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January 30, 2024

Mr. Andrew Zwack
Project Manager
New York State Department of Environmental Conservation
700 Delaware Ave.
Buffalo, NY 14209

Subject: GrafTech International Holdings Inc.
Site Number 932035
Hyde Park Boulevard
Niagara Falls, New York 14303

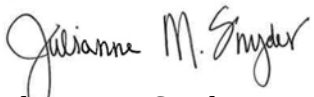
Dear Mr. Zwack:

GrafTech International Holdings Inc. (Graftech) is pleased to submit the Periodic Review Report (PRR) for Reporting Year 2023 for the GrafTech closed landfill site (Landfill), SWMF #32N03 (formerly Union Carbide Corporation, Carbon Products Division and UCAR Republic Site #932035).

Electronic copies (in an Adobe PDF file) of the cover letter and the PRR are being submitted to you by email only, in accordance with the established procedures and deadline per the State's Reminder Notice dated November 14, 2023.

If you have any questions or need additional information regarding the PRR, please contact me at (440) 724-9418 or julianne.snyder@graftech.com.

Respectfully submitted,



Julianne M. Snyder
Corporate HS&EP Manager

Enclosure

GRAFTech International

2023 PERIODIC REVIEW REPORT

and

ANNUAL SITE MANAGEMENT PLAN (SMP) REPORT

for the

CLOSED LANDFILL SITE SWMF #32N03

(Formerly UCAR Carbon Company, Republic Site Registry No. 932035)

(Per the SMP Approved October 29, 2018)

Prepared by:

GrafTech International Holdings Inc.
982 Keynote Circle
Brooklyn Heights, OH 44131

January 30, 2024

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1. Introduction

This Periodic Review Report (PRR) is being submitted for the GrafTech International Holdings Inc. (GrafTech) (formerly UCAR Carbon Company Inc.) closed landfill facility, SWMF #32N03 (Registry No. 932035) ("Landfill" or "Site"), under the provisions of the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER) Inactive Hazardous Waste Site Program. The Landfill is located in the Town of Niagara, Niagara County, State of New York, on Parcel Number 130.20-1.1. The Site is located off Hyde Boulevard behind the former UCAR Carbon Republic Plant. The Site is comprised of a 16.48-acre capped landfill on 61.60 acres of undeveloped land. A Site Plan is presented as Figure 1.

The 16.48-acre landfill was closed in accordance with a NYSDEC-approved closure plan under Part 360 Solid Waste Management Facility (SWMF) Guidelines, which included the installation of an engineered cap, completed in June 1987. A Preliminary Site Assessment (PSA) report was issued in April of 1995. The assessment involved the entire property in order to effectively characterize the Landfill and any on-site or off-site contaminant migration. Based on the results of the PSA, the state made a "no significant threat" determination and reclassified the Landfill in 1997 from Class 2a to a Class 4 Inactive Hazardous Waste Site. There have been no required remedial programs or remedial objectives established for this Site. GrafTech has continued to monitor the groundwater quality and implement the established institutional/engineered controls (IC/EC) at the Site, discussed in more detail in Sections 2.0 and 3.1, for over 30 years.

Prior to May 2016, this Site was being managed under the state programs of both the DER and the Division of Materials Management (DMM). On May 25, 2016, NYSDEC communicated to GrafTech that, going forward, the Site would be managed solely by the DER, thereby eliminating some prior reporting and oversight redundancies.

GrafTech voluntarily submitted a proposed Site Management Plan (SMP) to NYSDEC Region 9 on December 17, 2013, to bring the Plan in line with the state's Technical Guidance for Site Investigation and Remediation, DER 10. The more comprehensive SMP incorporated and replaced the prior Operation, Maintenance and Monitoring (OM&M) Plan, which the state had previously approved on November 4, 2009. NYSDEC issued a letter on November 17, 2016, approving GrafTech's proposed December 2013 SMP; the only change being that GrafTech would no longer be required to submit a separate annual groundwater monitoring report to the DMM.

The PRR for Reporting Year 2017 submitted in January 2018 included a request to downsize the groundwater monitoring plan and reduce the number of parameters that would be analyzed. NYSDEC issued the Site Management (SM) Periodic Review Report (PRR) Response Letter dated February 8, 2018, which approved GrafTech's proposal for a modified sampling program to only include sampling of monitoring wells BW-3, GW-8B and BW-4 with analysis of only volatile organic compounds (VOCs). Based on approval of the modified sampling program, GrafTech submitted a revised SMP dated October 23, 2018, to include the updated monitoring program requirements and to bring the SMP in line with the NYSDEC recommended SMP format. NYSDEC subsequently issued a letter dated October 29, 2018, accepting GrafTech's revised SMP.

The NYSDEC-approved SMP specifies the routine site inspection, maintenance and groundwater monitoring programs, and outlines the reporting and record retention requirements for the Site. In addition, the SMP describes provisions for an approved Excavation Plan to manage potentially contaminated soils at the Site in the event that GrafTech has future plans to excavate soil from any areas outside the footprint of the Landfill.

The purpose of this PRR is to document GrafTech's implementation and conformance with the post closure care procedures and Institutional Controls (IC)/Engineering Controls (EC) outlined in the SMP. This PRR covers the period of January 1, 2023 through December 31, 2023. It should be noted that, in past agreement with Mr. Michael Hinton, NYSDEC, DER, Region 9, the annual SMP compliance report for this Site is incorporated in this annual PRR to eliminate unnecessary redundancy.

For the report period specified above, GrafTech has designated the GrafTech Corporate Health, Safety and Environmental Protection (HS&EP) Manager, to be responsible for managing the Site. This position is currently filled by Ms. Julianne Snyder, who is located at the GrafTech Corporate Headquarters, 982 Keynote Circle, Brooklyn Heights, Ohio 44131. In addition, GrafTech has also contracted the services of National Maintenance Contracting Corporation (NMCC), a local general maintenance contractor, to act as the local point of-contact for the Site. NMCC is responsible for managing the routine operations at the Landfill, including site security; conducting the routine site inspections according to the schedule and protocols established in the SMP; completing or arranging for any needed maintenance and/or repairs at the Site; escorting approved visitors at the Site such as environmental contractors commissioned by GrafTech; responding to neighborhood requests, etc. All NMCC activities are supervised by Ms. Snyder.

NMCC is also responsible for communicating to Ms. Snyder whenever a significant event took place that could have possibly prevented full conformance with the SMP, or for any other important matters concerning the Landfill outside the scope of this Plan.

Ms. Snyder has been granted the authority by GrafTech to requisition the necessary resources so that appropriate corrective actions can then be promptly implemented to adequately address any identified deficiency and ensure full conformance with the provisions of the SMP.

2. Institutional Controls and Engineering Controls (IC/EC)

There is no required Remedial Program or remedial objectives for this Site.

2.1. Engineering Controls (EC)

The EC in place at the Landfill include a physical barrier installed in 1987, which is an engineered cap to contain and eliminate potential exposure pathways to the contaminants in the waste disposal area, and a groundwater monitoring well network. Another EC employed at the Site is a security system designed to prevent unauthorized access, which consists of an eight (8) foot high metal hurricane-style perimeter fence and two (2) locked gates. In addition, the casings on the groundwater monitoring wells are equipped with locking devices and padlocks to prevent unauthorized access and potential contamination to groundwater. These engineering controls were routinely inspected and repaired/replaced, as needed, to ensure that unauthorized access was restricted. The padlocks were kept locked except when drawing groundwater samples or when performing internal inspections of the monitoring wells.

As detailed in the Final Landfill Closure report[1], the engineered cap is a low-permeability cap installed over the entire 16.48-acre Site, except for the wooded areas. The final cover consists of a 6-inch thick topsoil layer with vegetative cover (grass) overlying a 3-inch thick sand/gravel layer (drainage layer) overlying an 18-inch thick clay layer. The clay was placed and compacted to a hydraulic conductivity of less than 1×10^{-7} cm/sec. At the edge of the waste disposal area, the clay cover was keyed approximately two feet into the existing native fine-grained soils or to the top of bedrock, whichever was encountered first. The drainage layer was spread over the entire clay cap to laterally drain precipitation and reduce infiltration. The sand used for the drainage layer was obtained from Niagara Stone No. 1B. Geotechnical testing completed on this sand during source selection yielded a maximum hydraulic conductivity of 2.68×10^{-2} cm/sec. The topsoil layer was placed on top of the drainage layer and was seeded with a persistent vegetative species that was selected to effectively minimize erosion. The vegetative cover has a shallow root system which should not penetrate beyond the lateral drainage layer. The topsoil is a fertile loamy material obtained from an abandoned cornfield at Shevlin-Manning's mining operation.

The surface slope of the final cover was designed at 3 percent slope. The final slope varies slightly across the cover in order to accommodate the total amount of fill, but does not

[1] Final Landfill Closure, Solid Waste Management Facility, Union Carbide Corporation, Republic Plant, Town of Niagara, New York, prepared by Conestoga-Rovers & Associates for Union Carbide Corporation, dated September 1987.

exceed 5 percent and is not less than 2 percent. Side slopes around the landfill portions of the Site are at a 3:1 slope (33 percent) or less.

The western area of the SWMF was never used for waste disposal, but was covered with a thin layer of carbonaceous material. This area was regraded and capped at a 2 percent slope with final contour elevations matching existing ground elevations around the perimeter of the Site. In order to accomplish this, the thickness of the clay, drainage, and topsoil layers was reduced over the last 100 feet to a total thickness of approximately 1.5 feet toward the edge of the Site. Surface water at the Site is allowed to follow natural drainage paths, given the slopes and runoff characteristics of the Site, engineered cap, and surrounding area. This decision was made at the time of closure and is further described in the closure report. There are no additional erosion/drainage controls in place at the Site.

2.2. Institutional Controls (IC)

The IC at this Site is the implementation of the SMP, including the Operation and Monitoring Plan discussed below, which specifies the groundwater monitoring program; the routine facility inspections for the engineered cap and the security features of the Site; maintenance of the Site; and the recordkeeping and reporting requirements. These inspection and groundwater monitoring programs were conducted in 2023 in accordance with the state-approved SMP to ensure the EC remained in place, were properly maintained and continued to be effective.

Under the previous and current NYSDEC approved groundwater monitoring program for the Landfill, one (1) sampling event must occur in every calendar year; scheduling of the sample collection must be rotated every year between spring (every odd year) and fall (every even year). Groundwater elevation measurements are also recorded during each annual sampling campaign.

Annual groundwater monitoring for the identified Contaminants of Concern (COCs) was conducted per the rotating schedule established in the SMP, which in this compliance period was a spring sampling campaign for an odd numbered year. Further details of the 2023 groundwater monitoring program are provided below in subsection 3.1 – Groundwater Monitoring.

No soil vapor monitoring program is required for the Landfill. In May 2007, Graftech submitted a Soil Intrusion Evaluation Report to the NYSDEC, which concluded that there is no threat to neighboring residential properties, and recommended that no further action regarding vapor studies was warranted. NYSDEC and NYSDOH informed Graftech on December 28, 2008, that they had reviewed the report and agreed that no further action

was needed regarding soil vapor intrusion. No vapor intrusion monitoring program is required at the landfill.

Inspections of the Site were performed and documented weekly and quarterly in accordance with the approved SMP. Further details of the 2023 site inspection programs are provided below in subsection 3.3 – Site Inspections and Records.

3. Operations and Monitoring (O&M) Plan

3.1. Groundwater Monitoring

Overview of the Historical Annual Groundwater Monitoring Program for the Landfill

The Landfill was capped and closed in 1987. The groundwater monitoring well network at the Landfill site currently consists of 11 active on-site wells; three (3) of which are sampled for analysis annually (BW-3, BW-4, and GW-8B) and another eight (8) of which are only subject to hydraulic monitoring requirements (BW-1, BW-2, BW-5, BW-6, GW-9B, MW-1, MW-2, and MW-3). Water levels were collected from all 11 active wells in 2023. In addition, there are seven (7) inactive groundwater wells (WW-1, OW-1, OW-2, GW-7B, GW-8A, GW-9A, and GW-11B), which are included in the Site inspection program only and are not subject to chemical or hydraulic monitoring. However, water levels were collected from 2 inactive bedrock groundwater wells (GW-7B and GW-11B) in 2023 on a voluntary basis to better understand bedrock groundwater flow direction east of the landfill. Water levels will also be collected from these two additional wells on a voluntary basis during the next hydraulic monitoring event, which is scheduled for Fall 2024. NYSDEC also requested hydraulic monitoring be completed at inactive overburden wells GW-8A and GW-9AGaging of these wells was completed as part of the 2023 monitoring event. A table listing the active and inactive monitoring wells and associated monitoring well details is presented as Table 1. Elevations of the top of riser, top of outer casing (where present), and ground surface at each of the 11 active wells and at the two inactive bedrock wells (GW-7B and GW-11B) were last surveyed on June 1, 2020. Table 1 also lists the full names of these wells, which appear on Site drawings and other documents. The abbreviated well names are used within this document. The locations of the groundwater monitoring wells are shown on Figure 1.

Groundwater monitoring wells GW-10A and GW-10B are located outside the Landfill perimeter security fencing on neighboring property not owned by GrafTech. Following GrafTech's request during a state inspection of the Landfill in May 2010, NYSDEC subsequently reviewed the PSA records and confirmed that NYSDEC had installed and still owns these two (2) wells. Thus, GrafTech is not responsible to secure, maintain or sample these wells and, therefore, they were not covered under the SMP.

The history of the groundwater monitoring program is as follows.

<u>1987 - 2005</u>

Between 1987 and 2000, groundwater monitoring was conducted quarterly. Following their review of the collected groundwater quality data, the NYSDEC DER and the

Division of Solid and Hazardous Materials approved a modified semiannual sampling program in a letter dated January 18, 2000, in accordance with the requirements of 6 NYCRR Section 360 to monitor the effectiveness of the solid waste landfill closure in protecting groundwater quality. This new monitoring program was implemented from April 2000 to November 2005.

2006 - 2017

Following a subsequent review of the post closure groundwater monitoring program and historical groundwater quality data, the NYSDEC DER and the Division of Solid and Hazardous Materials agreed to a modified annual post-closure groundwater monitoring program, which was first implemented in the fall of 2006.

The groundwater monitoring program remained in effect from 2006 through 2017 and consisted of sampling seven (7) of the 11 active on-site groundwater wells at the Landfill (specifically, bedrock wells BW-1, BW-2, BW-3, BW-4, GW-8B, GW-9B and the overburden monitoring well MW-3). The collected representative samples were analyzed for VOCs, Total and Dissolved Iron, Potassium and Zinc, Ammonia, Nitrite, and Total Kjeldahl Nitrogen (TKN) following EPA methodologies. Standard field measurements to assess well stabilization for sampling were also collected. Water level readings were taken on all of the active monitoring wells.

2018 - Current

Based on a review of the Site's historical groundwater data through 2017 showing that concentrations remained relatively consistent, in the PRR for Reporting Year 2017, GrafTech proposed that the groundwater monitoring program be downsized from seven (7) wells to three (3) wells and that the COCs be reduced so that representative samples are tested for only VOCs, Total and Dissolved Iron, and Ammonia; thus, Potassium, Zinc, Nitrite and TKN would be dropped from the parameter list. In the SM PRR Response Letter dated February 8, 2018, NYSDEC accepted GrafTech's proposal for a reduced monitoring program. Beginning in the fall of 2018 and moving forward, only three (3) bedrock wells would require to be sampled (BW-3, BW-4, and GW-8B), and samples would only be analyzed for VOCs.

Summary of the 2023 Groundwater Sampling Campaign, Reports and Results

The annual groundwater sampling campaign was conducted by GHD on June 12, 2023. GHD's 2023 Annual Groundwater Monitoring Letter, dated July 17, 2023, is included as Appendix D. Samples collected from bedrock wells BW-3, BW-4, and GW-8B were submitted to Test America for analysis of VOCs. Analytical test results were compared to

the New York State Class GA Groundwater Standards and Guidance Values ("criteria") and to the results of the historical monitoring data for the Landfill for analytes of interest. The full analytical results for June 2023are included in Appendix D and in Table 2 of this PRR. Table 2 identifies all analytes that were detected at concentrations above the criteria during the sampling event. Analytes that were detected above criteria during this monitoring event are also discussed below.

Water levels were collected from the three active overburden wells (MW-1, MW-2, and MW-3) and eight active bedrock wells (BW-1 through BW-6, GW-8B, and GW-9B) to document groundwater flow conditions in the overburden and bedrock at the time of the sampling event and to assist in evaluating the analytical results from the bedrock wells sampled. In addition, water levels were collected from two inactive bedrock groundwater wells (GW-7B and GW-11B) on a voluntary basis in order to better understand bedrock groundwater flow direction east of the landfill. In the comment letter on the 2021 PRR dated March 17, 2022, NYSDEC requested that the same monitoring wells from 2021 be hydraulically monitored in 2022; however, inactive overburden wells GW-8A and GW-9A were inadvertently omitted. The wells were included in the 2023 monitoring event; however, based on a review of the installation, it appears these wells breach the overburden/bedrock interface, and based on the observed water levels, are more indicative of bedrock potentiometric elevations. Based on the water level data collected, groundwater was flowing in a general east-southeasterly direction in the overburden. In the bedrock, a groundwater mound was observed west of the landfill around BW-6 with groundwater moving generally in an easterly-southeasterly direction from the landfill as well as a south-southwesterly direction from the landfill. These groundwater flow directions are generally consistent with groundwater flow directions observed during previous monitoring events.

Table 3 presents the current and historical concentration data for BW-3, BW-4, and GW-8B for tetrachloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-1,2-DCE), and vinyl chloride (VC). Although other VOCs have been detected in these wells, they have only been detected intermittently and at levels below or only slightly above criteria. The four above-listed VOCs have collectively been detected consistently and at elevated concentrations among these three bedrock wells, and as such their concentrations have been monitored through time. Figures 2 through 4 present the historical concentration data for these four VOCs, from March 2000 to the present. Where duplicate samples were collected, the average concentrations detected among the parent and duplicate samples are shown.

The following is a brief discussion of the 2023 sampling results relative to historical concentrations for these four VOCs in the three bedrock wells sampled.

BW-3 (Figure 2)

- **Vinyl Chloride:** VC was detected at a concentration of 6.2 micrograms per liter (µg/L) in June 2023, which was above the criteria of 2 µg/L. Concentrations of VC have either been non-detect or below 10 µg/L since September 2001 and have exhibited minor fluctuations throughout this time period.
- **Cis-1,2-DCE**: Cis-1,2-DCE was non-detect in June 2023, and it has not been detected at concentrations at or above the criteria of 5 µg/L from March 2000 to the present.
- **PCE and TCE:** PCE and TCE were non-detect in June 2023and have been non-detect since March 2000. As such, they are not shown on Figure 2.

BW-4 (Figure 3)

- **Cis-1,2-DCE:** Cis-1,2-DCE was detected at a concentration of 540 µg/L (530µg/L in the duplicate) in June 2023, which was above the criteria of 5 µg/L. Concentrations of cis-1,2-DCE have been above criteria since March 2000. Concentrations had been gradually increasing overall since March 2000, with relatively large fluctuations observed from September 2010 to October 2014 and from May 2019 to September 2020. The concentrations detected in May 2021, September 2022, and June 2023 have been lower than these large fluctuations between September 2010 and September 2020. Future monitoring events will aid in determining if the decreased concentrations detected in May 2021, September 2022, and June 2023 are part of a fluctuation in the overall pattern of gradually increasing concentrations or if concentrations will remain decreased.
- **PCE:** PCE was detected at a concentration of 300 µg/L (320 µg/L in the duplicate) in June 2023, which was above the criteria of 5 µg/L. Concentrations of PCE have been above criteria since March 2000 and were relatively stable from March 2000 to May 2013, and from October 2014 through May 2019, though at higher concentrations. Future monitoring events will aid in determining if the concentrations detected in May 2021, September 2022, and June 2023 are part of an apparent long-term stable trend, with some fluctuation.
- **TCE:** TCE was detected at a concentration of 330 µg/L (330 µg/L in the duplicate) in June 2023, which was above the criteria of 5 µg/L. Concentrations of TCE have been above criteria since March 2000 and increased from March 2009 to October 2014. Concentrations had been decreasing from October 2014 through May 2019. Future

monitoring events will aid in determining if the concentrations detected in May 2021, September 2022, and June 2023 are part of this overall decreasing trend.

- **Vinyl Chloride:** VC was detected at a concentration of 120 µg/L (110 µg/Lin the duplicate) in June 2023, which was above the criteria of 2 µg/L. Concentrations of VC have been above criteria since March 2000 and gradually increased from March 2000 to October 2014. Concentrations appeared to have stabilized from October 2014 through May 2019. Future monitoring events will aid in determining if the concentrations detected in May 2021, September 2022, and June 2023 are part of an apparent long-term stable trend, with some fluctuation.

GW-8B (Figure 4)

- **Cis-1,2-DCE**: cis-1,2-DCE was detected at a concentration of 19 µg/L in June 2023, which was above the criteria of 5 µg/L. Concentrations of cis-1,2-DCE have been above criteria since March 2000, with the exception of a non-detect in September 2003, but appear to have remained stable since April 2004.
- **Vinyl Chloride:** VC was detected at a concentration of 4.8 µg/L in June 2023, which was above the criteria of 2 µg/L. VC was non-detect from March 2000 to March 2005 and has been detected at concentrations slightly above criteria since September 2006, with the exception of a non-detect in March 2007 and concentrations in May 2015 and May 2017 that were slightly below criteria. Concentrations appear to have remained generally stable since September 2006.
- **TCE:** TCE was detected at a concentration of 3.5 µg/L in June 2023, which was below the criteria of 5 µg/L. Concentrations have exhibited an overall long-term decrease since March 2003.
- **PCE:** PCE was non-detect in June 2023 and has been non-detect since March 2000. As such, PCE is not shown on Figure 4.

Concentrations of VOCs detected in the bedrock wells BW-3 and GW-8B were generally consistent with the concentrations detected during the September 2022 sampling event. The current and historical data has shown that concentrations of VOCs in well BW-3 remain low, with only VC present at concentrations slightly above criteria. This well was hydraulically downgradient of the landfill during the June 2023 monitoring event, but has been shown to be hydraulically upgradient of the landfill during some previous monitoring events. These shifts in gradient direction may be due to seasonality, as monitoring events have alternated between spring and fall. Concentrations of VOCs in GW-8B, which is hydraulically downgradient of the landfill, also remain low and have generally stabilized. As such, **no discernable negative trend in groundwater quality was observed for the Site.** Concentrations of VOCs in BW-4, which is hydraulically upgradient of the landfill

based on the current and historical gauging events, have decreased since the September 2020 sampling event. However, these concentrations remain elevated and have typically been 2 to 3 orders of magnitude higher than VOC concentrations in the other bedrock monitoring wells. This strongly suggests an off-Site source.

Discussion of BW-4

The analytical results from the annual groundwater monitoring events have remained relatively stable since 2010, with the exception of the bedrock aquifer upgradient well BW-4. During the October 2014 sampling event, notable increases in concentration were observed in well BW-4 for the four (4) VOCs of interest - PCE, TCE, vinyl chloride, and cis-1,2-DCE. During the subsequent sampling events, these concentrations all decreased from the 2014 levels, and, by the May 2017 sampling event, all had generally returned to pre-2014 levels or similar except for PCE. Concentrations of these four VOCs spiked again in September 2020, but were significantly decreased during subsequent events including the June 2023sampling event and have returned to pre-2014 levels. Despite this decrease, the concentrations of these VOCs still remain well above criteria in this upgradient well, consistent with prior years.

Notwithstanding the results from 2021 through 2023, concentrations of PCE, TCE, vinyl chloride, and cis-1,2-DCE have shown long-term, gradually increasing trends in BW-4 since March 2000. The reason for these long-term gradual increases is not known. Relatively large increases in concentration were observed from May 2019 to September 2020, and large decreases in concentration were observed from September 2020 to June 2023. Future monitoring events will aid in determining if the decreased concentrations detected in June 2023 and the previous two events are representative of improved groundwater quality at BW-4 or if they are fluctuations in the overall pattern of gradually increasing concentrations observed since March 2000. This well is hydraulically upgradient of the landfill and does not represent groundwater quality at the Site.

A voluntary supplemental investigation of the entire groundwater well network at the Site conducted by Conestoga-Rovers & Associates (CRA) in January 2015 did not identify any structural abnormalities of the wells in the network that could account for the increases in VOC concentrations in BW-4. A copy of CRA’s well inspection report was submitted as part of the 2014 PRR. BW-4 was redeveloped in fall 2016, the results of which were submitted as part of the 2016 PRR. No further investigations or developments of the monitoring wells have been conducted at the Site since 2016, other than the redevelopment of bedrock wells BW-1 through BW-6 in April 2019 due to buildup of sediment/debris. It is noteworthy that the VOC exceedances of the applicable state criteria at bedrock

monitoring well BW-4, which is upgradient of the landfilled area, continue to be at much higher concentrations (by 2 to 3 orders of magnitude) than the VOC levels at the other bedrock aquifer monitoring wells (refer to Table 3).

Furthermore, the significant increases in VOC concentrations detected at the upgradient bedrock aquifer well BW-4 during the 2014 sampling event were not observed in the other bedrock monitoring wells. Although not currently in the sampling plan, historically these VOCs have not been detected in the downgradient bedrock wells BW-2 and GW-9B. This indicates that contaminant migration has not occurred.

It is also significant that the more notable exceedances of the applicable VOC criteria are in the bedrock groundwater monitoring wells located along the northern border of the Site (BW-4 and GW-8B), which are adjacent to the Niagara Mohawk right-of-way (ROW). BW-4 is hydraulically upgradient of the landfill, and GW-8B is hydraulically downgradient of the landfill. Although GW-8B is hydraulically downgradient of the landfill, the proximity of upgradient well BW-4, with VOC impacts 2 to 3 orders of magnitude greater than in the other bedrock wells, strongly suggests that the VOC concentrations in both of these wells are the result of an off-site source. Nevertheless, as concentrations of VOCs in GW-8B are low and have either stabilized or are decreasing, concentrations in this well do not represent a negative trend in groundwater quality for the Site.

3.2. Soil Vapor Monitoring

No soil vapor monitoring was required or performed during the report year.

3.3. Site Inspections and Records

NYSDEC did not conduct a state inspection of the Landfill in 2023.

Based on a deficiency in the groundwater well inspection program that was identified by NYSDEC during its last Site inspection in May 2013, GrafTech increased the frequency of its inspections of the monitoring wells on a temporary basis between August 2013 through December 2013, by including them in the scheduled weekly inspections. GrafTech also proposed to NYSDEC a formal modification to the Site inspection program to consist of:

- weekly general and security inspections at the Site; and
- quarterly monitoring well inspections (increased from annually).

NYSDEC subsequently approved this proposal. GrafTech implemented the improved inspection program starting in January 2014.

GrafTech incorporated the modified Site inspection protocol and inspection forms into the proposed SMP, which was submitted to the state for approval in December 2013, and subsequently approved by NYSDEC in November 2016. There have been no other deficiencies identified in the approved IC/EC at this Site nor any other recommended improvements to the SMP during the prior or current certification periods.

Routine inspections continued to be performed at the Site in 2023 by the current contracted GrafTech Designated Representative, NMCC, in accordance with the modified protocol specified in the SMP. Further details are provided below.

Routine inspections of the facilities and established controls at the Landfill Site were conducted and the results documented by NMCC (refer to the standard forms for documenting the weekly and quarterly inspections in Appendix A). NMCC was responsible for scheduling and managing the routine maintenance, repairs or any other actions needed to correct any deficiencies identified during these periodic inspections, under the supervision of the GrafTech Representative, currently Julianne Snyder.

Details are provided below of the modified weekly and the quarterly inspection programs, first initiated in 2014.

3.3.1. General Landfill and Site Security Inspections and Records - Weekly

The following areas were inspected once per week and the inspection results documented on the standard inspection form.

- Fence (general condition, evidence of security breaches).
- Gate (general condition, lock, evidence of security breaches).
- Cap (general condition, signs of erosion, adequate vegetation).
- Surrounding area (general condition).

Note: if any evidence of a Site security breach was found during the above inspections, the groundwater well installations were also inspected for potential tampering or damage, and those inspections were documented on the standard quarterly monitoring well inspection form.

Any noted deficiency was identified on the inspection record and the corrective action was documented on the same or a subsequent inspection record when completed. Any fence areas that were found to be damaged were also duly noted on the inspection map.

3.3.2. Groundwater Monitoring Well Inspections and Records - Quarterly

The GrafTech-Designated Representative, currently NMCC, inspected all the active on-site GrafTech-owned groundwater monitoring well installations quarterly to ensure they were kept in good condition and were properly secured with a lock. The inspector recorded his/her name, the date and time of the inspection, the inspection results and any recommended corrective actions on the standard report form.

- Closed locks on the well casing caps.
- Condition of outer well casing.
- Condition of concrete seals.

Documentation of any needed corrective actions were recorded on the same or a subsequent inspection record when completed.

3.4. Routine Maintenance and Repairs

The following maintenance and repair activities were conducted per the SMP:

- Repairs were made as needed by outside contractor(s) to timely correct any deficiencies discovered during the routine weekly Site security and quarterly monitoring well inspections. These included repairs to the perimeter security fencing and the concrete pads at the well installations, as needed.
- Mowing of the vegetative cover on the Landfill cap and the perimeter lawn of the Landfill, and other general care of the Site were scheduled, as needed.
- General clean-up of any debris found along the fence line and inside the Site were performed, as needed, to keep the Landfill and surrounding area clear of any objectionable or unsightly materials.

3.5. Record Retention

All inspection records are being retained for a minimum period of three (3) years. Completed inspection forms are located in Appendices F (weekly inspections) and G (quarterly inspections). Completed inspection forms will be made available for review during scheduled NYSDEC Site inspections, or copies will be made available to the state upon reasonable written request.

4. Excavation Plan Status

No excavations were performed during 2023.

5. Property Transfer Status

No property transfer activities were completed in 2023.

6. Conclusions and Recommendations

The GrafTech Landfill is a Class 4 Inactive Hazardous Waste Site, with no required Remedial Program or remedial objectives. Site inspections, monitoring and maintenance activities, and reporting requirements were implemented in conformance with the SMP for the Site during the certification period.

The analytical results from the 2023 groundwater monitoring campaign were consistent with the historical data. The groundwater monitoring program for the past 30+ years since closure of the Landfill has identified no negative trends in the groundwater quality associated with the landfill. VOC concentrations in well BW-4, which is upgradient of the landfill, continue to be 2 to 3 orders of magnitude higher than VOC concentrations detected in the other bedrock wells at the Site. This strongly suggests an off-site source.

The engineering controls and associated institutional controls are still in place, are performing properly, remain effective, and continue to be protective of public health and the environment. Based on GrafTech's review, there is no indication that changes to the IC/EC are needed. A copy of the completed and signed IC/EC Certification form is attached in Appendix E.

Due to the following facts:

1) this Landfill is a Class 4 Inactive Hazardous Waste Site;

2) there is no required Remedial Program or remedial objectives; and

3) the monitoring program for the past 35 years since closure of the Site has identified no negative trends in the groundwater quality at downgradient wells.

GrafTech recommends that compliance be maintained with the approved SMP during 2024. As indicated in Section 3.1, relatively large increases in VOC concentrations were observed in BW-4 from May 2019 to September 2020, followed by large decreases in VOC concentrations observed in BW-4 in 2021 and 2022. After review of the validated June 2023 sampling data, concentrations at BW-4 remain reduced from the 2020 highs and appear to have returned to levels more consistent with the historical record. Future monitoring events will aid in determining if the decreased concentrations detected from May 2021 to June 2023 are representative of improved groundwater quality at BW-4 or if they are fluctuations in the overall pattern of gradually increasing concentrations observed since March 2000. There is no need to include sampling of additional wells or modify the established Site management program at this time.

Table 1

Site Monitoring Well Details

Table 1
Site Monitoring Well Details

Well	Status	Well Type	Well Diameter (inches)	Installed Depth (ft. bgs)	Ground Elevation (ft. AMSL)	Top of Riser Elevation (ft. AMSL)	Top of Casing Elevation (ft. AMSL)	Monitored Interval (ft. bgs)	Full Name of Well
BW-1	Active	Bedrock/Open Hole	4/3	34.5	609.05	608.55	611.66*	19.5 to 34.5	BW1-86
BW-2	Active	Bedrock/Open Hole	4/3	35.0	605.37	606.58	608.40*	19.0 to 35.0	BW2-86
BW-3	Active	Bedrock/Open Hole	4/3	22.4	602.00	603.46	605.02*	7.4 to 22.4	BW3-86
BW-4	Active	Bedrock/Open Hole	4/3	25.0	604.33	605.47	607.13*	11.4 to 25.0	BW4-86
BW-5	Active	Bedrock/Open Hole	4/3	24.9	599.60	600.36	603.27*	10.0 to 24.9	BW5-86
BW-6	Active	Bedrock/Open Hole	4/3	32.9	607.59	607.08	611.11*	17.7 to 32.9	BW6-86
GW-7B	Inactive	Bedrock/Open Hole	3	29.7	599.80	602.49	603.81*	19.4 to 29.7	GW7B-93
GW-8A	Inactive	Overburden/Bedrock	3	17.5	601.50	NA	604.04*	12.4 to 17.4	GW8A-93
GW-8B	Active	Bedrock/Open Hole	3	27.5	601.38	603.30*	603.97	20.7 to 27.5	GW8B-93
GW-9A	Inactive	Overburden/Bedrock	3	20.3	601.50	NA	603.29*	15.3 to 20.3	GW9A-93
GW-9B	Active	Bedrock/Open Hole	3	29.5	600.55	602.74*	602.99	24.8 to 29.5	GW9B-93
GW-11B	Inactive	Bedrock/Open Hole	3	25.4	599.07	601.40*	601.66	16.0 to 25.4	GW11B-93
MW-1	Active	Overburden	4	18.3	608.55	608.97	611.13*	16.8 to 18.3	MW1-78
MW-2	Active	Overburden	4	20.1	607.04	611.62*	NP	17.5 to 18.0	MW2-78
MW-3	Active	Overburden	2	13.4	599.27	601.80*	602.18	8.0 to 13.0	MW3-79
WW-1	Inactive	Overburden	2	NA	NA	NA	NA	NA	WW1-86
OW-1	Inactive	Overburden	2	NA	NA	NA	NA	NA	OW1-88
OW-2	Inactive	Overburden	2	NA	NA	NA	NA	NA	OW2-88

* = Reference elevation for determining groundwater elevation
NA = Not available
NP = Not present
4/3 = Casing diameter/corehole diameter
ft. bgs = Feet below ground surface
ft. AMSL = Feet above mean sea level

Table 2

Analytical Results Summary – September 2023

Table 2
Analytical Results Summary
June 2023

Sample Location:			BW-3	BW-4	BW-4	GW-8B
Sample ID:			WG-12604419-061223-KM-004	WG-12604419-061223-KM-002	WG-12604419-061223-KM-003	WG-12604419-061223-KM-001
Sample Date:			6/12/2023	6/12/2023	6/12/2023 (Duplicate)	6/12/2023
Parameters	**Units**	**NYSDEC Class GA Criteria/TOGS**				
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	5	1.0 U	10 U	10 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	5	1.0 U	10 U	10 U	1.0 U
1,1,2-Trichloroethane	µg/L	1	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	µg/L	5	1.0 U	2.9 J	10 U	1.0 U
1,1-Dichloroethene	µg/L	5	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethane	µg/L	0.6	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethene (total)	µg/L	--	0.89 J	540	530	19
1,2-Dichloropropane	µg/L	1	1.0 U	10 U	10 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	50	10 U	100 U	100 U	10 U
2-Hexanone	µg/L	50	5.0 U	50 U	50 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	--	5.0 U	50 U	50 U	5.0 U
Acetone	µg/L	50	10 U	100 U	100 U	10 U
Benzene	µg/L	1	1.0 U	10 U	10 U	1.0 U
Bromodichloromethane	µg/L	50	1.0 U	10 U	10 U	1.0 U
Bromoform	µg/L	50	1.0 U	10 U	10 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5	1.0 U	10 U	10 U	1.0 U
Carbon disulfide	µg/L	60	0.43 J	10 U	10 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	10 U	10 U	1.0 U
Chlorobenzene	µg/L	5	1.0 U	10 U	10 U	1.0 U
Chloroethane	µg/L	5	1.0 U	10 U	10 U	1.0 U
Chloroform (Trichloromethane)	µg/L	7	1.0 U	3.6 J	10 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	5	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	µg/L	5	0.89 J	540	530	19
cis-1,3-Dichloropropene	µg/L	0.4	1.0 U	10 U	10 U	1.0 U
Dibromochloromethane	µg/L	50	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	µg/L	5	1.0 U	10 U	10 U	1.0 U
Methylene chloride	µg/L	5	1.0 U	10 U	10 U	1.0 U
Styrene	µg/L	5	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	300	320	1.0 U
Toluene	µg/L	5	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	µg/L	5	1.0 U	10 U	10 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.4	1.0 U	10 U	10 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	330	330	3.5
Vinyl chloride	µg/L	2	6.2	120	110	4.8
Xylenes (total)	µg/L	5	2.0 U	20 U	20 U	2.0 U

Notes:

1600 Indicates exceedance of NYSDEC Class GA Criteria/TOGS

J - Estimated concentration

U - Not detected at the associated reporting limit

UJ - Not detected; associated reporting limit is estimated

Class GA Criteria/TOGS - Groundwater Effluent Limitations/Technical and Operational Guidance Series

Table 3

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride

Table 3

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride
March 2000 - June 2023

Well Number	Parameter	Groundwater Criteria (ppb)	March 2000 (ppb)	Sept. 2001 (ppb)	March 2002 (ppb)	Sept. 2002 (ppb)	March 2003 (ppb)	Sept. 2003 (ppb)	March/April 2004 (ppb)	Sept. 2004 (ppb)	March 2005 (ppb)	Sept. 2006 (ppb)	March 2007 (ppb)
BW-3	Cis-1,2-DCE	5	10U	5U	5U	5U	5U	5U	5U	5U	5U	1.8	5U
	PCE	5	10U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
	TCE	5	10U	5U	5U	5U	5U	5U	5U	5U	5U	5U	5U
	Vinyl Chloride	2	**15**	5U	5U	5U	5U	5U	5U	**6.1**	5U	**5.7**	5.0U
GW-8B	Cis-1,2-DCE	5	**14**	**23 (22)**	**26**	**27**	**22**	5U	**21**	**20**	**22**	**23**	**20**
	PCE	5	10U	5U (5U)	5U	5U	5U	5U	5U	5U	5U	5U	5U
	TCE	5	10U	**7.5 (7.2)**	**10**	**10**	**13**	**12**	**8.3**	**13**	**6.5**	**6.9**	**9.8**
	Vinyl Chloride	2	10U	5U (5U)	5U	5U	5U	5U	5U	5U	5U	**4.6J**	5.0U
BW-4	Cis-1,2-DCE	5	**180**	**270**	**420**	**300**	**230 (240)**	**500**	**660**	**370 (390)**	**540 (530)**	**620 (620)**	**710 (640)**
	PCE	5	**135**	**240**	**64**	**230**	**29 (30)**	**100**	**110**	**55 (56)**	**64 (65)**	**84 (86)**	**120 (110)**
	TCE	5	**178**	**410**	**230**	**420**	**170 (170)**	**330**	**230**	**290 (290)**	**180 (180)**	**290 (290)**	**310 (280)**
	Vinyl Chloride	2	**115**	**74**	**92**	**59**	**41 (41)**	**100**	**180**	**75 (79)**	**180 (180)**	**140 (140)**	**170 (150)**

Shaded cells indicate the concentrations exceeds the New York State Class GA Groundwater Criteria
Parentheses indicate the results of the duplicate sample
* - Concentration represents total 1,2-DCE
** - Concentration represents total DCE
J - Concentration is an estimated value
U - Not present at or above the associated value

Table 3

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride
March 2000 - June 2023

Well Number	Parameter	Groundwater Criteria (ppb)	Sept. 2008 (ppb)	March 2009 (ppb)	Sept. 2010 (ppb)	May 2011 (ppb)	Sept. 2012 (ppb)	May 2013 (ppb)	Oct. 2014 (ppb)	May 2015 (ppb)	Sept. 2016 (ppb)	May 2017 (ppb)	Sept. 2018 (ppb)	May 2019 (ppb)	September 2020 (ppb)
BW-3	Cis-1,2-DCE	5	2.2	10U*	2.2J*	0.95J**	2	1.7	0.45	2.8	0.85	0.99	1.0U	1.2	1.0U
	PCE	5	5U	5U	5U	0.42U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
	TCE	5	5U	5U	5U	0.30U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
	Vinyl Chloride	2	**8.2**	5.0U	**6.4**	0.3U	**5.7**	**6.0**	**4.1**	**3.2**	**3.1**	1.0U	**2.5**	**5.1**	**4.9**
GW-8B	Cis-1,2-DCE	5	**23**	**20***	**20***	**19****	**23**	**20**	**22**	**17**	**24**	**14 (14)**	**21.0**	**18**	**22**
	PCE	5	5U	5U	5U	0.42U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
	TCE	5	**5.7**	**7.4**	**8.8**	**8.2**	**7.6**	**7.2**	**12**	**12**	**9.7**	**9.2 (9.2)**	4.7	**8.0**	3.6
	Vinyl Chloride	2	**4.7J**	**3.5J**	**3.5J**	**2.9J**	**3.5**	**3.8**	**2.7**	1.6	**3.1**	1.7	**3.5**	**2.1**	**6.0**
BW-4	Cis-1,2-DCE	5	**580 (540)**	**720***	**740***	**1000****	**1700**	**1300**	**2200 (1700)**	**1300**	**930J**	**950**	**1000 (940)**	**1000 (1000)**	**2300 (1900)**
	PCE	5	**86 (79)**	**140J**	**97**	**92**	**120**	**92**	**390 (330)**	**300**	**240**	**250**	**390 (410)**	**390 (400)**	**1600 (1200)**
	TCE	5	**320 (300)**	**220J**	**300**	**390**	**640**	**510**	**1300 (980)**	**790**	**660J**	**600**	**650 (640)**	**510 (540)**	**1200 (930)**
	Vinyl Chloride	2	**100 (100)**	**160J**	**170**	**190**	**290**	**240**	**350 (270)**	**270**	**180**	**240**	**150 (180)**	**230 (270)**	**480 (410)**

Shaded cells indicate the concentrations exceeds the New York State Class GA Groundwater Criteria
Parentheses indicate the results of the duplicate sample
* - Concentration represents total 1,2-DCE
** - Concentration represents total DCE
J - Concentration is an estimated value
U - Not present at or above the associated value

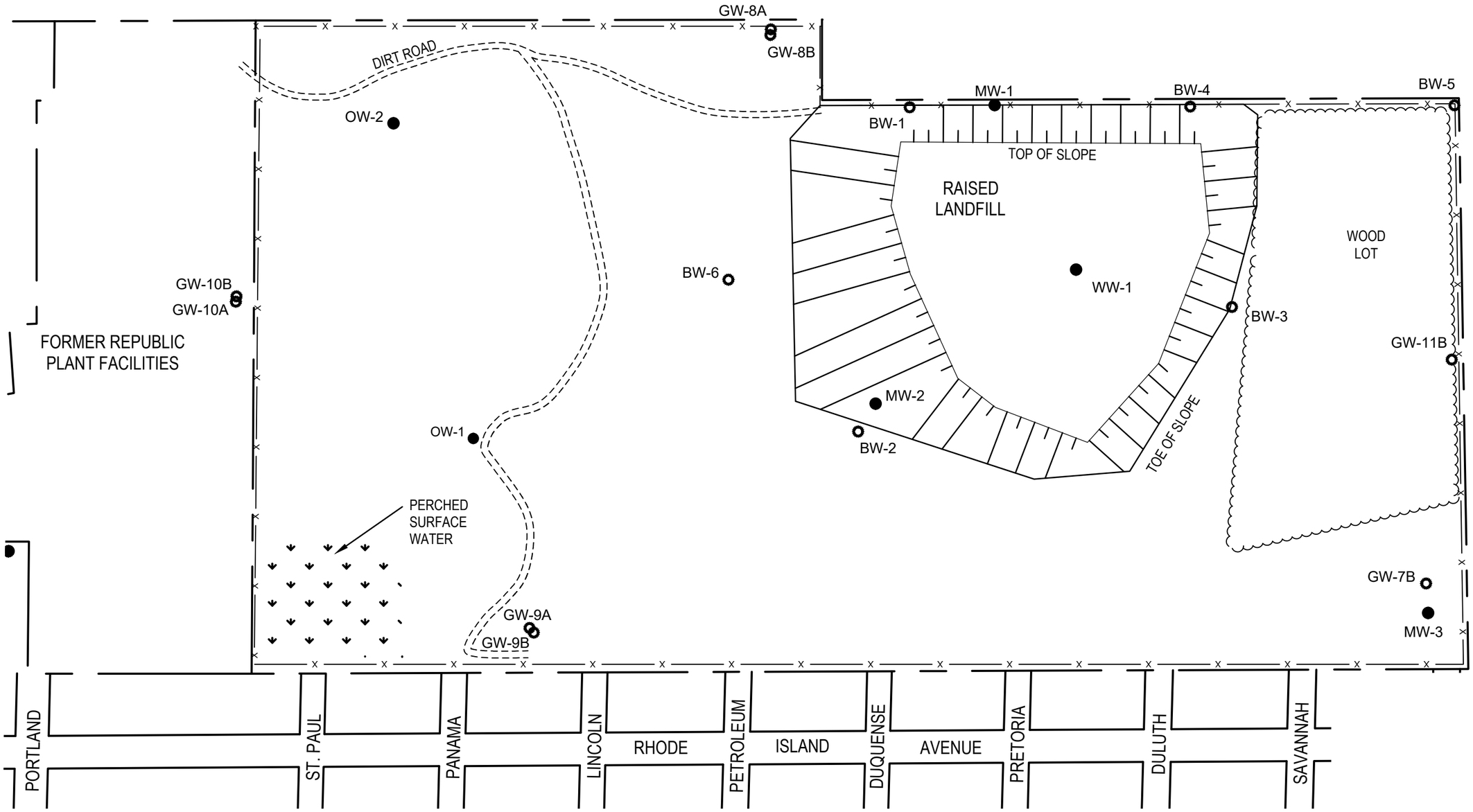
Table 3

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride
March 2000 - June 2023

Well Number	Parameter	Groundwater Criteria (ppb)	May 2021 (ppb)	September 2022 (ppb)	June 2023 (ppb)
BW-3	Cis-1,2-DCE	5	2.5	1.0U	0.89 J
	PCE	5	1.0U	1.0U	1.0U
	TCE	5	1.0U	1.0U	1.0U
	Vinyl Chloride	2	**9.1**	**4.1**	**6.2**
GW-8B	Cis-1,2-DCE	5	**20**	**20**	**19**
	PCE	5	1.0U	1.0U	1.0U
	TCE	5	3.6	4.3	3.5
	Vinyl Chloride	2	**3.2**	**4.6**	**4.8**
BW-4	Cis-1,2-DCE	5	**570 (480)**	**720 (810)**	**540 (530)**
	PCE	5	**200 (190)**	**350 (370)**	**300 (320)**
	TCE	5	**300 (260)**	**440 (480)**	**330 (330)**
	Vinyl Chloride	2	**89 (72)**	**120 (140)**	**120 (110)**

Shaded cells indicate the concentrations exceeds the New York State Class GA Groundwater Criteria
Parentheses indicate the results of the duplicate sample
* - Concentration represents total 1,2-DCE
** - Concentration represents total DCE
J - Concentration is an estimated value
U - Not present at or above the associated value

Figures



LEGEND

- MW-3 — OVERBURDEN MONITORING WELL LOCATION
- BW-4 — BEDROCK MONITORING WELL LOCATION
- PROPERTY LINE
- x — FENCE

N

0 200'

GHD

FORMER REPUBLIC LANDFILL
NIAGARA FALLS, NEW YORK

SITE PLAN

Project No. **11194450**
Date **January 22**

FIGURE 1.0

Data Source

Filename: N:\US\Niagara Falls\Projects\564\11194450\Digital_Design\ACAD 2018\Figures\January 2022 Site Plan\11194450-FIG 1.0-Jan 2021 Site Plan.dwg
Plot Date: 11 January 2022 9:40 AM

Figure 2
Historical Data Graph
Well BW-3

Former Republic Landfill

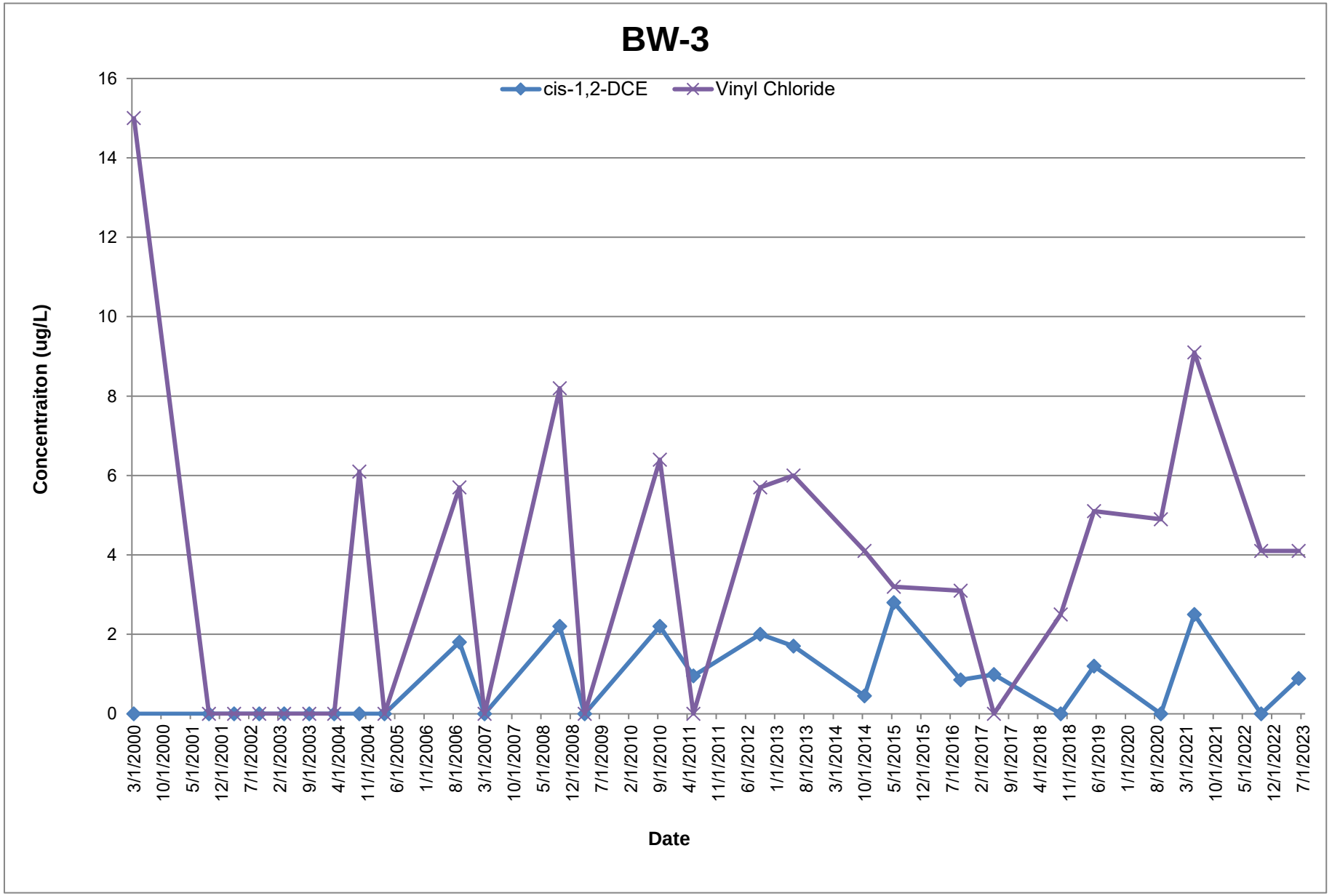


Figure 3
Historical Data Graph
Well BW-4

Former Republic Landfill

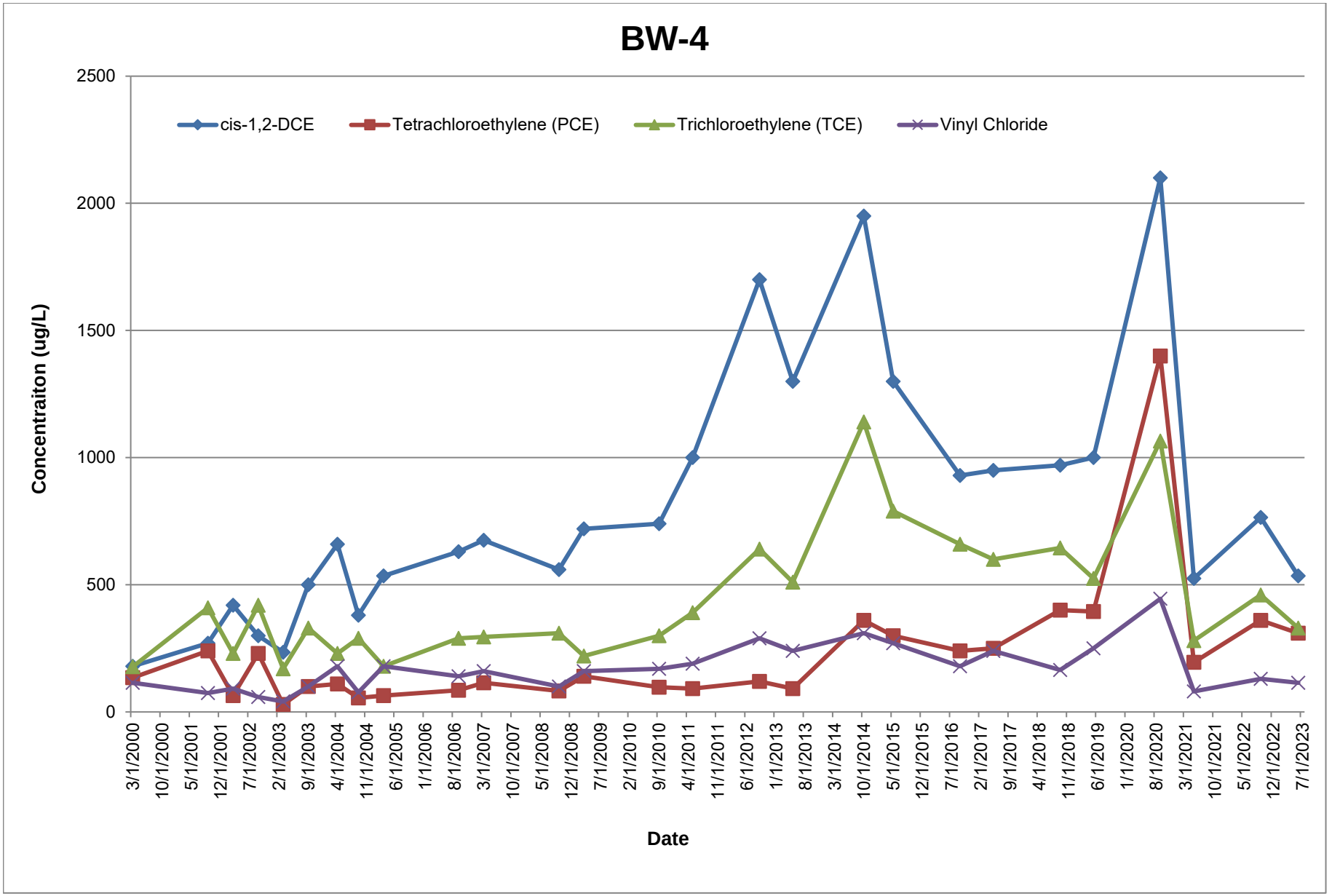
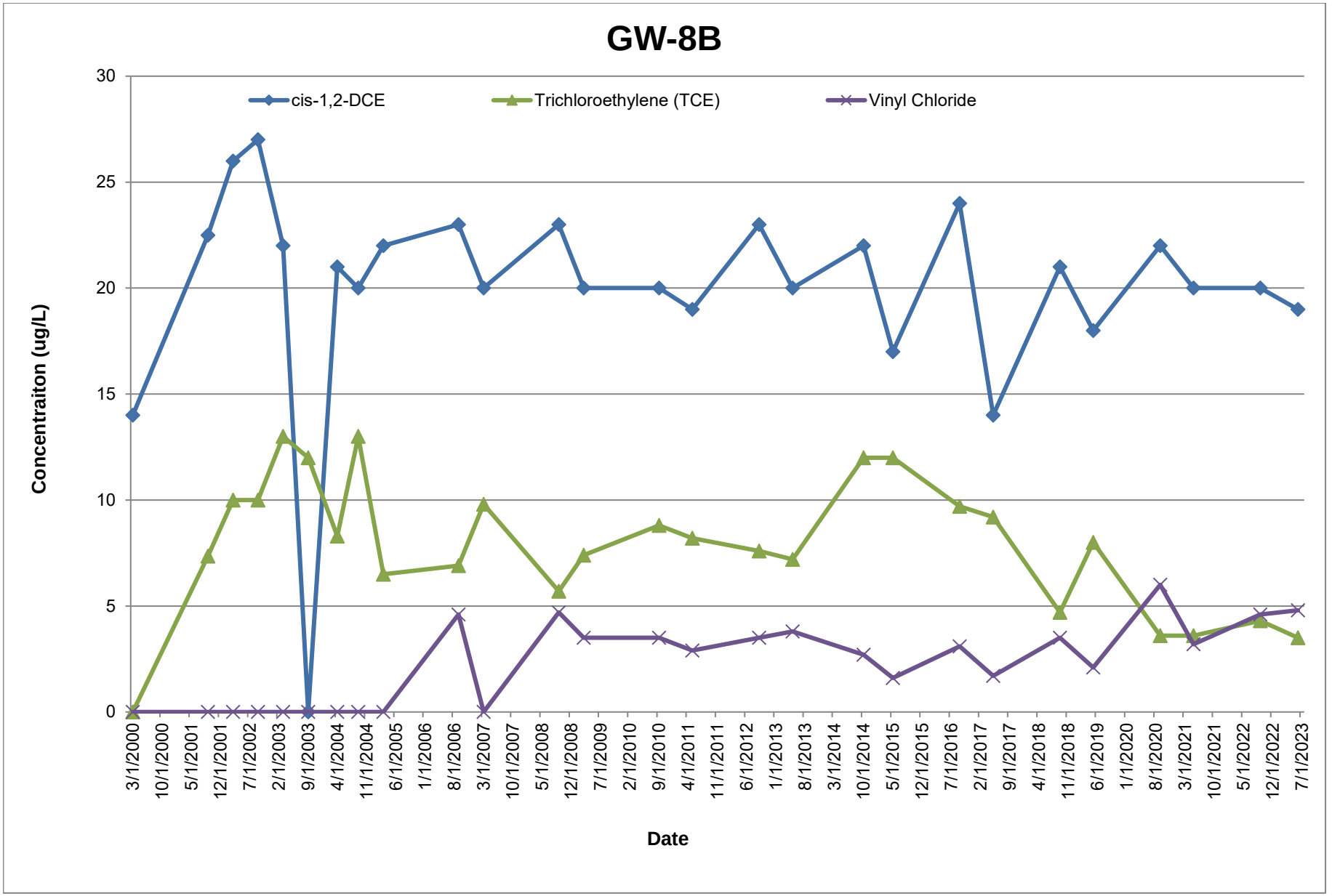


Figure 4
Historical Data Graph
Well GW-8B

Former Republic Landfill



Appendix A

Weekly General Landfill and Site Security Inspection Report Form

Quarterly Groundwater Well Inspection Report Form

GRAFTech International

WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

DATE	TIME	INSPECTOR NAME

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A				
B				
C				
D				
E				
F				
G				
H				
I				
J				

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1				
2				
3				

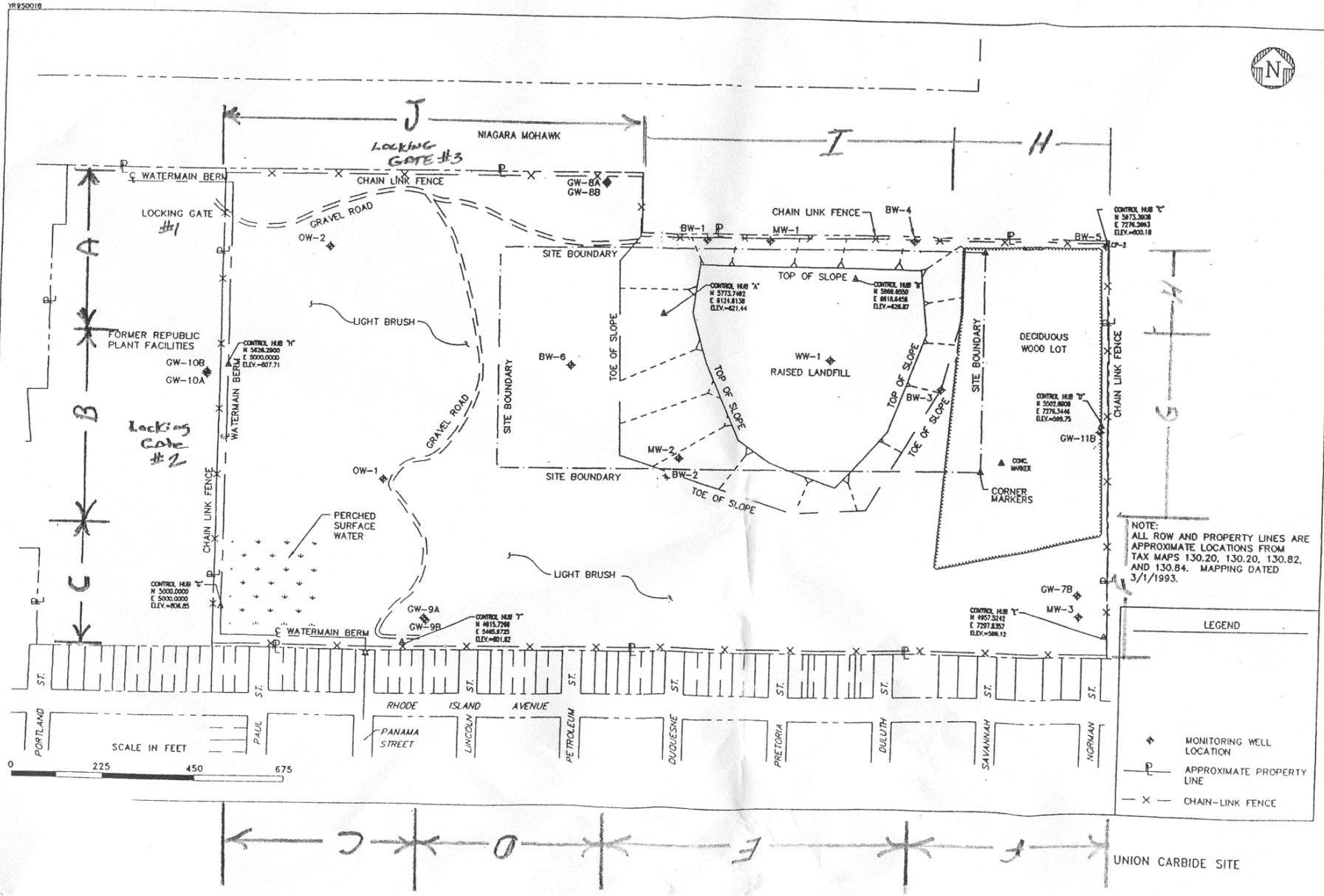
SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

CAP COMMENTS: (Check for erosion and adequate vegetation)

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


YR9S0018
J
I
H
G
F
E
D
C
B
A
NIAGARA MOHAWK
Locking Gate #3
℄ WATERMAIN BERM
CHAIN LINK FENCE
GW-8A
GW-8B
LOCKING GATE #1
GRAVEL ROAD
OW-2
BW-1
MW-1
CHAIN LINK FENCE
BW-4
BW-5
CONTROL HUB "C"
N 5673.3808
E 7274.2983
ELEV.=603.18
SITE BOUNDARY
TOP OF SLOPE
CONTROL HUB "A"
N 5773.7492
E 8124.8138
ELEV.=621.44
CONTROL HUB "B"
N 5868.8000
E 8618.8458
ELEV.=626.87
LIGHT BRUSH
FORMER REPUBLIC PLANT FACILITIES
GW-10B
GW-10A
CONTROL HUB "H"
N 5436.2900
E 5000.0000
ELEV.=607.71
BW-6
TOE OF SLOPE
WW-1
RAISED LANDFILL
DECIDUOUS WOOD LOT
BW-3
CONTROL HUB "D"
N 5502.8808
E 7274.3446
ELEV.=569.75
GW-11B
WATERMAIN BERM
GRAVEL ROAD
Locking Gate #2
MW-2
OW-1
BW-2
CONC. MARKER
CORNER MARKERS
CHAIN LINK FENCE
PERCHED SURFACE WATER
CONTROL HUB "G"
N 5000.0000
E 5000.0000
ELEV.=606.65
LIGHT BRUSH
GW-9A
GW-9B
CONTROL HUB "F"
N 4615.7288
E 5465.8725
ELEV.=601.82
GW-7B
MW-3
CONTROL HUB "E"
N 4957.3242
E 7297.8357
ELEV.=569.12
℄ WATERMAIN BERM
NOTE:
ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.82, AND 130.84. MAPPING DATED 3/1/1993.
LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
PORTLAND ST.
PAUL ST.
RHODE ISLAND AVENUE
PANAMA STREET
LINCOLN ST.
PETROLEUM ST.
DUQUESNE ST.
PRETORIA ST.
DULUTH ST.
SAVANNAH ST.
NORMAN ST.
SCALE IN FEET
0
225
450
675
UNION CARBIDE SITE

GRAFTech International

QUARTERLY GROUNDWATER WELL INSPECTION REPORT

GRAFTECH WELLS

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
MW1-78					
MW2-78					
MW3-79					
BW1-86					
BW2-86					
BW3-86					
BW4-86					
BW5-86					
BW6-86					
WW1-86					
OW1-88					
OW2-88					

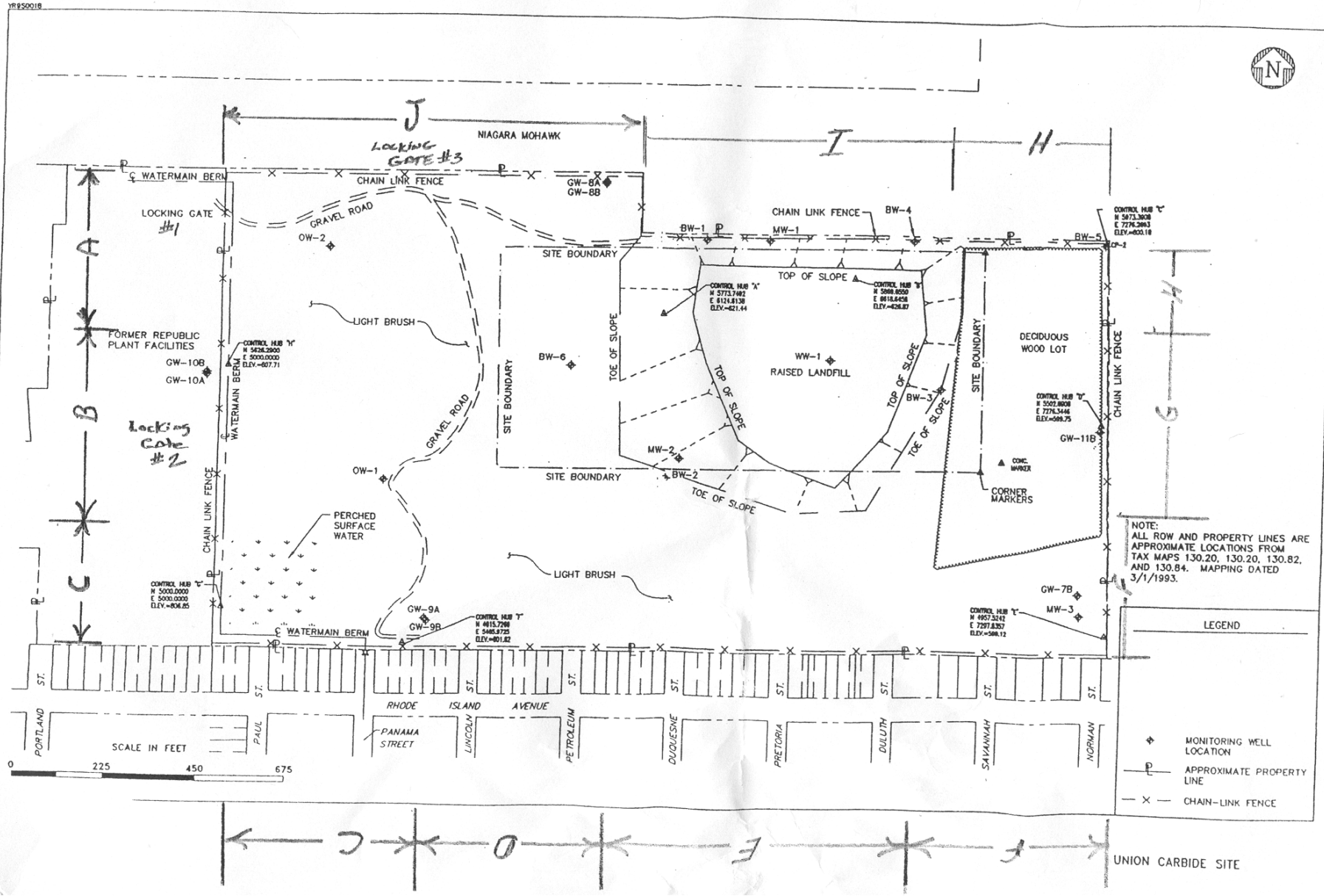
ON-SITE WELLS INSTALLED BY NYSDEC

(Installed Sept./Oct. 93)

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
GW7B-93					
GW8A-93					
GW8B-93					
GW9A-93					
GW9B-93					
GW11B-93					

Note:

MW wells are installed in the overburden.
BW wells are bedrock wells.
GWA wells are installed in the overburden.
GWB wells are bedrock wells.
OW and WW wells are overburden wells installed with the screen above the till layer.


YR9S0018
J
I
H
G
F
E
D
C
B
A
NIAGARA MOHAWK
Locking Gate #3
℄ WATERMAIN BERM
CHAIN LINK FENCE
GW-8A
GW-8B
LOCKING GATE #1
GRAVEL ROAD
OW-2
BW-1
MW-1
CHAIN LINK FENCE
BW-4
BW-5
CONTROL HUB "C"
N 5673.3808
E 7274.2983
ELEV.=603.18
SITE BOUNDARY
TOP OF SLOPE
CONTROL HUB "A"
N 5773.7492
E 8124.8138
ELEV.=621.44
CONTROL HUB "B"
N 5868.8000
E 8618.8458
ELEV.=626.87
LIGHT BRUSH
FORMER REPUBLIC PLANT FACILITIES
GW-10B
GW-10A
CONTROL HUB "H"
N 5436.2900
E 5000.0000
ELEV.=607.71
BW-6
TOE OF SLOPE
WW-1
RAISED LANDFILL
DECIDUOUS WOOD LOT
BW-3
CONTROL HUB "D"
N 5502.8808
E 7274.3446
ELEV.=569.75
GW-11B
WATERMAIN BERM
GRAVEL ROAD
Locking Gate #2
MW-2
OW-1
BW-2
CONC. MARKER
CORNER MARKERS
CHAIN LINK FENCE
PERCHED SURFACE WATER
CONTROL HUB "G"
N 5000.0000
E 5000.0000
ELEV.=606.65
LIGHT BRUSH
GW-9A
GW-9B
CONTROL HUB "F"
N 4615.7288
E 5465.8725
ELEV.=601.82
GW-7B
MW-3
CONTROL HUB "E"
N 4957.3242
E 7297.8357
ELEV.=569.12
℄ WATERMAIN BERM
NOTE:
ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.82, AND 130.84. MAPPING DATED 3/1/1993.
LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
PORTLAND ST.
PAUL ST.
RHODE ISLAND AVENUE
PANAMA STREET
LINCOLN ST.
PETROLEUM ST.
DUQUESNE ST.
PRETORIA ST.
DULUTH ST.
SAVANNAH ST.
NORMAN ST.
SCALE IN FEET
0
225
450
675
UNION CARBIDE SITE

Appendix B

Letter from NYSDEC, DER - Region 9, to GrafTech, dated April 5, 2023

(SM PRR Response Letter)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9
700 Delaware Avenue, Buffalo, NY 14209
P: (716) 851-7220 | F: (716) 851-7275
www.dec.ny.gov

April 5, 2023

Julianne Snyder
Corporate Health, Safety and Environmental Manager
GrafTech International Holdings Inc.
982 Keynote Circle
Brooklyn Heights, OH 44131

GrafTech International Holdings Inc.
Site No. 932035
Niagara (T), Niagara County
2022 Periodic Review Report

Dear Julianne Snyder (as the Certifying Party):

The Department has reviewed your Periodic Review Report (PRR) and IC/EC Certification for following period: December 31, 2020 to December 31, 2021.

The Department hereby accepts the PRR and associated Certification. The frequency of Periodic Reviews for this site is 1 year(s), your next PRR is due on January 30, 2024. You will receive a reminder letter and updated certification form 75-days prior to the due date. Regardless of receipt or not, of the reminder notice, the next PRR including the signed certification form, is still due on the date specified above.

If you have any questions, or need additional forms, please contact me at 716-851-7284 or e-mail: andrew.zwack@dec.ny.gov.

Sincerely,

Andrew Zwack
Assistant Engineer

ec: Benjamin McPherson – NYSDEC

Appendix C

Letter from NYSDEC, DER - Region 9, to GrafTech, dated October 29, 2018

(Site Management Plan)

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9
270 Michigan Avenue, Buffalo, NY 14203-2915
P: (716) 851-7220 | F: (716) 851-7226
www.dec.ny.gov

October 29, 2018

GrafTech International Holdings, Inc.
Juanita M. Bursley
982 Keynote Circle
Brooklyn Heights, OH 44131

Dear Ms. Bursley:

Site Management Plan
GrafTech International Holdings Inc.
Niagara (T), Niagara County
DER Site No.: 932035

The Department completed its review of GrafTech's Site Management Plan submitted on October 23, 2018. This correspondence provides formal transmittal that the Site Management Plan is accepted.

Sincerely,

Brian Sadowski

Digitally signed by Brian Sadowski
DN: cn=Brian Sadowski, o=DEC, ou=DER, email=brian.sadowski@dec.ny.gov, c=US
Date: 2018.10.29 13:32:35 -04'00'

Project Manager

ec: Stan Radon, NYSDEC, Buffalo
Glenn May, NYSDEC, Buffalo

Appendix D

GHD Letter to GrafTech, Reference No.12604419,

2023 Annual Groundwater Monitoring Results Summary Letter

285 Delaware Avenue
Buffalo, New York 14202
United States
www.ghd.com

Our ref: 12604419

July 17, 2023

Ms. Julianne Snyder
GrafTech International Holdings, Inc.
982 Keynote Circle
Brooklyn Heights, OH 44131

2023 Annual Groundwater Monitoring Results Summary Letter
Former Republic Landfill, Niagara Falls, New York

Dear Ms. Snyder:

GHD is presenting this 2023 Annual Groundwater Monitoring Results Summary Letter documenting the results of the annual groundwater monitoring event completed on June 17, 2023 at the Former Republic Landfill in Niagara Falls, New York (New York State Department of Environmental Conservation [NYSDEC] Site No. 932035). The monitoring event was conducted in accordance with the Field Sampling Plan (FSP) Post-Closure Monitoring Program for UCAR Carbon Solid Waste Management Unit (SWMU) No. 32NO3, prepared by Conestoga-Rovers & Associates (CRA), dated July 2000. This letter presents a summary of the completed Scope of Work and results of the annual monitoring event.

1. Scope of Work

The Scope of Work for the monitoring event consisted of the following tasks:

– Measurement of groundwater depths (hydraulic monitoring) at 12 bedrock wells (BW-1 through BW-6, GW-7B, GW-8A, GW-8B, GW-9A, GW-9B, and GW-11B) and 3 overburden wells (MW-1 through MW-3).
– Purging and collection of groundwater samples and quality assurance samples from bedrock wells BW-3, BW-4, and GW-8B for analysis of Target Compound List (TCL) volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method SW-846 8260C.
– Preparation of a groundwater monitoring letter report documenting the monitoring activities.

The results of the monitoring event are summarized below. The field notes for the monitoring event are located in Attachment A.

2. Hydraulic Monitoring

Prior to sampling, GHD measured static water levels and well depths in bedrock wells BW-1 through BW-6, GW-7B, GW-8A, GW-8B, GW-9A, GW-9B, and GW-11B and in overburden wells MW-1 through MW-3 using an electronic water level tape. Measurements were collected from the top of the well's reference point (either top of casing or top of riser, depending on the well) and were completed to the nearest 0.01 foot.

Table 2.1 below presents the collected depth to water measurements and calculated groundwater elevations. Table 2.2 below presents the sounded well depths. Wells BW-1 through BW-6 were last redeveloped on April 24 and 25, 2019. The sounded well depths following the April 2019 redevelopment, as well as the reported installed well depths, are shown for comparison.

Table 2.1 Water Levels and Groundwater Elevations – June 12, 2023

Well ID	Well Type	Reference Point Elevation (ft. AMSL)	Depth to Water (ft. $BTOR_f$)	Groundwater Elevation (ft. AMSL)
BW-1	Bedrock	611.66 (TOC)	14.89	596.77
BW-2	Bedrock	608.40 (TOC)	10.65	597.75
BW-3	Bedrock	605.02 (TOC)	9.62	595.40
BW-4	Bedrock	607.13 (TOC)	9.82	597.31
BW-5	Bedrock	603.27 (TOC)	7.68	595.59
BW-6	Bedrock	611.11 (TOC)	10.42	600.69
GW-7B	Bedrock	603.81 (TOC)	7.73	596.08
GW-8A	Bedrock	604.04 (TOR)	5.39	598.65
GW-8B	Bedrock	603.30 (TOR)	8.87	594.43
GW-9A	Bedrock	603.29 (TOR)	12.27	591.02
GW-9B	Bedrock	602.74 (TOR)	11.81	590.93
GW-11B	Bedrock	601.40 (TOR)	8.21	593.19
MW-1	Overburden	611.13 (TOC)	10.26	600.87
MW-2	Overburden	611.62 (TOR)	8.09	603.53
MW-3	Overburden	601.80 (TOR)	7.52	594.28

Notes:

Ft AMSL – Feet above mean sea level
Ft. BTOR – Feet below top of reference point
TOC – Top of casing
TOR – Top of riser

Table 2.2 Sounded Well Depths – June 12, 2023

Well ID	Well Type	Sounded Depth (ft. $BTOR_f$)	Sounded Depth after April 2019 Redevelopment (ft. $BTOR_f$)	Installed Depth (ft. $BTOR_f$)
BW-1	Bedrock	28.66	29.00	37.11
BW-2	Bedrock	27.42	27.63	38.03
BW-3	Bedrock	24.74	25.00	25.42
BW-4	Bedrock	26.82	27.10	27.80
BW-5	Bedrock	28.35	28.75	28.57
BW-6	Bedrock	25.07	30.40	36.42
GW-7B	Bedrock	32.23	NA	33.71
GW-8A	Bedrock	9.81	NA	20.04
GW-8B	Bedrock	28.69	NA	29.42
GW-9A	Bedrock	23.45	NA	19.29
GW-9B	Bedrock	31.65	NA	31.69
GW-11B	Bedrock	27.91	NA	27.73
MW-1	Overburden	23.06	NA	20.88
MW-2	Overburden	24.33	NA	24.68
MW-3	Overburden	15.04	NA	15.93

Notes:

Ft. BTOR – Feet below top of reference point
NA – Not applicable

Figures 2.1 and 2.2 present potentiometric surface maps for the observed groundwater elevations in the overburden and bedrock, respectively. Based on the maps, groundwater was flowing in a general east-southeasterly direction in the overburden during the monitoring event. A groundwater mound was observed west of the landfill around BW-6 with groundwater moving in generally in an easterly-southeasterly direction from the landfill as well as a south-southwesterly direction from the landfill. These groundwater flow directions are generally consistent with groundwater flow directions observed during previous monitoring events.

3. Groundwater Quality Monitoring

3.1 Sample Collection

Following measurement of static water levels, GHD purged and sampled wells BW-3, BW-4, and GW-8B using a Masterflex® peristaltic pump with ¼-inch diameter Teflon tubing following USEPA low-flow sampling procedures. During the purging activities, field parameters (temperature, pH, specific conductivity, dissolved oxygen, oxidation-reduction potential, and turbidity) were measured in approximate 5-minute intervals. Attachment B presents the field parameters collected during the well purging. In accordance with the FSP, purge waters were discharged to the ground surface following the sampling event.

Following completion of purging, GHD collected groundwater samples from BW-3, BW-4, and GW-8B for analysis of TCL VOCs via USEPA Method SW-846 8260C. One field duplicate sample was collected from BW-4and a matrix spike/matrix spike duplicate (MS/MSD) sample set was collected from GW-8B. A trip blank prepared by the laboratory accompanied the sample bottles at all times and was also analyzed for VOCs. The samples were submitted on ice under standard chain of custody procedures to Eurofins TestAmerica Laboratories, Inc. in Amherst, New York, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory.

3.2 Analytical Results

The laboratory analytical data report for the groundwater samples submitted for analysis is included as Attachment C. Table 3.1 presents the analytical results. According to the laboratory report, the following analytes were detected at concentrations above the NYSDEC Class GA Standards and Guidance Values ("criteria"):

- BW-3: Vinyl chloride (VC)
- BW-4: Cis-1,2-dichloroethylene (cis-1,2-DCE), tetrachloroethylene (PCE), trichloroethylene (TCE), and VC
- GW-8B: VC and cis-1,2-DCE

A GHD chemist completed a reduced data validation on the laboratory analytical data package from the sampling event. The chemist concluded that the laboratory data are acceptable without qualification. The data validation memo is included as Attachment D.

3.3 Trends Analysis

Table 3.2 presents the current and historical concentration data for BW-3, BW-4, and GW-8B for PCE, TCE, cis-1,2-DCE, and VC. Although other VOCs have been detected in these wells, they have only been detected intermittently and at levels below or only slightly above criteria. The four above-listed VOCs have collectively been detected consistently and at elevated concentrations in these three bedrock wells, and, as such, their concentrations have been monitored through time. Figures 3.1 through 3.3 present the historical concentration data for these four VOCs from March 2000 to the present. Where duplicate samples were collected, the average concentrations detected among the duplicate samples are shown. The following is a brief discussion of the June 2023 sampling results relative to historical concentrations for these four VOCs in the three bedrock wells sampled.

BW-3 (Figure 3.1)

- VC was detected at a concentration of 6.2 micrograms per liter (µg/L) in June 2023, which was above the criteria of 2 µg/L. Concentrations of VC have either been non-detect or below 10 µg/L since September 2001 and have exhibited minor fluctuations throughout this time period.
- cis-1,2-DCE was detected at an estimated concentration of 0.89 µg/L in June 2023 and has not been detected at concentrations at or above the criteria of 5 µg/L from March 2000 to the present.
- PCE and TCE were non-detect in June 2023 and have been non-detect since March 2000. As such, they are not shown on Figure 3.1.

BW-4 (Figure 3.2)

- cis-1,2-DCE was detected at a concentration of 540 µg/L (530 µg/L in the duplicate) in June 2023, which was above the criteria of 5 µg/L. Concentrations of cis-1,2-DCE have been above criteria since March 2000. Concentrations had been gradually increasing overall since March 2000, with relatively large fluctuations observed from September 2010 to October 2014 and from May 2019 to June 2023. The concentration detected in June 2023 was still lower than other observed concentrations since September 2010. Future monitoring events will aid in determining if the decreased concentration is a fluctuation in the overall pattern of gradually increasing concentrations or if concentrations will remain decreased.
- PCE was detected at a concentration of 300 µg/L (320 µg/L in the duplicate) in June 2023, which was above the criteria of 5 µg/L. Concentrations of PCE have been above criteria since March 2000 and were relatively stable from March 2000 to May 2013, and from October 2014 through May 2019 and May 2021 through June 2023, though at higher concentrations. Future monitoring events will aid in determining if the concentration detected in June 2023 is part of an apparent long-term stable trend, with some fluctuation.

- TCE was detected at a concentration of 330 µg/L (330 µg/L in the duplicate) in June 2023, which was above the criteria of 5 µg/L. Concentrations of TCE have been above criteria since March 2000 and increased from March 2009 to October 2014, after which they have generally decreased through June 2023, with the exception of a one-time increase in September 2020. Future monitoring events will aid in determining if the concentration detected in June 2023 is part of this overall decreasing trend.
- VC was detected at a concentration of 120 µg/L (110 µg/Lin the duplicate) in June 2023, which was above the criteria of 2 µg/L. Concentrations of VC have been above criteria since March 2000 and gradually increased from March 2000 to October 2014. Concentrations appeared to have stabilized from October 2014 through June 2023, with the exception of a one-time increase in September 2020. Future monitoring events will aid in determining if the concentration detected in June 2023 is part of an apparent long-term stable trend, with some fluctuation.

GW-8B (Figure 3.3)

- cis-1,2-DCE was detected at a concentration of 19 µg/L in June 2023, which was above the criteria of 5 µg/L. Concentrations of cis-1,2-DCE have been above criteria since March 2000, with the exception of a non-detect in September 2003, but appear to have remained stable since April 2004.
- VC was detected at a concentration of 4.8 µg/L in June 2023, which was above the criteria of 2 µg/L. VC was non-detect from March 2000 to March 2005 and has been detected at concentrations slightly above criteria since September 2006, with the exception of a non-detect in March 2007 and concentrations in May 2015 and May 2017 that were slightly below criteria. Concentrations appear to have remained stable since September 2006.
- TCE was detected at a concentration of 3.5 µg/L in June 2023, which was below the criteria of 5 µg/L. Concentrations have exhibited an overall long-term decrease since March 2003.
- PCE was non-detect in June 2023 and has been non-detect since March 2000. As such, PCE is not shown on Figure 3.3.

3.3.1 Assessment

Concentrations of VOCs detected in bedrock wells BW-3 and GW-8B were generally consistent with the concentrations detected during the September 2022 sampling event. The current and historical data has shown that concentrations of VOCs in well BW-3 remain low, with only VC present at concentrations slightly above criteria. This well was hydraulically downgradient of the landfill during the June 2023 monitoring event, but has been shown to be hydraulically upgradient of the landfill during some previous monitoring events. These shifts in gradient direction may be due to seasonality, as monitoring events have alternated between spring and fall. Concentrations of VOCs in GW-8B, which is hydraulically downgradient of the landfill, also remain low and have generally stabilized. Concentrations of VOCs detected in bedrock well BW-4 have decreased slightly since the September 2022 sampling event, and still remain lower than the highs observed in the September 2020 sampling event.

Based on the generally stable concentrations of VOCs observed in well BW-3 and GW-8B, no discernable negative trend in groundwater quality was observed for the Site. Concentrations of VOCs in BW-4, which is hydraulically up- or cross-gradient of the landfill based on the current and historical gauging events, remain elevated and have typically been 2 to 3 orders of magnitude higher than the VOC concentrations in the other bedrock monitoring wells. This strongly suggests an off-Site source.

4. Closing/Recommendations

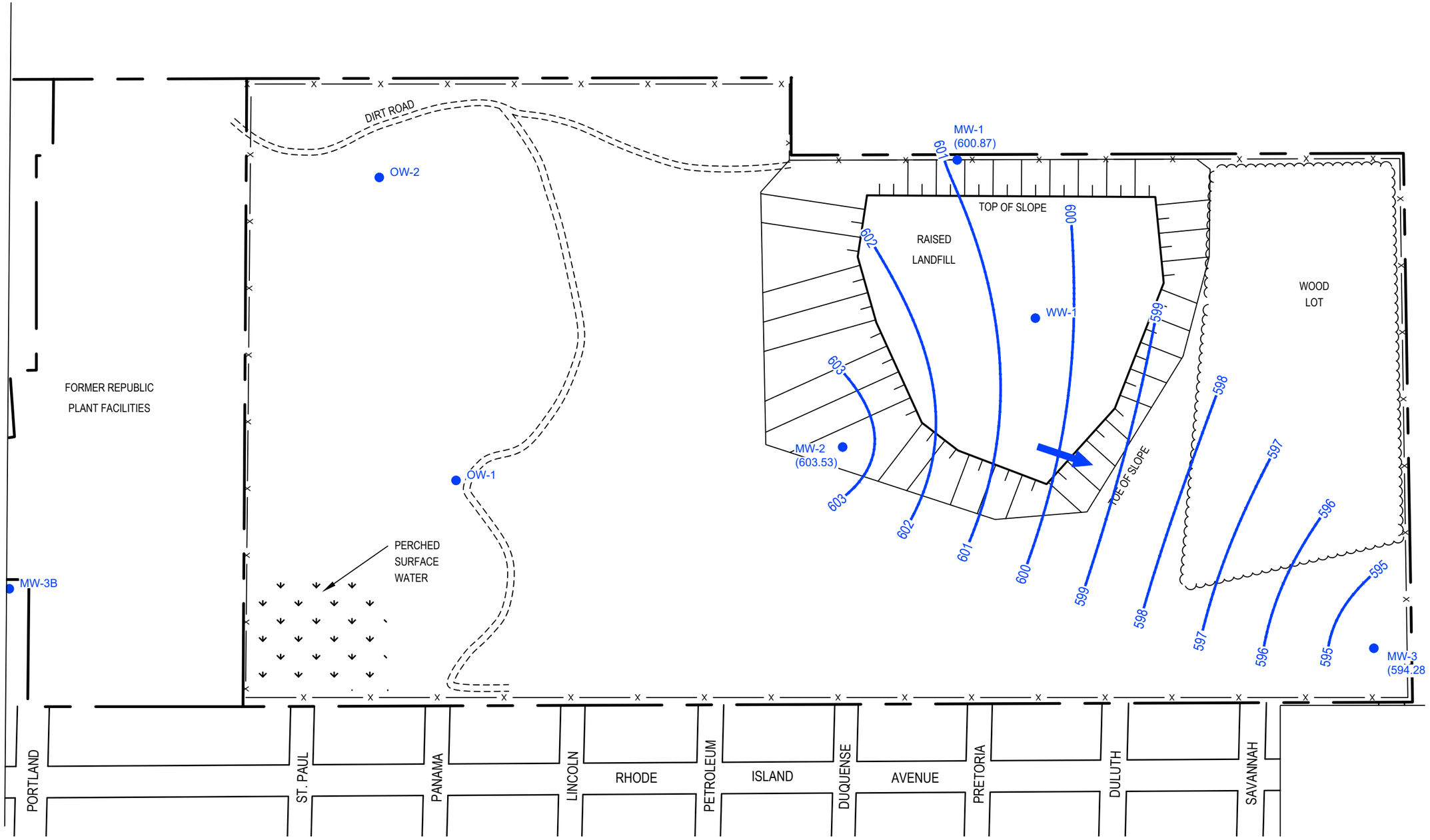
Results from the 2023 groundwater monitoring activities indicate that concentrations of cis-1,2-DCE, PCE, TCE, and VC are consistent with previous results. The groundwater monitoring program for the past 30 years, since closure of the landfill, has identified no negative trends in the groundwater quality associated with the landfill. VOC concentrations in well BW-4, which is generally upgradient or cross-gradient of the landfill, were generally lower in 2023 relative to recent years, but are typically 2 to 3 orders of magnitude higher than VOC concentrations detected in the other bedrock wells at the Site. This strongly suggests an off-Site source. The next groundwater monitoring event will occur in September 2024.

GHD appreciates the opportunity to conduct this work. If you have any questions regarding this or require additional assistance, please contact the undersigned at 716-362-8839 or katherine.galanti@ghd.com.

Regards,

Katherine Galanti
Project Manager

+1 716 362-8839
katherine.galanti@ghd.com



LEGEND

- MW-3 — OVERBURDEN MONITORING WELL LOCATION
- (597.16) — GROUNDWATER ELEVATION (FT) AMSL
- PROPERTY LINE
- FENCE
- 600 — GROUNDWATER ELEVATION CONTOUR DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION

0 100 200 ft
1" = 200 ft

N

GHD

FORMER REPUBLIC LANDFILL
NIAGARA FALLS, NEW YORK

OVERBURDEN GROUNDWATER POTENTIOMETRIC SURFACE MAP (JUNE 12, 2023)

Project No. **12604419**
Date **July 2023**

FIGURE 2.1

Filename: \\ghdnet\ghd\US\Buffalo\Projects\564\12604419\Digital_Design\ACAD\Figures\PRE001\12604419-GHD-00-00-PRE-EN-D101_WA-001.dwg
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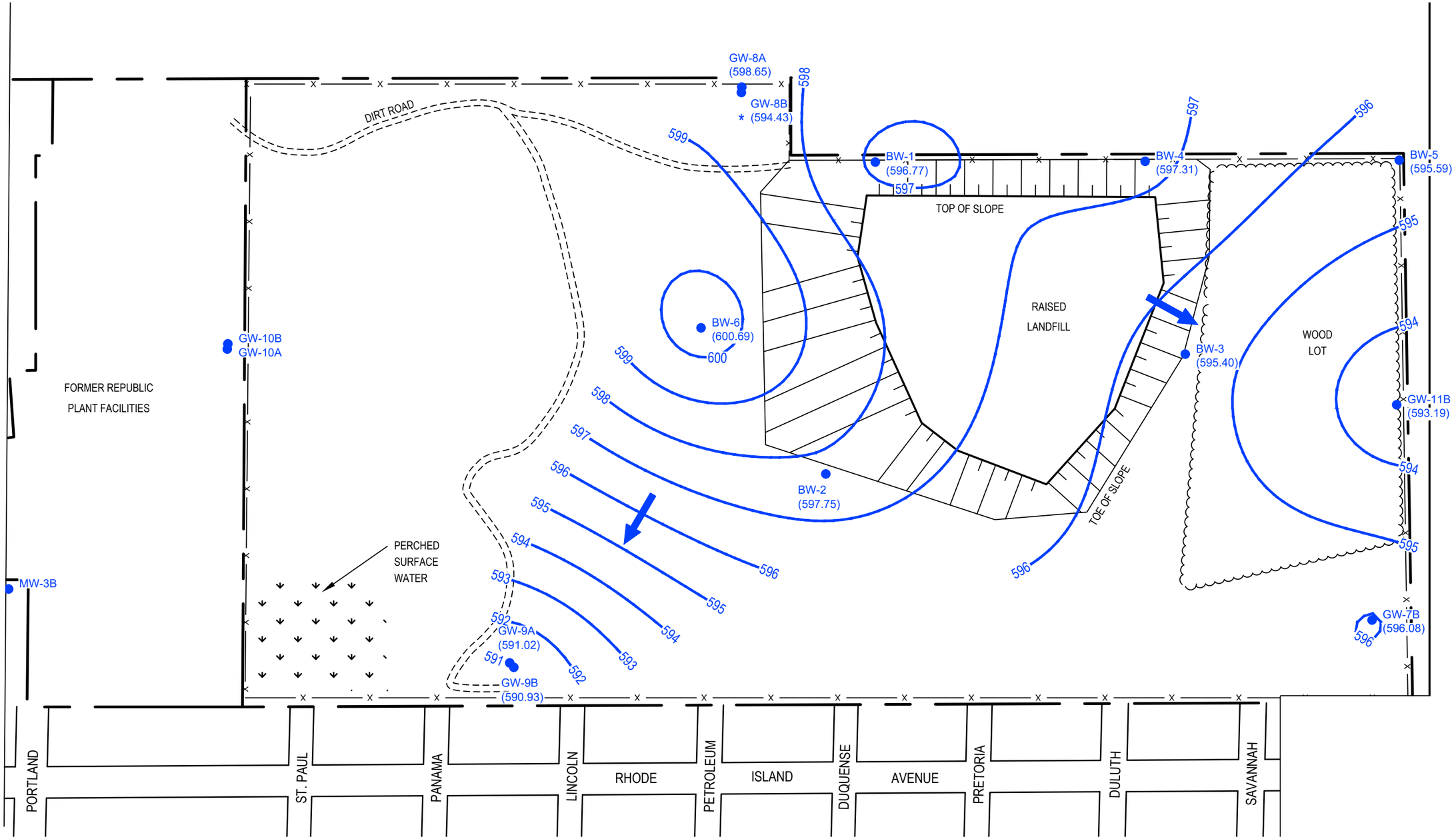


LEGEND

- BW-1 — BEDROCK MONITORING WELL LOCATION
- 591.85 — GROUNDWATER ELEVATION (FT) AMSL
- PROPERTY LINE
- x — FENCE
- 600 — GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- * — NOT USED IN CONTOURING

0 100 200 ft
1" = 200 ft

N

GHD

FORMER REPUBLIC LANDFILL
NIAGARA FALLS, NEW YORK

BEDROCK GROUNDWATER POTENTIONMETRIC SURFACE MAP (JUNE 12, 2023)

Project No. **12604419**
Date **July 2023**

FIGURE 2.2

Filename: \\ghdnet\ghd\US\Buffalo\Projects\564\12604419\Digital_Design\ACAD\Figures\PRE001\12604419-GHD-00-00-PRE-EN-D102_WA-001.dwg
Plot Date: 17 July 2023 3:43 PM

Figure 3.1
Historical Data Graph
Well BW-3

Former Republic Landfill

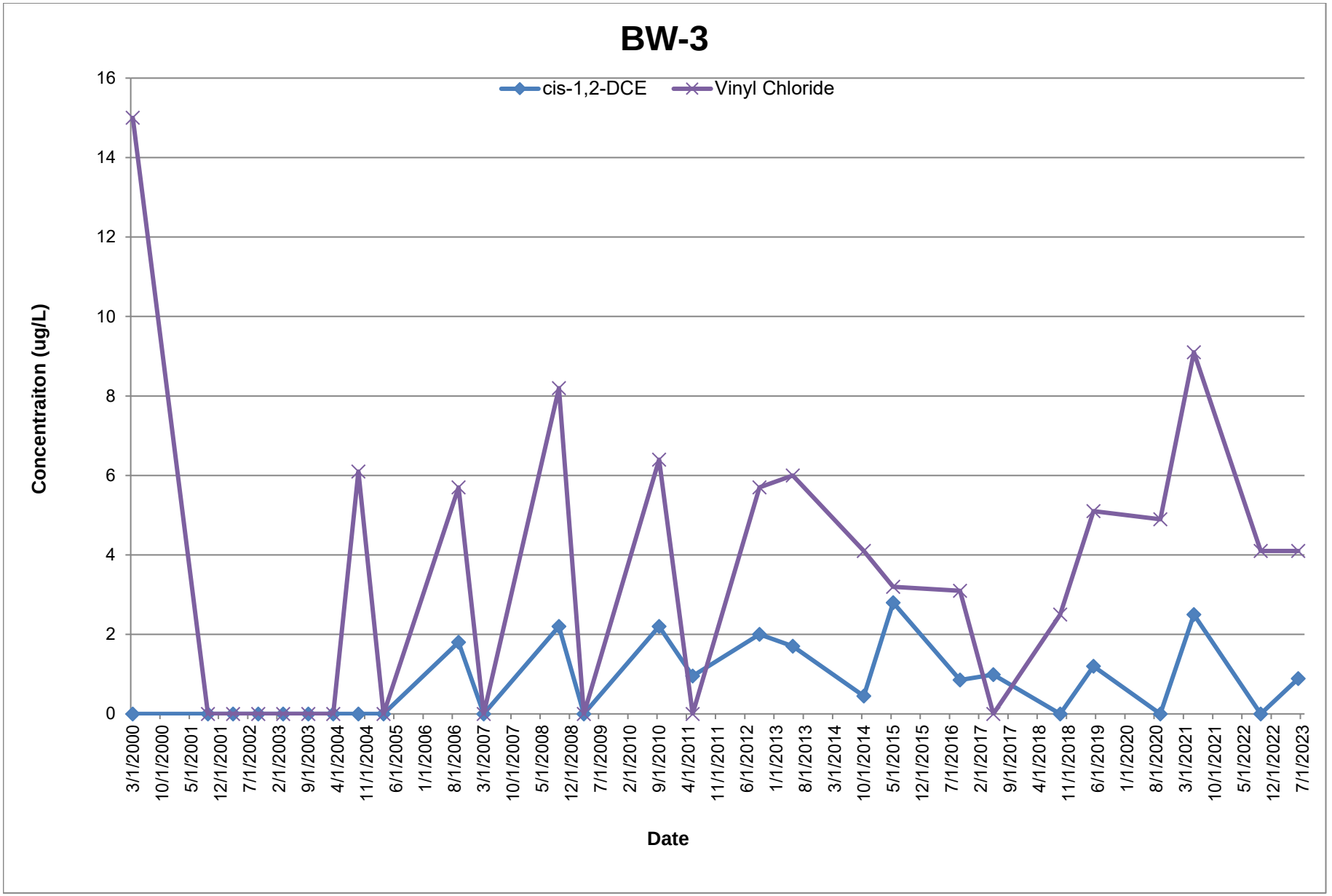


Figure 3.2
Historical Data Graph
Well BW-4

Former Republic Landfill

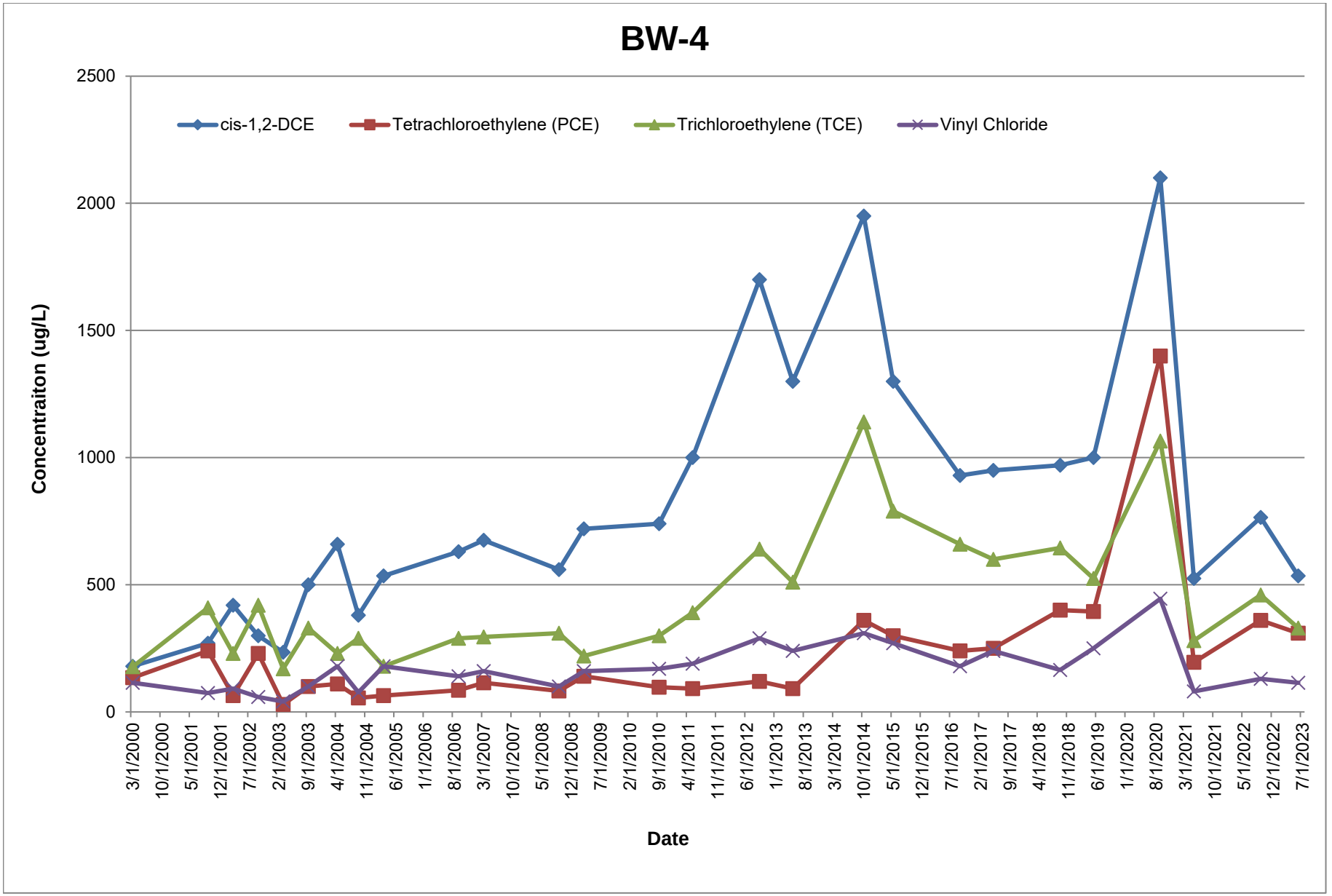


Figure 3.3
Historical Data Graph
Well GW-8B

Former Republic Landfill

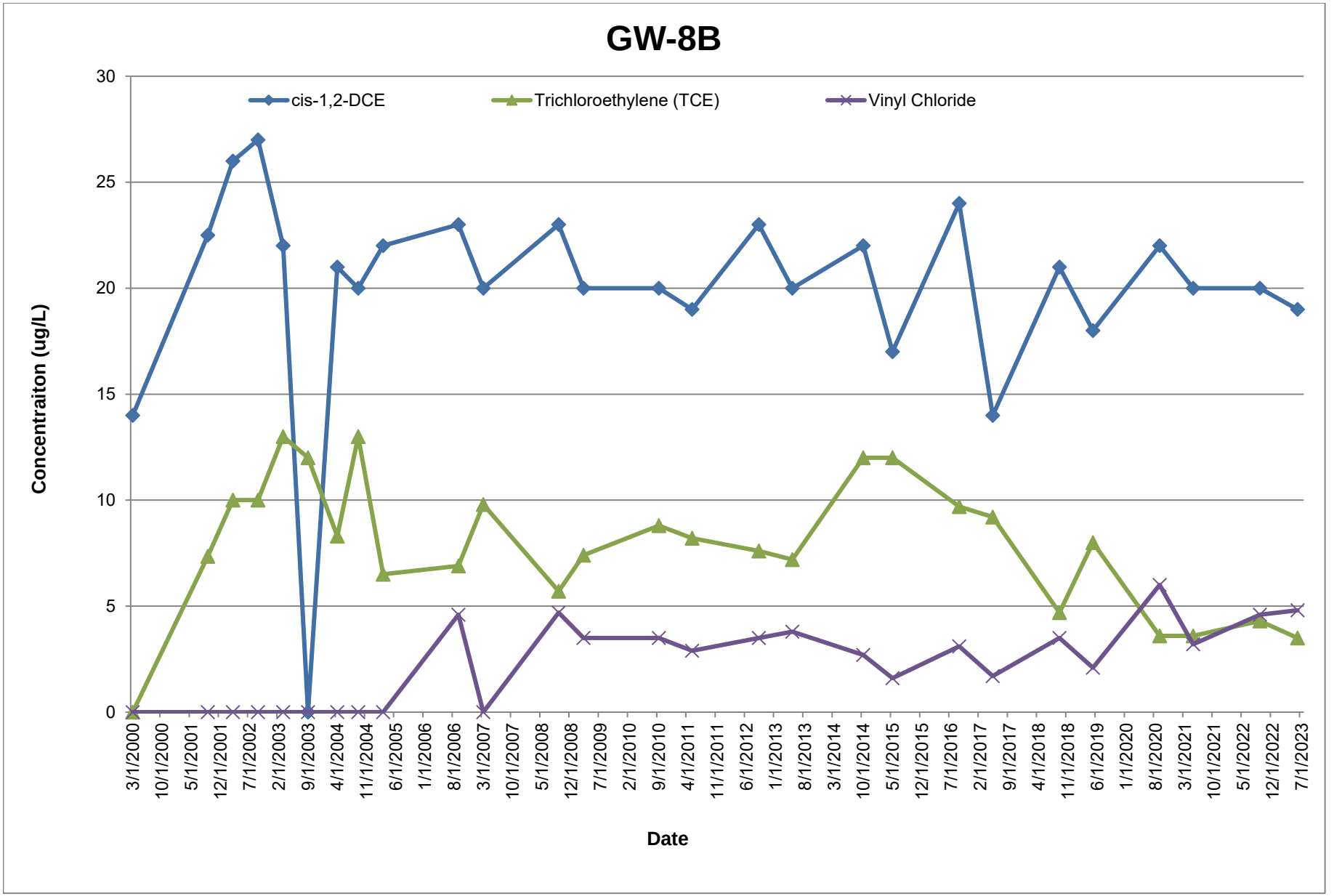


Table 3.1

Analytical Results Summary
Annual Groundwater Monitoring Program
GrafTech International Holdings, Inc.
Niagara Falls, New York
September 2022

Location ID:			BW-3	BW-4	BW-4	GW-8B
Sample Name:			WG-12604419-061223-KM-004	WG-12604419-061223-KM-002	WG-12604419-061223-KM-003	WG-12604419-061223-KM-001
Sample Date:			06/12/2023	06/12/2023	06/12/2023 Duplicate	06/12/2023
Parameters	**Unit**	**NYSDEC Class GA Criteria/TOGS**				
Volatile Organic Compounds						
1,1,1-Trichloroethane	µg/L	5	1.0 U	10 U	10 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	5	1.0 U	10 U	10 U	1.0 U
1,1,2-Trichloroethane	µg/L	1	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethylene	µg/L	5	1.0 U	2.9 J	10 U	1.0 U
1,1-Dichloroethane	µg/L	5	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethane	µg/L	0.6	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethene (total)	µg/L	5	0.89 J	540	530	19
1,2-Dichloropropane	µg/L	1	1.0 U	10 U	10 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	50	10 U	100 U	100 U	10 U
2-Hexanone	µg/L	50	5.0 U	50 U	50 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	--	5.0 U	50 U	50 U	5.0 U
Acetone	µg/L	50	10 U	100 U	100 U	10 U
Benzene	µg/L	1	1.0 U	10 U	10 U	1.0 U
Bromodichloromethane	µg/L	50	1.0 U	10 U	10 U	1.0 U
Bromoform	µg/L	5	1.0 U	10 U	10 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	5	1.0 U	10 U	10 U	1.0 U
Carbon disulfide	µg/L	60	0.43 J	10 U	10 U	1.0 U
Carbon tetrachloride	µg/L	5	1.0 U	10 U	10 U	1.0 U
Chlorobenzene	µg/L	5	1.0 U	10 U	10 U	1.0 U
Chloroethane	µg/L	5	1.0 U	10 U	10 U	1.0 U
Chloroform (Trichloromethane)	µg/L	7	1.0 U	3.6 J	10 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	5	1.0 U	10 U	10 U	1.0 U
cis-1,2-Dichloroethene	µg/L	5	0.89 J	540	530	19
cis-1,3-Dichloropropene	µg/L	0.4	1.0 U	10 U	10 U	1.0 U
Dibromochloromethane	µg/L	50	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	µg/L	5	1.0 U	10 U	10 U	1.0 U
Methylene chloride	µg/L	5	1.0 U	10 U	10 U	1.0 U
Styrene	µg/L	5	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	µg/L	5	1.0 U	300	320	1.0 U
Toluene	µg/L	5	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	µg/L	5	1.0 U	10 U	10 U	1.0 U
trans-1,3-Dichloropropene	µg/L	0.4	1.0 U	10 U	10 U	1.0 U
Trichloroethene	µg/L	5	1.0 U	330	330	3.5
Vinyl chloride	µg/L	2	6.2	120	110	4.8
Xylenes (total)	µg/L	5	2.0 U	20 U	20 U	2.0 U

Notes:
U - Not detected at the associated reporting limit
J - Estimated concentration
TOGS - Technical and Operational Guidance Series
- Boxed values are greater than regulatory limit

Table 3.2

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride
March 2000 - September 2022

Well Number	Parameter	Groundwater Criteria (ppb)	March 2000 (ppb)	Sept. 2001 (ppb)	March 2002 (ppb)	Sept. 2002 (ppb)	March 2003 (ppb)	Sept. 2003 (ppb)
BW-3	Cis-1,2-DCE	5	10U	5U	5U	5U	5U	5U
	PCE	5	10U	5U	5U	5U	5U	5U
	TCE	5	10U	5U	5U	5U	5U	5U
	Vinyl Chloride	2	**15**	5U	5U	5U	5U	5U
GW-8B	Cis-1,2-DCE	5	**14**	**23 (22)**	**26**	**27**	**22**	5U
	PCE	5	10U	5U (5U)	5U	5U	5U	5U
	TCE	5	10U	**7.5 (7.2)**	**10**	**10**	**13**	**12**
	Vinyl Chloride	2	10U	5U (5U)	5U	5U	5U	5U
BW-4	Cis-1,2-DCE	5	**180**	**270**	**420**	**300**	**230 (240)**	**500**
	PCE	5	**135**	**240**	**64**	**230**	**29 (30)**	**100**
	TCE	5	**178**	**410**	**230**	**420**	**170 (170)**	**330**
	Vinyl Chloride	2	**115**	**74**	**92**	**59**	**41 (41)**	**100**

Shaded cells indicate the concentrations exceeds the New York State Class GA Groundwater Criteria

Parentheses indicate the results of the duplicate sample

* - Concentration represents total 1,2-DCE

** - Concentration represents total DCE

J - Concentration is an estimated value

U - Not present at or above the associated value

Table 3.2

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride
March 2000 - September 2022

Well Number	Parameter	Groundwater Criteria (ppb)	March/April 2004 (ppb)	Sept. 2004 (ppb)	March 2005 (ppb)	Sept. 2006 (ppb)	March 2007 (ppb)	Sept. 2008 (ppb)
BW-3	Cis-1,2-DCE	5	5U	5U	5U	1.8	5U	2.2
	PCE	5	5U	5U	5U	5U	5U	5U
	TCE	5	5U	5U	5U	5U	5U	5U
	Vinyl Chloride	2	5U	**6.1**	5U	**5.7**	5.0U	**8.2**
GW-8B	Cis-1,2-DCE	5	**21**	**20**	**22**	**23**	**20**	**23**
	PCE	5	5U	5U	5U	5U	5U	5U
	TCE	5	**8.3**	**13**	**6.5**	**6.9**	**9.8**	**5.7**
	Vinyl Chloride	2	5U	5U	5U	**4.6J**	5.0U	**4.7J**
BW-4	Cis-1,2-DCE	5	**660**	**370 (390)**	**540 (530)**	**620 (620)**	**710 (640)**	**580 (540)**
	PCE	5	**110**	**55 (56)**	**64 (65)**	**84 (86)**	**120 (110)**	**86 (79)**
	TCE	5	**230**	**290 (290)**	**180 (180)**	**290 (290)**	**310 (280)**	**320 (300)**
	Vinyl Chloride	2	**180**	**75 (79)**	**180 (180)**	**140 (140)**	**170 (150)**	**100 (100)**

Shaded cells indicate the concentrations exceeds the New York State Class GA Groundwater Criteria

Parentheses indicate the results of the duplicate sample

* - Concentration represents total 1,2-DCE

** - Concentration represents total DCE

J - Concentration is an estimated value

U - Not present at or above the associated value

Table 3.2

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride
March 2000 - September 2022

Well Number	Parameter	Groundwater Criteria (ppb)	March 2009 (ppb)	Sept. 2010 (ppb)	May 2011 (ppb)	Sept. 2012 (ppb)	May 2013 (ppb)	Oct. 2014 (ppb)
BW-3	Cis-1,2-DCE	5	10U*	2.2J*	0.95J**	2	1.7	0.45
	PCE	5	5U	5U	0.42U	1.0U	1.0U	1.0U
	TCE	5	5U	5U	0.30U	1.0U	1.0U	1.0U
	Vinyl Chloride	2	5.0U	**6.4**	0.3U	**5.7**	**6.0**	**4.1**
GW-8B	Cis-1,2-DCE	5	**20***	**20***	**19****	**23**	**20**	**22**
	PCE	5	5U	5U	0.42U	1.0U	1.0U	1.0U
	TCE	5	**7.4**	**8.8**	**8.2**	**7.6**	**7.2**	**12**
	Vinyl Chloride	2	**3.5J**	**3.5J**	**2.9J**	**3.5**	**3.8**	**2.7**
BW-4	Cis-1,2-DCE	5	**720***	**740***	**1000****	**1700**	**1300**	**2200 (1700)**
	PCE	5	**140J**	**97**	**92**	**120**	**92**	**390 (330)**
	TCE	5	**220J**	**300**	**390**	**640**	**510**	**1300 (980)**
	Vinyl Chloride	2	**160J**	**170**	**190**	**290**	**240**	**350 (270)**

Shaded cells indicate the concentrations exceeds the New York State Class GA Groundwater Criteria

Parentheses indicate the results of the duplicate sample

* - Concentration represents total 1,2-DCE

** - Concentration represents total DCE

J - Concentration is an estimated value

U - Not present at or above the associated value

Table 3.2

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride
March 2000 - September 2022

Well Number	Parameter	Groundwater Criteria (ppb)	May 2015 (ppb)	Sept. 2016 (ppb)	May 2017 (ppb)	Sept. 2018 (ppb)	May 2019 (ppb)	September 2020 (ppb)
BW-3	Cis-1,2-DCE	5	2.8	0.85	0.99	1.0U	1.2	1.0U
	PCE	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
	TCE	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
	Vinyl Chloride	2	**3.2**	**3.1**	1.0U	**2.5**	**5.1**	**4.9**
GW-8B	Cis-1,2-DCE	5	**17**	**24**	**14 (14)**	**21.0**	**18**	**22**
	PCE	5	1.0U	1.0U	1.0U	1.0U	1.0U	1.0U
	TCE	5	**12**	**9.7**	**9.2 (9.2)**	4.7	**8.0**	3.6
	Vinyl Chloride	2	1.6	**3.1**	1.7	**3.5**	**2.1**	**6.0**
BW-4	Cis-1,2-DCE	5	**1300**	**930J**	**950**	**1000 (940)**	**1000 (1000)**	**2300 (1900)**
	PCE	5	**300**	**240**	**250**	**390 (410)**	**390 (400)**	**1600 (1200)**
	TCE	5	**790**	**660J**	**600**	**650 (640)**	**510 (540)**	**1200 (930)**
	Vinyl Chloride	2	**270**	**180**	**240**	**150 (180)**	**230 (270)**	**480 (410)**

Shaded cells indicate the concentrations exceeds the New York State Class GA Groundwater Criteria

Parentheses indicate the results of the duplicate sample

* - Concentration represents total 1,2-DCE

** - Concentration represents total DCE

J - Concentration is an estimated value

U - Not present at or above the associated value

Table 3.2

Summary of Bedrock Well Analytical Results: PCE, TCE, cis-1,2-DCE, and Vinyl Chloride
March 2000 - September 2022

Well Number	Parameter	Groundwater Criteria (ppb)	May 2021 (ppb)	September 2022 (ppb)	June 2023 (ppb)
BW-3	Cis-1,2-DCE	5	2.5	1.0U	0.89 J
	PCE	5	1.0U	1.0U	1.0U
	TCE	5	1.0U	1.0U	1.0U
	Vinyl Chloride	2	**9.1**	**4.1**	**6.2**
GW-8B	Cis-1,2-DCE	5	**20**	**20**	**19**
	PCE	5	1.0U	1.0U	1.0U
	TCE	5	3.6	4.3	3.5
	Vinyl Chloride	2	**3.2**	**4.6**	**4.8**
BW-4	Cis-1,2-DCE	5	**570 (480)**	**720 (810)**	**540 (530)**
	PCE	5	**200 (190)**	**350 (370)**	**300(320)**
	TCE	5	**300 (260)**	**440 (480)**	**330 (330)**
	Vinyl Chloride	2	**89 (72)**	**120 (140)**	**120 (110)**

Shaded cells indicate the concentrations exceeds the New York State Class GA Groundwater Criteria

Parentheses indicate the results of the duplicate sample

* - Concentration represents total 1,2-DCE

** - Concentration represents total DCE

J - Concentration is an estimated value

U - Not present at or above the associated value

Attachment A

Field Notes

GRAFTECH ANNUAL GW SAMPLING

JUNE 12, 2023

PROJECT # 126044.19.01

Field File

Field Data Record Form
Meter, Turbidity (Portable) Hach 2100P and 2100Q
(QSF-421D)

Control number: NF08286
Date (mm/dd/yyyy): 6/12/2023
User (print name): K. Miller / J. Kawcak

Project number: 12604419.01
Project name: Graftech Annual GW Sampling
Location: Hyde Park Blvd & Wittmer rd

Additional equipment control numbers and descriptions:
10 NTU - Lot# A8337
100 NTU - Lot# A8340
800 NTU - Lot# A8338

Field procedure before use:

Do not calibrate in the field.	
	Check when completed
Check kit contents; • Meter • STABLCAL standards (2100Q) • Low 0-10, medium 0-100, high standards (2 100P) • Extra AA batteries • Sample vials	☒ ☒ ☒ ☒ ☒
Test and record standards:	☒

Gelex (2100P)/STABLCAL (2100Q) Standard	*Meter Reading*
10 NTU	9.11
100 NTU	99.8
800 NTU	809

Note: Condensation on outside of sample bottles affects meter readings.

Filing: Field file

Signature: KM

Field Data Record Form
Water Level Meter

Control number: NF08988
Date (mm/dd/yyyy): 6/12/2023
User (print name): J. Kaweck

Project number: 126044.19.01
Project name: Graftech Annual GW Sampling
Location: Hyde Park Blvd & Witmer Rd

Additional equipment control numbers and descriptions:

Field procedure before use:

	Check when completed
• Check for broken or missing parts.	
• Check battery	☒
• Check operation of buzzer.	☒
• Check operation of signal light.	☒
• Test probe in water to ensure unit operates, both visually and audibly.	☒
• Check cable.	☒

Filing: Field file

Signature:

Water Level Measurement Equipment and Supply Checklist
(Form SP-10)

Date: 06/12/2023 (mm/dd/yyyy)

Reference No. 126044.01

Instruments

- [x] Water level indicator
- [ ] Steel tape
- [ ] Oil/Water interface probe
- [ ] Air monitoring equipment

Supplies

- [ ] Foil
- [ ] Tyveks (assorted sizes and types)
- [x] Paper towels 1 Rolls
- [x] Decontamination fluids
  - [ ] 2 - Propanol
  - [x] Deionized water
  - [ ] Hexane (pesticide grade)
  - [ ] Methanol (pesticide grade)
  - [ ] Other
- [x] Trash bags
- [x] Plastic spray bottles

Personal Protective Equipment

- [x] Latex gloves
- [x] Hard hats/liner(s)
- [ ] Field overboots
- [ ] Work gloves (cotton and chemical resistant)
- [x] Safety glasses/or side shields on
- [ ] OSHA-approved prescription lenses
- [x] First aid kit
- [ ] Respirators
- [x] Check health and safety plan

Documentation

- [x] Well logs
- [x] Notebook/Field book
- [ ] Photolog
- [ ] Site pass/badge
- [x] Previous well logs/previous historical well data
- [x] Site map
- [x] Blank well data forms

Miscellaneous

- [x] Well cap keys
- [x] Bolt cutters
- [ ] Camera/Film
- [x] Knife
- [x] Spare batteries for instruments
- [ ] Lock deicer (winter)
- [x] Pen/Pencil/Indelible marking pen
- [x] Tool box
- [x] Spare locks/keys

On site transportation
(all-terrain vehicle/snowmobiles)

Completed By: Kevin Miller (please print)

Date: 06/12/2023 (mm/dd/yyyy)

KZ

Groundwater Sampling Equipment and Supply Checklist
(Form SP-05)

Date: 6/12/2023 (mm/dd/yyyy)

Reference No. 126044 19.01

Equipment

- [x] Required sampling equipment (as per work plan or QAPP)

Instruments

Water level indicator

Thermometer *

- [x] pH meter *
- [x] Conductivity probe *
- [x] Turbidity meter
- [ ] HNu/OVA/Microtip
- [ ] Air monitoring equipment

Supplies

- [ ] Gasoline can/gas
- [ ] Polypropylene rope
- [ ] Aluminum foil
- [x] Paper towels / Rags
- [x] pH buffer solution(s)
- [x] Conductivity standard solution(s)
- [x] Decontamination fluids (as per work plan and QAPP)
- [x] Sample jars (extra)
- [x] Sample jar labels (GHD) materials
- [x] Cooler(s)/ice packs/packing materials
- [x] Trash bags
- [x] Sample preservatives
- [x] Plastic spray bottles
- [ ] Plastic basin or pan
- [ ] Sample filter (on line or external filter)
- [ ] Polyethylene sheeting
- [x] First aid kit
- [x] Personal protective equipment (as per HASP)

Documentation

- [x] Chain of custody forms
- [x] Well logs
- [x] Notebook/Field book
- [ ] Photolog
- [ ] Site pass/badge
- [ ] Federal Express manifests
- [x] Previous well logs/previous historical well data
- [x] Site map
- [x] Blank well data forms

Miscellaneous

- [x] Well cap keys
- [x] Bolt cutters
- [ ] Camera/film
- [x] Knife
- [x] Spare batteries for instruments
- [ ] Lock deicer (winter)
- [x] Reinforced packing tape
- [x] Pen/pencil/indelible marking pen
- [x] Tool box
- [x] Spare locks/keys
- [ ] On site transportation (all-terrain vehicle/snowmobiles)

Completed By: Kevin Miller (please print)

Date: 06/12/2023 (mm/dd/yyyy)

KE 2-

Project Planning Completion and Follow-Up Checklist
(Form SP-02)

Date: 06/12/2023 (mm/dd/yyyy) Reference No. 12604419.01

Prior Planning and Coordination

- [x] Confirm well numbers, location and accessibility
- [x] Review of project documents, Health and Safety Plan (HASP), sampling Quality Assurance/Quality Control (QA/QC) and site-specific sampling requirements
- [x] Historical well data; depth, pH, performance and disposition of purge water
- [x] Site access notification and coordination
- [x] Coordination with laboratory through GHD chemistry group
- [x] Procurement, inventory and inspection of all equipment and supplies
- [x] Prior equipment preparation, calibration or maintenance
- [x] All utilities located and approved

Filed Procedure

- [x] Instruments calibrated daily
- [x] Sampling equipment decontaminated in accordance with the QAPP
- [x] Field measurements and sampling details logged in appropriate field books or an appropriate field form
- [x] Well volume calculated and specified volumes removed
- [x] Specified samples, and QA/QC samples taken per Quality Assurance Project Plan (QAPP)
- [x] Samples properly labeled, preserved and packed
- [x] Sampling locations secured or completed according to work plan
- [x] Sample date times, locations and sample numbers have all been recorded in applicable log(s)
- [x] Samples have been properly stored if not shipped/delivered to lab same day
- [x] Samples were shipped with complete and accurate chain of custody record

Follow-Up Activities

- [x] Questionable measurements field verified
- [x] Confirm all samples collected
- [x] All equipment has been maintained and returned
- [x] Sampling information reduced and required sample keys and field data distributed
- [x] Chain of custody records filed
- [x] Expendable stock supplies replaced
- [x] GHD and client-controlled items returned (i.e., keys)
- [x] Arrange disposal of investigation generated wastes with client
- [x] Confirm all samples collected

Completed By: Kevin Miller (please print) Date: 06/12/2023 (mm/dd/yyyy)

KE 2-

Graftech

DAILY LOG

6/12/2023 Calibrate YSI Pro Series Control # NTO6212
With auto cal Solution Lot # 23010176 Expires 02/24

	Before	After
Bar 735.6 DO %	101.6	96.5
ph (4.00)	4.01	4.01
Cond (4.49)	4.47	4.49

Weather: 63-68 degrees light steady rain winds SE 5mph
0845 onsite KM/JK
0900 Begin W/L round (JK)
TripBlank - TB = TB-126044 19-061223-KM 2x 40 mL w/HCl
0915 set up on BW-8B Purge and sample (KM)
1045 set up on BW-4 Purge and sample well (KM)
1135 Finish water level rounds (JK)
1145 set up on BW-3 Purge and sample well (KM)
1250 Pack up Samples and equipment
1300 offsite

0945 meet up onsite with Jube Snyder

KM

126044 19.01

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

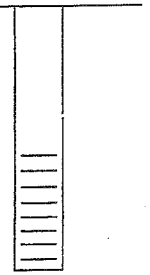
Project Name: Grafton
Ref. No.: 12604419.01

Date: 6/12/23
Personnel: KC, MJL

Monitoring Well Data:

Well No.: GW-8B
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft):
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 8.85



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
930	96	9.05	.20	11.8	1.85	70.3	2.32	6.84	-39.7		
935	100	9.23	.38	11.5	1.84	12.8	2.33	6.84	-47.2		
940	96	9.24	.49	11.7	1.82	7.64	2.26	6.83	-54.7		
945	96	9.21	.46	12.5	1.81	7.10	1.93	6.83	-60.9		
950	96	9.18	.43	12.5	1.82	6.20	0.75	6.84	-67.5		
955	96	9.20	.45	12.4	1.81	4.65	0.50	6.85	-71.8		
1000	96	9.18	.43	12.4	1.81	5.93	0.45	6.86	-74.8		
1005	96	9.18	.43	12.4	1.82	3.83	0.43	6.86	-77.9		

Sample ID: MW-12604419-061223-KM-001

Sample Time: 10:10

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). 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 <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Start Purge at 9:25

KC

Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:

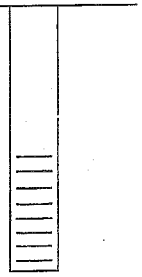
Project Name: Grafton
Ref. No.: 12604419.01

Date: 6/12/23
Personnel: K. Miller

Monitoring Well Data:

Well No.: BW-4
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft):
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 8.33



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1055	120	8.31	0.02	12.7	1.76	16.9	1.11	6.81	-89.5		
1100	100	8.30	0.03	12.8	1.79	12	0.85	6.79	-99		
1105	100	8.28	0.05	13.2	1.80	10.5	0.58	6.78	-104.8		
1110	100	8.28	0.05	13.1	1.80	10.5	0.49	6.78	-108.2		
1115	100	8.30	0.03	13.2	1.80	10.9	0.37	6.78	-113		
1120	100	8.28	0.05	13.0	1.81	7.36	0.34	6.78	-116		
1125	100	8.30	0.03	13.2	1.80	7.28	0.30	6.78	-118.2		

Sample ID: WG-12604419-061223-KM-002 **Sample Time:** 11:30

Notes: Blind Dup = 12604419-061223-KM-003

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). 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 <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Start Purge at 10:50

KC

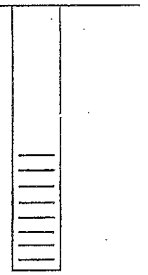
Monitoring Well Record for Low-Flow Purging
(Form SP-09)

Project Data:
Project Name: Graftech
Ref. No.: 12604419.101

Date: 6/12/23
Personnel: K. Miller

Monitoring Well Data:
Well No.: BW-3
Vapour PID (ppm):
Measurement Point:
Constructed Well Depth (m/ft):
Measured Well Depth (m/ft):
Depth of Sediment (m/ft):

Saturated Screen Length (m/ft):
Depth to Pump Intake (m/ft)[1]:
Well Diameter, D (cm/in):
Well Screen Volume, V_s (L)[2]:
Initial Depth to Water (m/ft): 8.15



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level[3] (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, Vp (L)	No. of Well Screen Volumes Purged[4]
Precision Required[5]:				±3 %	±0.005 or 0.01[6]	±10 %	±10 %	±0.1 Units	±10 mV		
1213	120	8.10	.05	11.6	1.49	183	0.72	6.93	-54.4		
1218	120	8.08	.07	11.4	1.50	77.9	6.55	6.91	-74.9		
1223	120	8.08	.07	11.3	1.51	155	0.47	6.89	-81.7		
1228	120	8.09	.06	11.4	1.51	40.2	0.43	6.88	-86.6		
1233	120	8.10	.05	11.4	1.51	56.9	0.39	6.87	-88.8		
1238	120	8.10	.05	11.5	1.51	57.4	0.37	6.86	-91.3		

Sample ID: WG-12604419-061223-KM-004

Sample Time: 1245

Notes:

(1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.

(2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units, $V_s=\pi*(r^2)*L$ in mL, where r (r=D/2) and L are in cm.
For Imperial units, $V_s=\pi*(r^2)*L*(2.54)^3$, where r and L are in inches

(3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). 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 <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

Start Purge at 12:05

KM

(2) Graftech

Date 6/12/23 Crew KM, JK

Project # 1260441.9.01

W/L meter: NRG 8988

Well #	Time	W/L	DTB	Measure Pt
MW1	0950	10.26	23.06	TOC
MW2	1130	8.09	24.33	TOC
MW3	1040	7.52	15.04	TOR
BW1	0930	14.89	28.66	TOC
BW2	1135	10.65	27.42	TOC
BW3	1016	9.62	26.79	TOC
BW4	1000	9.82	26.82	TOC
BW5	1015	7.68	28.35	TOC
BW6	1120	10.42	25.07	TOC
GW8B	0920	8.87	28.69	TOR
GW9B	1105	11.81	31.65	TOR
GW7B	1045	7.73	32.23	TOR
GW11B	1030	8.21	27.91	TOR
GW8A	0915	5.39	9.81	TOR
GW9A	1100	12.27	23.45	TOC

Return to Rain

GHD

CHAIN OF CUSTODY RECORD

COC NO.: 60076

PAGE 1 OF 1

Address: 2055 Niagara Falls Blvd

Phone: 716 297 6150

Fax:

Project No/ Phase/Task Code: 12604419.01	Laboratory Name: Eurofins Amherst	Lab Location: Amherst NY	SSOW ID:
Project Name: [illegible]	Lab Contact: Denise Heckler		Cooler No:
Project Location: [illegible]			Carrier: Hand Delivered
GHD Chemistry Contact: Sue Scrocchi			Airbill No:
Sampler(s): [illegible]			Total # of Containers: 19

ANALYSIS REQUESTED (See Back of COC for Definitions)

Item	SAMPLE IDENTIFICATION (Containers for each sample may be combined on one line)	DATE (mm/dd/yy)	TIME (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Filtered (Y/N)	VOCs												Total Containers/sample	MS/MSD Request	COMMENTS/ SPECIAL INSTRUCTIONS:
	PRESERVATION - (SEE BACK OF COC FOR ABBREVIATIONS)						HCl														
1	TB-12604419-061223-KM	6/12/23		TB	G	N	X												2		
2	WG-12604419-061223-KM-001	6/12/23	1010	WG	G	N	X												8	X	1 VOA for MS Blank - Total
3	WG-12604419-061223-KM-002	6/12/23	1130	WG	G	N	X												3		of 8 VOAs for MS/MSD
4	WG-12604419-061223-KM-003	6/12/23	1130	WG	G	N	X												3		
5	WG-12604419-061223-KM-004	6/12/23	1245	WG	G	N	X												3		
6																					
7																					KU
8																					
9																					
10																					
11																					
12																					

TAT Required in business days (use separate COCs for different TATs):

☐ ☐ 1 Day ☒ 2 Days ☐ 3 Days ☐ 1 Week ☒ 2 Week Other

Notes/ Special Requirements:

	RELINQUISHED BY	COMPANY	DATE	TIME	RECEIVED BY	COMPANY	DATE	TIME
1.	[illegible]	GHD	6/12/23	1320	1.			
2.					2.			
3.					3.			

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

Attachment B

Field Parameters

Attachment B

Groundwater Quality Parameters
Annual Groundwater Monitoring Program
GrafTech International Holdings, Inc.
Niagara Falls, New York
June 2023

Monitoring Well Location	Date	Time (hours:minutes)	Purge Rate (mL/min)	Water Level (ft. BTOR$_f$)	Temperature (°C)	Conductivity (mS/cm)	Turbidity (NTU)	DO (mg/L)	pH (Units)	ORP (mV)
GW-8B	6/12/2023	9:30	96	9.05	11.8	1.85	20.30	2.32	6.84	-39.7
		9:35	96	9.23	11.5	1.84	12.80	2.33	6.84	-47.2
		9:40	96	9.24	11.7	1.82	7.64	2.26	6.83	-54.7
		9:45	96	9.21	12.5	1.81	7.10	1.93	6.83	-60.9
		9:50	96	9.18	12.5	1.82	6.20	0.75	6.84	-67.5
		9:55	96	9.20	12.4	1.81	4.85	0.50	6.85	-71.8
		10:00	96	9.18	12.4	1.81	5.93	0.45	6.86	-74.8
		10:05	96	9.18	12.4	1.82	3.83	0.43	6.86	-77.9
BW-3	6/12/2023	12:13	120	8.10	11.6	1.49	183	0.72	6.93	-54.4
		12:18	120	8.08	11.4	1.50	77.9	0.55	6.91	-79.9
		12:23	120	8.08	11.3	1.51	155.0	0.47	6.89	-81.7
		12:28	120	8.09	11.4	1.51	40.20	0.43	6.88	-86.6
		12:33	120	8.10	11.4	1.51	56.90	0.39	6.87	-88.8
		12:38	120	8.10	11.5	1.51	57.40	0.37	6.86	-91.3
BW-4	6/12/2023	10:55	120	8.31	12.7	1.76	17	1.11	6.81	-89.5
		11:00	100	8.30	12.8	1.79	12.0	0.88	6.79	-99.0
		11:05	100	8.28	13.2	1.79	10.5	0.58	6.75	-104.8
		11:10	100	8.28	13.1	1.80	10.50	0.49	6.78	-108.2
		11:15	100	8.30	13.2	1.80	10.90	0.37	6.78	-113.0
		11:20	100	8.28	13.00	1.81	7.36	0.34	6.78	-116.0
		11:25	100	8.30	13.20	1.80	7.28	0.30	6.78	-118.2

Notes:

ft. BTOR$_f$ - feet below top of reference elevation

°C - degrees Celsius
mV - millivolts
mg/L - milligrams per liter
NTU - Nephelometric Turbidity Unit
mS/cm - millisiemens per centimeter
mL/min - milliliters per minute
DO - dissolved oxygen
ORP - oxidation-reduction potential

Attachment C

Laboratory Report

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Sue Scrocchi
GHD Services Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, New York 14304

Generated 6/17/2023 10:52:06 AM

JOB DESCRIPTION

12604419, GrafTech

JOB NUMBER

480-209766-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northeast, LLC Project Manager.

Authorization

Generated
6/17/2023 10:52:06 AM

Authorized for release by
Denise Heckler, Project Manager II
Denise.Heckler@et.eurofinsus.com
(330)966-9477

Table of Contents

Definitions/Glossary

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job ID: 480-209766-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-209766-1

Comments
No additional comments.

Receipt
The samples were received on 6/12/2023 1:20 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.9º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: WG-12604419-061223-KM-002 (480-209766-3) and WG-12604419-061223-KM-003 (480-209766-4). Elevated reporting limits (RLs) are provided.

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

Detection Summary

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

Client Sample ID: TB-12604419-061223-NM — Lab Sample ID: 480-209766-1

No Detections.

Client Sample ID: WG-12604419-061223-KM-001 — Lab Sample ID: 480-209766-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethene, Total	19		2.0	0.81	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	19		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	3.5		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	4.8		1.0	0.90	ug/L	1		8260C	Total/NA

Client Sample ID: WG-12604419-061223-KM-002 — Lab Sample ID: 480-209766-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichlorethylene	2.9	J	10	2.9	ug/L	10		8260C	Total/NA
1,2-Dichloroethene, Total	540		20	8.1	ug/L	10		8260C	Total/NA
Chloroform	3.6	J	10	3.4	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	540		10	8.1	ug/L	10		8260C	Total/NA
Tetrachloroethene	300		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene	330		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride	120		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: WG-12604419-061223-KM-003 — Lab Sample ID: 480-209766-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethene, Total	530		20	8.1	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	530		10	8.1	ug/L	10		8260C	Total/NA
Tetrachloroethene	320		10	3.6	ug/L	10		8260C	Total/NA
Trichloroethene	330		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride	110		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: WG-12604419-061223-KM-004 — Lab Sample ID: 480-209766-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethene, Total	0.89	J	2.0	0.81	ug/L	1		8260C	Total/NA
Carbon disulfide	0.43	J	1.0	0.19	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.89	J	1.0	0.81	ug/L	1		8260C	Total/NA
Vinyl chloride	6.2		1.0	0.90	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: TB-12604419-061223-NM

Lab Sample ID: 480-209766-1

Date Collected: 06/12/23 00:00

Matrix: Water

Date Received: 06/12/23 13:20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/14/23 14:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/14/23 14:43	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/14/23 14:43	1
1,1-Dichlorethylene	ND		1.0	0.29	ug/L			06/14/23 14:43	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/14/23 14:43	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/14/23 14:43	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			06/14/23 14:43	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/14/23 14:43	1
2-Butanone	ND		10	1.3	ug/L			06/14/23 14:43	1
2-Hexanone	ND		5.0	1.2	ug/L			06/14/23 14:43	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/14/23 14:43	1
Acetone	ND		10	3.0	ug/L			06/14/23 14:43	1
Benzene	ND		1.0	0.41	ug/L			06/14/23 14:43	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/14/23 14:43	1
Bromoform	ND		1.0	0.26	ug/L			06/14/23 14:43	1
Bromomethane	ND		1.0	0.69	ug/L			06/14/23 14:43	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/14/23 14:43	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/14/23 14:43	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/14/23 14:43	1
Chloroethane	ND		1.0	0.32	ug/L			06/14/23 14:43	1
Chloroform	ND		1.0	0.34	ug/L			06/14/23 14:43	1
Chloromethane	ND		1.0	0.35	ug/L			06/14/23 14:43	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/14/23 14:43	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/14/23 14:43	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/14/23 14:43	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/14/23 14:43	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/14/23 14:43	1
Styrene	ND		1.0	0.73	ug/L			06/14/23 14:43	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/14/23 14:43	1
Toluene	ND		1.0	0.51	ug/L			06/14/23 14:43	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/14/23 14:43	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/14/23 14:43	1
Trichloroethene	ND		1.0	0.46	ug/L			06/14/23 14:43	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/14/23 14:43	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/14/23 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 120*		*06/14/23 14:43*	*1*
4-Bromofluorobenzene (Surr)	*103*		*73 - 120*		*06/14/23 14:43*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*06/14/23 14:43*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*06/14/23 14:43*	*1*

Client Sample ID: WG-12604419-061223-KM-001

Lab Sample ID: 480-209766-2

Date Collected: 06/12/23 10:10

Matrix: Water

Date Received: 06/12/23 13:20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/14/23 15:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/14/23 15:05	1

Client Sample ID: WG-12604419-061223-KM-001

Lab Sample ID: 480-209766-2

Date Collected: 06/12/23 10:10

Matrix: Water

Date Received: 06/12/23 13:20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/14/23 15:05	1
1,1-Dichlorethylene	ND		1.0	0.29	ug/L			06/14/23 15:05	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/14/23 15:05	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/14/23 15:05	1
1,2-Dichloroethene, Total	**19**		2.0	0.81	ug/L			06/14/23 15:05	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/14/23 15:05	1
2-Butanone	ND		10	1.3	ug/L			06/14/23 15:05	1
2-Hexanone	ND		5.0	1.2	ug/L			06/14/23 15:05	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/14/23 15:05	1
Acetone	ND		10	3.0	ug/L			06/14/23 15:05	1
Benzene	ND		1.0	0.41	ug/L			06/14/23 15:05	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/14/23 15:05	1
Bromoform	ND		1.0	0.26	ug/L			06/14/23 15:05	1
Bromomethane	ND		1.0	0.69	ug/L			06/14/23 15:05	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/14/23 15:05	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/14/23 15:05	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/14/23 15:05	1
Chloroethane	ND		1.0	0.32	ug/L			06/14/23 15:05	1
Chloroform	ND		1.0	0.34	ug/L			06/14/23 15:05	1
Chloromethane	ND		1.0	0.35	ug/L			06/14/23 15:05	1
cis-1,2-Dichloroethene	**19**		1.0	0.81	ug/L			06/14/23 15:05	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/14/23 15:05	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/14/23 15:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/14/23 15:05	1
Methylene Chloride	ND	F1	1.0	0.44	ug/L			06/14/23 15:05	1
Styrene	ND		1.0	0.73	ug/L			06/14/23 15:05	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/14/23 15:05	1
Toluene	ND		1.0	0.51	ug/L			06/14/23 15:05	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/14/23 15:05	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/14/23 15:05	1
Trichloroethene	**3.5**		1.0	0.46	ug/L			06/14/23 15:05	1
Vinyl chloride	**4.8**		1.0	0.90	ug/L			06/14/23 15:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/14/23 15:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 120*		*06/14/23 15:05*	*1*
4-Bromofluorobenzene (Surr)	*94*		*73 - 120*		*06/14/23 15:05*	*1*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*06/14/23 15:05*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*06/14/23 15:05*	*1*

Client Sample ID: WG-12604419-061223-KM-002

Lab Sample ID: 480-209766-3

Date Collected: 06/12/23 11:30

Matrix: Water

Date Received: 06/12/23 13:20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			06/14/23 15:28	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			06/14/23 15:28	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			06/14/23 15:28	10
1,1-Dichlorethylene	**2.9**	**J**	10	2.9	ug/L			06/14/23 15:28	10

Client Sample ID: WG-12604419-061223-KM-002

Lab Sample ID: 480-209766-3

Date Collected: 06/12/23 11:30

Matrix: Water

Date Received: 06/12/23 13:20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		10	3.8	ug/L			06/14/23 15:28	10
1,2-Dichloroethane	ND		10	2.1	ug/L			06/14/23 15:28	10
1,2-Dichloroethene, Total	**540**		20	8.1	ug/L			06/14/23 15:28	10
1,2-Dichloropropane	ND		10	7.2	ug/L			06/14/23 15:28	10
2-Butanone	ND		100	13	ug/L			06/14/23 15:28	10
2-Hexanone	ND		50	12	ug/L			06/14/23 15:28	10
4-Methyl-2-pentanone	ND		50	21	ug/L			06/14/23 15:28	10
Acetone	ND		100	30	ug/L			06/14/23 15:28	10
Benzene	ND		10	4.1	ug/L			06/14/23 15:28	10
Bromodichloromethane	ND		10	3.9	ug/L			06/14/23 15:28	10
Bromoform	ND		10	2.6	ug/L			06/14/23 15:28	10
Bromomethane	ND		10	6.9	ug/L			06/14/23 15:28	10
Carbon disulfide	ND		10	1.9	ug/L			06/14/23 15:28	10
Carbon tetrachloride	ND		10	2.7	ug/L			06/14/23 15:28	10
Chlorobenzene	ND		10	7.5	ug/L			06/14/23 15:28	10
Chloroethane	ND		10	3.2	ug/L			06/14/23 15:28	10
Chloroform	**3.6**	**J**	10	3.4	ug/L			06/14/23 15:28	10
Chloromethane	ND		10	3.5	ug/L			06/14/23 15:28	10
cis-1,2-Dichloroethene	**540**		10	8.1	ug/L			06/14/23 15:28	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			06/14/23 15:28	10
Dibromochloromethane	ND		10	3.2	ug/L			06/14/23 15:28	10
Ethylbenzene	ND		10	7.4	ug/L			06/14/23 15:28	10
Methylene Chloride	ND		10	4.4	ug/L			06/14/23 15:28	10
Styrene	ND		10	7.3	ug/L			06/14/23 15:28	10
Tetrachloroethene	**300**		10	3.6	ug/L			06/14/23 15:28	10
Toluene	ND		10	5.1	ug/L			06/14/23 15:28	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			06/14/23 15:28	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			06/14/23 15:28	10
Trichloroethene	**330**		10	4.6	ug/L			06/14/23 15:28	10
Vinyl chloride	**120**		10	9.0	ug/L			06/14/23 15:28	10
Xylenes, Total	ND		20	6.6	ug/L			06/14/23 15:28	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*06/14/23 15:28*	*10*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*06/14/23 15:28*	*10*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*06/14/23 15:28*	*10*
Toluene-d8 (Surr)	*101*		*80 - 120*		*06/14/23 15:28*	*10*

Client Sample ID: WG-12604419-061223-KM-003

Lab Sample ID: 480-209766-4

Date Collected: 06/12/23 11:30

Matrix: Water

Date Received: 06/12/23 13:20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	8.2	ug/L			06/14/23 15:50	10
1,1,2,2-Tetrachloroethane	ND		10	2.1	ug/L			06/14/23 15:50	10
1,1,2-Trichloroethane	ND		10	2.3	ug/L			06/14/23 15:50	10
1,1-Dichlorethylene	ND		10	2.9	ug/L			06/14/23 15:50	10
1,1-Dichloroethane	ND		10	3.8	ug/L			06/14/23 15:50	10
1,2-Dichloroethane	ND		10	2.1	ug/L			06/14/23 15:50	10

Client Sample ID: WG-12604419-061223-KM-003

Lab Sample ID: 480-209766-4

Date Collected: 06/12/23 11:30

Matrix: Water

Date Received: 06/12/23 13:20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethene, Total	**530**		20	8.1	ug/L			06/14/23 15:50	10
1,2-Dichloropropane	ND		10	7.2	ug/L			06/14/23 15:50	10
2-Butanone	ND		100	13	ug/L			06/14/23 15:50	10
2-Hexanone	ND		50	12	ug/L			06/14/23 15:50	10
4-Methyl-2-pentanone	ND		50	21	ug/L			06/14/23 15:50	10
Acetone	ND		100	30	ug/L			06/14/23 15:50	10
Benzene	ND		10	4.1	ug/L			06/14/23 15:50	10
Bromodichloromethane	ND		10	3.9	ug/L			06/14/23 15:50	10
Bromoform	ND		10	2.6	ug/L			06/14/23 15:50	10
Bromomethane	ND		10	6.9	ug/L			06/14/23 15:50	10
Carbon disulfide	ND		10	1.9	ug/L			06/14/23 15:50	10
Carbon tetrachloride	ND		10	2.7	ug/L			06/14/23 15:50	10
Chlorobenzene	ND		10	7.5	ug/L			06/14/23 15:50	10
Chloroethane	ND		10	3.2	ug/L			06/14/23 15:50	10
Chloroform	ND		10	3.4	ug/L			06/14/23 15:50	10
Chloromethane	ND		10	3.5	ug/L			06/14/23 15:50	10
cis-1,2-Dichloroethene	**530**		10	8.1	ug/L			06/14/23 15:50	10
cis-1,3-Dichloropropene	ND		10	3.6	ug/L			06/14/23 15:50	10
Dibromochloromethane	ND		10	3.2	ug/L			06/14/23 15:50	10
Ethylbenzene	ND		10	7.4	ug/L			06/14/23 15:50	10
Methylene Chloride	ND		10	4.4	ug/L			06/14/23 15:50	10
Styrene	ND		10	7.3	ug/L			06/14/23 15:50	10
Tetrachloroethene	**320**		10	3.6	ug/L			06/14/23 15:50	10
Toluene	ND		10	5.1	ug/L			06/14/23 15:50	10
trans-1,2-Dichloroethene	ND		10	9.0	ug/L			06/14/23 15:50	10
trans-1,3-Dichloropropene	ND		10	3.7	ug/L			06/14/23 15:50	10
Trichloroethene	**330**		10	4.6	ug/L			06/14/23 15:50	10
Vinyl chloride	**110**		10	9.0	ug/L			06/14/23 15:50	10
Xylenes, Total	ND		20	6.6	ug/L			06/14/23 15:50	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*77 - 120*		*06/14/23 15:50*	*10*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*06/14/23 15:50*	*10*
Dibromofluoromethane (Surr)	*96*		*75 - 123*		*06/14/23 15:50*	*10*
Toluene-d8 (Surr)	*97*		*80 - 120*		*06/14/23 15:50*	*10*

Client Sample ID: WG-12604419-061223-KM-004

Lab Sample ID: 480-209766-5

Date Collected: 06/12/23 12:45

Matrix: Water

Date Received: 06/12/23 13:20

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/14/23 16:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/14/23 16:12	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/14/23 16:12	1
1,1-Dichlorethylene	ND		1.0	0.29	ug/L			06/14/23 16:12	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/14/23 16:12	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/14/23 16:12	1
1,2-Dichloroethene, Total	**0.89**	**J**	2.0	0.81	ug/L			06/14/23 16:12	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/14/23 16:12	1

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

Client Sample ID: WG-12604419-061223-KM-004
Date Collected: 06/12/23 12:45
Date Received: 06/12/23 13:20

Lab Sample ID: 480-209766-5
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone	ND		10	1.3	ug/L			06/14/23 16:12	1
2-Hexanone	ND		5.0	1.2	ug/L			06/14/23 16:12	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/14/23 16:12	1
Acetone	ND		10	3.0	ug/L			06/14/23 16:12	1
Benzene	ND		1.0	0.41	ug/L			06/14/23 16:12	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/14/23 16:12	1
Bromoform	ND		1.0	0.26	ug/L			06/14/23 16:12	1
Bromomethane	ND		1.0	0.69	ug/L			06/14/23 16:12	1
Carbon disulfide	**0.43**	**J**	1.0	0.19	ug/L			06/14/23 16:12	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/14/23 16:12	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/14/23 16:12	1
Chloroethane	ND		1.0	0.32	ug/L			06/14/23 16:12	1
Chloroform	ND		1.0	0.34	ug/L			06/14/23 16:12	1
Chloromethane	ND		1.0	0.35	ug/L			06/14/23 16:12	1
cis-1,2-Dichloroethene	**0.89**	**J**	1.0	0.81	ug/L			06/14/23 16:12	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/14/23 16:12	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/14/23 16:12	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/14/23 16:12	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/14/23 16:12	1
Styrene	ND		1.0	0.73	ug/L			06/14/23 16:12	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/14/23 16:12	1
Toluene	ND		1.0	0.51	ug/L			06/14/23 16:12	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/14/23 16:12	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/14/23 16:12	1
Trichloroethene	ND		1.0	0.46	ug/L			06/14/23 16:12	1
Vinyl chloride	**6.2**		1.0	0.90	ug/L			06/14/23 16:12	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/14/23 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*77 - 120*		*06/14/23 16:12*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*06/14/23 16:12*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*06/14/23 16:12*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*06/14/23 16:12*	*1*

Surrogate Summary

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-120)	(73-120)	(75-123)	(80-120)
480-209766-1	TB-12604419-061223-NM	99	103	100	99
480-209766-2	WG-12604419-061223-KM-001	100	94	106	96
480-209766-2 MS	WG-12604419-061223-KM-001	95	98	101	95
480-209766-2 MSD	WG-12604419-061223-KM-001	95	101	100	99
480-209766-3	WG-12604419-061223-KM-002	98	100	100	101
480-209766-4	WG-12604419-061223-KM-003	94	96	96	97
480-209766-5	WG-12604419-061223-KM-004	98	102	104	97
LCS 480-672972/6	Lab Control Sample	93	101	96	96
MB 480-672972/8	Method Blank	97	100	100	98

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-672972/8
Matrix: Water
Analysis Batch: 672972

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			06/14/23 10:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			06/14/23 10:53	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			06/14/23 10:53	1
1,1-Dichlorethylene	ND		1.0	0.29	ug/L			06/14/23 10:53	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			06/14/23 10:53	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			06/14/23 10:53	1
1,2-Dichloroethene, Total	ND		2.0	0.81	ug/L			06/14/23 10:53	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			06/14/23 10:53	1
2-Butanone	ND		10	1.3	ug/L			06/14/23 10:53	1
2-Hexanone	ND		5.0	1.2	ug/L			06/14/23 10:53	1
4-Methyl-2-pentanone	ND		5.0	2.1	ug/L			06/14/23 10:53	1
Acetone	ND		10	3.0	ug/L			06/14/23 10:53	1
Benzene	ND		1.0	0.41	ug/L			06/14/23 10:53	1
Bromodichloromethane	ND		1.0	0.39	ug/L			06/14/23 10:53	1
Bromoform	ND		1.0	0.26	ug/L			06/14/23 10:53	1
Bromomethane	ND		1.0	0.69	ug/L			06/14/23 10:53	1
Carbon disulfide	ND		1.0	0.19	ug/L			06/14/23 10:53	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			06/14/23 10:53	1
Chlorobenzene	ND		1.0	0.75	ug/L			06/14/23 10:53	1
Chloroethane	ND		1.0	0.32	ug/L			06/14/23 10:53	1
Chloroform	ND		1.0	0.34	ug/L			06/14/23 10:53	1
Chloromethane	ND		1.0	0.35	ug/L			06/14/23 10:53	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			06/14/23 10:53	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			06/14/23 10:53	1
Dibromochloromethane	ND		1.0	0.32	ug/L			06/14/23 10:53	1
Ethylbenzene	ND		1.0	0.74	ug/L			06/14/23 10:53	1
Methylene Chloride	ND		1.0	0.44	ug/L			06/14/23 10:53	1
Styrene	ND		1.0	0.73	ug/L			06/14/23 10:53	1
Tetrachloroethene	ND		1.0	0.36	ug/L			06/14/23 10:53	1
Toluene	ND		1.0	0.51	ug/L			06/14/23 10:53	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			06/14/23 10:53	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			06/14/23 10:53	1
Trichloroethene	ND		1.0	0.46	ug/L			06/14/23 10:53	1
Vinyl chloride	ND		1.0	0.90	ug/L			06/14/23 10:53	1
Xylenes, Total	ND		2.0	0.66	ug/L			06/14/23 10:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 120*		*06/14/23 10:53*	*1*
4-Bromofluorobenzene (Surr)	*100*		*73 - 120*		*06/14/23 10:53*	*1*
Dibromofluoromethane (Surr)	*100*		*75 - 123*		*06/14/23 10:53*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*06/14/23 10:53*	*1*

Lab Sample ID: LCS 480-672972/6
Matrix: Water
Analysis Batch: 672972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
1,1,1-Trichloroethane			25.0	23.1		ug/L		92	73 - 126		

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-672972/6
Matrix: Water
Analysis Batch: 672972

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	25.0	25.1		ug/L		101	76 - 120
1,1,2-Trichloroethane	25.0	24.8		ug/L		99	76 - 122
1,1-Dichlorethylene	25.0	24.0		ug/L		96	66 - 127
1,1-Dichloroethane	25.0	24.3		ug/L		97	77 - 120
1,2-Dichloroethane	25.0	23.1		ug/L		92	75 - 120
1,2-Dichloroethene, Total	50.0	48.4		ug/L		97	72 - 124
1,2-Dichloropropane	25.0	24.7		ug/L		99	76 - 120
2-Butanone	125	121		ug/L		97	57 - 140
2-Hexanone	125	117		ug/L		93	65 - 127
4-Methyl-2-pentanone	125	122		ug/L		98	71 - 125
Acetone	125	118		ug/L		95	56 - 142
Benzene	25.0	23.9		ug/L		96	71 - 124
Bromodichloromethane	25.0	24.4		ug/L		97	80 - 122
Bromoform	25.0	24.3		ug/L		97	61 - 132
Bromomethane	25.0	22.4		ug/L		89	55 - 144
Carbon disulfide	25.0	22.9		ug/L		92	59 - 134
Carbon tetrachloride	25.0	24.7		ug/L		99	72 - 134
Chlorobenzene	25.0	24.0		ug/L		96	80 - 120
Chloroethane	25.0	22.1		ug/L		89	69 - 136
Chloroform	25.0	22.6		ug/L		90	73 - 127
Chloromethane	25.0	22.6		ug/L		91	68 - 124
cis-1,2-Dichloroethene	25.0	23.7		ug/L		95	74 - 124
cis-1,3-Dichloropropene	25.0	25.7		ug/L		103	74 - 124
Dibromochloromethane	25.0	24.8		ug/L		99	75 - 125
Ethylbenzene	25.0	24.4		ug/L		97	77 - 123
Methylene Chloride	25.0	25.8		ug/L		103	75 - 124
Styrene	25.0	24.7		ug/L		99	80 - 120
Tetrachloroethene	25.0	24.4		ug/L		98	74 - 122
Toluene	25.0	24.0		ug/L		96	80 - 122
trans-1,2-Dichloroethene	25.0	24.7		ug/L		99	73 - 127
trans-1,3-Dichloropropene	25.0	25.9		ug/L		104	80 - 120
Trichloroethene	25.0	24.7		ug/L		99	74 - 123
Vinyl chloride	25.0	24.1		ug/L		96	65 - 133
Xylenes, Total	50.0	49.9		ug/L		100	76 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Dibromofluoromethane (Surr)	*96*		*75 - 123*
Toluene-d8 (Surr)	*96*		*80 - 120*

Lab Sample ID: 480-209766-2 MS
Matrix: Water
Analysis Batch: 672972

Client Sample ID: WG-12604419-061223-KM-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	ND		25.0	29.8		ug/L		119	73 - 126
1,1,2,2-Tetrachloroethane	ND		25.0	27.0		ug/L		108	76 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-209766-2 MS
Matrix: Water
Analysis Batch: 672972

Client Sample ID: WG-12604419-061223-KM-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	ND		25.0	28.3		ug/L		113	76 - 122
1,1-Dichlorethylene	ND		25.0	30.0		ug/L		120	66 - 127
1,1-Dichloroethane	ND		25.0	30.0		ug/L		120	77 - 120
1,2-Dichloroethane	ND		25.0	27.0		ug/L		108	75 - 120
1,2-Dichloroethene, Total	19		50.0	78.2		ug/L		118	72 - 124
1,2-Dichloropropane	ND		25.0	27.4		ug/L		110	76 - 120
2-Butanone	ND		125	132		ug/L		106	57 - 140
2-Hexanone	ND		125	128		ug/L		102	65 - 127
4-Methyl-2-pentanone	ND		125	137		ug/L		109	71 - 125
Acetone	ND		125	136		ug/L		109	56 - 142
Benzene	ND		25.0	28.8		ug/L		115	71 - 124
Bromodichloromethane	ND		25.0	26.9		ug/L		108	80 - 122
Bromoform	ND		25.0	24.1		ug/L		96	61 - 132
Bromomethane	ND		25.0	27.6		ug/L		110	55 - 144
Carbon disulfide	ND		25.0	28.5		ug/L		114	59 - 134
Carbon tetrachloride	ND		25.0	29.3		ug/L		117	72 - 134
Chlorobenzene	ND		25.0	27.2		ug/L		109	80 - 120
Chloroethane	ND		25.0	29.0		ug/L		116	69 - 136
Chloroform	ND		25.0	27.1		ug/L		109	73 - 127
Chloromethane	ND		25.0	29.1		ug/L		117	68 - 124
cis-1,2-Dichloroethene	19		25.0	47.9		ug/L		115	74 - 124
cis-1,3-Dichloropropene	ND		25.0	26.5		ug/L		106	74 - 124
Dibromochloromethane	ND		25.0	25.4		ug/L		101	75 - 125
Ethylbenzene	ND		25.0	28.6		ug/L		114	77 - 123
Methylene Chloride	ND	F1	25.0	31.3	F1	ug/L		125	75 - 124
Styrene	ND		25.0	28.0		ug/L		112	80 - 120
Tetrachloroethene	ND		25.0	28.0		ug/L		112	74 - 122
Toluene	ND		25.0	27.3		ug/L		109	80 - 122
trans-1,2-Dichloroethene	ND		25.0	30.3		ug/L		121	73 - 127
trans-1,3-Dichloropropene	ND		25.0	24.8		ug/L		99	80 - 120
Trichloroethene	3.5		25.0	31.8		ug/L		113	74 - 123
Vinyl chloride	4.8		25.0	36.7		ug/L		128	65 - 133
Xylenes, Total	ND		50.0	58.2		ug/L		116	76 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*98*		*73 - 120*
Dibromofluoromethane (Surr)	*101*		*75 - 123*
Toluene-d8 (Surr)	*95*		*80 - 120*

Lab Sample ID: 480-209766-2 MSD
Matrix: Water
Analysis Batch: 672972

Client Sample ID: WG-12604419-061223-KM-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	ND		25.0	28.4		ug/L		114	73 - 126	5	15
1,1,2,2-Tetrachloroethane	ND		25.0	26.7		ug/L		107	76 - 120	1	15
1,1,2-Trichloroethane	ND		25.0	27.5		ug/L		110	76 - 122	3	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-209766-2 MSD
Matrix: Water
Analysis Batch: 672972

Client Sample ID: WG-12604419-061223-KM-001
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichlorethylene	ND		25.0	28.4		ug/L		114	66 - 127	5	16
1,1-Dichloroethane	ND		25.0	29.0		ug/L		116	77 - 120	4	20
1,2-Dichloroethane	ND		25.0	26.5		ug/L		106	75 - 120	2	20
1,2-Dichloroethene, Total	19		50.0	75.0		ug/L		112	72 - 124	4	20
1,2-Dichloropropane	ND		25.0	27.5		ug/L		110	76 - 120	0	20
2-Butanone	ND		125	129		ug/L		103	57 - 140	3	20
2-Hexanone	ND		125	128		ug/L		102	65 - 127	0	15
4-Methyl-2-pentanone	ND		125	136		ug/L		109	71 - 125	0	35
Acetone	ND		125	134		ug/L		108	56 - 142	1	15
Benzene	ND		25.0	28.0		ug/L		112	71 - 124	3	13
Bromodichloromethane	ND		25.0	27.4		ug/L		109	80 - 122	2	15
Bromoform	ND		25.0	24.4		ug/L		98	61 - 132	1	15
Bromomethane	ND		25.0	24.5		ug/L		98	55 - 144	12	15
Carbon disulfide	ND		25.0	27.1		ug/L		109	59 - 134	5	15
Carbon tetrachloride	ND		25.0	28.9		ug/L		116	72 - 134	1	15
Chlorobenzene	ND		25.0	27.0		ug/L		108	80 - 120	1	25
Chloroethane	ND		25.0	25.4		ug/L		102	69 - 136	13	15
Chloroform	ND		25.0	26.0		ug/L		104	73 - 127	4	20
Chloromethane	ND		25.0	26.2		ug/L		105	68 - 124	11	15
cis-1,2-Dichloroethene	19		25.0	44.9		ug/L		103	74 - 124	6	15
cis-1,3-Dichloropropene	ND		25.0	26.3		ug/L		105	74 - 124	1	15
Dibromochloromethane	ND		25.0	25.5		ug/L		102	75 - 125	0	15
Ethylbenzene	ND		25.0	28.8		ug/L		115	77 - 123	1	15
Methylene Chloride	ND	F1	25.0	30.2		ug/L		121	75 - 124	3	15
Styrene	ND		25.0	28.0		ug/L		112	80 - 120	0	20
Tetrachloroethene	ND		25.0	28.8		ug/L		115	74 - 122	3	20
Toluene	ND		25.0	27.8		ug/L		111	80 - 122	2	15
trans-1,2-Dichloroethene	ND		25.0	30.1		ug/L		121	73 - 127	1	20
trans-1,3-Dichloropropene	ND		25.0	25.3		ug/L		101	80 - 120	2	15
Trichloroethene	3.5		25.0	31.1		ug/L		111	74 - 123	2	16
Vinyl chloride	4.8		25.0	32.5		ug/L		111	65 - 133	12	15
Xylenes, Total	ND		50.0	57.9		ug/L		116	76 - 122	1	16

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Dibromofluoromethane (Surr)	*100*		*75 - 123*
Toluene-d8 (Surr)	*99*		*80 - 120*

QC Association Summary

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

GC/MS VOA

Analysis Batch: 672972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-209766-1	TB-12604419-061223-NM	Total/NA	Water	8260C	
480-209766-2	WG-12604419-061223-KM-001	Total/NA	Water	8260C	
480-209766-3	WG-12604419-061223-KM-002	Total/NA	Water	8260C	
480-209766-4	WG-12604419-061223-KM-003	Total/NA	Water	8260C	
480-209766-5	WG-12604419-061223-KM-004	Total/NA	Water	8260C	
MB 480-672972/8	Method Blank	Total/NA	Water	8260C	
LCS 480-672972/6	Lab Control Sample	Total/NA	Water	8260C	
480-209766-2 MS	WG-12604419-061223-KM-001	Total/NA	Water	8260C	
480-209766-2 MSD	WG-12604419-061223-KM-001	Total/NA	Water	8260C	

Lab Chronicle

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

Client Sample ID: TB-12604419-061223-NM
Lab Sample ID: 480-209766-1
Date Collected: 06/12/23 00:00
Matrix: Water
Date Received: 06/12/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	672972	CR	EET BUF	06/14/23 14:43

Client Sample ID: WG-12604419-061223-KM-001
Lab Sample ID: 480-209766-2
Date Collected: 06/12/23 10:10
Matrix: Water
Date Received: 06/12/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	672972	CR	EET BUF	06/14/23 15:05

Client Sample ID: WG-12604419-061223-KM-002
Lab Sample ID: 480-209766-3
Date Collected: 06/12/23 11:30
Matrix: Water
Date Received: 06/12/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	672972	CR	EET BUF	06/14/23 15:28

Client Sample ID: WG-12604419-061223-KM-003
Lab Sample ID: 480-209766-4
Date Collected: 06/12/23 11:30
Matrix: Water
Date Received: 06/12/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		10	672972	CR	EET BUF	06/14/23 15:50

Client Sample ID: WG-12604419-061223-KM-004
Lab Sample ID: 480-209766-5
Date Collected: 06/12/23 12:45
Matrix: Water
Date Received: 06/12/23 13:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	672972	CR	EET BUF	06/14/23 16:12

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

Laboratory: Eurofins Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8260C		Water	1,2-Dichloroethene, Total

Method Summary

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: GHD Services Inc.
Project/Site: 12604419, GrafTech

Job ID: 480-209766-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-209766-1	TB-12604419-061223-NM	Water	06/12/23 00:00	06/12/23 13:20
480-209766-2	WG-12604419-061223-KM-001	Water	06/12/23 10:10	06/12/23 13:20
480-209766-3	WG-12604419-061223-KM-002	Water	06/12/23 11:30	06/12/23 13:20
480-209766-4	WG-12604419-061223-KM-003	Water	06/12/23 11:30	06/12/23 13:20
480-209766-5	WG-12604419-061223-KM-004	Water	06/12/23 12:45	06/12/23 13:20

CHAIN OF CUSTODY RECORD

COC NO.: 60076

PAGE 1 OF 1

Address: 2055 Niagara Falls Blvd

Phone: 716 297 6150 Fax:

Project No/ Phase/Task Code: 126044 19.01	Laboratory Name: Eurofins Amherst	Lab Location: Amherst NY	SSOW ID:
Project Name: Grafton Annual GW Sampling	Lab Contact: Denise Heckler		Cooler No:
Project Location: Hyde Park Blvd & Witmer Rd			Carrier: Hand Delivered
GHD Chemistry Contact: Sue Scrocchi			Airbill No:
Sampler(s): K. Miller J. Kawecki			Total # of Containers: 19

Item	Sample Identification (Containers for each sample may be combined on one line)	Date (mm/dd/yy)	Time (hh:mm)	Matrix Code (see back of COC)	Grab (G) or Comp (C)	Filtered (Y/N)	Analysis Requested (See Back of COC for Definitions): VOCs	Total Containers/sample	MS/MSD Request	Comments/ Special Instructions:
	PRESERVATION - (SEE BACK OF COC FOR ABBREVIATIONS)						HCl			
1	TB-126044 19-061223-KM	6/12/23		TB	G	N	X	2		
2	WG-126044 19-061223-KM-001	6/12/23	1010	WG	G	N	X	8	X	1 VOA for MS Broke - Total
3	WG-126044 19-061223-KM-002	6/12/23	1130	WG	G	N	X	3		of 8 VOAs for MS/MSD
4	WG-126044 19-061223-KM-003	6/12/23	1130	WG	G	N	X	3		
5	WG-126044 19-061223-KM-004	6/12/23	1245	WG	G	N	X	3		
6										
7										KM
8										
9										
10										
11										
12										

480-209766 Chain of Custody

TAT Required in business days (use separate COCs for different TATs):

☐ ☐1 Day ☐2 Days ☐3 Days ☐1 Week ☐2 Week

Notes/ Special Requirements: Temp 4.9 # ICE

	Relinquished By	Company	Date	Time		Received By	Company	Date	Time
1.	[signature]	GHD	6/12/23	1320	1.	[signature]	TA	6/12/23	1320
2.					2.				
3.					3.				

THE CHAIN OF CUSTODY IS A LEGAL DOCUMENT – ALL FIELDS MUST BE COMPLETED ACCURATELY

Distribution: WHITE – Fully Executed Copy (CRA) YELLOW – Receiving Laboratory Copy PINK – Shipper GOLDENROD – Sampling Crew

CRA Form: COC-10B (20110804)

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6/17/2023

Login Sample Receipt Checklist

Client: GHD Services Inc.

Job Number: 480-209766-1

Login Number: 209766
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GHD
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Attachment D

Data Validation Memo

Data Verification Report

July 18, 2023

To	Kathy Galanti [Katherine.galanti@ghd.com]	**Project No.**	12604419
From	Sue Scrocchi/eew/1	**Contact No.**	716-205-1984
Project Name	GrafTech International Holdings, Inc	**Email**	Susan.Scrocchi@ghd.com
Subject	Analytical Results and Data Verification Annual Groundwater Monitoring GrafTech International Holdings, Inc Niagara Falls, New York June 2023		

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

1. Introduction

This document details a data verification of analytical results for groundwater samples collected in support of the Annual Groundwater Monitoring Program at the GrafTech International Holdings, Inc. site during June 2023. Samples were submitted to Eurofins Environment Testing Laboratory located in Amherst, 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 Level II 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 spikes (MS) and field QA/QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical method referenced in Table 3 and applicable guidance from the document "National Functional Guidelines for Organic Superfund Methods Data Review", USEPA 540-R-20-005, November 2020.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analysis is summarized in Table 3. Sample chain of custody documents and analytical reports 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 20 investigative samples and/or 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 20 investigative samples and/or 1 per analytical batch.

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

6. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the preparation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with all compounds of interest. All percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision with the exception of a high methylene chloride recovery. No qualification of the data was performed based on the acceptable recovery of the companion spike and the acceptable RPD.

7. Field QA/QC Samples

The field QA/QC consisted of one trip blank sample and one field duplicate sample set.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, one trip blank 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, one 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 samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criteria is one times the RL value for water samples.

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

8. Analyte Reporting

The laboratory reported detected results down to the laboratory's sample-specific method detection limit (MDL) for each analyte. Positive analyte detections less than the RL but greater than the sample-specific MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this report. 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.

9. Conclusion

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

Regards

Sue Scrocchi

Digital Intelligence Data Management Chemist

Table 1

Sample Collection and Analysis Summary
Annual Groundwater Monitoring
GrafTech International Holdings, Inc
Niagara Falls, New York
June 2023

						Analysis/Parameters	
Sample Delivery Group	**Sample Identification**	**Location**	**Matrix**	**Collection Date (mm/dd/yyyy)**	**Collection Time (hr:min)**	**VOCs**	**Comments**
4802097661	TB-12604419-061223-KM	-	Water	06/12/2023	-	X	Trip Blank
4802097661	WG-12604419-061223-KM-001	GW-8B	Groundwater	06/12/2023	10:10	X	MS/MSD
4802097661	WG-12604419-061223-KM-002	BW-4	Groundwater	06/12/2023	11:30	X	
4802097661	WG-12604419-061223-KM-003	BW-4	Groundwater	06/12/2023	11:30	X	FD(WG-12604419-061223-KM-002)
4802097661	WG-12604419-061223-KM-004	BW-3	Groundwater	06/12/2023	12:45	X	

Notes:

FD - Field Duplicate Sample of sample in parenthesis
MS/MSD - Matrix Spike/Matrix Spike Duplicate
VOCs - Volatile Organic Compounds

Table 2

Analytical Results Summary
Annual Groundwater Monitoring
GrafTech International Holdings, Inc
Niagara Falls, New York
June 2023

Location ID:		BW-3	BW-4	BW-4	GW-8B
Sample Name:		WG-12604419-061223-KM-004	WG-12604419-061223-KM-002	WG-12604419-061223-KM-003	WG-12604419-061223-KM-001
Sample Date:		06/12/2023	06/12/2023	06/12/2023	06/12/2023
				Duplicate	
Parameters	**Unit**				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/L	1.0 U	10 U	10 U	1.0 U
1,1,2,2-Tetrachloroethane	µg/L	1.0 U	10 U	10 U	1.0 U
1,1,2-Trichloroethane	µg/L	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethane	µg/L	1.0 U	10 U	10 U	1.0 U
1,1-Dichloroethene	µg/L	1.0 U	2.9 J	10 U	1.0 U
1,2-Dichloroethane	µg/L	1.0 U	10 U	10 U	1.0 U
1,2-Dichloroethene (total)	µg/L	0.89 J	540	530	19
1,2-Dichloropropane	µg/L	1.0 U	10 U	10 U	1.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	100 U	100 U	10 U
2-Hexanone	µg/L	5.0 U	50 U	50 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	50 U	50 U	5.0 U
Acetone	µg/L	10 U	100 U	100 U	10 U
Benzene	µg/L	1.0 U	10 U	10 U	1.0 U
Bromodichloromethane	µg/L	1.0 U	10 U	10 U	1.0 U
Bromoform	µg/L	1.0 U	10 U	10 U	1.0 U
Bromomethane (Methyl bromide)	µg/L	1.0 U	10 U	10 U	1.0 U
Carbon disulfide	µg/L	0.43 J	10 U	10 U	1.0 U
Carbon tetrachloride	µg/L	1.0 U	10 U	10 U	1.0 U
Chlorobenzene	µg/L	1.0 U	10 U	10 U	1.0 U
Chloroethane	µg/L	1.0 U	10 U	10 U	1.0 U
Chloroform (Trichloromethane)	µg/L	1.0 U	3.6 J	10 U	1.0 U
Chloromethane (Methyl chloride)	µg/L	1.0 U	10 U	10 U	1.0 U

Table 2

Analytical Results Summary
Annual Groundwater Monitoring
GrafTech International Holdings, Inc
Niagara Falls, New York
June 2023

Location ID:		BW-3	BW-4	BW-4	GW-8B
Sample Name:		WG-12604419-061223-KM-004	WG-12604419-061223-KM-002	WG-12604419-061223-KM-003	WG-12604419-061223-KM-001
Sample Date:		06/12/2023	06/12/2023	06/12/2023	06/12/2023
				Duplicate	
Parameters	**Unit**				
Volatile Organic Compounds (Continued)					
cis-1,2-Dichloroethene	µg/L	0.89 J	540	530	19
cis-1,3-Dichloropropene	µg/L	1.0 U	10 U	10 U	1.0 U
Dibromochloromethane	µg/L	1.0 U	10 U	10 U	1.0 U
Ethylbenzene	µg/L	1.0 U	10 U	10 U	1.0 U
Methylene chloride	µg/L	1.0 U	10 U	10 U	1.0 U
Styrene	µg/L	1.0 U	10 U	10 U	1.0 U
Tetrachloroethene	µg/L	1.0 U	300	320	1.0 U
Toluene	µg/L	1.0 U	10 U	10 U	1.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	10 U	10 U	1.0 U
trans-1,3-Dichloropropene	µg/L	1.0 U	10 U	10 U	1.0 U
Trichloroethene	µg/L	1.0 U	330	330	3.5
Vinyl chloride	µg/L	6.2	120	110	4.8
Xylenes (total)	µg/L	2.0 U	20 U	20 U	2.0 U

Notes:

J - Estimated concentration

U - Not detected at the associated reporting limit

Table 3

Analytical Methods
Annual Groundwater Monitoring
GrafTech International Holdings, Inc
Niagara Falls, New York
June 2023

Parameter	Method	Matrix	Holding Time Collection to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260B	Groundwater	14

Notes:

Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

Appendix E

Copy of Signed Institutional and Engineering Controls Certification Form

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

Site Details **Box 1**

Site No. 932035

Site Name GrafTech Intl. Hlds. Inc. (formerly Union Carbide)

Site Address: Hyde Park Boulevard Zip Code: 14303
City/Town: Niagara
County: Niagara
Site Acreage: 61.800

Reporting Period: December 31, 2022 to December 31, 2023

	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. 932035 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
130.20-1-1	GrafTech International Holdings Inc.	
		Site Management Plan
		Monitoring Plan

Per the Site Management Plan dated December 17, 2013; groundwater monitoring and landfill cap maintenance is required.

Box 4

Description of Engineering Controls

Parcel	Engineering Control
130.20-1-1	
	Monitoring Wells
	Fencing/Access Control
	Cover System

Constructed cover system and closed under Division of Materials Management Part 360 in 1987.

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. 932035

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 Ronald C. Brandon (print name) at 982 Keynote Circle, Brooklyn Heights, Ohio 44131 (print business address),

am certifying as Designated Representative of the Owner (Owner or Remedial Party)

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

Ronald C. Brandon

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

1/26/2024
Date

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

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

I Julianne M. Snyder (print name) at 982 Keynote Circle, Brooklyn Heights, Ohio 44131 (print business address),

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

Julianne M. Snyder	N/A	1/26/2024
Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date

Appendix F

Copies of Weekly General Landfill and Site Security Inspection Reports – 2023

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
1/6/23	4:30	John Sarasoya

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G		fallen Tree		
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

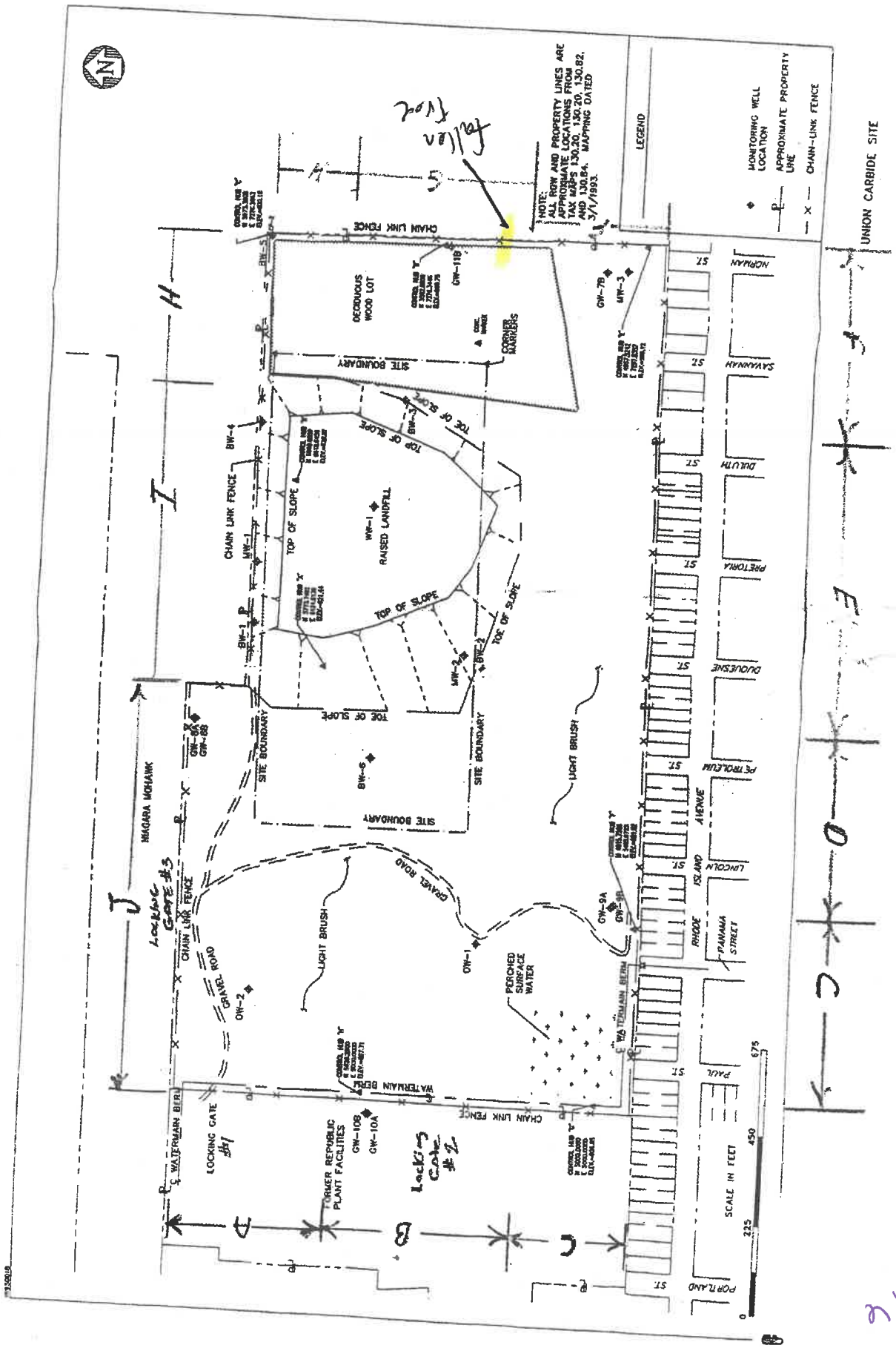
all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

fence damage from Tree

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
UNION CARBIDE SITE
NOTE: ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.82, AND 130.84, MAPPING DATED 3/1/1993.
CHAIN LINK FENCE
DECIDUOUS WOOD LOT
CORNER MARKERS
SITE BOUNDARY
TOP OF SLOPE
TOE OF SLOPE
RAISED LANDFILL
CHAIN LINK FENCE
LIGHT BRUSH
GRAVEL ROAD
PERCHED SURFACE WATER
WATERMAIN BERM
LOCKING GATE #1
LOCKING GATE #2
FORMER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
NORMAN ST
SAVANNAH ST
DULUTH ST
PETORIA ST
DUQUESNE ST
PETROLEUM AVENUE
LINCOLN ISLAND
RHODE PANAMA STREET
PAUL ST
PORTLAND ST
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
1/13/23	5:00 pm	John Sweeney

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	/			
B	/			
C	/			
D	/			
E	/			
F	/			
G	/			
H	/			
I	/			
J				

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	/			
2	/			
3	/			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

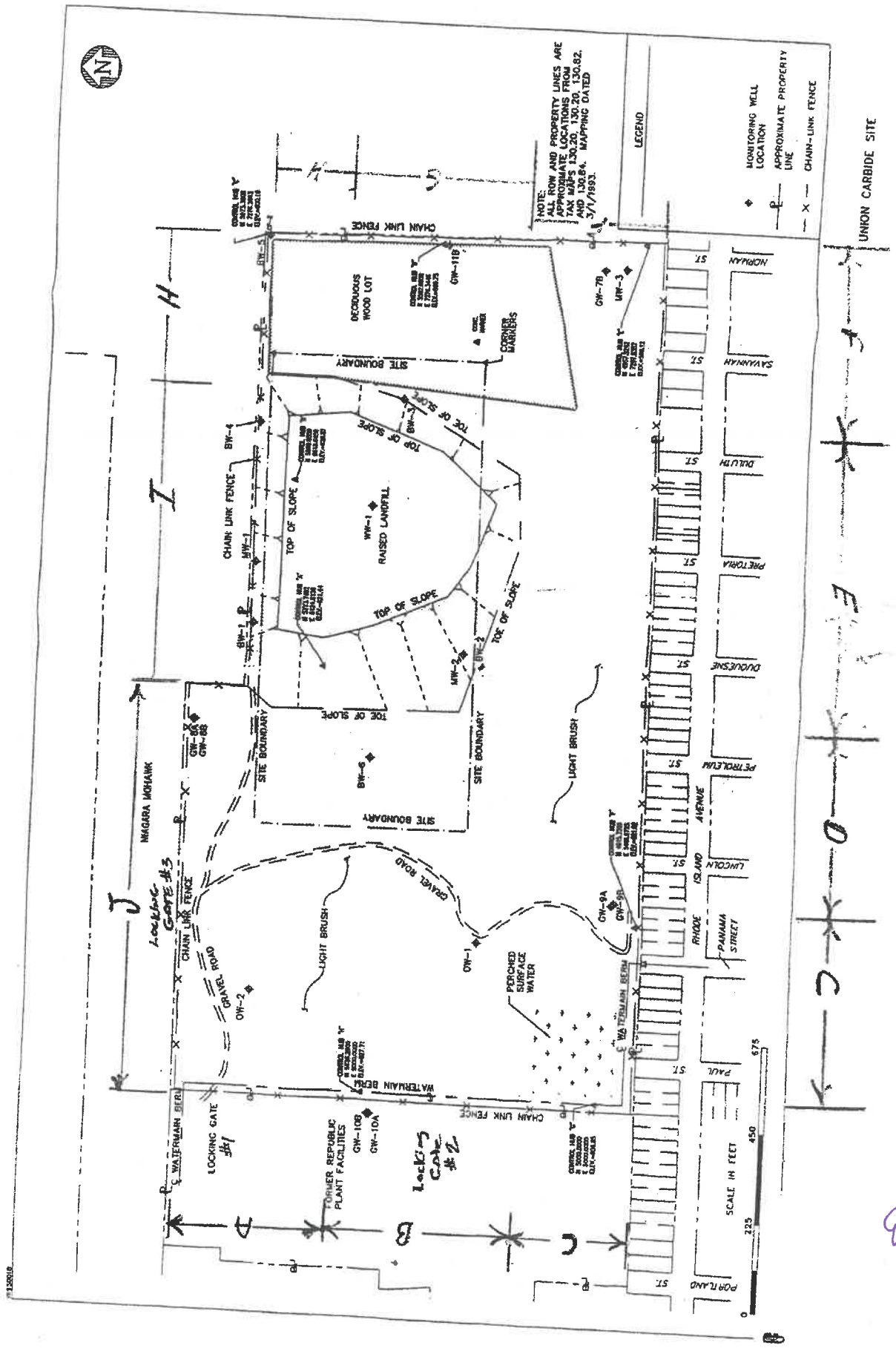
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
1/20/23	1230	John Sweeney

ENCE ARE.	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3				

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

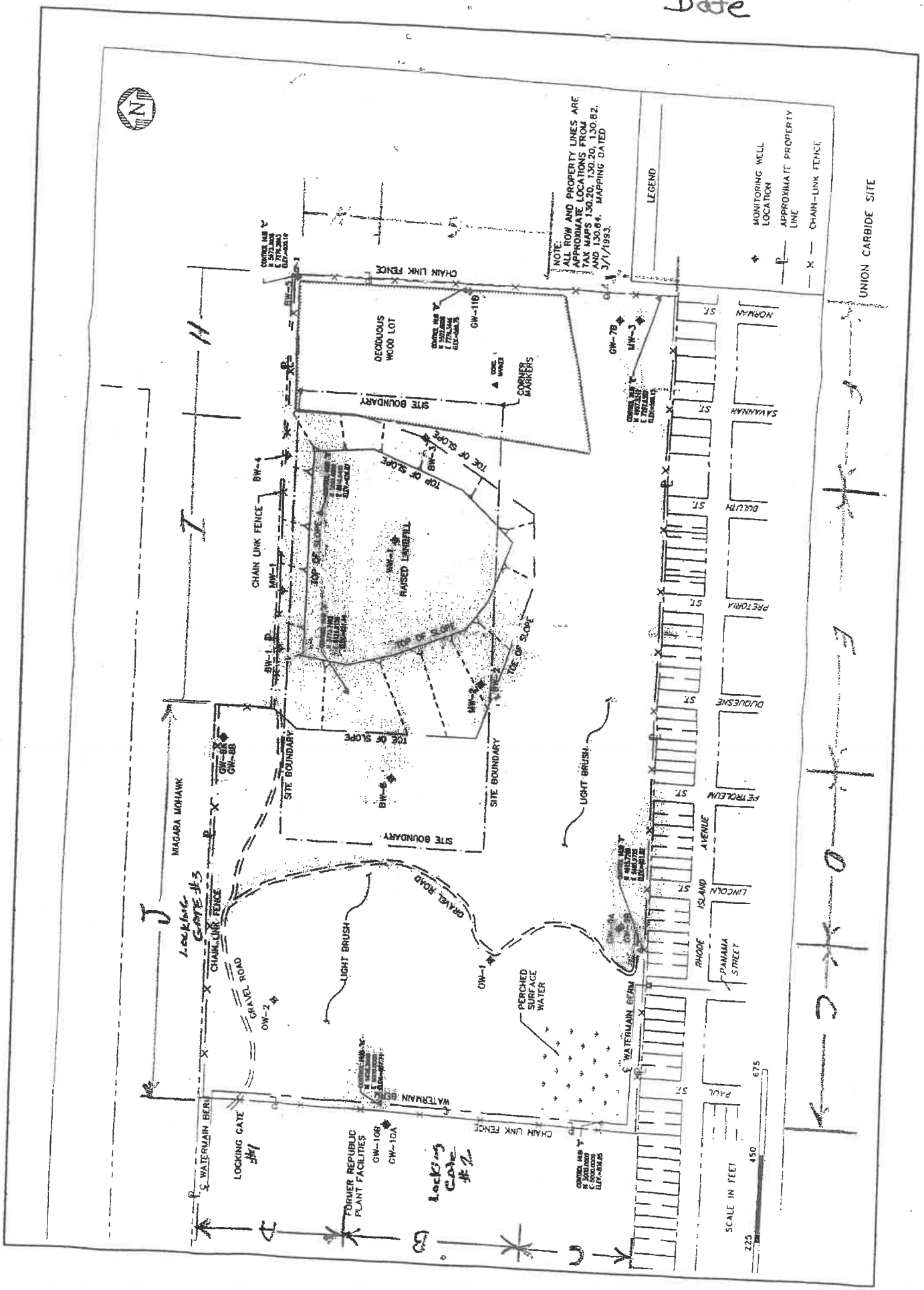
IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

John

Employee

1/20

Date



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
12/29/23	2:30	John Swearengen

FENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

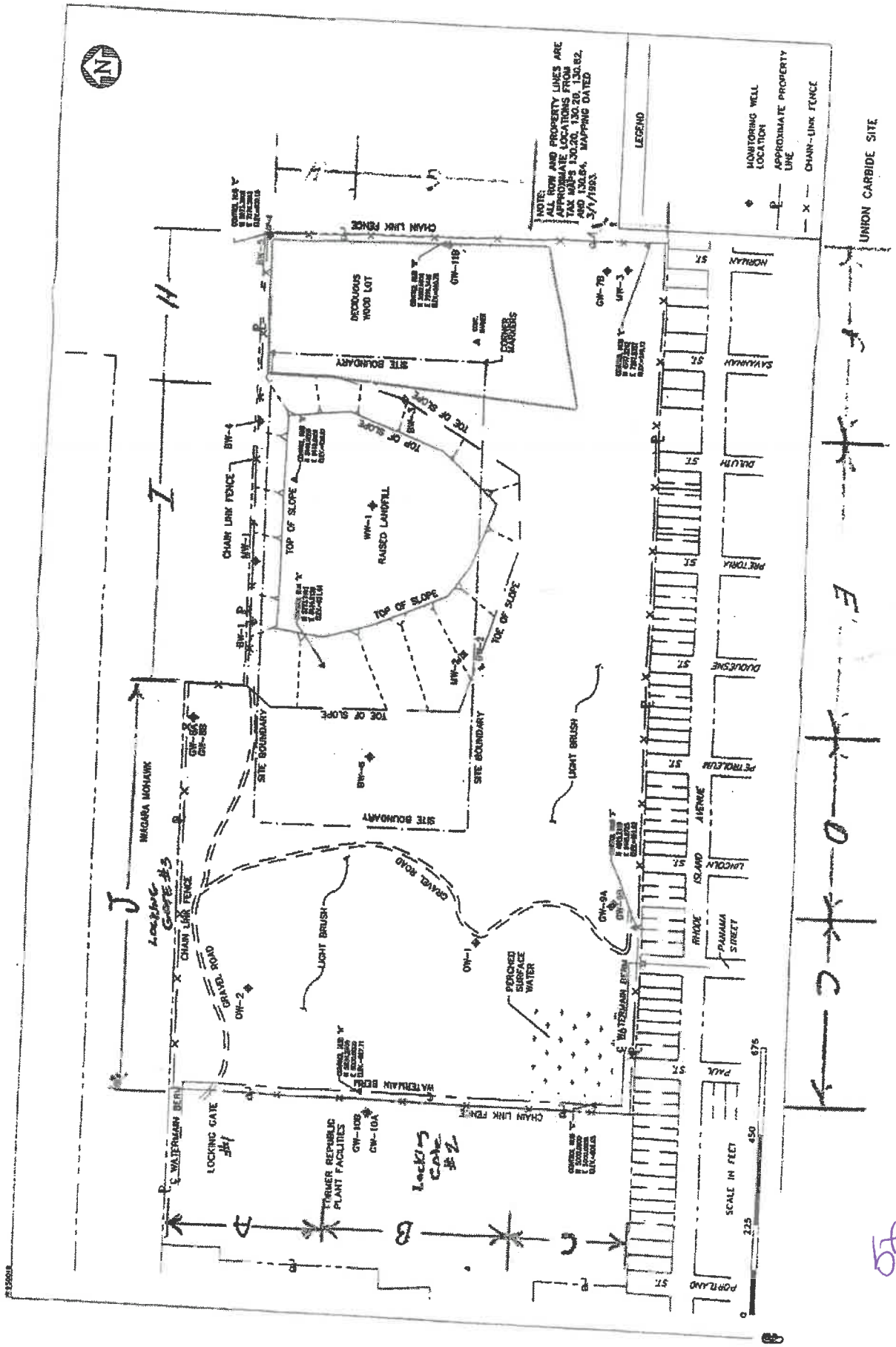
all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


N
LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
NOTE:
ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.82, AND 130.84, MAPPING DATED 5/1/1993.
UNION CARBIDE SITE
CHAIN LINK FENCE
DECIDUOUS WOOD LOT
FORMER BUILDING
SITE BOUNDARY
TOP OF SLOPE
TOE OF SLOPE
RAISED LANDFILL
GW-1
BW-1
BW-2
BW-3
BW-4
BW-5
GW-7B
GW-11B
GW-9A
GW-10B
GW-10A
GW-2
GW-1
MW-3A
MW-3B
LIGHT BRUSH
GRAVEL ROAD
PONDED SURFACE WATER
WATERMAIN BERM
LOCKING GATE #1
LOCKING GATE #2
FORMER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
NORMAN ST.
SAVANNAH ST.
DULUTH ST.
PRETORIA ST.
DOUGLESNE ST.
PETROLEUM AVENUE
LINCOLN ISLAND
RHODE ISLAND
PANAMA STREET
PAULA ST.
PORTLAND ST.
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
2/4/23	11:00	John Swearengen

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

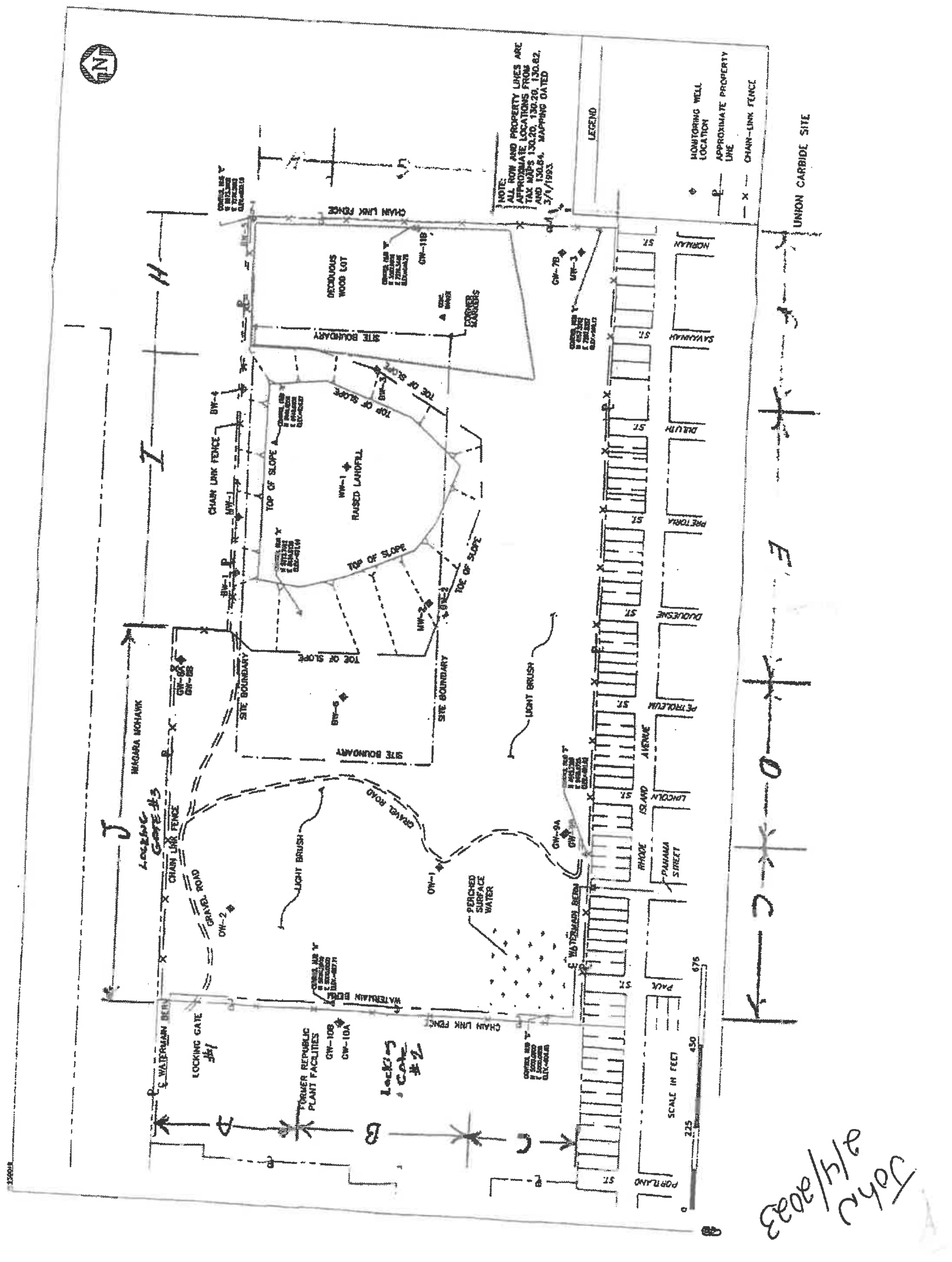
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
2/9/23	4pm	John Swearengen

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

All Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

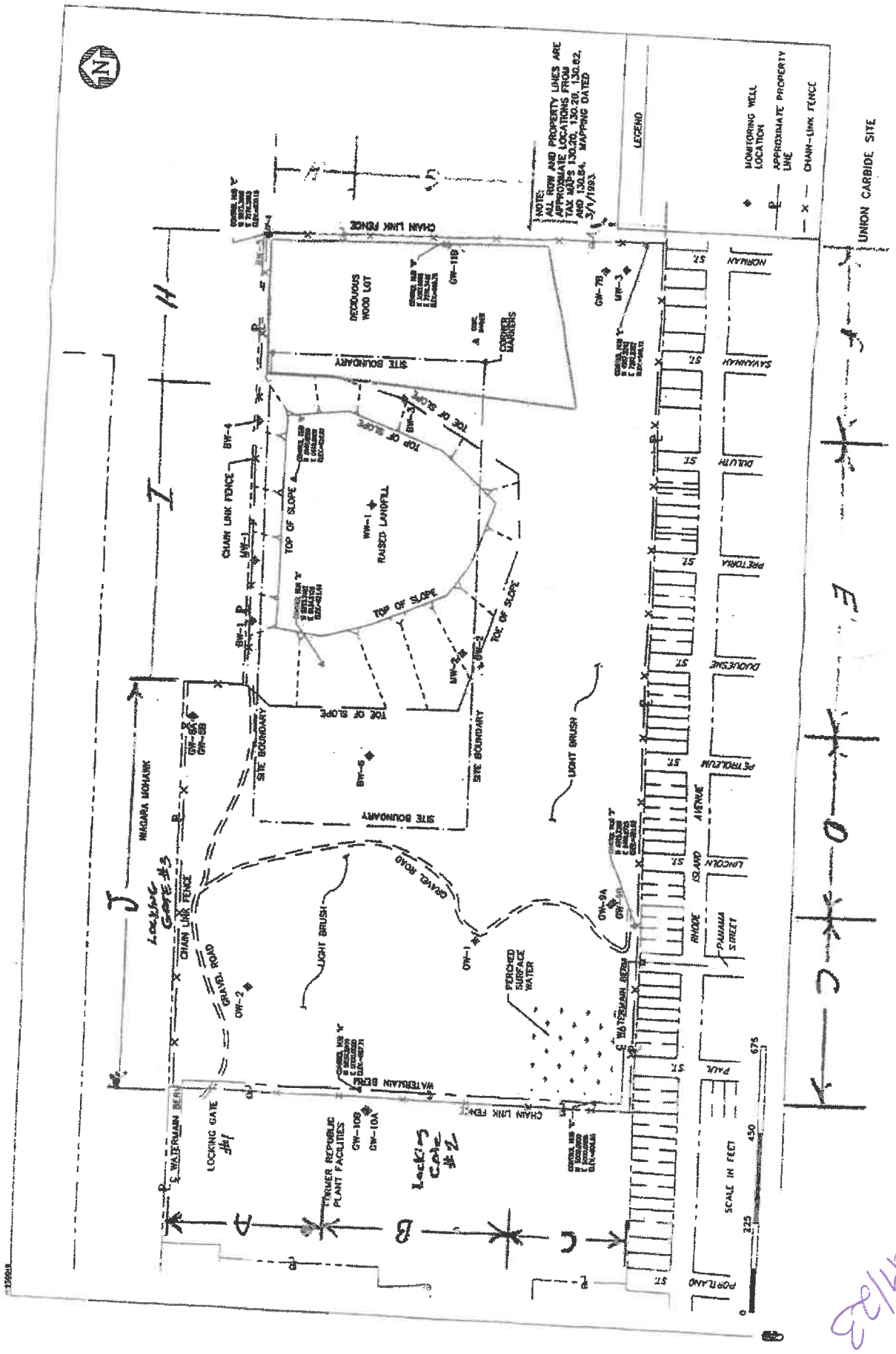
All Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


NOTE:
ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.28, 130.82, AND 130.84, MAPPING DATED 3/1/1993.
LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
UNION CARBIDE SITE
CHAIN LINK FENCE
DECIDUOUS WOOD LOT
CORNER MARKERS
SITE BOUNDARY
TOP OF SLOPE
TOE OF SLOPE
RAISED LANDFILL
LIGHT BRUSH
GRAVEL ROAD
PERCHED SURFACE WATER
WATERMAIN BERM
LOCKING GATE #1
LOCKING GATE #2
LOCKING GATE #3
FORMER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
NORMAN ST
SAVANNAH ST
DULUTH ST
PRETORIA ST
DUQUESNE ST
PETROLEUM AVENUE
LINCOLN ISLAND RHODE PANAMA STREET
PAULK ST
PORTLAND ST
SCALE IN FEET
0
225
450
675

8/18/23 NYS

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
2/20/23	1:30 pm	JOHN Swearengen

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

All Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

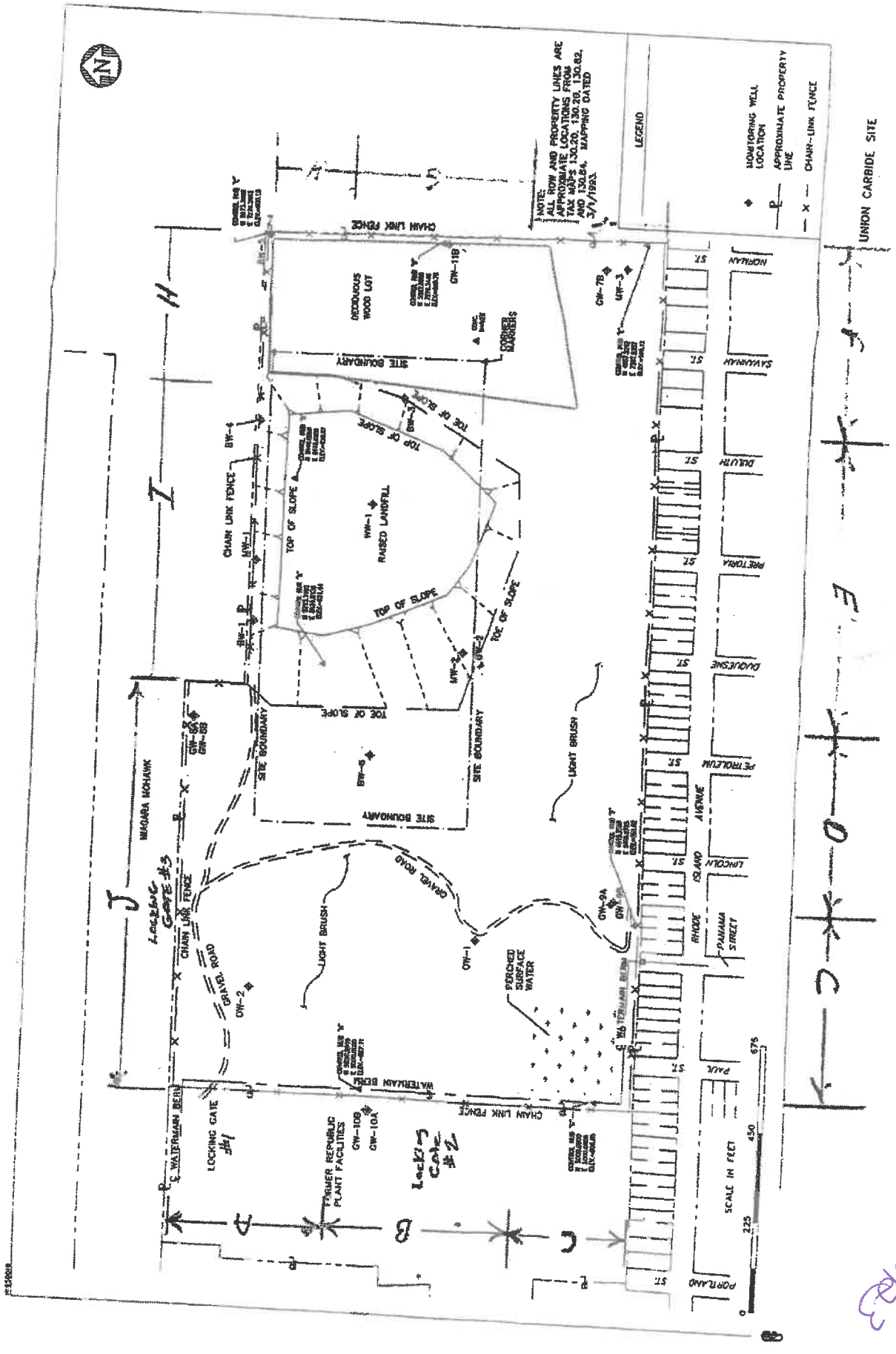
All Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

All Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


N
NOTE:
ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.82, AND 130.84, MAPPING DATED 3/1/1993.
LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
UNION CARBIDE SITE
DECIDUOUS WOOD LOT
RAISED LANDFILL
TOP OF SLOPE
TOE OF SLOPE
SITE BOUNDARY
CHAIN LINK FENCE
LOCKING GATE #3
LOCKING GATE #2
LOCKING GATE #1
GRAVEL ROAD
LIGHT BRUSH
PONDED SURFACE WATER
WATERMAN BERM
FARMER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
MOHAWK ST.
SAVANNAH ST.
DULUTH ST.
PRETORIA ST.
PARKSIDE ST.
PETROLEUM AVENUE
LINCOLN ST.
RHODE ISLAND AVENUE
PANAMA STREET
PARK ST.
PORTLAND ST.
SCALE IN FEET
0
225
450
675

John

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
2/25/23	1:00	John Sweatenham

FENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

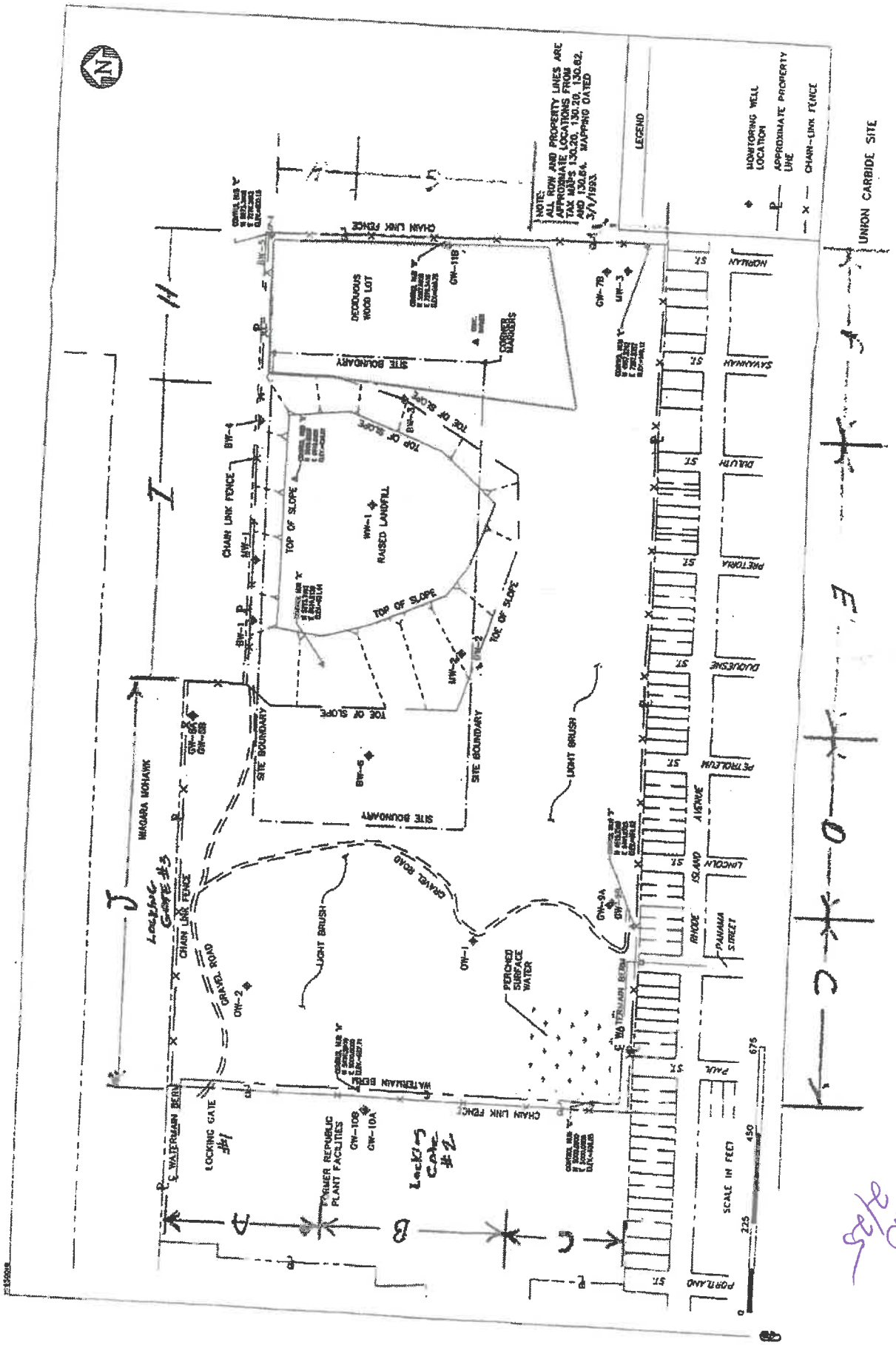
all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


N
LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
NOTE:
ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.82, AND 130.61, MAPPING DATED 3/1/1993.
UNION CARBIDE SITE
CHAIN LINK FENCE
DECIDUOUS WOOD LOT
SITE BOUNDARY
TOP OF SLOPE
TOE OF SLOPE
RAISED LANDFILL
LIGHT BRUSH
GRAVEL ROAD
NIAGARA MOHAWK
LOCKING GATE #3
LOCKING GATE #2
LOCKING GATE #1
PERCHED SURFACE WATER
WATERMAIN BERM
FORMER REPUBLIC PLANT FACILITIES
NORMAN ST.
SAVANNAH ST.
DULUTH ST.
PEMBINA ST.
DUQUESNE ST.
PETROLEUM AVENUE
LINCOLN ISLAND
RHODE
PANAMA STREET
PAUL ST.
PORTLAND ST.
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
3/5/23	12:00	John Swearingen

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J				

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

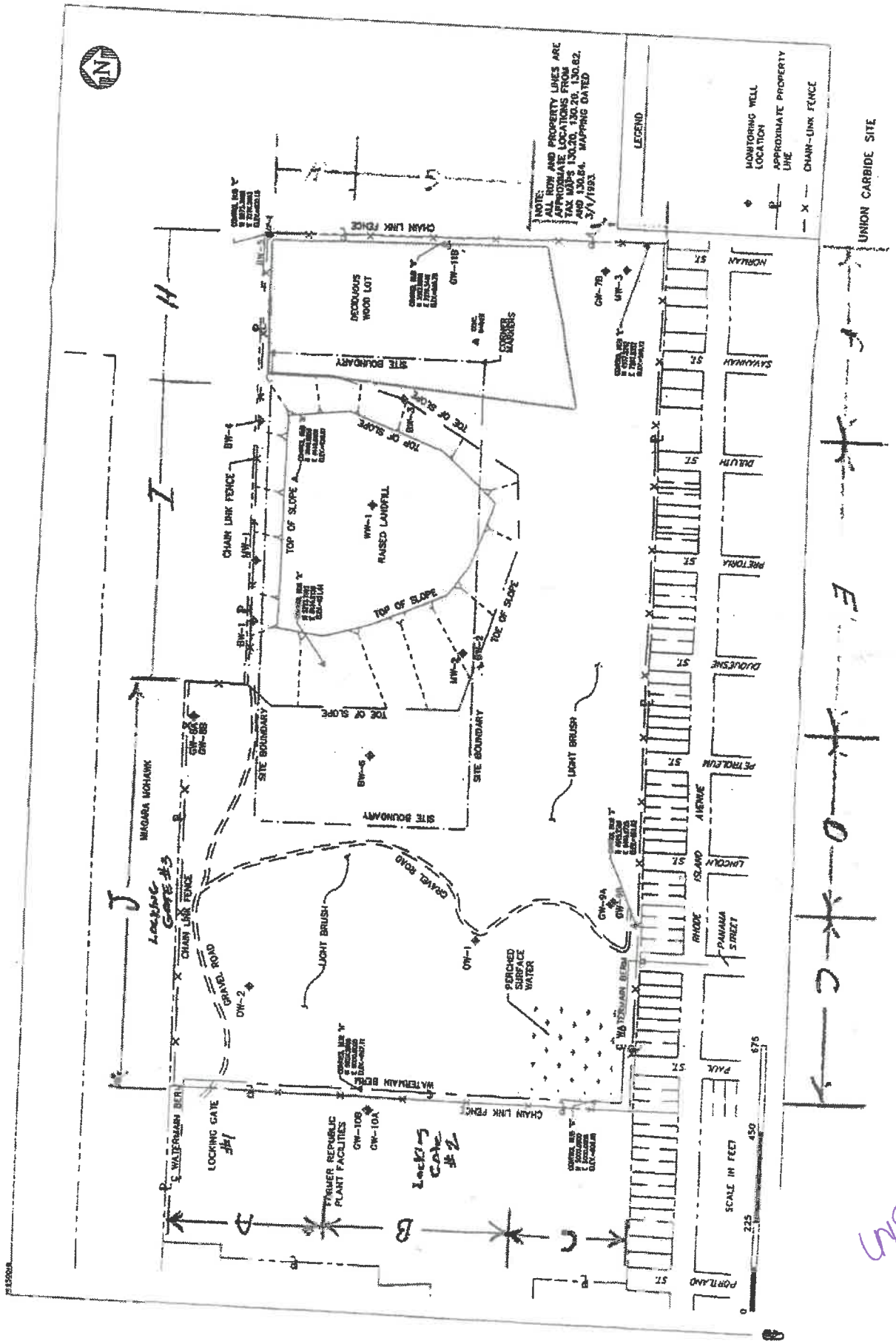
all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


N
LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
NOTE: ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.82, AND 130.84, MAPPING DATED 3/1/1993.
UNION CARBIDE SITE
DECIDUOUS WOOD LOT
RAISED LANDFILL
TOP OF SLOPE
TOE OF SLOPE
SITE BOUNDARY
CHAIN LINK FENCE
LIGHT BRUSH
GRAVEL ROAD
PERCHED SURFACE WATER
WATERMAIN BERM
LOCKING GATE #1
LOCKING GATE #2
FARMER REPUBLIC PLANT FACILITIES
NORMAN
SAVANNAH
DULUTH
PRETONIA
DUQUESNE
PETROLEUM
LINCOLN
RHODE ISLAND
PANAMA STREET
PARK
PORTLAND
NIAGARA MOHAWK
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
3-14-2023	1:00PM	TIM KOWALIK

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

good

CAP COMMENTS: (Check for erosion and adequate vegetation)

good

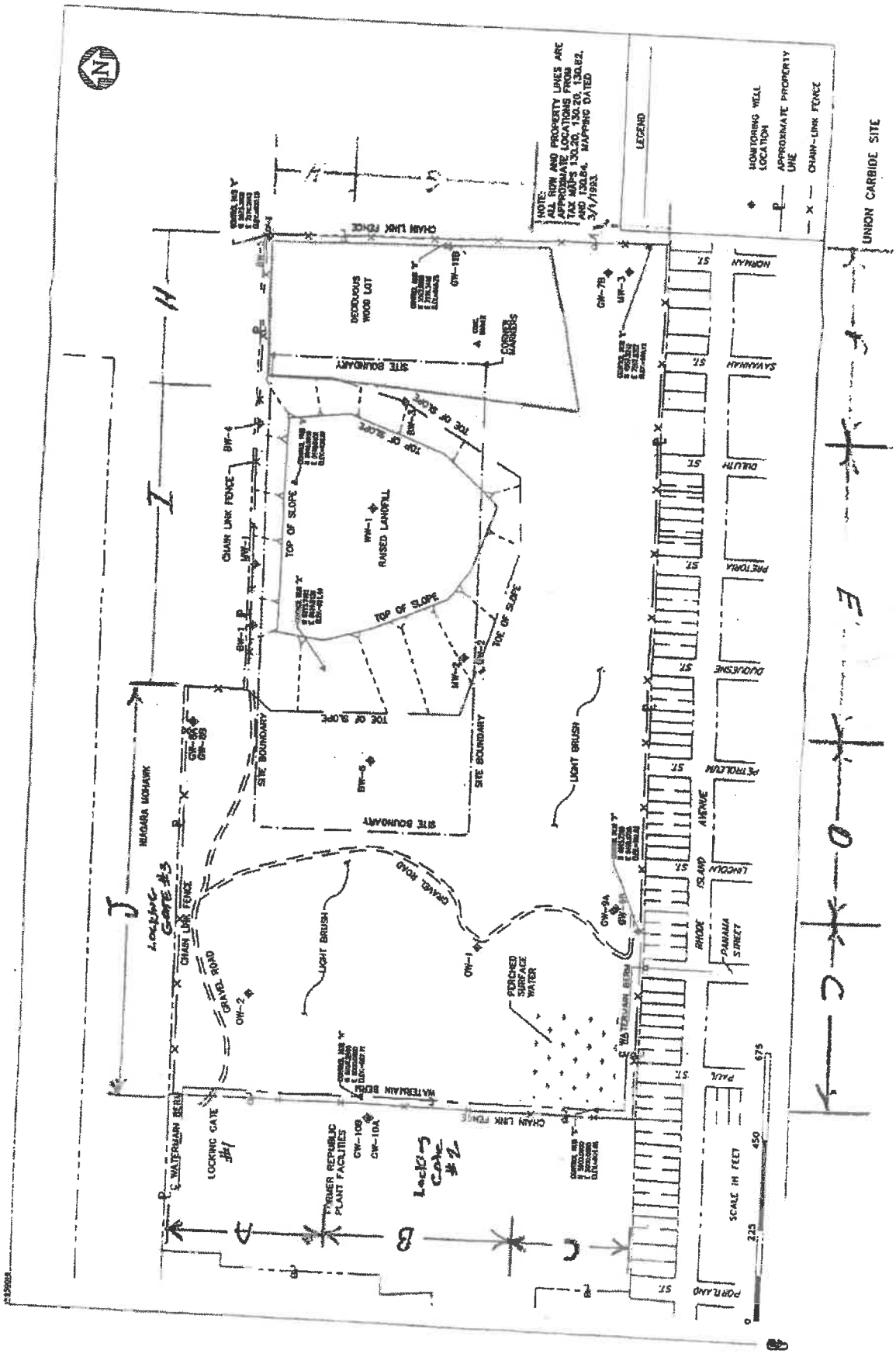
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
3/9/23	5:00	John Sr

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

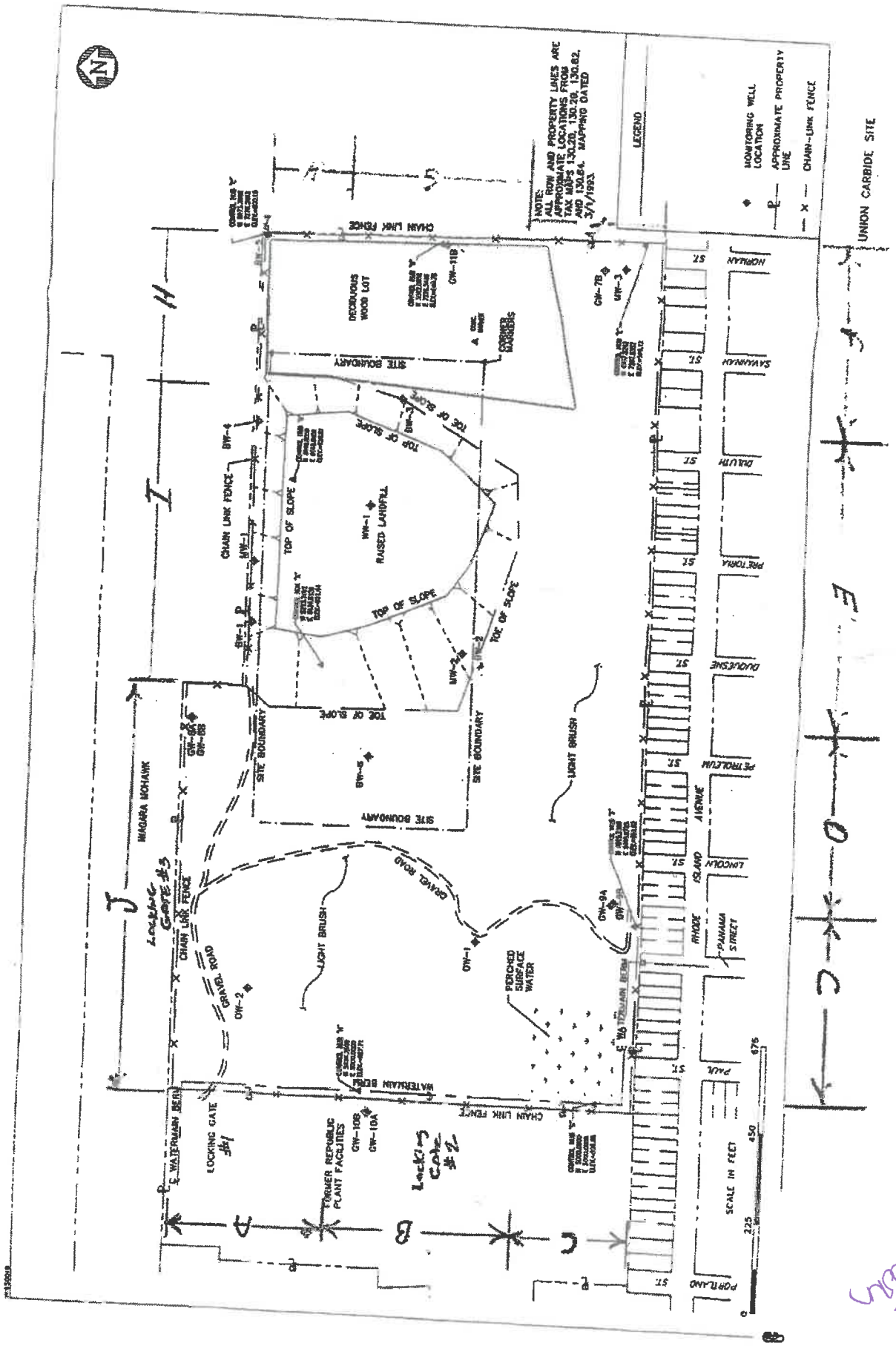
all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
NOTE: ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.82, AND 130.64, MAPPING DATED 3/1/1993.
UNION CARBIDE SITE
DECIDUOUS WOOD LOT
RAISED LANDFILL
TOP OF SLOPE
TOE OF SLOPE
SITE BOUNDARY
CHAIN LINK FENCE
GRAVEL ROAD
LIGHT BRUSH
PERCHED SURFACE WATER
WATERMAIN BERM
LOCKING GATE #1
LOCKING GATE #2
FORMER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
NORMAN ST
SAVANNAH ST
DULUTH ST
PETROLIA ST
DUQUESNE ST
PETROLEUM AVENUE
LINCOLN ISLAND
RHODE PANAMA STREET
PAULA ST
PORTLAND ST
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
3/27/23	4pm	John Sweavergen

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

All good

CAP COMMENTS: (Check for erosion and adequate vegetation)

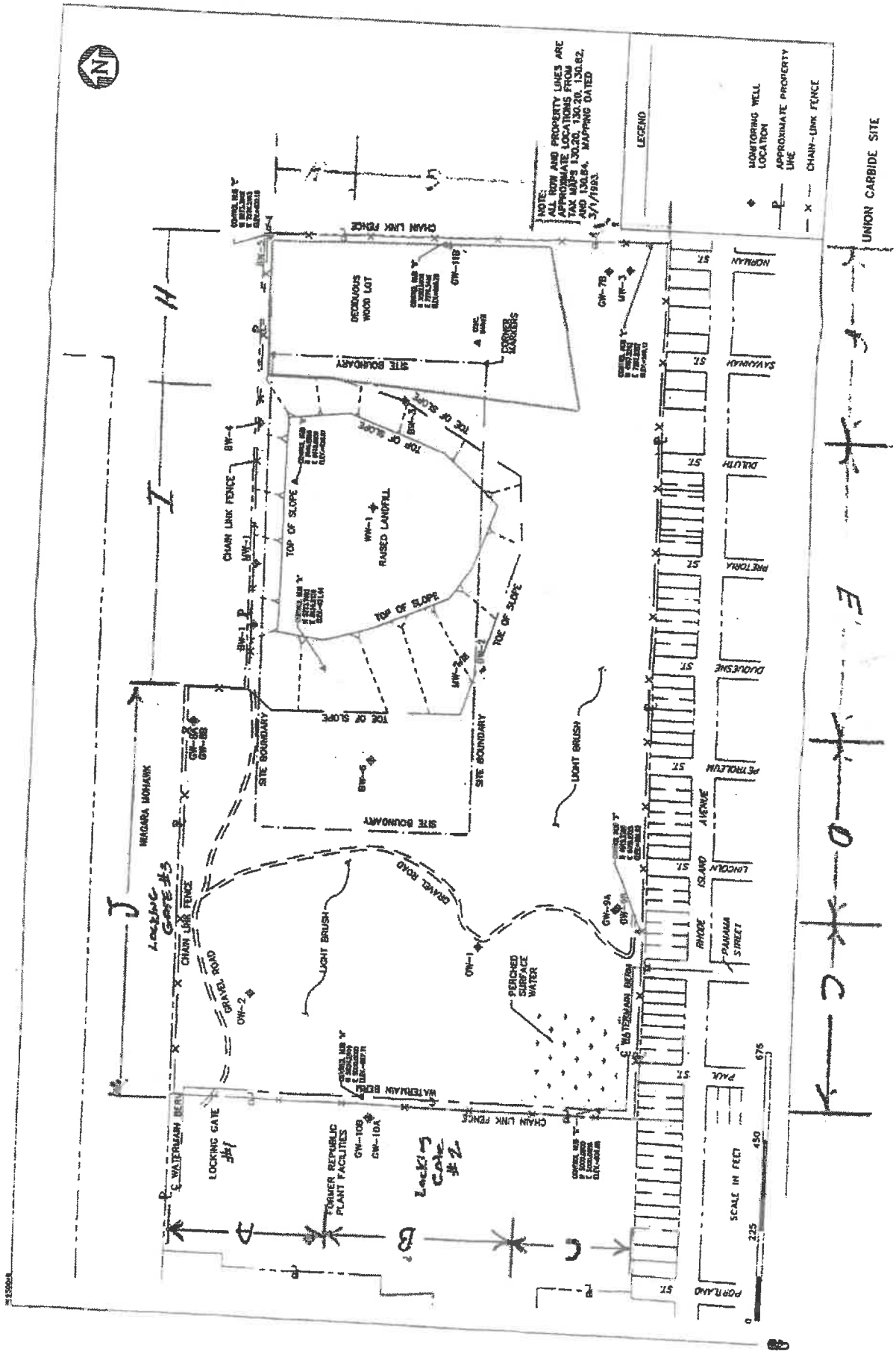
All good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

All good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
NOTE:
ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.82, AND 130.84, MAPPING DATED 3/1/1993.
UNION CARBIDE SITE
DECIDUOUS WOOD LOT
RAISED LANDFILL
TOP OF SLOPE
TOE OF SLOPE
SITE BOUNDARY
CHAIN LINK FENCE
LIGHT BRUSH
GRAVEL ROAD
PERCHED SURFACE WATER
WATERMAIN BERM
LOCKING GATE #1
LOCKING GATE #2
FORMER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
NORMAN ST
SAVANNAH ST
DULUTH ST
PRETORIA ST
DUQUESNE ST
PETROLEUM AVENUE
LINCOLN ISLAND
RHODE
PANAMA STREET
PALK
PORTLAND ST
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
4/1	2:30	Schm Scheuring

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

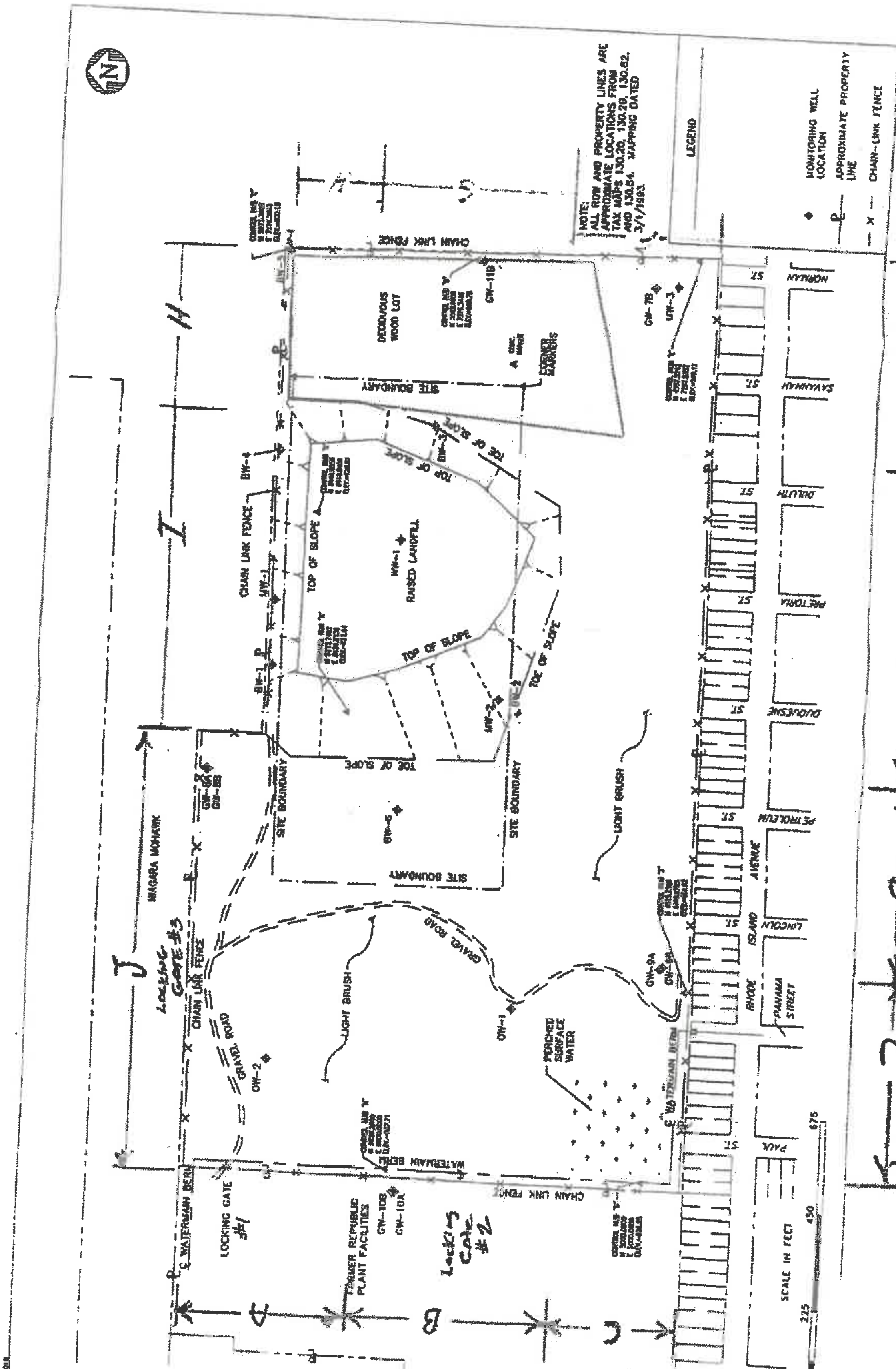
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
4/8/23	9Am	SDLehr

FENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

All Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

All Good

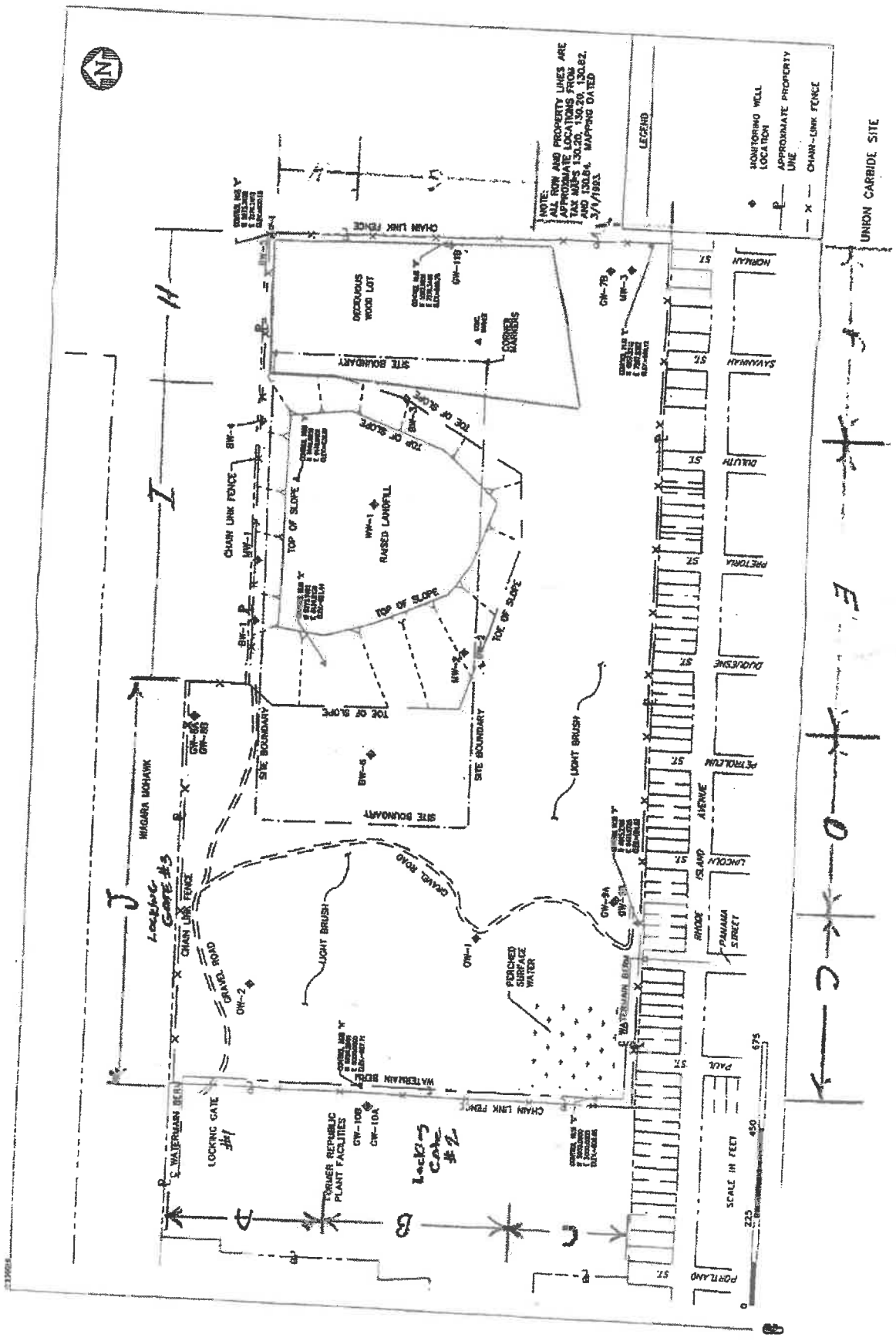
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

All Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
4/15/23	4:30	John Sweargen

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

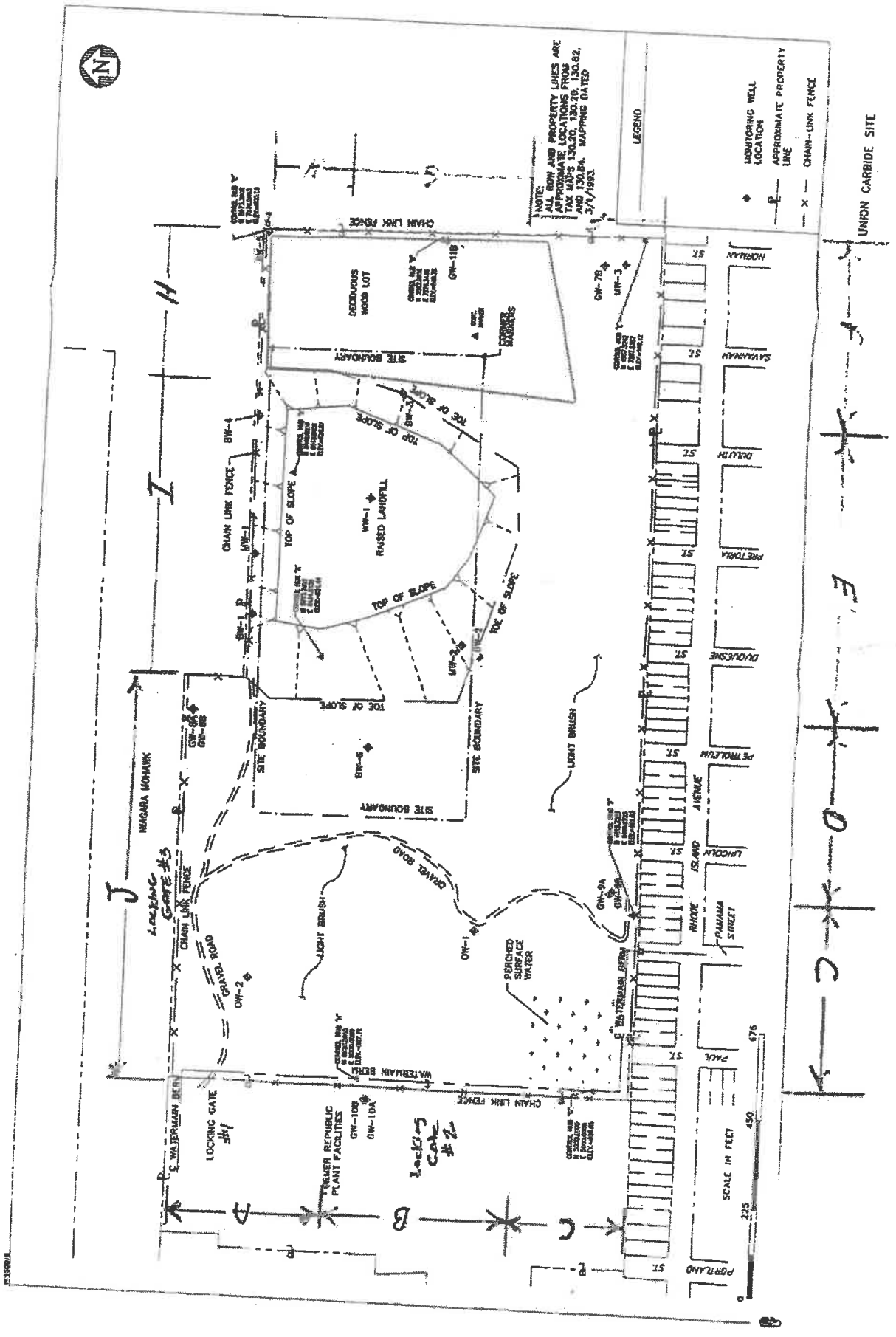
all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
NOTE: ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.28, 130.82, AND 130.84, MAPPING DATED 3/1/1993.
UNION CARBIDE SITE
DECIDUOUS WOOD LOT
RAISED LANDFILL
TOP OF SLOPE
TOE OF SLOPE
SITE BOUNDARY
CHAIN LINK FENCE
GRAVEL ROAD
LIGHT BRUSH
PONDED SURFACE WATER
WATERMAIN BERM
LOCKING GATE
FORMER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
PETROLEUM AVENUE
RHODE ISLAND
LINCOLN
PANAMA STREET
NORMAN
SAVANNAH
DULUTH
PRETORIA
DUQUESNE
PAUL
PORTLAND
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
4/22/23	8:30 Am	SDLehr

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

All Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

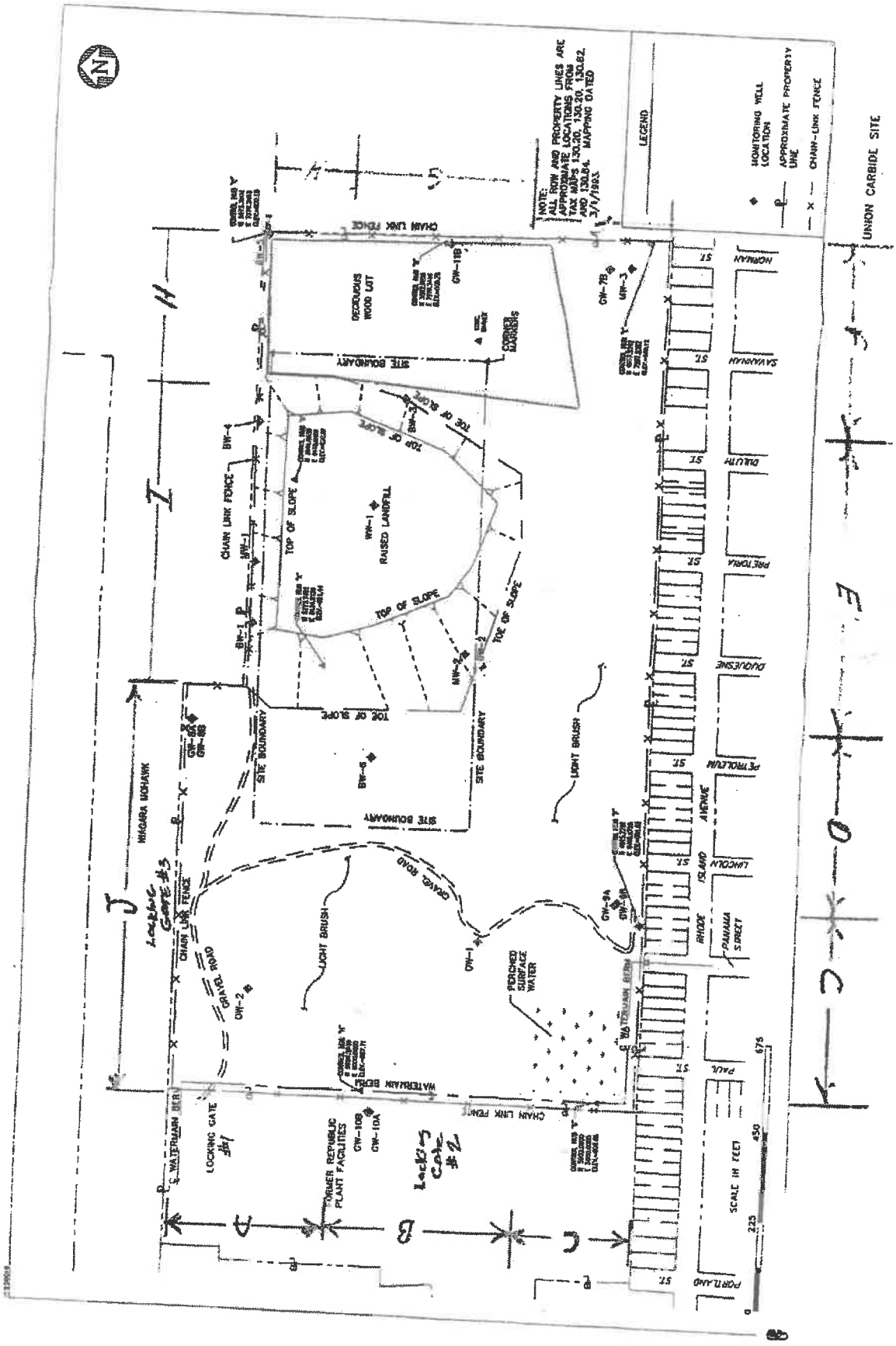
All Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

All Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


LEGEND
MONITORING WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
NOTE: ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM AGE MAPS 130.20, 130.30, 130.62, AND 130.64, MAPPING DATED 3/1/1993.
UNION CARBIDE SITE
DECIDUOUS WOOD LOT
SITE BOUNDARY
CHAIN LINK FENCE
RAISED LANDFILL
TOP OF SLOPE
TOE OF SLOPE
LIGHT BRUSH
GRAVEL ROAD
PERCHED SURFACE WATER
WATERMAIN BERM
LOCKING GATE #1
LOCKING GATE #2
FORMER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
NORMAN ST.
SAVANNAH ST.
DULUTH ST.
PUEBLO ST.
DUQUESNE ST.
PETROLEUM AVENUE
LINCOLN ISLAND
RHODE ISLAND
PANAMA STREET
PAUL ST.
PORTLAND ST.
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
4/27/23	8:30Am	SOLch

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

All Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

All Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

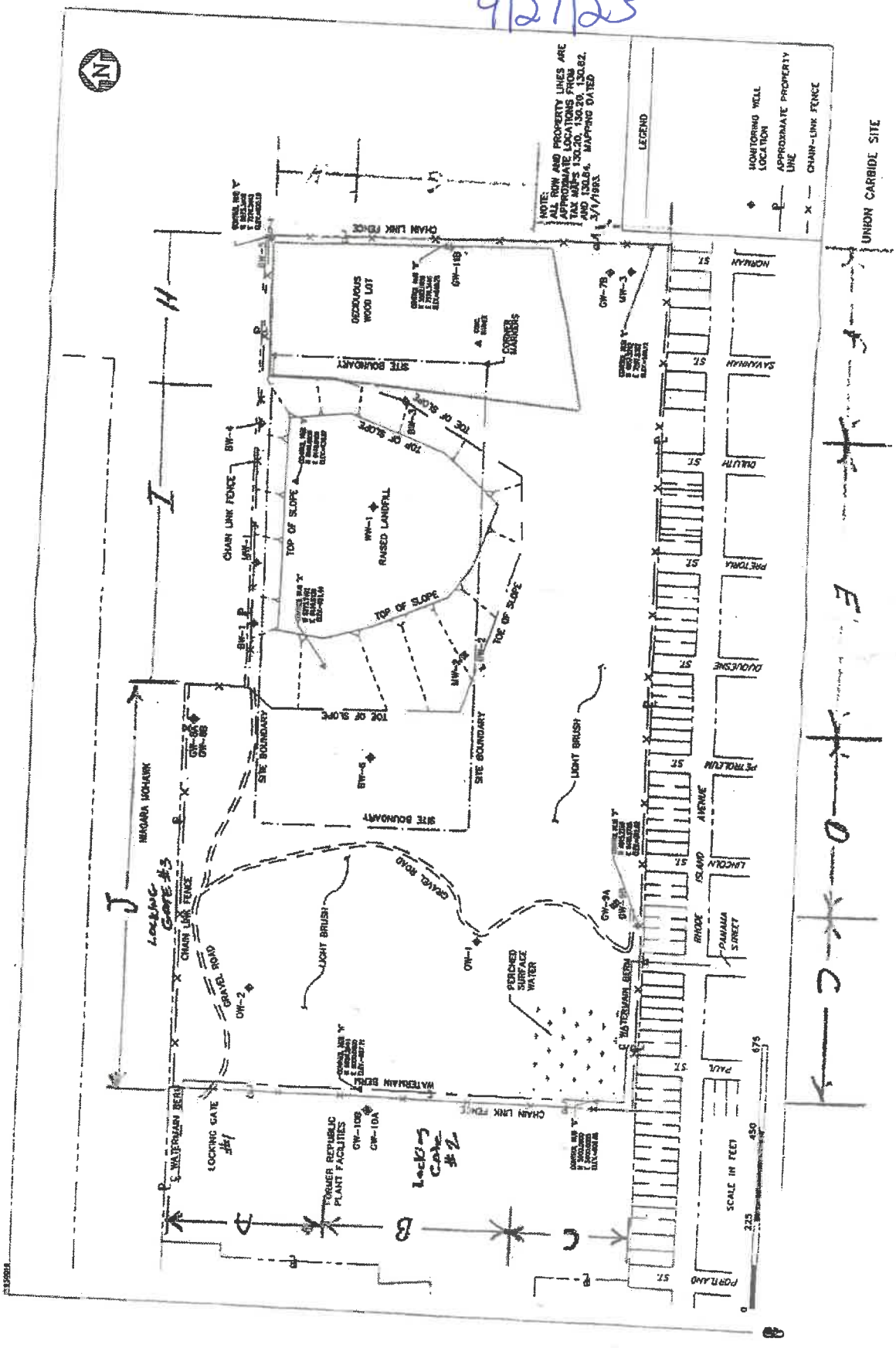
All Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)

4/27/23



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
5/8/23	4:00	John Sevedrya

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

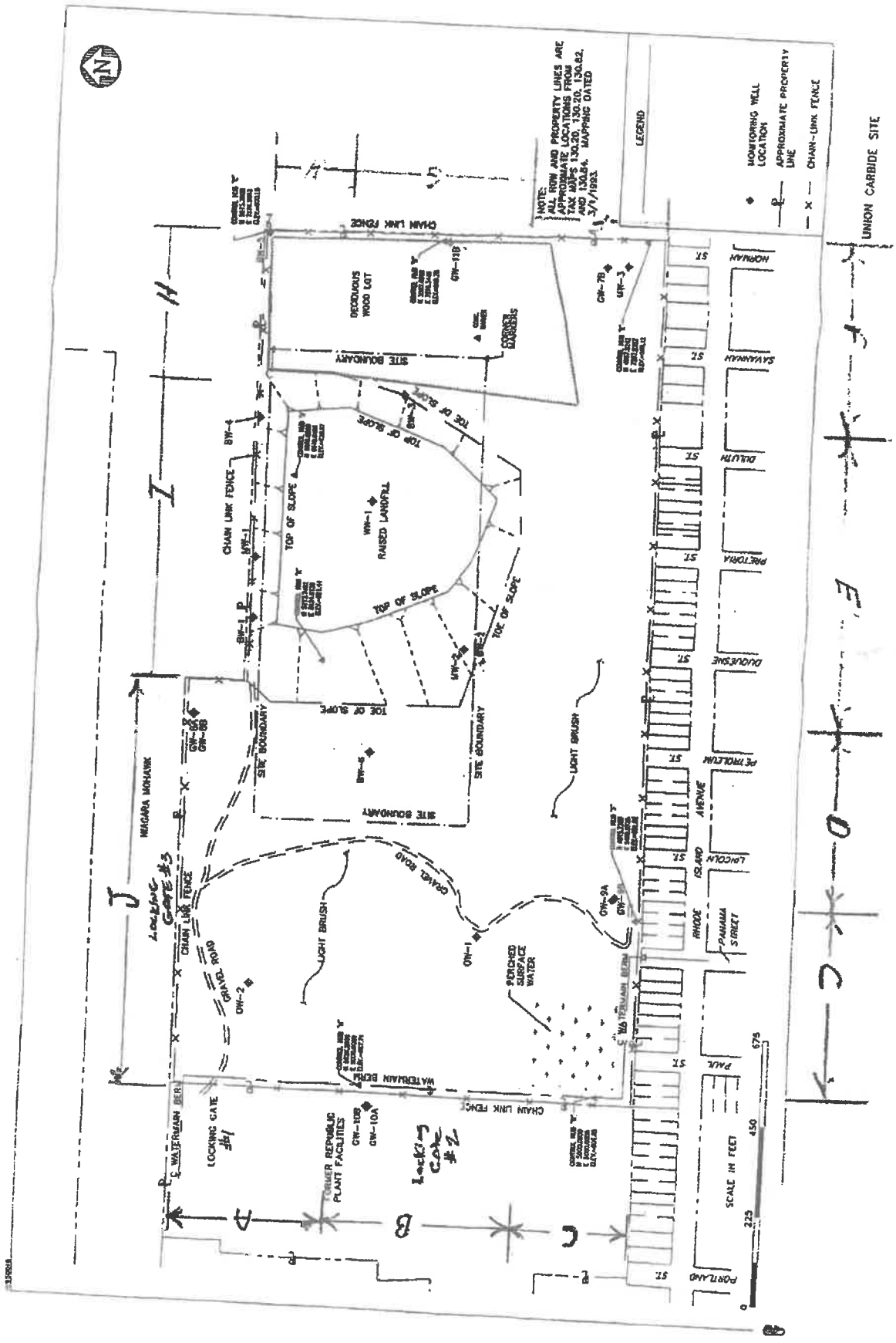
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
5/12/23	3:30	John Sweatman

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

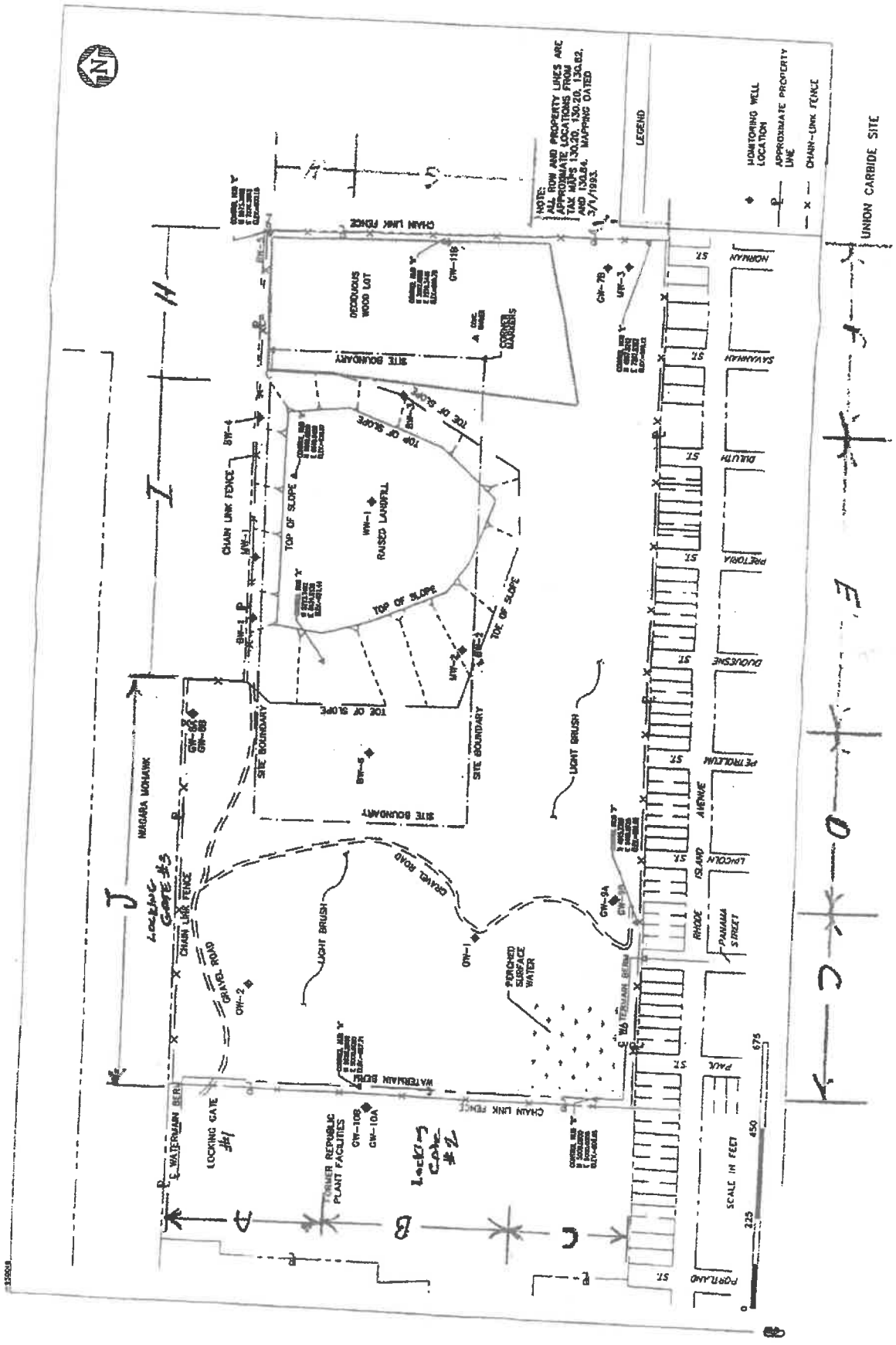
all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.


LEGEND
HOMETOWN WELL LOCATION
APPROXIMATE PROPERTY LINE
CHAIN-LINK FENCE
NOTE: ALL ROW AND PROPERTY LINES ARE APPROXIMATE LOCATIONS FROM TAX MAPS 130.20, 130.20, 130.R2, AND 130.R4, MAPPING DATED 3/1/1993.
UNION CARBIDE SITE
DECIDUOUS WOOD LOT
RAISED LANDFILL
SITE BOUNDARY
TOP OF SLOPE
CHAIN LINK FENCE
GRAVEL ROAD
LIGHT BRUSH
PERCHED SURFACE WATER
WATERMAIN BERM
LOCKING GATE #1
LOCKING GATE #2
TURNER REPUBLIC PLANT FACILITIES
NIAGARA MOHAWK
NORMAN ST.
SAVANNAH ST.
DULUTH ST.
PRETORIA ST.
DUQUESNE ST.
PETROLEUM AVENUE
LINCOLN ISLAND
RHODE PANAMA STREET
PARK ST.
PORTLAND ST.
SCALE IN FEET
0
225
450
675

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
5/19/23	7:00	John Swedrega

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
5/25/23	12:00	John Sarsenyan

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

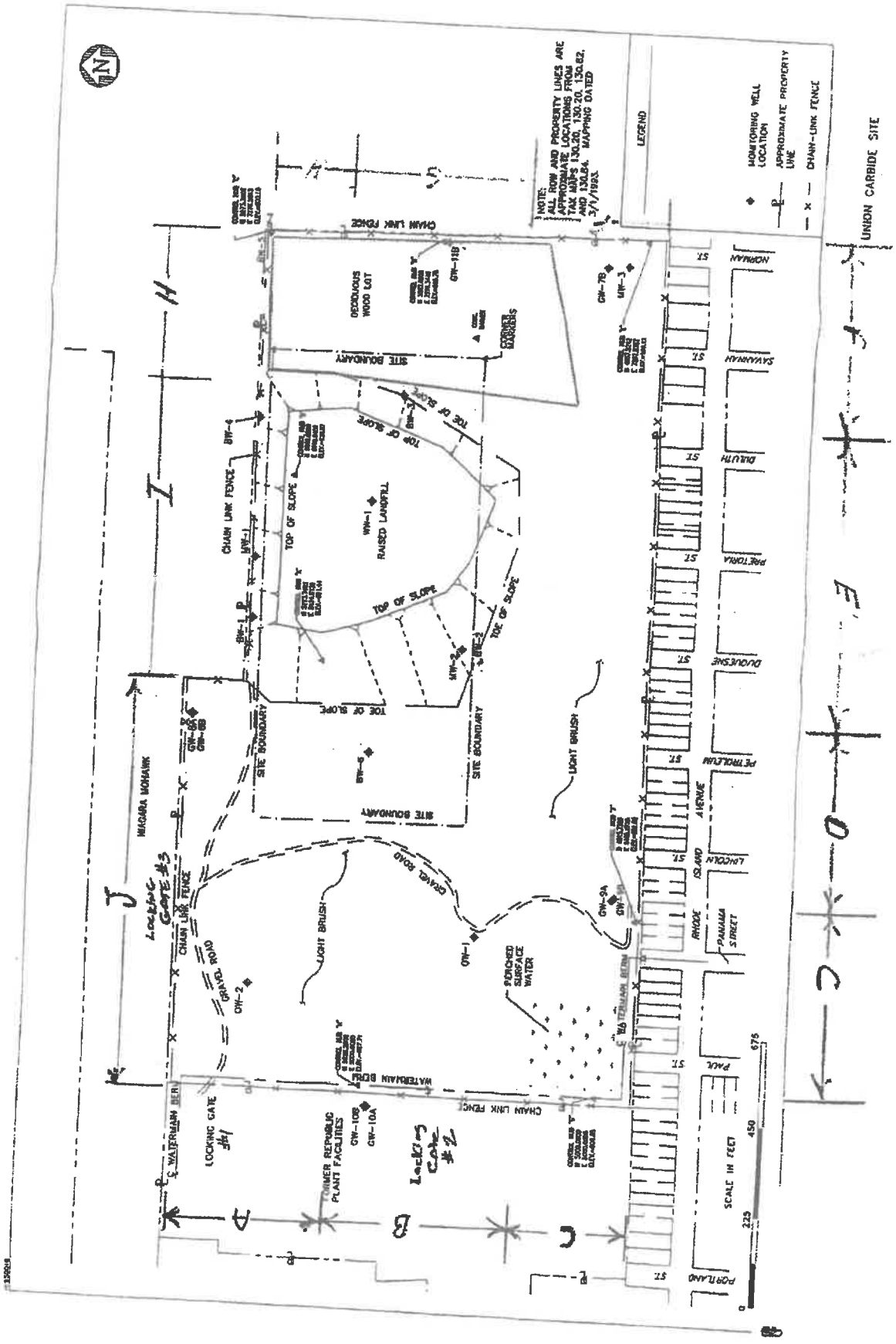
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
6/3/23	7:30 Am	John Sweatengan

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

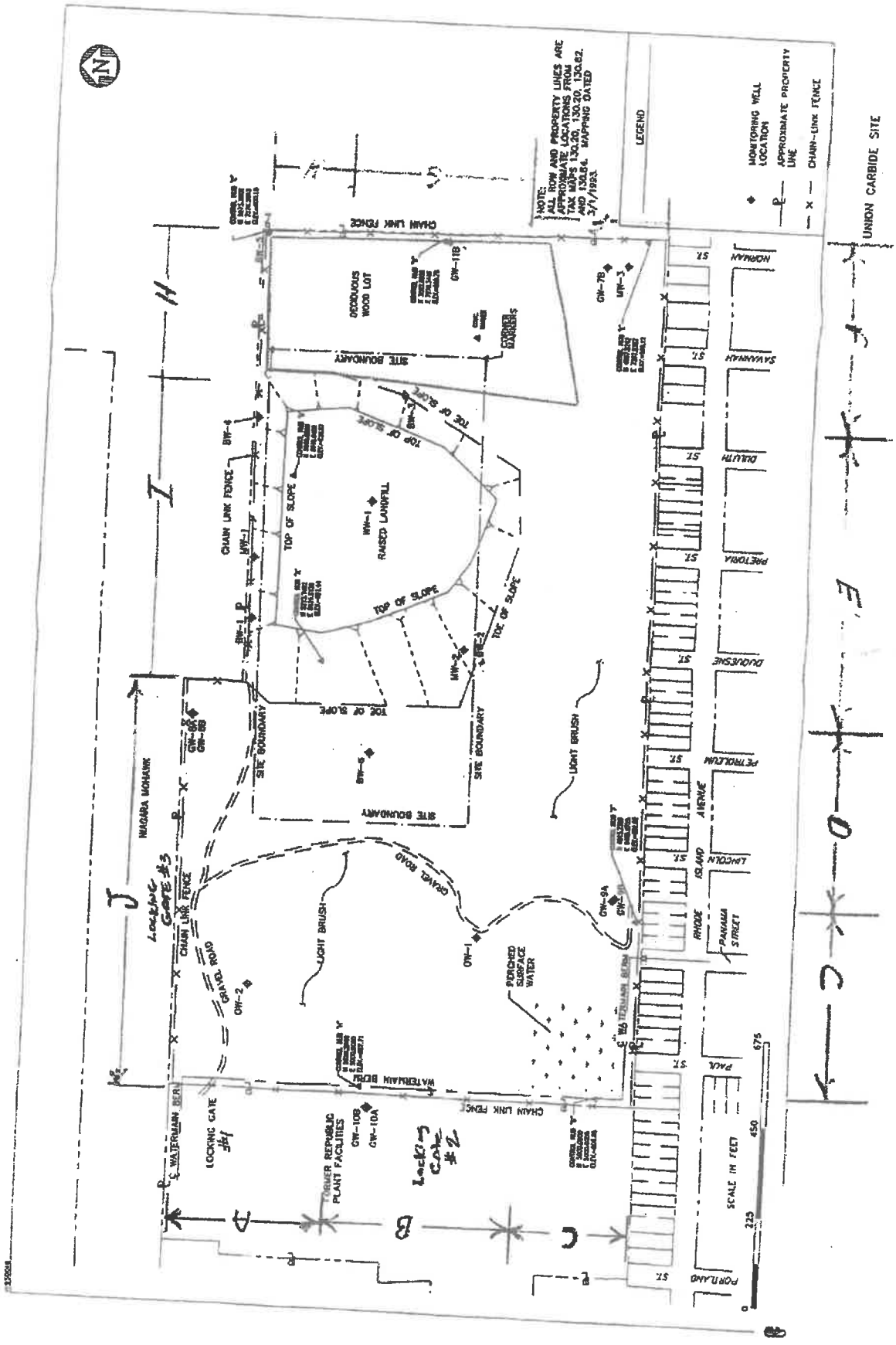
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
6/10/23	10:00	John Scrivener

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J				

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
6/16/23	5:00	John Sarcaregn

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
6/23/23	4:30	John Scarangella

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

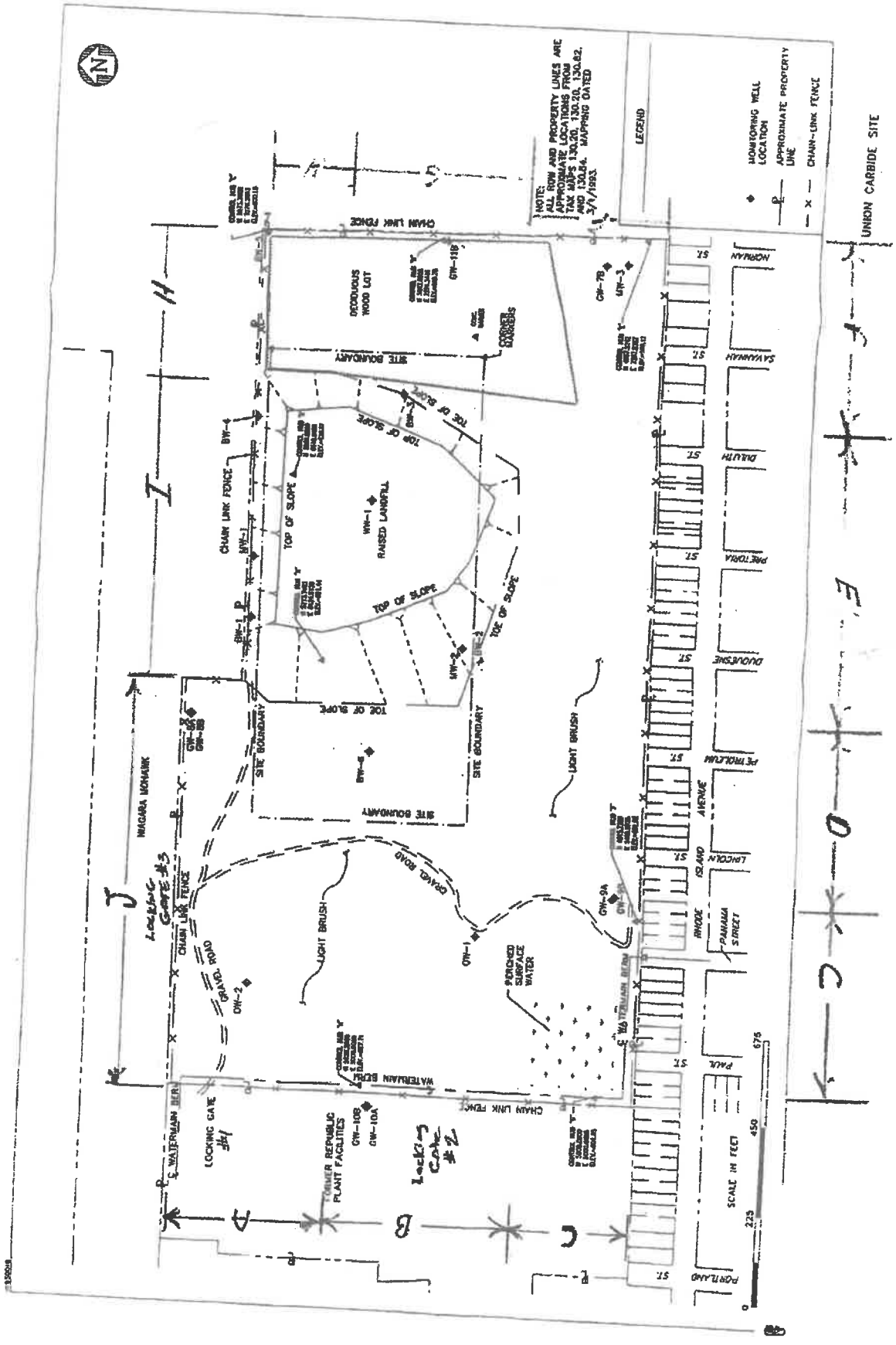
SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)



APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
6/29/23	12:00	John Swearengin

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECEIVED
JUL 01 2023

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
7/7/23	4:00	John Saratanga

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
7/14/23	4:00	John Sawaragi

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
7/22/23	6:00	John Swearingen

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
7/28/23	12:30	John Swerkeryn

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
8/8/23	4:30	John Saccaroppa

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
8/14/23	4:20	John Scarlett-Logan

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
8/19/23	7:00	John Swanson

FENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
8/25/23	4:30	John Sweeney

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
9/2/23	9:00 AM	John Swearingen

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
9/9/23	8AM	Charles Luke

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
9/16/23	3:00	John Sivonen

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
9/22/23	12:00	John Sweeney

FENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J				

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

all good

CAP COMMENTS: (Check for erosion and adequate vegetation)

all good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

all good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
9/30/23	7AM	Charles Luke

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
10-7-23	8AM	Rick G.

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

good

CAP COMMENTS: (Check for erosion and adequate vegetation)

good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

good

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
10/13/23	8am	Sam

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

OK

CAP COMMENTS: (Check for erosion and adequate vegetation)

OK

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

OK

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

OK

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
10/21/23	830 am	Charles L

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

good

CAP COMMENTS: (Check for erosion and adequate vegetation)

good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: good

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
10-24-2023		Tim Kowalik

ENCE ARE	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	—			
G	✓			
H	✓			
I	—			
J	—			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	—			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

good

CAP COMMENTS: (Check for erosion and adequate vegetation)

good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: good

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
11-04-23	800	Charles Locke

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

CAP COMMENTS: (Check for erosion and adequate vegetation)

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED:_____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
11/11/23	730 AM	Marc S.

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

Ok

CAP COMMENTS: (Check for erosion and adequate vegetation)

ok

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

ok

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
11/18/23	745AM	MARC S.

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

ok

CAP COMMENTS: (Check for erosion and adequate vegetation)

ok

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

ok

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
11/25/23	730AM	Marc S.

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

OK

CAP COMMENTS: (Check for erosion and adequate vegetation)

ok

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

OK

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
12-2-23	7:30 Am	Khan P

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	X			
B	X			
C	X			
D	X			
E	X			
F	X			
G	X			
H	X			
I	X			
J	X			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	X			
2	X			
3	X			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

good

CAP COMMENTS: (Check for erosion and adequate vegetation)

Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)

Landfill

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
12/9/23		Charles Ly Cu

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

Landfill

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
12/10/23		Charles Luku

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach)

Good

CAP COMMENTS: (Check for erosion and adequate vegetation)

Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach)

Good

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

Landfill

LANDFILL SITE MANAGEMENT PLAN FOR SWMF #32N03 (REGISTRY NO. 932035)

APPENDIX A - WEEKLY GENERAL LANDFILL AND SITE SECURITY INSPECTION REPORT

Date	Time	Inspector Name
12/29/23		Charles Luke

FENCE AREA	OK	DAMAGED	REPAIR DATE	REMARKS
A	✓			
B	✓			
C	✓			
D	✓			
E	✓			
F	✓			
G	✓			
H	✓			
I	✓			
J	✓			

GATE	OK	DAMAGED	REPAIR DATE	REMARKS
1	✓			
2	✓			
3	✓			

SECURITY-RELATED ENGINEERED CONTROLS COMMENTS: (Check for condition, damage, signs of security breach) Good

CAP COMMENTS: (Check for erosion and adequate vegetation) Good

SURROUNDING AREA COMMENTS: (Check for condition, damage, signs of security breach) Tree fell on Fence

RECORD THE DATE(S) THAT THE ENTIRE CAP WAS MOWED: _____

IN THE EVENT THAT ANY SIGN OF A SITE SECURITY BREACH IS IDENTIFIED DURING THE ABOVE SITE INSPECTIONS, COMPLETE A FULL GROUNDWATER MONITORING WELL INSPECTION AND DOCUMENT RESULTS USING THE QUARTERLY GROUNDWATER WELL INSPECTION REPORT FORM (APPENDIX B) AND ATTACH TO THIS FORM.

Appendix G

Copies of Quarterly Groundwater Well Inspection Reports – 2023

APPENDIX B - QUARTERLY GROUNDWATER WELL INSPECTION REPORT

GRAFTECH WELLS

FEB 4

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
MW1-78	Y	Locked	good	good	
MW2-78	Y	Locked	good	good	
MW3-79	Y	Locked	good	good	
BW1-86	Y	Locked	good	good	
BW2-86	Y	Locked	good	good	
BW3-86	Y	Locked	good	good	
BW4-86	Y	Locked	good	good	
BW5-86	Y	Locked	good	good	
BW6-86	Y	Locked	good		
WW1-86	Y	Locked	good		NOT VISABLE
OW1-88	Y	Locked	good		NOT VISABLE
OW2-88	Y	Locked	good		NOT VISABLE

ON-SITE WELLS INSTALLED BY NYSDEC

(Installed Sept./Oct. 93)

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
GW7B-93	Y	Locked	good	good	
GW8A-93	Y	Locked	good	good	
GW8B-93	Y	Locked	good	good	
GW9A-93	Y	Locked	good	good	
GW9B-93	Y	Locked	good	good	
GW11B-93	Y	Locked	good	good	

APPENDIX B - QUARTERLY GROUNDWATER WELL INSPECTION REPORT

GRAFTECH WELLS May 19

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
MW1-78	yes	locked	good	good	
MW2-78	yes	locked	good	good	
MW3-79	yes	locked	good	good	
BW1-86	yes	locked	good	good	
BW2-86	yes	locked	good	good	
BW3-86	yes	locked	good	—	not visable
BW4-86	no	locked	good	good	
BW5-86	yes	locked	good	[redacted]	cracked
BW6-86	yes	locked	good	cracked	
WW1-86	yes	locked	good	—	not visable
OW1-88	yes	locked	good	—	not visable
OW2-88	yes	locked	good	—	not visable

ON-SITE WELLS INSTALLED BY NYSDEC

(Installed Sept./Oct. 93)

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
GW7B-93	yes	locked	good	loose	
GW8A-93	yes	Locked	good	Loose	
GW8B-93	yes	Locked	good	good	
GW9A-93	yes	locked	good	Loose	
GW9B-93	yes	locked	good	Loose	
GW11B-93	yes	locked	good	good	

APPENDIX B - QUARTERLY GROUNDWATER WELL INSPECTION REPORT

GRAFTECH WELLS

August

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
MW1-78	yes	locked	good	good	
MW2-78	yes	locked	good	good	
MW3-79	yes	locked	good	good	
BW1-86	yes	locked	good	good	
BW2-86	yes	locked	good	good	
BW3-86	yes	locked	good	good	
BW4-86	yes	locked	good	good	
BW5-86	yes	locked	good	good	
BW6-86	yes	locked	good	good	
WW1-86	yes	locked	good	good	
OW1-88	yes	locked	good	good	
OW2-88	yes	locked	good	not visable	

ON-SITE WELLS INSTALLED BY NYSDEC

(Installed Sept./Oct. 93)

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
GW7B-93	yes	locked	good	good	
GW8A-93	yes	locked	good	good	
GW8B-93	yes	locked	good	good	
GW9A-93	yes	locked	good	good	
GW9B-93	yes	locked	good	good	
GW11B-93	yes	locked	good	good	

APPENDIX B - QUARTERLY GROUNDWATER WELL INSPECTION REPORT

GRAFTECH WELLS

NAV

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
MW1-78	yes	Locked	good	good	
MW2-78	yes	Locked	good	good	
MW3-79	yes	Locked	good	good	
BW1-86	yes	locked	good	good	
BW2-86	yes	locked	good	good	
BW3-86	yes	locked	good	good	
BW4-86	yes	locked	good	good	
BW5-86	yes	locked	good	good	
BW6-86	yes	locked	good	good	
WW1-86	yes	locked	good	good	
OW1-88	yes	locked	good	good	
OW2-88	yes	locked	good	good	

ON-SITE WELLS INSTALLED BY NYSDEC

(Installed Sept./Oct. 93)

WELL I.D. NUMBER	WELL I.D. TAG INTACT (YES/NO)	LOCK CONDITION	OUTER CASING CONDITION	CONCRETE SEAL CONDITION	COMMENTS
GW7B-93	yes	locked	good	good	
GW8A-93	yes	locked	good	good	
GW8B-93	yes	locked	good	good	
GW9A-93	yes	locked	good	good	
GW9B-93	yes	locked	good	good	
GW11B-93	yes	locked	good	good	