 | 5.00 | 98 | 80-120 |
| Calcium, Total | 6010D | 200 | 200 | 99 | 80-120 |
| Chromium, Total | 6010D | 19.7 | 20.0 | 98 | 80-120 |
| Cobalt, Total | 6010D | 48.6 | 50.0 | 97 | 80-120 |
| Copper, Total | 6010D | 24.9 | 25.0 | 99 | 80-120 |
| Iron, Total | 6010D | 98 | 100 | 98 | 80-120 |
| Lead, Total | 6010D | 49.4 | 50.0 | 99 | 80-120 |
| Magnesium, Total | 6010D | 190 | 200 | 94 | 80-120 |
| Manganese, Total | 6010D | 46.5 | 50.0 | 93 | 80-120 |
| Mercury, Total | 7471B | 0.089 | 0.100 | 89 | 80-120 |
| Nickel, Total | 6010D | 47.4 | 50.0 | 95 | 80-120 |
| Potassium, Total | 6010D | 1830 | 2000 | 92 | 80-120 |
| Selenium, Total | 6010D | 87.6 | 101 | 87 | 80-120 |
| Silver, Total | 6010D | 4.7 | 5.0 | 94 | 80-120 |
| Sodium, Total | 6010D | 1870 | 2000 | 93 | 80-120 |
| Thallium, Total | 6010D | 187 | 200 | 94 | 80-120 |
| Vanadium, Total | 6010D | 48.9 | 50.0 | 98 | 80-120 |
| Zinc, Total | 6010D | 46.5 | 50.0 | 93 | 80-120 |

# General Chemistry

**ALS Environmental—Rochester Laboratory**
1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623
Phone (585) 288-5380 Fax (585) 288-8475
www.alsglobal.com

Analytical Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project:** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | NA |
| **Sample Matrix:** | Solid | **Date Received:** | NA |
| **Sample Name:** | Method Blank | **Basis:** | Dry |
| **Lab Code:** | R2408714-MB | | |

## Inorganic Parameters

| Analyte Name | Analysis Method | Result | Units | MRL | Dil. | Date Analyzed | Date Extracted | Q |
|---|---|---|---|---|---|---|---|---|
| Cyanide, Total | 9012B | 0.30 U | mg/Kg | 0.30 | 1 | 09/12/24 12:20 | 09/11/24 | |

**ALS Group USA, Corp.**

**dba ALS Environmental**

QA/QC Report

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc. | **Service Request:** | R2408714 |
| **Project** | NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling | **Date Collected:** | 09/04/24 |
| **Sample Matrix:** | Solid | **Date Received:** | 09/05/24 |
| | | **Date Analyzed:** | 09/12/24 |

**Replicate Sample Summary**

**General Chemistry Parameters**

| | | | |
|---|---|---|---|
| **Sample Name:** | Clay Fill | **Units:** | Percent |
| **Lab Code:** | R2408714-002 | **Basis:** | As Received |

| Analyte Name | Analysis Method | MRL | Sample Result | Duplicate Sample R2408714-002DUP Result | Average | RPD | RPD Limit |
|---|---|---|---|---|---|---|---|
| Total Solids | ALS SOP | - | 84.9 | 84.4 | 84.6 | <1 | 20 |

**Results flagged with an asterisk (*) indicate values outside control criteria.**

**Results flagged with a pound (#) indicate the control criteria is not applicable.**

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714
**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling **Date Analyzed:** 09/12/24
**Sample Matrix:** Solid

## Lab Control Sample Summary
## General Chemistry Parameters

**Units:**mg/Kg
**Basis:**Dry

### Lab Control Sample
R2408714-LCS1

| Analyte Name | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Cyanide, Total | 9012B | 2.95 | 3.00 | 98 | 85-115 |

**Client:** Glenn Springs Holdings, Inc. **Service Request:** R2408714
**Project:** NT Durez/281-402-D02-3100/11223794 Imported Fill Sampling **Date Analyzed:** 09/12/24
**Sample Matrix:** Solid

## Lab Control Sample Summary
## General Chemistry Parameters

**Units:**mg/Kg
**Basis:**Dry

### Lab Control Sample
R2408714-LCS2

| Analyte Name | Analytical Method | Result | Spike Amount | % Rec | % Rec Limits |
|---|---|---|---|---|---|
| Cyanide, Total | 9012B | 17.5 | 18.0 | 97 | 85-115 |

# Appendix G
# Drainage Improvements Photo Log

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, New York |

**Photograph 1:**

**Comments:**
Flooding in Harding Ave. near intersection of Wayne Ave. in January 2024; Durez NT Site is on the left in the photograph; looking west.

**Photograph 2:**

**Comments:**
Flooding in area covering MH19 next to 795 Harding Ave. in January 2024, looking southwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, New York |

**Photograph 3:**

**Comments:**
Flooding in area covering MH19 next to 795 Harding Ave. in January 2024, looking south.

**Photograph 4:**

**Comments:**
Flooding along Harding Ave. near intersection of Wayne Ave. in January 2024, looking southeast.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, New York |

**Photograph 5:**

**Comments:**
Flooding along Harding Ave. in January 2024, looking east.

**Photograph 6:**

**Comments:**
Flooding down Harding Ave., looking west towards Nach Road.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, New York |

**Photograph 7:**

**Comments:**
Flood area in August 2024 from Wilson Ave., looking northeast. This represents before conditions of the area.

**Photograph 8:**

**Comments:**
Overgrown Harding Ave. fence line, looking east. This represents before conditions of the area.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, New York |

**Photograph 9:**

**Comments:**
Overgrown fence line on Wilson Ave, looking east. This represents before conditions of the area.


**Photograph 10:**

**Comments:**
Beginning clearing in the corner of Durez site between Wilson Ave. and Harding Ave., looking north.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 11:**

**Comments:**
In process of clearing corner of Site between Wilson Ave. and Harding Ave., looking north.

**Photograph 12:**

**Comments:**
In process of clearing corner of Site between Wilson Ave. and Harding Ave., looking north.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 13:**

**Comments:**
In process of clearing wooded area near MH23 parallel to Site fence on Harding Ave., looking west.

**Photograph 14:**

**Comments:**
In process of clearing wooded area near MH23 parallel to original fence on Harding Ave., looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 15:**

**Comments:**
Tree contractor cutting trees near Lift Station #1 along Wilson Ave., looking west.

**Photograph 16:**

**Comments:**
Clearing of corner of Site between Wilson Ave. and Harding Ave., looking north.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 17:**

**Comments:**
Truck depositing clay in area for Berm 2 near T-5 piezometers, looking north.

**Photograph 18:**

**Comments:**
Corner of property parallel to Harding Ave. cleared, looking west. Temporary fence set up along Harding Ave. and scrap metal from fence demolition piled awaiting shipment to recycler. Manhole MH23 in the right foreground.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 19:**

**Comments:**
Clearing of corner of property and felled dead trees between Wilson Ave. and Harding Ave., looking west.

**Photograph 20:**

**Comments:**
Clearing of corner of property and felled dead trees between Wilson Ave. and Harding Ave., looking southwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 21:**

**Comments:**
Cleared fence line and gate lining Wilson Ave., looking west.

**Photograph 22:**

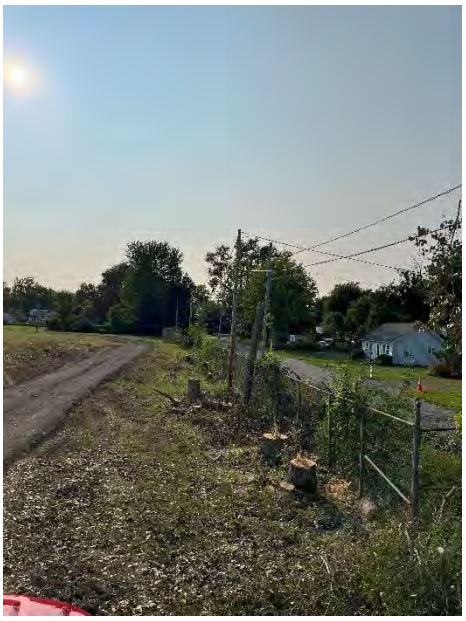
**Comments:**
Felled dead trees in corner of property between Wilson Ave. and Harding Ave., looking north. Stockpiled for processing and for transport to on-site stockpile location.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 23:**

**Comments:**
Cleared fence line parallel to Wilson Ave., looking west to Lift Station #1.



**Photograph 24:**

**Comments:**
Felled trees in corner of property between Wilson Ave. and Harding Ave. being loaded into truck for chipping, looking north.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 25:**

**Comments:**
Clearing of Site's west fence line and communication lines, looking south.

**Photograph 26:**

**Comments:**
Clearing of corner of property and clay soil for berms between Wilson Ave. and Harding Ave. beginning to be installed, looking west-northwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 27:**

**Comments:**
Flood area from Wilson Ave. with clearing in progress, looking northeast in the morning.

**Photograph 28:**

**Comments:**
Fence line along Wilson Ave. with trees removed; clearing of fence yet to be completed, looking east in the morning.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 29:**

**Comments:**
Temporary fence line bordering Harding Ave. after clearing; clay berm roughed in, looking east.

**Photograph 30:**

**Comments:**
Cleared area near MH19 along Harding Ave.; temporary fence installed; clay berm rough in, looking southeast.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 31:**

**Comments:**
Road approaching Lift Station #1 during fence line clearing; note new millings installed to raise elevation of road to slow surface runoff to property's edge, looking north-northeast.

**Photograph 32:**

**Comments:**
Fenceline along back of houses on Wilson Ave. during tree clearing work, looking north-northwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 33:**

**Comments:**

Tree contractor organizing work activities for the day along west property fence line during tree clearing activities, looking west.

**Photograph 34:**

**Comments:**

Cleared fence line next to Lift Station #1 along Wilson Ave., looking north. Note large live trees that remain to be removed behind the lift station.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 35:**

**Comments:**
Cleared fence line along Wilson Ave. looking east.

**Photograph 36:**

**Comments:**
Cleared fence line along Wilson Ave. next to Lift Station #1; some vines and small shrubs left to remove; looking east.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 37:**

**Comments:**
Cleared fence line and improved site access road along Wilson Ave., looking west.

**Photograph 38:**

**Comments:**
Road improvements and cleared fence line parallel to Wilson Ave., looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 39:**

**Comments:**
Road improvement parallel to Wilson Ave., looking west and Lift Station #1 in background; note large trees behind Lift Station #1 yet to be rmoved.

**Photograph 40:**

**Comments:**
Felled trees in corner of property adjacent to Wilson Ave. and along Harding Ave. awaiting processing, looking north.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 41:**

**Comments:**
Cleared fence line and felled trees in corner of property adjacent to Wilson Ave. Gate and along Harding Ave., looking north.

**Photograph 42:**

**Comments:**
Felled trees in corner of property adjacent to Wilson Ave. Gate and along Harding Ave., looking northeast.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 43:**

**Comments:**
Beginning of cutting down large trees adjacent to/near Lift Station #1, looking northwest.

**Photograph 44:**

**Comments:**
Continuing tree cutting along fence line behind houses on Wilson Ave., looking northwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 45:**

**Comments:**
Northeast most corner of the Site cleared near Lift Station #3 and adjacent to cell 2 of engineered wetland, looking east.

**Photograph 46:**

**Comments:**
Northeast most corner of the Site cleared near Lift Station #3, looking north at cell 2 of engineered wetland.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 47:**

**Comments:**
Area of cell 2 of engineered wetland; clearing in progress, looking northeast.

**Photograph 48:**

**Comments:**
North most section of the Site adjacent to cell 2 of engineered wetland being cleared, looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 49:**

**Comments:**
Liner of engineered wetland in eastern cell exposed due to tree growth in cell; looking east.

**Photograph 50:**

**Comments:**
Southwest corner of cell 2 of engineered wetland; clearing in progress, looking southwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 51:**

**Comments:**
Cell 2 of engineered wetland; clearing of trees in progress, looking west.

**Photograph 52:**

**Comments:**
Northern edge of cell 2 of engineered wetland showing trees yet to be cleared, looking northwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 53:**

**Comments:**
Area north of cell 2 of engineered wetland cleared, looking east.

**Photograph 54:**

**Comments:**
Northern edge of cell 2 of engineered wetland cleared, looking east-southeast towards Lift Station #3.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 55:**

**Comments:**
Line of sight from Lift Station #3 looking southwest towards retention tanks showing clearing of underbrush.

**Photograph 56:**

**Comments:**
High water overflow wall showing clearing work on north side of cell; looking west-northwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 57:**

**Comments:**
Clearing outside of fence line for access to NP-43 and NP-46, looking west.

**Photograph 58:**

**Comments:**
Clearing outside of fence line for access to NP-43 and NP-46, looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 59:**

**Comments:**
Mahole extension rings for manhole extensions for MH19 and MH23.

**Photograph 60:**


**Comments:**
Cone of MH23 removed in preparation for installation of extension ring.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 61:**

**Comments:**
Cone being lifted to be secured on ring extension for MH23.


**Photograph 62:**

**Comments:**
Cone being lifted to be secured on ring extension for MH23.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 63:**

**Comments:**
MH-23 extension backfilled, looking north.


**Photograph 64:**

**Comments:**
MH-23 extension backfilled, looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 65:**

**Comments:**
MH19 before installation of manhole extension ring, looking west.

**Photograph 66:**

**Comments:**
New two-foot manhole extension ring for MH19, looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 67:**

**Comments:**
MH19 cone nearly exposed in preparation for removal and installation of extension ring.

**Photograph 68:**

**Comments:**
MH19 cone removed and new gasket installed in preparation for new extension ring installation.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 69:**

**Comments:**
MH19 cone removed.

**Photograph 70:**

**Comments:**
Two-foot extension ring being placed onto MH19 ring.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 71:**

**Comments:**
Cone being placed on new extension ring for MH19.

**Photograph 72:**

**Comments:**
Cone aligned on MH19 two-foot extension ring.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 73:**

**Comments:**
Cone aligned on MH19 two-foot extension ring and cleanout pipe reattached to cone.

**Photograph 74:**

**Comments:**
771 Harding Ave. area marked with utilities prior to storm sewer installation activities, looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 75:**

**Comments:**
Utilities marked near 795 Harding Ave.

**Photograph 76:**

**Comments:**
Excavating area near 791 Harding Ave. for CB-A.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 77:**

**Comments:**
Measuring depth for placement of catch basin to ensure correct bottom elevation for CB-A.

**Photograph 78:**

**Comments:**
Excavation to connect storm sewer to city manhole near 771 Harding Ave.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 79:**

**Comments:**
Storm sewer connected to city manhole near 771 Harding Ave.

**Photograph 80:**

**Comments:**
Fenced off excavation near 771 Harding Ave. at close of workday.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

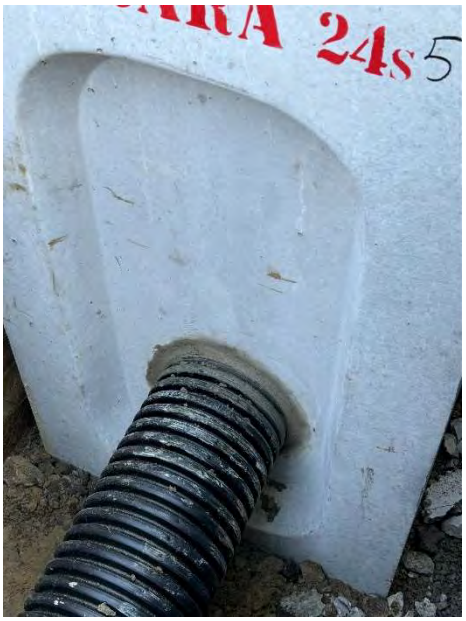
| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 81:**

**Comments:**
CB-A placed in excavated area near 791 Harding Ave., area fenced off for end of workday.


**Photograph 82:**

**Comments:**
Pipe connected to west side of CB-A at 791 Harding Ave.



**GEOSYNTEC CONSULTANTS**
**Photographic Record**

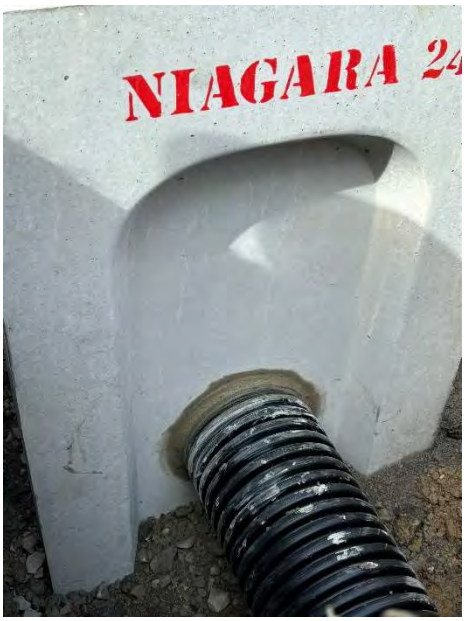
| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 83:**

**Comments:**
CB-A excavation fenced off at end of workday.


**Photograph 84:**

**Comments:**
Pipe connected to CB-A east side.



**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 85:**


**Comments:**
Excavation approaching 795 Harding Ave. fenced off.

**Photograph 86:**

**Comments:**
CB-A finished with tampered stone approach; City of North Tonawanda to finish final approach surface.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 87:**

**Comments:**
Tampered stone at 795 Harding Ave. where storm sewer was installed, looking west.

**Photograph 88:**

**Comments:**
CB-B placed in excavation near 795 Harding Ave., looking south.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 89:**

**Comments:**
Excavation fenced off near 795 Harding Ave., looking southeast.

**Photograph 90:**

**Comments:**
Excavation path for storm sewer east of CB-B, looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 91:**

**Comments:**
CB-B before being connected to pipe with hydroseeded Berm #3 in the background, looking south west.

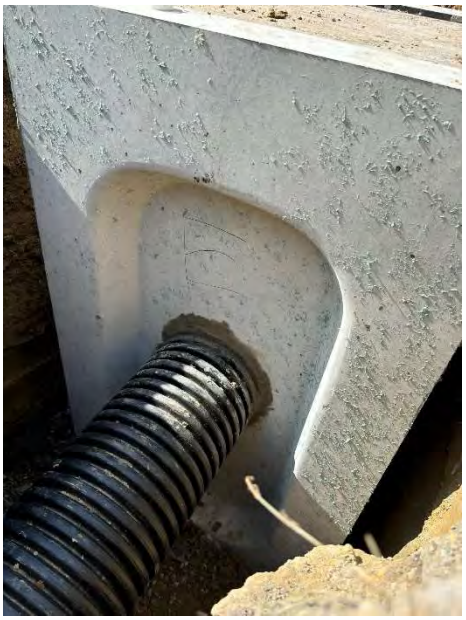
**Photograph 92:**

**Comments:**
Cemented pipe to west side of CB-B.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 93:**



**Comments:**
Pipe connected to east side of CB-B.

**Photograph 94:**

**Comments:**
Excavation along Berm #3 filled with pea gravel, looking east.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 95:**

**Comments:**
Taking elevations for next catch basin (CB-C). Hydroseeded berm #3 in background, looking west.

**Photograph 96:**

**Comments:**
CB-B backfilled and tampered with stone, looking east.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 97:**

**Comments:**
CB-B, looking north towards Harding Ave.

**Photograph 98:**

**Comments:**
Pipe connected to west side of CB-C.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 99:**

**Comments:**
CB-C in excavation, looking east.


**Photograph 100:**

**Comments:**
Excavation backfilled over storm sewer line and ready for hydroseeding, looking west.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 101:**

**Comments:**
Excavation for CB-D, looking east.

**Photograph 102:**

**Comments:**
CB-C installed, looking east.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 103:**

**Comments:**
Taking elevations for storm sewer at CB-C, looking west.

**Photograph 104:**

**Comments:**
Inside of CB-D with pipe installed.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 105:**

**Comments:**
Flared head at end of storm sewer installation, looking west.

**Photograph 106:**

**Comments:**
Stone covering pipe leading to flared head, looking east.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 107:**

**Comments:**
CB-D with connected pipe covered in stone, looking east.

**Photograph 108:**

**Comments:**
CB-D excavation filled with stone and being tamped, looking southwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 109:**

**Comments:**
CB-D excavation filled with stone and tamped, looking southwest.

**Photograph 110:**

**Comments:**
Flared head backfilled with soil, looking west; ready for stone lining of drainage swale.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 111:**

**Comments:**
Flared head exit lined with first layer of stone, looking west.

**Photograph 112:**

**Comments:**
Tree contractor arrives to remove dying Ash tree to the left of truck in corner of property between Wilson Ave. and Harding Ave., looking south.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 113:**

**Comments:**
Logs from single tree removed in corner of property between Wilson Ave. and Harding Ave., looking south.

**Photograph 114:**

**Comments:**
Path for vehicles to move across berm to Harding Ave. without disturbing grading, looking south. Used to move tree materials from cutting trees at 795 Harding Ave.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 115:**

**Comments:**
Knuckleboom removing parts of large trees lining fence between 795 Harding Ave. and the Site.

**Photograph 116:**

**Comments:**
Knuckleboom removing cut logs of large trees lining fence between 795 Harding Ave. and the Site. MH19 is adjacent to telephone pole; looking south.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 117:**

**Comments:**
Knuckleboom removing cut logs of large trees lining fence between 795 Harding Ave. and the Site and tree contractor crew removing tree debris from Harding Ave.

**Photograph 118:**

**Comments:**
Knuckleboom removing parts of large trees lining fence between 795 Harding Ave. and the Site, looking south.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 119:**

**Comments:**
Trees on fence line between the Site and 795 Harding Ave. after tree removal, looking west.

**Photograph 120:**

**Comments:**
Temporary fence on Harding Ave about to be removed, looking southwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 12120:**

**Comments:**
Temporary fence on Harding Ave being moved, looking southeast.

**Photograph 12121:**

**Comments:**
Aligning new fence poles with temporary fence line, looking southwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 122:**

**Comments:**
Aligning new fence poles with temporary fence line, looking southeast.

**Photograph 123:**

**Comments:**
Installing new fence poles along Harding Ave, looking southwest.

**GEOSYNTEC CONSULTANTS**
**Photographic Record**

| | | | |
|---|---|---|---|
| **Client:** | Glenn Springs Holdings, Inc | **Project Number:** | TR1045 |
| **Site Address:** | 700 Walck Rd | **Location:** | North Tonawanda, NY |

**Photograph 124:**

**Comments:**
Final fence installed.
Looking east.

# Appendix H
# Waste Manifests

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.

Please print or type. Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number |
|---|---|---|---|
| NYD002106938 | 1 | (800) 483-3718 | 008991848 SKS |

**GENERATOR**

5. Generator's Name and Mailing Address
Occidental Chemical Corp c o Glenn Springs Holding
c/o Glen Springs Remediation 805 97th Street
Niagara Falls, NY 14304
Generator's Phone: (716) 345-1978 ATTN:Dennis Hoyt

Generator's Site Address (if different than mailing address)
700 Walck Road
North Tonawanda,NY 14120

6. Transporter 1 Company Name: Goulet Trucking Inc — U.S. EPA ID Number: MAC300006038

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Clean Harbors Canada, Inc.
4090 Telfer Road
Corunna, ON N0N 1G0
Facility's Phone: (519) 864-1021
U.S. EPA ID Number: MIR000035204

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes | | |
|---|---|---|---|---|---|---|---|---|
| X | 1. UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S., (PIPE W/CHLOROBENZENES, BENZENE), 9, PG III | 1 | CM | 15 | T | U019 U070 | U027 U071 | U037 U072 |
| | 2. | | | | | | | |
| | 3. | | | | | | | |
| | 4. | | | | | | | |

14. Special Handling Instructions and Additional Information
1. CH2717929D ERG#171 SKSI EPA ID#NYD980593842 IS ACTING AS PRIMARY EXPORTER ON BEHALF OF GENERATOR. CHRT 27546
Contract retained by generator confers agency authority on initial transporter to add or substitute additional transporters on generator's behalf for purposes of transportation efficiency, convenience, or safety

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: SHAWN GARDNER AS AGENT OF GSHI — Signature: AS AGENT OF GSHI — Month 3 Day 27 Year 24

**INT'L**

16. International Shipments ☐ Import to U.S. ☒ Export from U.S. Port of entry/exit: Lewiston, NY
Transporter signature (for exports only): Date leaving U.S.: 3-27-24

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Tim Harris — Signature — Month 03 Day 27 Year 24

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| H132 | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Dan Toth — Signature — Month 3 Day 27 Year 24

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.
Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM
LAW 2401563130-002 PPW

# MOVEMENT DOCUMENT / MANIFEST
# DOCUMENT DE MOUVEMENT / MANIFESTE

**IO01303-2**

MN-000394614

Movement Document / Manifest Reference No.
N° de référence du document de mouvement / manifeste

**A Generator / consignor name / Nom de producteur / expéditeur** — Unique Identification Number / Numéro d'identification unique: 1

Safety-Kleen Systems Inc. — NYD980593842

| Mailing addr. / Adr. postale | City / Ville | Prov. | Country / Pays | Postal code / Code postal |
|---|---|---|---|---|
| 60 Katherine Street | Buffalo | NY | United States | 14210 |

E-mail / Courrier électronique: Mary.fiordaliso@safety-kleen.com — Tel. No. / N° de tél: 716-855-2212

Shipping facility company name / Nom de l'entreprise du installation de l'envoi: Safety-Kleen Systems Inc. — Unique Identification Number / Numéro d'identification unique: NYD980593842 — 40

| Shipping facility addr. / Adr. de l'installation d'envoi | City / Ville | Prov. | Country / Pays | Postal code / Code postal |
|---|---|---|---|---|
| 60 Katherine Street | Buffalo | NY | United States | 14210 |

E-mail / Courrier électronique: Mary.fiordaliso@safety-kleen.com — Tel. No. / N° de tél: 716-855-2212

Intended receiver / consignee name / Nom de réceptionnaire / destinataire prévu: Clean Harbors Canada, Inc. [principal] — Unique Identification Number / Numéro d'identification unique: 890982077 — 2

| Mailing addr. / Adr. postale | City / Ville | Prov. | Country / Pays | Postal code / Code postal |
|---|---|---|---|---|
| 4090 Telfer Road Rural Route # 1 | Corunna | ON | Canada | N0N 1G0 |

E-mail / Courrier électronique: brian.fraser@safety-kleen.com — Tel. No. / N° de tél: 7802882797

Receiving facility company name / Nom de l'entreprise du installation de réception: Clean Harbors Canada, Inc. [Corunna] — Unique Identification Number / Numéro d'identification unique: A031813 — 41

| Receiving facility addr. / Adr. de l'installation de réception | City / Ville | Prov. | Country / Pays | Postal code / Code postal |
|---|---|---|---|---|
| 4090 Telfer Road RR#1 | Corunna | ON | Canada | N0N 1G0 |

E-mail / Courrier électronique: girard.rob@cleanharbors.com — Tel. No. / N° de tél: 519-864-3812

**B Carrier name / Nom de transporteur** — Unique Identification Number / Numéro d'identification unique: 23

Goulet Trucking — 8818-8TRKH6

| Mailing addr. / Adr. postale | City / Ville | Prov. | Country / Pays | Postal code / Code postal |
|---|---|---|---|---|
| 20 industrial Drive West PO Box 259 | South Deerfield | MA | United States | 01373 |

E-mail / Courrier électronique: jeff.goulet@gouletrucking.com — Tel. No. / N° de tél: 413-665-1323

| Vehicle / Véhicule | Registration No. / N° d'immatriculation | Prov. 24 |
|---|---|---|
| Trailer - Rail car No. 1 / 1° remorque - wagon | 271957F | ME |
| Trailer - Rail car No. 2 / 2° remorque - wagon | | |

| Port of entry / Point d'entrée | Queenston / Lewiston | Port of exit / Point de sortie | 25 |
|---|---|---|---|
| Date | 2024-03-27 | Date | |

*Carrier Certification: I certify that I have received waste or recyclable material from the generator/consignor for delivery to the receiver/consignee as set out in Part A and that the information contained in Part B is complete and correct.*
*Attestation du transporteur : J'atteste avoir reçu les déchets ou matières recyclables du producteur/expéditeur en vue de leur livraison au réceptionnaire/destinataire, tels qu'ils figurent à la partie A et que les renseignements inscrits à la partie B sont exacts et complets.* — 26

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): James Harris — Tel. No. / N° de tél: 413-665-1323

Year / Année: 24 — Month / Mois: 03 — Day / Jour: 27 — Signature

Reference Nos. of other movement documents/manifests used / N° de référence des autres documents de mouvement/manifestes utilisés — 27

Receiver/consignee information same as in Part A / Les renseignements du réceptionnaire/destinataire sont les mêmes qu'à la Partie A

☑ Yes / Oui ☐ No, complete the box below / Non, remplir la case ci-dessous

**C Receiver/consignee name / Nom de réceptionnaire/destinataire** — Unique Identification Number / Numéro d'identification unique: 28

| Receiving facility addr. / Adr. de l'installation de réception | City / Ville | Prov. | Country / Pays | Postal code / Code postal |
|---|---|---|---|---|
| | | | | |

E-mail / Courrier électronique — Tel. No. / N° de tél

Delivery date / Date de livraison — 29

Year / Année: 24 — Month / Mois: 03 — Day / Jour: 27 — Time / Heure: 13:50 — ☐ A.M. ☒ P.M.

If handling code "Other" (specify) / Si code de manutention « autre » (spécifier) — 36

| | Prov. code / Code prov. 3 | UN No. / N° NU 6 | Shipping name / Appellation réglementaire 4 | Class / Classe Sub. Class(es) / Classe(s) sub. 5 | Packing/category / Gr. d'emballage/ categorie 7 | Toxic by inhalation / Toxique par inhalation 30 | Quantity shipped / Quantité expédiée | Units / L or / ou kg Unités 8 | Packaging / Contenant No. / N° | Packaging / Contenant Codes int.- ext. | Phys. state / État phys. 10 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (i) | 241H | UN3077 | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. | 9 | III | N/A - S/O | 13 636 | kg | 1 | 06-06 | S41 |
| (ii) | | | | | | | | | | | |
| (iii) | | | | | | | | | | | |
| (iv) | | | | | | | | | | | |

| | Quantity received / Quantité reçue | Units / L or / ou kg Unités 31 | Comments / Commentaires 32 | Handling Code / Code de manutention 33 | Shipment / Envoi 34 Accepted / Accepté | Shipment / Envoi 34 Refused / Refusé | Decont. 35 Pack. Cont. | Decont. 35 Veh. Véh. |
|---|---|---|---|---|---|---|---|---|
| (i) | 950 | kg | Section A: Quantity shipped was estimated. Not scaled at generator Confirmed | 06 | Yes | | No | No |
| (ii) | | | | | | | | |
| (iii) | | | | | | | | |
| (iv) | | | | | | | | |

| | Permit No. / N° de permis 11 | Permit Line No. / N° de ligne de la permis | Shipment / Envoi 12 | Of / De | D or R code / Code D ou R 13 | C code / Code C 14 | Basel Annex VIII or OECD Code / Annexe VIII de Bâle ou Code OCDE 15 | H code / Code H 16 | Y code / Code Y 17 | National code in country of / Code national du pays d' 18 Export / Exportation | Import / Importation | Customs codes / Codes de douanes 19 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (i) | 713925 | 54 | 1 | 400 | D5 | C41 | A3150; N/A - S/O | H12 | Y41 | | | 3825.61.00.00 |
| (ii) | | | | | | | | | | | | |
| (iii) | | | | | | | | | | | | |
| (iv) | | | | | | | | | | | | |

*Receiver/consignee certification: I certify that the information contained in Part C is correct and complete.*
*Attestation du réceptionnaire/destinataire : J'atteste que tous les renseignements à la partie C sont exacts et complets.*

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): [illegible] — 37

Signature — Tel. No. / N° de tél: 5198641021

TDGR additional info / Info additionnelle RTMD — 38

Special Handling / Manutention spéciale — 22: ☐ Attached / Ci-joint ☐ As follows / Ci-contre:

24-Hour Number / Numéro 24 heures — 39: 800-483-3716

*Generator/consignor certification: I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.*
*Attestation du producteur/expéditeur : J'atteste que tous les renseignements à la partie A sont exacts et complets. Je déclare que le contenu de ce chargement est décrit ci - dessus de façon complète et exacte par la désignation officielle de transport et qu'il est convenablement classé, emballé, marqué, étiqueté, muni de plaques-étiquettes et à tous égards bien conditionné pour être transporté conformément aux réglementations internationales et nationales applicables.* — 20

Name of authorized person (print) / Nom de l'agent autorisé (caractère d'imprimerie): Chris LeBarron — Tel. No. / N° de tél: 716-855-2212

Signature

| Date Shipped / Date d'expédition | Time / Heure 21 | Scheduled arrival date / Date d'arrivée prévue |
|---|---|---|
| Year / Année: 24 — Month / Mois: 03 — Day / Jour: 27 | ☒ A.M. ☐ P.M.: 09:00 | Year / Année: 24 — Month / Mois: 03 — Day / Jour: 27 |

# MANIFEST

Movement Document

DO NOT SIGN OR MAIL THIS DOCUMENT TO ONTARIO'S MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS.

This document is a paper copy of information submitted to Ontario's Hazardous Waste Program Registry. All parties on the manifest are required to submit information to the Registry as required by R.R.O. 1990, Reg. 347.

Manifest Number
**MN-000394616**

## A Generator/Consignor

Registration Number: NYD 980593842

Company Name: Clean Harbors / Safety-Kleen

Mailing Address: 300 WOOLWICH STREET, BRESLAU, Ontario N0B1M0 Canada

Email: frank.wagner@safety-kleen.c om

Phone: 519-648-2544 ext. 75269

Generating Site Address: 60 KATHERINE STREET, BUFFALO, New York 14210 United States

Generator Signature: **SIGNED** Mar 27, 2024 08:27 AM

Name: Christopher Lebarron

Phone: (716)954-0947

## B Carrier

Registration Number: 8818-8TRKH6

Company Name: GOULET TRUCKING, INC.

Mailing Address: 20 INDUSTRIAL DRIVE WEST, P.O. BOX 259, SOUTH DEERFIELD, MASSACHUSETTS, 01373

Email: dispatch@goulettrucking.com

Phone: 4136651323 ext.

Vehicle Information (Trailer / Rail Car)

(1) Registration Number: 271957F — Province/State: Maine

(2) Registration Number — Province/State

Carrier Signature: **SIGNED** Mar 27, 2024 08:58 AM

Name: James Harris

Phone: (413)665-1323

## C Receiver/Consignee

FINAL

Registration Number: A031813

Company Name: CLEAN HARBORS CANADA, INC.

Mailing Address: RR1, 4090 Telfer Road, Corunna, Ontario, N0N1G0

Email: roy.john@cleanharbors.com

Phone: 4166603461 ext.

Receiving Site Address: LOT 8 & 9, CONC.10, MOORE TWP., TELFER ROAD CORUNNA, Ontario N7T7X1 Canada

Receiver Signature: **SIGNED** Mar 28, 2024 01:25 PM

Name: Marcy Scott

Phone: (519)864-3828

## Shipment Details

Shipment Date: Mar 27 2024 (Anticipated)

Scheduled Arrival Date: Mar 27 2024

24-HOUR NUMBER: 8004833718 ext

Special Handling

Additional TDG Information

## Additional information

## Waste Information

| Waste Number | DG | UN Number | Shipping Name | Class (Sub. Class) | Packing Group | Toxic by Inhalation | Quantity Shipped | Number of Packages | Packaging Code | Physical State | Quantity Received | Comments | Handling Code | Accepted/ Refused |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) 241 A | X | 3077 | ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S | 9 | III | | 13636.000 Kg | 1 | 06 - Roll Off or Lugger | Solid | 950.000 Kg | Quantity Shipped was estimated. Not scaled at generator. | 06 - Secure Landfill | ACCEPTED |

I certify that the information contained in Part A is correct and complete. I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labelled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Christopher Lebarron
Shipper's name (Print)

Manifest Status
**Completed**

CleanHarbors
ENVIRONMENTAL SERVICES®

# Land Disposal Restriction Notification Form



Printed Date :Mar 25, 2024

MANIFEST INFORMATION

Generator : Occidental Chemical Corp c o Glenn Springs Ho

Address: 700 Walck Road
North Tonawanda,NY 14120

EPA ID #: N Y D 0 0 2 1 0 6 9 3 8

Manifest Tracking Info.

008991848SKS

Sales Order No: 2401563130-002

LINE ITEM INFORMATION

| Line Item: | Page No: | Profile No: | Treatability Group: | LDR Disposal Category |
|---|---|---|---|---|
| 1. | 1 | CH2717929B | NON-WASTEWATER | 2 (This is subject to LDR.) |

| EPA Waste Code | EPA Waste SubCategory |
|---|---|
| U019 U027 U037 U070 U071 U072 U127 U188 | NONE |

| Certification | Applies to Manifest Line Items |
|---|---|
| Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268. | 1. |

Waste analysis data, where available, is attached.

Signature : Shawn Gardner AS AGENT OF GSH Print Name SHAWN GARDNER AS AGENT OF 63471

Title: TECH Date : 3/27/2024

# Clean Harbors Manifest Addendum



| Generator ID Number: | | Sales Order Number: |
|---|---|---|
| N Y D 0 0 2 1 0 6 9 3 8 | 008991848SKS | 2401563130-002 |

Occidental Chemical Corp c o Glenn Springs Holding
700 Walck Road
North Tonawanda, NY14120

| Line #: | Profile No: | Profile Description: | Waste Codes: |
|---|---|---|---|
| 1. | CH2717929B | | U072 U127 U188 |

CH Container # Customer Container #

CleanHarbors®
ENVIRONMENTAL SERVICES

Work Order # LAW 2401523130-002

Canadian Manifest # _____

American # 008991848 SKS

19500 Kg

Truck # 20-23

Trailer # TRO-11

Loaded Container # 1 CHRT 27546

2 _____

3 _____

4 _____

Driver (print): Tim Harris

Date: 3-27-24

| | | |
|---|---|---|
| Gross Weight: | 20450 kg | |
| Tare Weight: | 19500 kg | PT |
| Net Weight: | 950 kg | |
| 27/Mar/2024 | 13:07:09 | |

ENTER SCALE WEIGHTS HERE

(Enter Date if not on scale stamped information)

Generator acknowledges that no material change has occurred either in the characteristics or in the process generating the material.

Please print or type.

Form Approved. OMB No. 2050-0039

| UNIFORM HAZARDOUS WASTE MANIFEST | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Manifest Tracking Number |
|---|---|---|---|---|
| | NYD002106938 | 1 | (800) 483-3718 | 019275468 FLE |

**5. Generator's Name and Mailing Address**
Occidental Chemical Corp c o Glenn Springs Holding
c/o Glen Springs Remediation 805 97th Street
Niagara Falls, NY 14304
Generator's Phone: (716) 345-1978 ATTN: Dennis Hovt

**Generator's Site Address (if different than mailing address)**
700 Walck Road
North Tonawanda, NY 14120

**6. Transporter 1 Company Name**
Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number: MAD039322250

**7. Transporter 2 Company Name**
U.S. EPA ID Number:

**8. Designated Facility Name and Site Address**
Clean Harbors El Dorado LLC
309 American Circle
El Dorado, AR 71730
Facility's Phone: (870) 863-7173
U.S. EPA ID Number: ARD069748192

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| X | 1. ~~NA3077, HAZARDOUS WASTE, SOLID, N.O.S. (CHLOROBENZENE6, BENZENE), 9, PG III~~ | ~~1~~ | ~~S~~ | ~~S~~ | ~~K~~ | ~~U019 U037 U037 U070 U071~~ |
| X | 2. NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (CHLOROBENZENE, HEXACHLOROBENZENE), 9, PG III | 6 | DM | 4800 | P | U019 U037 U070 U071 U072 U127 |
| | 3. | | | | | |
| | 4. | | | | | |

**14. Special Handling Instructions and Additional Information**
1. CH2507597 ERG#171
2. CH2732757 ERG#171

Authority on initial transporter to add or substitute additional transporters on generator's behalf for purposes of transportation efficiency, convenience or safety. Contract retained by generator confers agency

**15. GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: SHAWN GARDNER AS AGENT OF GSHI
Signature: Shawn D Gardner AS AGENT of GSHI
Month: 5 Day: 8 Year: 24

**16. International Shipments** ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

**17. Transporter Acknowledgment of Receipt of Materials**

Transporter 1 Printed/Typed Name: Richard Guangerbra
Signature:
Month: 5 Day: 8 Year: 24

Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

**18. Discrepancy**

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

**19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)**

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| H040 | H040 | | |

**20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a**

Printed/Typed Name: Dana Wilson
Signature: Dana Wilson
Month: 05 Day: 16 Year: 24

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

Clean Harbors has the appropriate permits for and will accept the waste the generator is shipping.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM
72240196174 PPW

# Clean Harbors Manifest Addendum



Generator ID Number:
NYD002106936

019275466FLE

Sales Order Number:
2401900174

Occidental Chemical Corp c o Glenn Springs Holding
700 Walck Road
North Tonawanda, NY14120

| Line # | Profile No. | Profile Description | Waste Codes |
|---|---|---|---|
| 1. | CH2507697 | | U071 U072 U127 U188 |
| | | CH Container # Customer Container # | |
| 2. | CH2732757 | | U127 U188 |
| | | CH Container # Customer Container # | |

# Land Disposal Restriction Notification Form

Printed Date :Apr 23, 2024

MANIFEST INFORMATION

| | |
|---|---|
| Generator : | Occidental Chemical Corp o o Glenn Springs Ho |
| Address: | 700 Walck Road<br>North Tonawanda NY 14120 |
| EPA ID #: | NYD002106838 |

Manifest Tracking Info.

019276468FLE

Sales Order No: 2401966174

LINE ITEM INFORMATION

| Line Item: | Page No: | Profile No: | Treatability Group: | LDR Disposal Category |
|---|---|---|---|---|
| 1. | 1 | CH2507697 | NON-WASTEWATER | 2 (This is subject to LDR.) |

| EPA Waste Code | EPA Waste SubCategory |
|---|---|
| U019 U027 U037 U070 U071 U072 U127 U188 | NONE |

## LDR Chemical Data

| Chemical | Underlying Hazardous Constituents | Constituents of Concern | Contaminants Subject to Treatment |
|---|---|---|---|
| BENZENE | N | N | N |
| CHLOROBENZENE | N | N | N |
| Hexachlorobenzene | N | N | N |
| m-Dichlorobenzene | N | N | N |
| o-Dichlorobenzene | N | N | N |
| P-DICHLOROBENZENE | N | N | N |
| Phenol | N | N | N |

LINE ITEM INFORMATION

| Line Item | Page No: | Profile No: | Treatability Group: | LDR Disposal Category |
|---|---|---|---|---|
| 2. | 1 | CH2732757 | NON-WASTEWATER | 2 (This is subject to LDR.) |

| EPA Waste Code | EPA Waste SubCategory |
|---|---|
| U019 U037 U070 U071 U072 U127 U188 | NONE |

ENVIRONMENTAL SERVICES

# Land Disposal Restriction
## Notification Form

Printed Date :Apr 25, 2024

### LDR Chemical Data

| Chemical | Underlying Hazardous Constituents | Constituents of Concern | Contaminants Subject to Treatment |
|---|---|---|---|
| BENZENE | N | N | N |
| CHLOROBENZENE | N | N | N |
| CHLOROFORM | N | N | N |
| Hexachlorobenzene | N | N | N |
| m-Dichlorobenzene | N | N | N |
| o-Dichlorobenzene | N | N | N |
| P-DICHLOROBENZENE | N | N | N |
| Phenol | N | N | N |
| Tetrachloroethylene | N | N | N |
| Trichloromonofluoromethane | N | N | N |

| Certification | Applies to Manifest Line Items |
|---|---|
| Pursuant to 40 CFR 268.7(a), I hereby notify that this shipment contains waste restricted under 40 CFR Part 268. | 1. 2. |

Waste analysis data, where available, is attached.

X

Signature : Shawn Gardner

Print Name : SHAWN GARDNER AS AGENT OF GSH

Title : FIELD TECH

Date : 5/8/24

Please print or type.

Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

1. Generator ID Number: NYD002106938
2. Page 1 of
3. Emergency Response Phone: (800) 483-3718
4. Manifest Tracking Number: 009193764 **SKS**

**GENERATOR**

5. Generator's Name and Mailing Address
Occidental Chemical Corp c/o Glenn Springs Holdings Inc.
805 97th Street
Niagara Falls, NY 14304
Generator's Phone: (716) 215-1978 Attn: Dennis Hoyt

Generator's Site Address (if different than mailing address)
Durez North Tonawanda
700 Walck Road
North Tonawanda, NY 14120

6. Transporter 1 Company Name: Clean Harbors Environmental Services, Inc.
U.S. EPA ID Number: MAD039322250

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Neville Island Plant c/o Calgon Carbon Corp.
200 Neville Road
Pittsburgh, PA 15225
Facility's Phone: ~~(412) 205-7400~~ (412) 1-412-771-4050 Will Kline
U.S. EPA ID Number: PAD000736942

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes | | |
|---|---|---|---|---|---|---|---|---|
| X | 1. NA 3077, Hazardous Waste, Solid, N.O.S. 9, PG III | 1 | CM | 25,000 | P | U019 U071 | U027 U072 | U037 U127 |
| | 2. | | | | | U188 | | |
| | 3. | | | | | | | |
| | 4. | | | | | | | |

14. Special Handling Instructions and Additional Information
Calgon Carbon Acceptance # 7338R
RMA Confirmation # 60019420
4340/221073

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: SHAWN GARDNER AS AGENT OF GSH1
Signature
Month: 7 Day: 24 Year: 24

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: JOHN WELSH
Signature
Month: 7 Day: 24 Year: 24

Transporter 2 Printed/Typed Name
Signature
Month Day Year

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| H039 | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Michael Brooks
Signature
Month: 7 Day: 25 Year: 24

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

**DESIGNATED FACILITY TO GENERATOR**

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

**Generator Name:** Occidential Chemical Corp
c/o Glenn Springs Holdings, Inc.
700 Walck Road
North Tonawanda, New York 14120

**Manifest Document No.:** 009193764 SKS

**Carbon Acceptance No.:** 7338R

EPA ID #: NYD002106938

Check 1 or 2:

X 1) Waste Does Not Meet Applicable Treatment Standards - This is a restricted waste that does not meet the applicable treatment standards set forth in Subpart D of 40 CFR Part 268

___ 2) Waste Meets Applicable Treatment Standards - I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support certification that the waste complies with the treatment standards specified in 40 CFR 268 Subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification.

*List **ALL** waste codes that apply:*

| EPA HAZARDOUS WASTE CODE(s) | NWW or WW | Underlying hazardous constituents (268.2) | LDR Subcategory (if applicable) |
|---|---|---|---|
| U019 | NWW | Benzene | None |
| U027 | NWW | | None |
| U037 | NWW | Chlorobenzene | None |
| U071 | NWW | Dichlorbenzenes (mixed isomers) | None |
| U072 | NWW | | None |
| U127 | NWW | Hexachlorobenzene | None |
| U188 | NWW | Phenol | None |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

I hereby certify that all information submitted in this and all associated documents is complete and accurate, to the best of my knowledge and information.

**Signature** [signature] **Title** TECH **Date** 7/24/24

AS AGENT OF GSHI