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GZA GeoEnvironmental of NY
300 Pearl Street
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Buffalo, NY 14202
T: 716.685.2300
F: 716.248.1472
www.gza.com

VIA EMAIL

March 14, 2024
File No. 21.0056546.20

Glenn May, CPG
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
270 Michigan Avenue
Buffalo, New York 14203
e-mail: glenn.may@dec.ny.gov

Re: **Periodic Review Report** - Number 13 – January 2024
Delphi Harrison Thermal Systems Site - Registry Site No. 932113
Lockport, New York

Mr. May:

GZA GeoEnvironmental of New York (GZA) prepared this 2023 Periodic Review Report (PRR) for the Delphi Harrison Thermal Systems Site (Site) as required by the Site Management Plan[1] (SMP, approved by NYSDEC on October 13, 2011). The implementation of the SMP is a requirement of the Remedial Program Order on Consent and Administrative Settlement (Index #B9-0553-99-06) between GM Components Holdings, LLC (GMCH) and NYSDEC dated November 8, 2011.

GMCH is the current owner and operator of an automotive components manufacturing facility at 200 Upper Mountain Road, Lockport, New York. The Site, as defined by the environmental easement (Instrument # 2011-17072, recorded in the Niagara County Clerk's Office in October 2011) comprises approximately 22.7 acres as shown on **Figure 1**. In 2014, a portion of the Site was conveyed to Delphi Properties Management LLC. On June 30, 2015 that same portion of the Site was transferred from Delphi Properties Management LLC to MAHLE Manufacturing Management Inc., now called MAHLE BEHR USA INC.

REGULATORY HISTORY SUMMARY

The following is a summary of the regulatory actions at the Site.

- Building 8, located in the northern central portion of the GM Lockport facility, formerly housed degreasing operations that utilized trichloroethylene (TCE). An aboveground storage tank (AST) was formerly located outside the southeastern corner of Building 8 until it was decommissioned in May 1994. Delphi Thermal Systems (Delphi) notified the NYSDEC in 1994 that TCE was detected in soil during an excavation to repair fire protection lines in the vicinity of the former AST. NYSDEC assigned the incident Spill Number 9410972. Delphi removed the TCE-impacted soil from the excavation down to the top of bedrock and provided NYSDEC with a report of this removal action in a letter dated December 22, 1994.

[1] "Delphi Harrison Thermal Systems Site, Niagara County, New York, Site Management Plan, NYSDEC Site Number: 9-32-113" dated October 13, 2011

- In March 1999, the Site was added to the NYSDEC Inactive Hazardous Waste Registry, Site Number 932113 as a Class 3 listing (does not present a significant threat to the public health or the environment – action may be deferred).

- In 2001, Delphi entered into a Remedial Investigation/Feasibility Study Order on Consent, Index #B9-0553-99-06 (RI/FS Order) to determine the extent of TCE contamination and complete a Focused Feasibility Study.

- In March 2005, NYSDEC, in consultation with the New York State Department of Health (NYSDOH), issued a Record of Decision (ROD) based on the results of the Focused Remedial Investigation (FRI) and Focused Feasibility Study (FFS). The components of the selected remedy, as defined in the ROD, were as follows.

    - Monitored natural attenuation (MNA) with groundwater monitoring and sampling to check the continued effectiveness of the remedy.

    - Development of a contingency plan for groundwater control/treatment if natural attenuation processes can no longer be demonstrated as effective or if significant off-site groundwater contamination is observed.

    - Development of a site management plan to: (a) address residual contaminated soils that may be excavated from the site during future redevelopment, (b) evaluate the potential for vapor intrusion for all current site buildings and those developed on the site in the future, including provision for mitigation of impacts identified; (c) provide for the operation and maintenance of the components of the remedy; (d) monitor site groundwater; and (e) identify use restrictions on site development or groundwater use.

    - Imposition of an environmental easement to restrict groundwater use and check compliance with the approved site management plan.

    - Certification of the institutional and engineering controls.

- Annual MNA groundwater sampling was completed voluntarily at the Site from October 2006 through April 2011.

- In October 2011, an environmental easement (Instrument # 2011-17072) for the Site was recorded in the Niagara County Clerk's Office.

- In November 2011, a Remedial Program Order on Consent and Administrative Settlement (Index #B9-0553-99-06) was executed between GMCH and NYSDEC.

- In April 2012, the Site was reclassified on the NYSDEC Inactive Hazardous Waste Registry, to a Class 4 listing (site has been properly closed but requires continued site management consisting of operation, maintenance and/or monitoring).

- Since April 2012, groundwater sampling has been completed at the Site in accordance with the Remedial Program Order on Consent and Administrative Settlement (Index #B9-0553-99-06).

- There were no additional regulatory actions taken during the reporting period.

2023 PERIODIC REVIEW REPORTING PERIOD

In accordance with Section 5.3 of the SMP, the following constitutes the Calendar Year 2023 PRR:

1. Results of the required Site inspections and severe weather condition inspections, if applicable

(a) The annual inspection of the Site and Site Cover was completed on December 15, 2023 by Morgan Brown of GZA. The annual site inspection form was completed, a copy of which is provided as **Appendix A** along with a photo log associated with the inspection.

(b) A severe weather condition inspection was not conducted during the reporting period.

2. All applicable inspection forms and other records generated for the Site during the reporting period in electronic format

A copy of the completed site inspection forms from the December 15, 2023 site inspection is included in **Appendix A**. Also, included as part of the electronic submittal is a copy of the Delphi Harrison Thermal Systems Site 2023 NYSDEC Site Management Periodic Review Report Institutional and Engineering Controls Certification Form. A copy of this Form is attached to the PRR as **Appendix B**.

3. A summary of any monitoring data and/or information generated during the Reporting Period with comments and conclusions

The most recent groundwater sampling was completed in October 2023. A copy of the GZA report is included with this PRR as **Appendix C.** The report provides the conclusions and recommendations presented below.

CONCLUSIONS

Based on the results of the October 2023 sampling round and historical data trends, natural attenuation of COCs is occurring via reductive dechlorination. GZA offered the following additional observations relative to the 2023 sampling round:

- The concentrations of the parent compounds decrease significantly from the source area (MW-7) downgradient to the mid-point of the plume (MW-4 and MW-10), and from the mid-point on to the downgradient portions of the Site (MW-11 through MW-15) where COCs are not detected.
- There is an increase in daughter compound concentrations from the source area to the mid-point of the plume, with an overall decrease in total COC concentrations downgradient from the source area (MW-7).

- Based on data trends and supported by the findings of the 2014 treatability study, current conditions mid-plume (MW-4) show potential for complete reductive dechlorination of COCs to ethene. COCs

concentrations were generally below MDLs or at concentrations below NYSDEC TOGS 1.1.1 GA standards at the downgradient Site boundary, which provides additional evidence for continued natural attenuation.

- COCs were not detected above NYSDEC Class GA groundwater standards at downgradient property line monitoring wells (MW-11 and MW-13). In 2022, TCE was detected at 0.0062 mg/L and exceeding its Class GA criteria of 0.005 mg/L at downgradient well MW-14. TCE, or other COCs were not detected above the NYS Class GA criteria at MW-14 during the 2023 sampling event.
- Low concentrations of daughter products 1,2-DCE and VC were detected in MW-12, just upgradient of MW-11 and MW-13, but the parent compounds PCE and TCE were not detected. The presence of the daughter products here (but not at the downgradient property line wells) is further evidence of natural attenuation.
- PCE was detected at a concentration of 0.0068 mg/L which exceeded the NYS Class GA criterion of 0.005 mg/L at downgradient well MW-15. No other COCs were detected above criteria at MW-15 during this event. These results are consistent with historical trends.

RECOMMENDATIONS

In June 2021, GMCH requested the cessation of sampling MW-10. If acceptable to NYSDEC and the New York State Department of Health (NYSDOH), the 2024 monitoring event shall include a total of seven wells (MW-4, -7, -11, -12, -13, -14 and -15). The COC and natural attenuation analytical parameters analyzed during the 2024 sampling round shall be consistent with the 2023 sampling event.

4. Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.

Data summary tables and graphs associated with the annual MNA groundwater sampling report are included in **Appendix C**.

5. Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted electronically in a NYSDEC-approved format.

The electronic submission of this PRR will include the results of analyses, copies of laboratory data sheets, and the required laboratory data deliverables for samples collected during the reporting period for the 2023 MNA groundwater sampling event.

6. A Site evaluation, which includes the following:

- Compliance with the requirements of the ROD Site-selected remedy;

- Any new conclusions or observations regarding site contamination based on inspections or data generated by the Site Monitoring Plan for the media being monitored;

- Recommendations regarding any necessary changes to the remedy and/or Site Monitoring Plan; and
- The overall performance and effectiveness of the remedy.

As discussed in Item 3 above, the results of the groundwater sampling provide evidence that anaerobic biodegradation of the COCs is controlling migration of impacted groundwater downgradient from the Site.

The Site is in compliance with the ROD, and MNA is still an effective remedy.

7. Identification, assessment and certification of all ECs/ICs [Engineering Controls/Institutional Controls[2]] required by the Record of Decision Site-selected remedy

There are no Engineering Controls (ECs) required under the ROD and the Institutional Controls (ICs) that apply to the Site are set forth in the recorded Environmental Easement. The ICs for the Site restrict the use of groundwater and require compliance with the SMP. There have been no changes to the SMP since it was approved by NYSDEC on October 13, 2011.

CERTIFICATION OF THE INSTITUTIONAL AND ENGINEERING CONTROLS[3]

For each institutional or engineering control identified for the Site, I certify[4] the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and/or engineering controls employed at this Site are unchanged from the date the control was put in place, or last approved by the Department;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this control;
- Access to the Site will continue to be provided to the Department (with valid Safety Protocol Program Card) to evaluate the remedy, including access to evaluate the continued maintenance of this control;

[2] See definition for *Engineering Control* at 6 NYCRR § 375-1.2 (o) and for *Institutional Control* at 6 NYCRR § 375-1.2 (aa).
[3] The required Certification of the Institutional and Engineering Controls is set forth in Section 5.2 of the NYSDEC-approved SMP. It is to be used for the Periodic Review Report in lieu of the certifications noted in DER-10 at section 6.3 (d).
[4] Certify is defined as a statement or declaration of a professional opinion based on the information, data and/or facts known at the time such certification is made.

- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document[5];
- Use of the Site is compliant with the Environmental Easement;
- Engineering control systems that have been installed as part of the remedial programs for the Site *(if applicable)* are performing as designed and are effective;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the ROD Site's selected remedy and generally accepted engineering practices; and
- The information presented in this report is accurate and complete.
- I certify that the information and statements in this certification form 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, Bart A. Klettke, P.E. of GZA GeoEnvironmental of New York, am certifying as Owner's Designated Site Representative for the Site.

Bart A. Klettke, P.E.
Principal

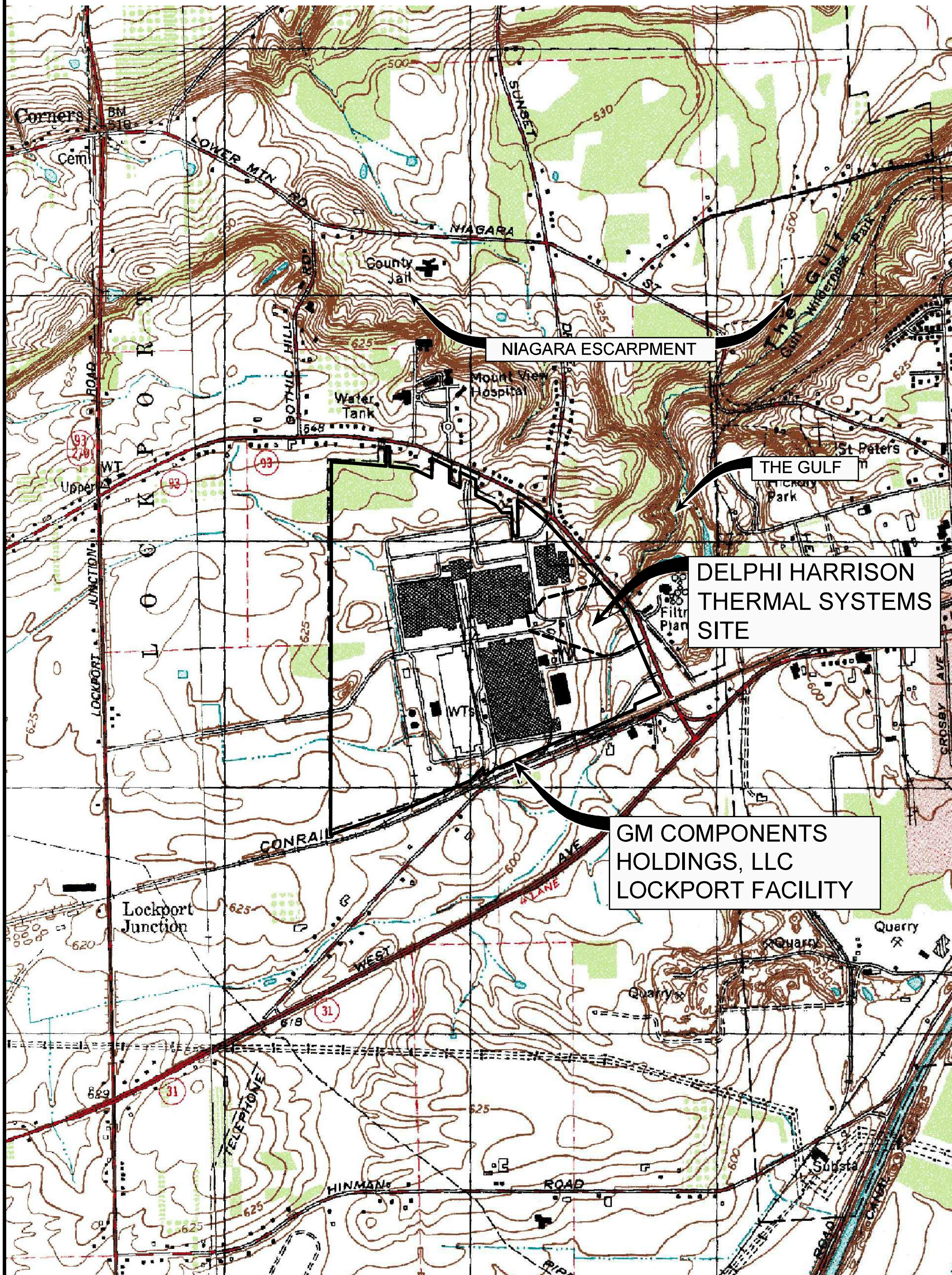
Date: March 14, 2024 GZA GeoEnvironmental of New York

Figure 1: Site Locus
Figure 2: Photograph Orientation Map
Appendix A: 2023 Site Inspection Forms and Inspection Photograph Log
Appendix B: Delphi 2023 – NYSDEC Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form
Appendix C: October 2023 MNA Groundwater Sampling Report

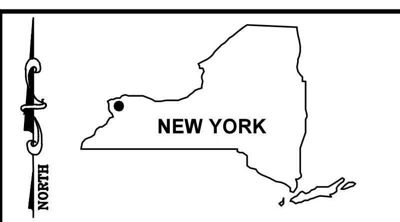
cc: Merrick Alexander (GM, electronic copy only)
Casey Essary (GMCH, electronic copy only)
Denis Conley (H&A, electronic copy only)

[5] Note that no financial assurance mechanism is required for this Site remedial program.

FIGURES



NOTE:
BASE MAP ADAPTED FROM U.S.G.S. TOPOGRAPHIC MAPS DOWNLOADED FROM TERRASERVER.MICROSOFT.COM



DRAWN BY: TAK

DATE: DECEMBER 2023

GZA GeoEnvironmental of New York

SCALE IN FEET
0 1000 2000 4000

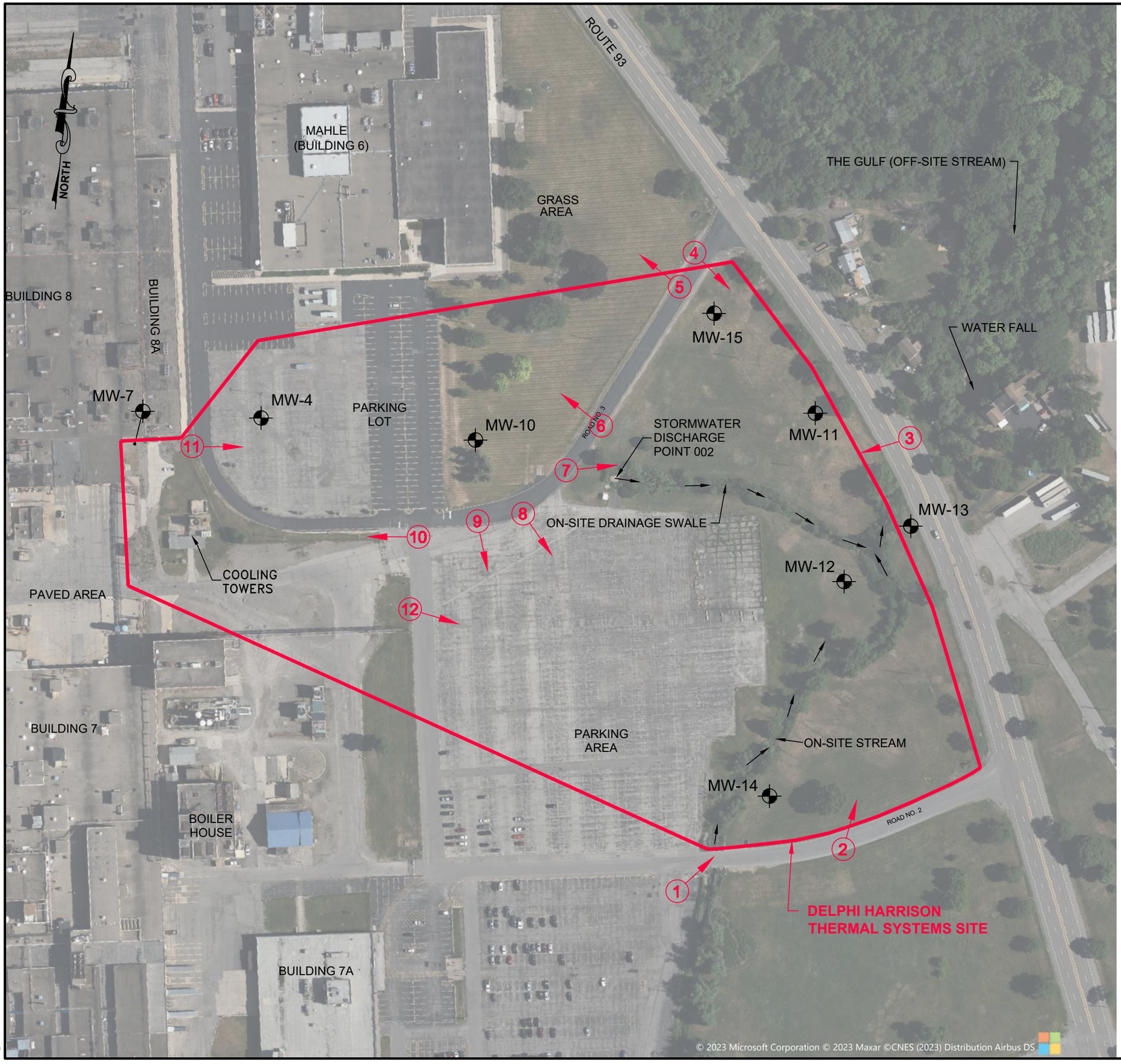
GM COMPONENTS HOLDINGS, LLC
PERIODIC REVIEW REPORT
DELPHI HARRISON THERMAL SYSTEMS SITE
200 UPPER MOUNTAIN ROAD
LOCKPORT, NEW YORK
SITE NUMBER 9-32-113

SITE PLAN

PROJECT No.
21.0056546.20

FIGURE No.
1

GZA–K:\PROJECTS\56500s\56546 GM Component LLC\Delphi Periodic Review Report\2021\Figure 1 – Locus Plan.dwg [Figure 1] December 22, 2021 – 10:58am theodore.klettke



LEGEND:

1 — APPROXIMATE LOCATION AND ORIENTATION OF INSPECTION PHOTOGRAPHS TAKEN ON 12/15/2023 (SEE APPENDIX A)

MW-4 — APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL

NOTES:

1. BASE MAP IMPORTED VIA AUTODESK CIVIL 3D 2022 GEOLOCATION TOOL.

2. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

DRAWN BY: **TAK**

DATE: **DECEMBER 2023**

GZA GeoEnvironmental of New York

APPROXIMATE SCALE IN FEET

0 90 180 360

GM COMPONENTS HOLDINGS, LLC

DELPHI HARRISON THERMAL SYSTEMS SITE

PERIODIC REVIEW REPORT

200 UPPER MOUNTAIN ROAD

LOCKPORT, NEW YORK

SITE NO. 9-32-113

PHOTOGRAPH ORIENTATION MAP

PROJECT No.

21.0056546.20

FIGURE No.

2

G:\21\PROJECTS\56500s\56546 GM Component LLC\Delphi Periodic Review Report\2023\Figure 2 – Site Plan.dwg [Figure 2] December 18, 2023 – 3:46pm theodore.kletke

APPENDIX A:

2023 SITE INSPECTION FORM and INSPECTION PHOTO LOG

SITE INSPECTION FORM

SITE DETAILS

Site No.:	9-32-113
Site Name:	**Delphi Harrison Thermal Systems Site**
Site Address:	200 Upper Mountain Road, Lockport NY

PERSON PERFORMING INSPECTION

NAME: Morgan Brown EMAIL: morgan.brown@gza.com
OTHERS PRESENT: No PHONE NUMBER: 716-803-5717
COMPANY: GZA GeoEnvironmental of NY

INSPECTION DATE AND SITE CONDITIONS

INSPECTION DATE: 12/15/2023 INSPECTION TIME: 1600 Hrs
WEATHER CONDITIONS: Sunny, 48 F, 12-24 MPH SW

REASON FOR SITE INSPECTION

Scheduled Annual Inspection?:	YES	NO
Inspection after a Severe Condition that could effect site controls?:	YES	NO
describe severe conditions triggering inspection:	High winds and rain prior	

VERIFICATION OF SITE DETAILS

Current Site Owner: GM Components Holdings, LLC (GMCH) and MAHLE Manufacturing Management Inc.
Current Site Operators: GM Components Holdings, LLC (GMCH) and MAHLE Manufacturing Management Inc.
Describe Current Site Use (check all that apply):

Industrial Commercial Residential Other

briefly describe observed site uses: Area within the environmental easement is used as parking lots, site roads, greenspace, and nitrogen tank

Has some or all of the Site property been sold, subdivided, merged, or undergone a tax map amendment since the initial/last inspection?	YES		NO
If YES, is documentation or evidence of documentation submittal to NYSDEC attached?	YES	N/A	NO
Have any federal, state and/or local permits (e.g., building or discharge) been issued for the property since the initial/last inspection?			NO
If YES, is documentation or evidence of documentation submittal to NYSDEC attached?	YES	N/A	NO
Has a change in Site usage per NYCRR 375-1.11(d) occurred since the last inspection?	YES		NO
If YES, is documentation or evidence of documentation submittal to NYSDEC attached?	YES	N/A	NO
Has any new information come to your attention to indicate that assumptions made in the qualitative exposure assessment for off-site contamination are no longer valid?	YES		NO
If YES, is this information or evidence of submittal to NYSDEC attached?	YES	N/A	NO

DESCRIPTION OF INSTITUTIONAL/ENGINEERING CONTROLS

Is Environmental Easement still in place?	YES	NO
If no, explain:		
Is the Site Management Plan in place?	YES	NO
If no, explain:		

AREAS IN NEED OF REPAIR OR MAINTENANCE

Area discussed in this section must be shown on a figure and have photographic documentation.

None

INTRUSIVE ACTIVITIES PERFORMED AT SITE DURING INSPECTION PERIOD	DATE	LOCATION
None	N/A	N/A

REVIEW OF SITE RECORDS

Are site records being properly generated and maintained? YES NO

Provide summary of recordkeeping review and adequacy:

GMCH Environmental Engineer, Casey Essary, maintains both hard copies and electronic copies of the site records per GM's Information Lifecycle Management system. The records are managed under "Corrective Action and Remediation Project Records", series ENV010. Hard copies are kept in a file cabinet in the Engineering office and electronic copies reside on the environmental shared ("S") drive

ADDITIONAL NOTES & COMMENTS

See attached representative site photos from the PRR Site inspection.

INSPECTION CERTIFICATION

I hereby certfy that the information included in this report is complete and accurate to the best of my knowledge.

Inspector Signature: Date: 12/15/2023

Photograph Log

Client Name: General Motors Components Holdings	**Site Location:** Delphi Harrison Thermal Systems, Lockport, NY	**Project No.** 21.0056546.20

Photo No.	**Date:**
1	12/15/23

Direction Photo Taken:

NE

Description:
Creek and lawn area north of Site Road #2.

Photo No.	**Date:**
2	12/15/23

Direction Photo Taken:

NNE

Description:

Lawn area north of Site Road #2.

Photograph Log

Client Name: General Motors Components Holdings	**Site Location:** Delphi Harrison Thermal Systems, Lockport, NY	**Project No.** 21.0056546.20

Photo No.	**Date:**
3	12/15/23

Direction Photo Taken:

West

Description:

Eastern end of lawn area.

Photo No.	**Date:**
4	12/15/23

Direction Photo Taken:

SE

Description:

Northern end of eastern lawn area.

Photograph Log

Client Name: General Motors Components Holdings	**Site Location:** Delphi Harrison Thermal Systems, Lockport, NY	**Project No.** 21.0056546.20

Photo No.	**Date:**
5	12/15/23

Direction Photo Taken:

NW

Description:

Northern Site lawn and east wall of Building 6.

Photo No.	**Date:**
6	12/15/23

Direction Photo Taken:

NW

Description:

North lawn area and SE corner of Building 6.

Photograph Log

Client Name: General Motors Components Holdings	**Site Location:** Delphi Harrison Thermal Systems, Lockport, NY	**Project No.** 21.0056546.20

Photo No.	**Date:**
7	12/15/23

Direction Photo Taken:

East

Description:

View of eastern lawn area from Site Road #3.

Photo No.	**Date:**
8	12/15/23

Direction Photo Taken:
SE

Description:

GM Parking area from Site Road #3.

Photograph Log

Client Name: General Motors Components Holdings	**Site Location:** Delphi Harrison Thermal Systems, Lockport, NY	**Project No.** 21.0056546.20

Photo No.	**Date:**
9	12/15/23

Direction Photo Taken:

South

Description:

GM parking area from Site Road #3.

Photo No.	**Date:**
10	12/15/23

Direction Photo Taken:

West

Description:

Site Road #3, western end of Site, and SE corner of Building 8.

Photograph Log

Client Name: General Motors Components Holdings	**Site Location:** Delphi Harrison Thermal Systems, Lockport, NY	**Project No.** 21.0056546.20

Photo No.	**Date:**
11	12/15/23

Direction Photo Taken:

East

Description:

MAHLE Parking area south of Building 6.

Photo No.	**Date:**
12	12/15/23

Direction Photo Taken:

SE

Description:

GM Parking area.

APPENDIX B

INSTITUTIONAL AND ENGINEERING CONTROL 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. 932113

Site Name Delphi Harrison Thermal Systems

Site Address: 350 Upper Mountain Road Zip Code: 14094
City/Town: Lockport
County: Niagara
Site Acreage: 22.700

Reporting Period: December 16, 2022 to December 16, 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? Commercial and 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. 932113 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
108.13-1-1	GM Components Holdings LLC	Site Management Plan Landuse Restriction Monitoring Plan Ground Water Use Restriction Soil Management Plan IC/EC Plan

In March 2005, a Record of Decision was issued for this site. The selected remedy was Monitored Natural Attenuation (MNA). Long-term groundwater monitoring is required to evaluate the continued effectiveness of MNA at the site.

An Environmental Easement was filed with the Niagara County Clerk's Office on October 6, 2011. This easement states that the Controlled Property may be used for commercial or industrial use as long as the following engineering controls are employed and the land use restrictions specified below are adhered to: (1) implement and comply with all elements of the Department approved Site Management Plan, (2) restrict use of groundwater at the Controlled Property as a source of potable or process water without necessary water quality treatment as determined by the Niagara County Department of Health, and (3) evaluate the potential for vapor intrusion into any buildings developed on the Controlled Property. Provision for mitigation (if determined to be necessary), such as installation of a vapor barrier and sub-slab vapor system or other engineering controls shall be implemented on all structures on the Controlled Property prior to occupancy.

Box 4

Description of Engineering Controls

None Required

Not Applicable/No EC's

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. 932113

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 Merrick Alexander (print name) at 500 Wentworth St W, Oshawa ON CA L1J 0C5, (print business address)

am certifying as Remediation Project Manager (Owner or Remedial Party)

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

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

March 1, 2024
Date

IC/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 BART A. KLETTKE at GZA, 300 PEARL STREET, SUITE 700, BUFFALO, NY 14202.
print name print business address

am certifying as a Qualified Environmental Professional for the GM COMPONENTS HOLDINGS LLC
(Owner or Remedial Party)

STATE OF NEW YORK
BART A. KLETTKE
No. 069423
LICENSED PROFESSIONAL ENGINEER

Bart A. Klettke MARCH 4, 2024

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

Stamp (Required for PE)

Date

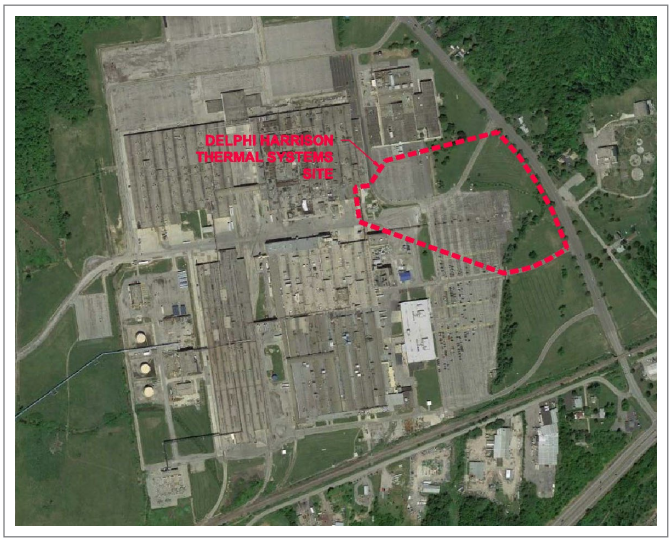
APPENDIX C

RESULTS OF OCTOBER 2023 MONITORED NATURAL ATTENUATION GROUNDWATER SAMPLING REPORT

Proactive by Design

RESULTS OF OCTOBER 2023 MONITORED NATURAL ATTENUATION GROUNDWATER SAMPLING
DELPHI HARRISON THERMAL SYSTEMS SITE
Registry Site No. 932113
GM COMPONENTS HOLDINGS, LLC
Lockport, New York

Submitted March 1, 2024
File No. 21.0056546.20



PREPARED FOR:
New York State Department of Environmental Conservation

GZA GeoEnvironmental of New York

300 Pearl St. Suite 700 | Buffalo, NY 14202
716-685-2300
31 Offices Nationwide
www.gza.com

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F: 716.248.1472
www.gza.com

VIA E-MAIL

March 1, 2024
File No: 21.0056546.20

Mr. Glenn May, CPG
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Ave.
Buffalo, NY 14203-2915

RE: Results of October 2023 Monitored Natural Attenuation Groundwater Sampling Event
Delphi Harrison Thermal Systems Site (Site) - Registry Site No. 932113
Lockport, New York

Mr. May:

GZA GeoEnvironmental of New York (GZA) is pleased to provide the attached Report of the October 2023 Monitored Natural Attenuation (MNA) Groundwater Sampling event for the above reference Site.

We trust this report satisfies your present needs. If you need any additional site-specific information, please contact Thomas Bohlen at 716-570-5983.

Sincerely,

GZA GEOENVIRONMENTAL OF NEW YORK

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1.0 INTRODUCTION AND BACKGROUND

GZA GeoEnvironmental of New York (GZA) presents this report to summarize results of the October 2023 groundwater and monitored natural attenuation (MNA) parameter sampling event at the above-referenced Site. The groundwater sampling event was conducted from October 3 through October 6, and included eight monitoring wells (MW-4, -7, -10, -11, -12, -13, -14 and -15). The wells were sampled for the five compounds of concern (COCs)[1] and MNA parameters as specified in the Site Management Plan[2] (SMP). In addition to the MNA parameters listed in the SMP, carbon dioxide, hydrogen, ethene, and ethane were added to the sampling parameter list in 2014.

2005

In March 2005, the New York State Department of Environmental Conservation (NYSDEC) issued a Record of Decision (ROD) for the Site, which selected MNA as the remedial alternative to address the COCs present at the Site. Annual MNA groundwater sampling was completed voluntarily from October 2006 to May 2011.

2006 to 2011

Six monitoring wells (MW-7, MW-11, MW-12, MW-13, MW-14 and MW-15) were monitored in October 2006, November 2007, November 2008, and March 2009, the analytical data for which are shown on **Figure 1**. MW-7 is in the vicinity of the Area of Concern (AOC) and the other five wells, MW-11 through MW-15, are down-gradient monitoring locations. Based on the results of the groundwater sampling program through March 2009, the sampling program was expanded in July 2009 to include two mid-plume wells (MW-4 and MW-7) and two cross-gradient wells (MW-8 and MW-9). Results of the 2010 event indicated that natural attenuation is occurring with limited evidence of reductive dechlorination near the source area (MW-7) and midpoint (MW-4 and -10) of the groundwater plume. However, there was adequate to strong evidence for anaerobic biodegradation of COCs at the leading edge of the groundwater plume (MW-11 through -15). Given these conditions, coupled with the lack of evidence of an expanding plume, it appeared that natural attenuation processes were effectively managing the COC plume migration.

2012 to 2014

In November 2011, GMCH entered into an Order on Consent and Administrative Settlement (Index #B9-0553-99-06) for the Site which requires annual sampling be conducted as part of the SMP. The 2012 to 2014 annual sampling included eight monitoring wells (MW-4, -7, -10, -11, -12, -13, -14 and -15) with the mid-plume wells MW-8 and MW-9 no longer sampled. Groundwater sampling results through 2014, as stated in the SMP, resulted in the following conclusions:

- Natural attenuation of COCs is occurring via reductive dechlorination;
- The COC concentrations of the parent compounds were decreasing and the concentrations of daughter compounds increasing from the source area (MW-7) down-gradient to the mid-point of the plume (MW-4 and MW-10) and on to the down-gradient portions of the Site (MW-11 through MW-15); and
- The COC concentrations at the most down-gradient well (MW-13) along the property line did not exceed the NYSDEC Class GA criteria.

[1] The five COCs are trichloroethylene, tetrachloroethylene, *cis*-1,2-dichloroethylene, *trans*-1,2-dichloroethylene, and vinyl chloride.

[2] "Delphi Harrison Thermal Systems Site, Niagara County, New York, Site Management Plan, NYSDEC Site Number 9-32-113" dated October 2011. Prepared for GM Components Holdings, LLC by GZA.

Also, the 2013 data indicated ethene was detected in groundwater samples collected from all eight monitoring wells. Ethene represents the end-product of chlorinated volatile organic compounds (cVOC) reductive dechlorination and its detection at each monitoring well was a direct line of evidence that cVOCs have been degraded to completion at the Site.

The temporal decreasing trend in TOC concentrations continued through the 2013 monitoring event. GZA recommended a treatability study to evaluate whether the addition of an organic carbon amendment might re-stimulate natural attenuation by reductive dechlorination. The recommended study involved deployment of *in-situ* microcosms (Bio-Trap® In-Situ Microcosms, manufactured by Microbial Insights, Inc. of Knoxville, Tennessee) "baited" or "BioStim" unit with an organic carbon additive to evaluate whether reductive dechlorination can be re-stimulated.

Conclusions of the 2014 Treatability Study:

At the source area (MW-7):

- *Dehalococcoides* populations were detected in both the control and carbon amendment units. However, population counts were below the concentration at which an effective rate of dechlorination generally occurs.
- Addition of the organic carbon amendment at the source location did not substantially enhance growth of dechlorinating bacteria and increase reductive dechlorination during the study period.

At the mid-plume location (MW-4):

- High concentrations of *Dehalococcoides* and vinyl chloride reductase enzyme genes were detected in the "unbaited" MNA unit, indicating the potential for complete reductive dechlorination of TCE to ethene under existing site conditions.

The *Dehalococcoides* population in the BioStim unit, in which the organic carbon was added, was an order of magnitude higher compared to the MNA unit. Vinyl chloride reductase genes were also higher in the Biostim unit as compared to the MNA unit, suggesting the carbon amendment enhanced growth of dechlorinating bacteria within the study period. Contaminant concentrations and geochemistry; however, were not substantially different from those in the MNA unit.

2.0 2023 GROUNDWATER MONITORING AND SAMPLING

The 2023 groundwater monitoring and sampling event was conducted from October 3 through October 6, 2023, in accordance with the SMP, and included eight monitoring wells (MW-4, MW-7, and MW-10 through MW-15 **(Figure 1)**.

Methodology

The groundwater monitoring and sampling was performed using low flow sampling techniques with a peristaltic pump, disposable polyethylene tubing and a water quality meter with a flow-through cell to collect water quality field parameters. The sampling technique and analytical parameters were consistent with the SMP.

Field Measured Parameters: temperature, specific conductance, pH, turbidity, dissolved oxygen (DO), and oxidation reduction potential (ORP).

Compounds of Concern: tetrachloroethylene (PCE), trichloroethylene (TCE), *cis*-1,2-dichloroethylene (*cis*-DCE), *trans*-1,2-dichloroethylene (*trans*-DCE) and vinyl chloride (VC).

Natural Attenuation Parameters: iron, magnesium, manganese, potassium, sodium, alkalinity, total organic carbon (TOC), chloride, ammonia, nitrate, nitrite, sulfate, carbon dioxide, hydrogen, methane, ethene, and ethane.

Groundwater pumping rates varied from one well to another during monitoring/sampling to establish a stable water level. Once a stable water level (constant head) was established within the monitoring well, flow rates were maintained during the monitoring/sampling period. Samples were collected for analysis after field-measured parameters stabilized. It should be noted that a stable water level could not be established at well MW-7 (as experienced in previous sampling rounds). Therefore, this location was purged to dry-like conditions and allowed to recharge until the recharge volume was sufficient to collect the samples. Also, due to the lack of a stable water level in this well, a dissolved hydrogen sample could not be collected. The Monitoring Well Observations and Groundwater Sampling field forms are included in **Appendix A**.

3.0 ANALYTICAL RESULTS AND DISCUSSION

Analytical results of the 2023 sampling round are summarized in **Table 1** and shown on **Figure 1**. The analytical results for the COCs (current and historical) are shown on **Figure 1.** Total COCs and TOC data graphs are included in **Appendix B**. The concentrations of *cis*-DCE and *trans*-DCE are shown as total 1,2-DCE in **Figure 1** and on the graphs in **Appendix B**. A contour map of the Total COC concentrations is shown on **Figure 2** and a contour map of the 2023 groundwater elevation data is shown on **Figure 3**.

The Eurofins Test America, Buffalo laboratory report and the third-party data validation report are provided in **Appendix D**.

Compounds of Concern

Source Area Monitoring Well (MW-7)

MW-7: TCE concentrations at MW-7 have generally been in the range of 530 to 880 mg/L from October 1996 through October 2023 except for four contiguous sample rounds from April 2003 through November 2008, where the results ranged from 1.1 to 434 mg/L. The October 2023 TCE concentration of 660 mg/L, as shown on the graph in **Appendix B** is generally consistent with recent concentration trends.

The 1,2-DCE concentrations at MW-7 have generally been in the range of 22 to 70 mg/L. The October 2023 1,2-DCE concentration of 67 mg/L (**Appendix B)** is lower than the spike observed in September 2022 (74 mg/L) and generally consistent with previous years trends.

The concentrations of the PCE and VC appear to generally be consistent since the start of the sampling in 1996, with some minor fluctuations.

Mid Plume Monitoring Wells (MW-4 and MW-10)

MW-4: The concentrations of PCE, TCE and VC generally have been consistent since the start of the sampling in 1996, with some minor fluctuations. 1,2-DCE showed a decreasing trend until approximately 2009 after which the decrease in concentrations has slowed notably. 1,2-DCE did not change from September 2022 sampling event (29 mg/L).

MW-10: There was a downward trend of TCE and 1,2-DCE concentrations at MW-10 from 1996 to 2020 with some minor fluctuations, which is consistent with natural attenuation. Since the 2021 sampling event, 1,2-DCE concentrations have increased slightly. In October 2023 1,2-DCE exhibited a slight decrease in concentration (0.17 mg/L) compared to the previous two years (0.21 and 0.25 mg/L, respectively). PCE concentrations have been non-detect since 2013. VC concentrations remain in a range between 0.0065 and 0.48 mg/L. VC was detected 0.0065 mg/L in 2023 which is a historical low concentration.

Down-gradient Monitoring Wells (MW-11 through MW-15)

MW-11: None of the COCs tested were present above method detection limits (MDLs) in 2023. This has been the case for six of the last seven events. In 2020, TCE was detected at a concentration above MDLs but below its Class GA Criteria.

MW-12: With just one exception of TCE detected at a concentration of 0.0074 mg/L in 2014, PCE and TCE have not been detected above their respective Class GA criteria (0.005 mg/L) since sampling began in 1997. Concentrations of PCE and TCE were below MDLs in 2023. 1,2-DCE was detected below its Class GA criterion on 0.005 mg/L at a concentration of 0.0036 mg/L in 2023. Detections of 1,2-DCE have generally trended downward since a high concentration of 0.272 mg/L in 2010. In October 2023 VC was detected slightly above its Class GA criterion (0.002 mg/L) with a concentration of 0.0023 mg/L. Both 1,2-DCE and VC are TCE degradation products that are biodegraded by many different groups of environmental bacteria. The MNA geochemistry and lack of 1,2-DCE and VC in downgradient well MW-13 are evidence for degradation of cVOCs.

MW-13: None of the COCs tested were present above MDLs in 2023. PCE, 1,2-DCE and VC have been below MDLs since the start of sampling in 2001. TCE was detected twice (October 2006 and May 2019) at concentrations above the MDL but below the reporting limit (RL) of 0.001 mg/L (an estimated concentration) and its NYSDEC Class GA standard of 0.005 mg/L.

MW-14: None of the COCs tested were present above MDLs in 2023, which is consistent with sampling results from 2016 to 2020. In 2022, TCE was detected at 0.0062 mg/L, exceeding its Class GA criterion of 0.005 mg/L, but was detected below this criterion at 0.00092 mg/L in 2023. PCE, 1,2-DCE, and VC were not detected above MDLs in 2023.

MW-15: Concentrations of TCE were below MDLs in the first 7 of the 21 sample events since the start of sampling in 2001. Between 2010 and 2023, TCE was detected in all but one sampling event at concentrations between 0.00064 and 0.001 mg/L, which are below its NYSDEC Class GA criterion (0.005 mg/L). Since 2001, PCE has been detected above its NYSDEC Class GA criterion in all but one sampling round (0.004 mg/L in 2020) with a maximum concentration of 0.02 mg/L detected in 2001. The 2022 detected concentration (0.0061 mg/L) and 2023 detected concentration (0.0068 mg/L) of PCE are slight increases from the 2021 concentration and exceed the NYSDEC Class GA criterion (0.005 mg/L).

1,2-DCE was not detected above the MDL in 2023. 1,2-DCE has not been detected in 18 of 21 sampling events. Concentrations of VC have been below their MDLs in all sampling events completed since 2001.

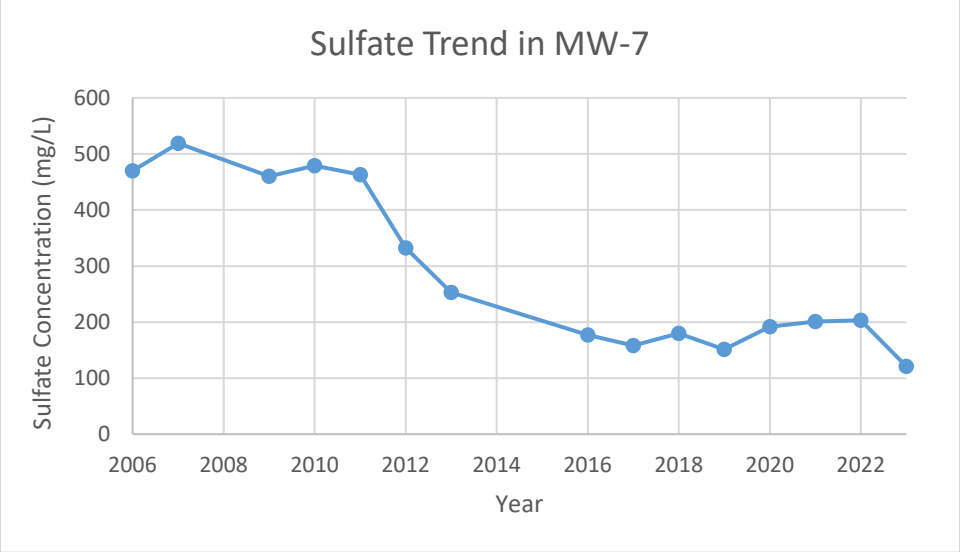
Natural Attenuation Performance

Findings of the October 2023 groundwater analytical and water quality data are generally consistent with the substantive conclusions and trends noted in prior reports. During 2023, GZA used Wiedemeier *et al.'s* (1998[3]) approach to evaluate the performance data to re-assess the strength of the evidence supporting reductive dechlorination. A table summarizing the results of that evaluation is included in **Appendix C**, and the results are tabulated below. Notably, a comparison of the 2022 summary of strength of natural attenuation evidence with that of 2023 reveals that well MW-4 moved from "Adequate" in 2022 to "Strong" in 2023. The other seven wells remained consistent with recent trends.

WELL	STRENGTH OF NATURAL ATTENUATION EVIDENCE			
	INADEQUATE EVIDENCE	LIMITED EVIDENCE	ADEQUATE EVIDENCE	STRONG EVIDENCE
Source Area Well				
MW-7		X		
Mid Plume Wells				
MW-4				X
MW-10			X	
Down-gradient Wells				
MW-11		X		
MW-12			X	
MW-13		X		
MW-14			X	
MW-15		X		

Note: "X" indicates the respective strength of the evidence for natural attenuation by reductive dechlorination for the October 2023 groundwater monitoring round in accordance with Wiedemeier *et al.* (1998).

[3] Wiedemeier, T.H., Swanson, M.A., Moutoux, D.E., Gordon, E.K., Wilson, J.T., Wilson, B.H., Kampbell, D.H., Haas, P.E., Miller, R.N., Hansen, J.E., and Chapelle, F.H., 1998, Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, EPA/600/R-98/128, 78 p.



The decline in sulfate concentrations over time in source area monitoring well MW-7 illustrated above provides additional evidence in support of natural attenuation. Sulfide produced by native sulfate-reducing bacteria can combine with iron to form reactive ferrous sulfide, which degrades TCE abiotically by direct electron donation. The concurrent decrease in dissolved iron concentrations supports the probability that abiotic reduction of TCE is contributing to natural attenuation in the source area.

4.0 GROUNDWATER MONITORING CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Based on the results of the October 2023 sampling round and historical data trends, natural attenuation of COCs is occurring via reductive dechlorination. GZA offers the following additional observations relative to the 2023 sampling round:

- The concentrations of the parent compounds decrease significantly from the source area (MW-7) downgradient to the mid-point of the plume (MW-4 and MW-10), and from the mid-point on to the downgradient portions of the Site (MW-11 through MW-15) where COCs are not detected.
- There is an increase in daughter compound concentrations from the source area to the mid-point of the plume, with an overall decrease in total COC concentrations downgradient from the source area (MW-7).
- Based on data trends and supported by the findings of the 2014 treatability study, current conditions mid-plume (MW-4) show potential for complete reductive dechlorination of COCs to ethene. COCs concentrations were generally below MDLs or at concentrations below NYSDEC TOGS 1.1.1 GA standards at the downgradient Site boundary, which provides additional evidence for continued natural attenuation.
- COCs were not detected above NYSDEC Class GA groundwater standards at downgradient property line monitoring wells (MW-11 and MW-13). In 2022, TCE was detected at 0.0062 mg/L and exceeding its Class GA criteria of 0.005 mg/L at downgradient well MW-14. TCE, or other COCs were not detected above the NYS Class GA criteria at MW-14 during the 2023 sampling event.

- Low concentrations of daughter products 1,2-DCE and VC were detected in MW-12, just upgradient of MW-11 and MW-13, but the parent compounds PCE and TCE were not detected. The presence of the daughter products here (but not at the downgradient property line wells) is further evidence of natural attenuation.
- PCE was detected at a concentration of 0.0068 mg/L which exceeded the NYS Class GA criterion of 0.005 mg/L at downgradient well MW-15. No other COCs were detected above criteria at MW-15 during this event. These results are consistent with historical trends.

RECOMMENDATIONS

In June 2021, GMCH requested the cessation of sampling MW-10. If acceptable to NYSDEC and the New York State Department of Health (NYSDOH), the 2024 monitoring event shall include a total of seven wells (MW-4, -7, -11, -12, -13, -14 and -15). The COC and natural attenuation analytical parameters analyzed during the 2024 sampling round shall be consistent with the 2023 sampling event.

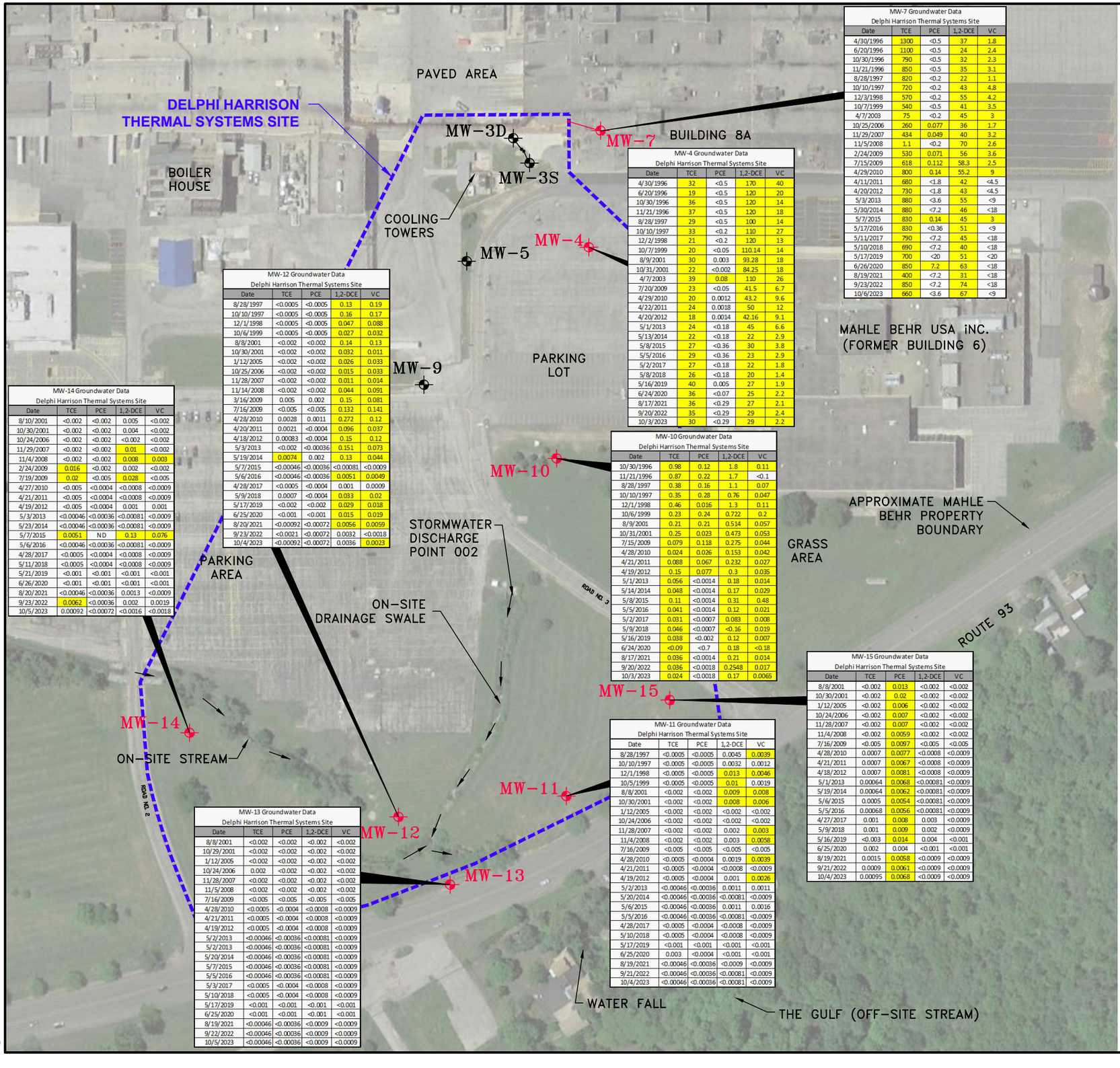
TABLES

Table 1
Summary of Groundwater Sample Analytical Results
Delphi Harrison Thermal Systems Site
Site No. C932113

Sample Location Sample Date	Class GA Criteria	DELPHI HARRISON GROUNDWATER WELLS MW-4 10/3/2023	Q	MW-7 10/6/0223	Q	MW-10 10/3/2023	Q	MW-11 10/4/2023	Q	MW-12 10/4/2023	Q	MW-13 10/5/2023	Q	MW-14 10/5/2023	Q	MW-15 10/4/2023	Q
VOC Compounds of Concern (ug/L)																	
cis-1,2-Dichloroethene	5	29,000		67,000		170		0.81	U	3.6		0.81	U	1.6	U	0.81	U
Tetrachloroethene	5	290	U	3,600	U	1.8	U	0.36	U	0.72	U	0.36	U	0.72	U	6.8	
trans-1,2-dichloroethene	5	720	U	9,000	U	4.5	U	0.90	U	1.8	U	0.90	U	1.8	U	0.90	U
Trichloroethene	5	30,000		660,000		24		0.46	U	0.92	U	0.46	U	0.92	U	0.95	J
Vinyl Chloride	2	2,200		9,000	U	6.5		0.90	U	2.3		0.90	U	1.8	U	0.90	U
Total VOCs		61,200		727,000		201		0.0		5.9		0.00		0.0		7.8	
Field Parameters																	
Temperature (Deg. C)	NV	19.2		19.6		17.5		17.9		16.9		19		19.7		18.3	
Specific Conductance (mS/cm)	NV	8.284		1.82		3.773		1.285		8.256		6.978		10.266		2.441	
Dissolved Oxygen (mg/L)	NV	0.58		6.85		0.7		0.58		0.63		0.76		0.55		0.54	
Oxygen Reduction Potential (mv)	NV	-21.5		-155		97.7		-97.7		-74.4		58.8		-28.3		95.9	
pH (std. units)	NV	6.94		7.13		7.28		7.41		6.97		7		6.94		6.93	
Turbidity (NTUs)	NV	-2.87		-1.79		-2.95		1.39		-2.29		-0.57		6.23		1.08	
Inorganics (mg/L)																	
Iron	0.3	1.1		0.031	J	0.050		0.28		8.5		0.18		1.7		0.019	U
Magnesium	35 [Note 4]	81.5		39.8		26.8		36.3		51.3		41.9		146		38.3	
Manganese	NV	0.45	B	0.012	B	0.36	B	0.10	B	6.1	B	1.6	B	1.2	B	0.32	B
Potassium	NV	18.4	B	10.8		2.5	B	8.9	^+	6.2		9.8		12.3		4.1	
Sodium	20	1490		187		717		135	^+	1,530		962		1,710		296	^+
Miscellaneous Water Quality Parameters																	
Methane (ug/L)	NV	1,100		110	J	59		19.0		340		2.3	J	370		1.0	U
Ethane (ug/L)	NV	58		66	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Ethene (ug/L)	NV	410		860		1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Carbon Dioxide (ug/L)	NV	56,000		20,000		44,000		18,000		81,000		63,000		57,000		81,000	
Total Organic Carbon (mg/L)	NV	2.7		9.1		3.7		1.7		5.1		2.9		3.7		2.1	
Alkalinity (mg/L)	NV	330	F1	248		389		257		395		488		414		443	
Ammonia (mg/L)	NV	1.5		0.61	B	0.0090	U	0.25		1.5		0.16		0.65		0.0090	U
Chloride (mg/L)	NV	14.1	U	158		886		218		2250		1,600		3,480		512	
Nitrate (mg/L)	NV	0.020	U	0.020	U	0.024	J	0.036	J	0.025	J	0.21		0.050	U	0.28	
Nitrite (mg/L)	NV	0.020	U	0.020	U	0.020	U	0.020	U	0.020	U	0.042	J B	0.050	U	0.023	J B
Sulfate (mg/L)	NV	17.5	U	121		167		112		130		99.3		97.4	J	57.2	
Hydrogen (nm)	NV	1.6	J	NT		1.7	J	10.9		1.2	J	2.0		1.5	J	1.9	J

Notes:
1. Only compounds detected in one or more of the groundwater samples are presented in this table.
2. 'Analytical testing completed by TestAmerica in Amherst, New York.
3. Criteria is a guidance value.
4. Laboratory qualifiers: B = compound was found in the blank and sample; J = result is less than the RL but greater than or equal to the MDL and the concentration is an approximation. H = Sample prepped or analyzed beyond holding time; F1 = MS and/or MSD Recovery is outside acceptance limits. ^+ = Continuing Calibration Verification (CCV) is outside acceptance limits, high biased. U = detected below method detection limit.
5. mg/L = parts per million; ug/L = parts per billion
6. NYSDEC Class GA Groundwater Criteria as promulgated in 6 NYCRR 703; Table 1 in Technical and Operational Guidance Series (1.1.1): Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, dated October 1993; revised June 1998; errata dated January 1999; addendum dated April 2000.
7. NV = no value, NT = not tested.
8. Shaded concentrations exceed Class GA criteria.

FIGURES



MW-7 Groundwater Data
Delphi Harrison Thermal Systems Site

Date	TCE	PCE	1,2-DCE	VC
4/30/1996	1300	<0.5	37	1.8
6/20/1996	1100	<0.5	24	2.4
10/30/1996	790	<0.5	32	2.3
11/21/1996	850	<0.5	35	3.1
8/28/1997	820	<0.2	22	1.1
10/10/1997	720	<0.2	43	4.8
12/3/1998	570	<0.2	55	4.2
10/7/1999	540	<0.5	41	3.5
4/7/2003	75	<0.2	45	3
10/25/2006	260	0.077	36	1.7
11/29/2007	434	0.049	40	3.2
11/5/2008	1.1	<0.2	70	2.6
2/24/2009	530	0.071	56	3.6
7/15/2009	618	0.112	58.3	2.5
4/29/2010	800	0.14	55.2	9
4/11/2011	680	<1.8	42	<4.5
4/20/2012	730	<1.8	43	<4.5
5/3/2013	880	<3.6	55	<9
5/30/2014	880	<7.2	46	<18
5/7/2015	830	0.14	45	3
5/17/2016	830	<0.36	51	<9
5/11/2017	790	<7.2	45	<18
5/10/2018	690	<7.2	40	<18
5/17/2019	700	<20	51	<20
6/26/2020	850	7.2	63	<18
8/19/2021	400	<7.2	31	<18
9/23/2022	850	<7.2	74	<18
10/6/2023	660	<3.6	67	<9

MW-4 Groundwater Data
Delphi Harrison Thermal Systems Site

Date	TCE	PCE	1,2-DCE	VC
4/30/1996	32	<0.5	170	40
6/20/1996	19	<0.5	120	20
10/30/1996	36	<0.5	120	14
11/21/1996	37	<0.5	120	18
8/28/1997	29	<0.5	100	14
10/10/1997	33	<0.2	110	27
12/2/1998	21	<0.2	120	13
10/7/1999	20	<0.05	110.14	14
8/9/2001	30	0.003	93.28	18
10/31/2001	22	<0.002	84.25	18
4/7/2003	39	0.08	110	26
7/20/2009	23	<0.05	41.5	6.7
4/29/2010	20	0.0012	43.2	9.6
4/22/2011	24	0.0018	50	12
4/20/2012	18	0.0014	42.16	9.1
5/1/2013	24	<0.18	45	6.6
5/13/2014	22	<0.18	22	2.9
5/8/2015	27	<0.36	30	3.8
5/5/2016	29	<0.36	23	2.9
5/2/2017	27	<0.18	22	1.8
5/8/2018	26	<0.18	20	1.4
5/16/2019	40	0.005	27	1.9
6/24/2020	36	<0.07	25	2.2
8/17/2021	36	<0.29	27	2.1
9/20/2022	35	<0.29	29	2.4
10/3/2023	30	<0.29	29	2.2

MW-12 Groundwater Data
Delphi Harrison Thermal Systems Site

Date	TCE	PCE	1,2-DCE	VC
8/28/1997	<0.0005	<0.0005	0.13	0.19
10/10/1997	<0.0005	<0.0005	0.16	0.17
12/1/1998	<0.0005	<0.0005	0.047	0.088
10/6/1999	<0.0005	<0.0005	0.027	0.032
8/8/2001	<0.002	<0.002	0.14	0.13
10/30/2001	<0.002	<0.002	0.032	0.011
1/12/2005	<0.002	<0.002	0.026	0.033
10/25/2006	<0.002	<0.002	0.015	0.033
11/28/2007	<0.002	<0.002	0.011	0.014
11/14/2008	<0.002	<0.002	0.044	0.091
3/16/2009	0.005	0.002	0.15	0.081
7/16/2009	<0.005	<0.005	0.132	0.141
4/28/2010	0.0028	0.0011	0.272	0.12
4/20/2011	0.0021	<0.0004	0.096	0.037
4/18/2012	0.00083	<0.0004	0.15	0.12
5/3/2013	<0.002	<0.00036	0.151	0.073
5/19/2014	0.0074	0.002	0.13	0.044
5/7/2015	<0.00046	<0.00036	<0.00081	<0.0009
5/6/2016	<0.00046	<0.00036	0.0051	0.0049
4/28/2017	<0.0005	<0.0004	0.001	0.0009
5/9/2018	0.0007	<0.0004	0.033	0.02
5/17/2019	<0.002	<0.002	0.029	0.018
6/25/2020	<0.001	<0.001	0.015	0.019
8/20/2021	<0.00092	<0.00072	0.0056	0.0059
9/23/2022	<0.0021	<0.00072	0.0032	<0.0018
10/4/2023	<0.00092	<0.00072	0.0036	0.0023

MW-10 Groundwater Data
Delphi Harrison Thermal Systems Site

Date	TCE	PCE	1,2-DCE	VC
10/30/1996	0.98	0.12	1.8	0.11
11/21/1996	0.87	0.22	1.7	<0.1
8/28/1997	0.38	0.16	1.1	0.07
10/10/1997	0.35	0.28	0.76	0.047
12/1/1998	0.46	0.016	1.3	0.11
10/6/1999	0.23	0.24	0.722	0.2
8/9/2001	0.21	0.21	0.514	0.057
10/31/2001	0.25	0.023	0.473	0.053
7/15/2009	0.079	0.118	0.275	0.044
4/28/2010	0.024	0.026	0.153	0.042
4/21/2011	0.088	0.067	0.232	0.027
4/19/2012	0.15	0.077	0.3	0.035
5/1/2013	0.056	<0.0014	0.18	0.014
5/14/2014	0.048	<0.0014	0.17	0.029
5/8/2015	0.11	<0.0014	0.31	0.48
5/5/2016	0.041	<0.0014	0.12	0.021
5/2/2017	0.031	<0.0007	0.083	0.008
5/9/2018	0.046	<0.0007	<0.16	0.019
5/16/2019	0.038	<0.002	0.12	0.007
6/24/2020	<0.09	<0.7	0.18	<0.18
8/17/2021	0.036	<0.0014	0.21	0.014
9/20/2022	0.036	<0.0018	0.2548	0.017
10/3/2023	0.024	<0.0018	0.17	0.0065

MW-14 Groundwater Data
Delphi Harrison Thermal Systems Site

Date	TCE	PCE	1,2-DCE	VC
8/10/2001	<0.002	<0.002	0.005	<0.002
10/30/2001	<0.002	<0.002	0.004	<0.002
10/24/2006	<0.002	<0.002	<0.002	<0.002
11/29/2007	<0.002	<0.002	0.01	<0.002
11/4/2008	<0.002	<0.002	0.008	0.003
2/24/2009	0.016	<0.002	0.002	<0.002
7/19/2009	0.02	<0.005	0.028	<0.005
4/27/2010	<0.005	<0.0004	<0.0008	<0.0009
4/21/2011	<0.005	<0.0004	<0.0008	<0.0009
4/19/2012	<0.005	<0.0004	0.001	0.001
5/3/2013	<0.00046	<0.00036	<0.00081	<0.0009
5/23/2014	<0.00046	<0.00036	<0.00081	<0.0009
5/7/2015	0.0051	ND	0.13	0.076
5/6/2016	<0.00046	<0.00036	<0.00081	<0.0009
4/28/2017	<0.0005	<0.0004	<0.0008	<0.0009
5/11/2018	<0.0005	<0.0004	<0.0008	<0.0009
5/21/2019	<0.001	<0.001	<0.001	<0.001
6/26/2020	<0.001	<0.001	<0.001	<0.001
8/20/2021	<0.00046	<0.00036	0.0013	<0.0009
9/23/2022	0.0062	<0.00036	0.002	0.0019
10/5/2023	0.00092	<0.00072	<0.0016	<0.0018

MW-11 Groundwater Data
Delphi Harrison Thermal Systems Site

Date	TCE	PCE	1,2-DCE	VC
8/28/1997	<0.0005	<0.0005	0.0045	0.0039
10/10/1997	<0.0005	<0.0005	0.0032	0.0012
12/1/1998	<0.0005	<0.0005	0.013	0.0046
10/5/1999	<0.0005	<0.0005	0.01	0.0019
8/8/2001	<0.002	<0.002	0.009	0.008
10/30/2001	<0.002	<0.002	0.008	0.006
1/12/2005	<0.002	<0.002	<0.002	<0.002
10/24/2006	<0.002	<0.002	<0.002	<0.002
11/28/2007	<0.002	<0.002	0.002	0.003
11/4/2008	<0.002	<0.002	0.003	0.0058
7/16/2009	<0.005	<0.005	<0.005	<0.005
4/28/2010	<0.0005	<0.0004	0.0019	0.0039
4/21/2011	<0.0005	<0.0004	<0.0008	<0.0009
4/19/2012	<0.0005	<0.0004	0.001	0.0026
5/2/2013	<0.00046	<0.00036	0.0011	0.0011
5/20/2014	<0.00046	<0.00036	<0.00081	<0.0009
5/6/2015	<0.00046	<0.00036	0.0011	0.0016
5/5/2016	<0.00046	<0.00036	<0.00081	<0.0009
4/28/2017	<0.0005	<0.0004	<0.0008	<0.0009
5/10/2018	<0.0005	<0.0004	<0.0008	<0.0009
5/17/2019	<0.001	<0.001	<0.001	<0.001
6/25/2020	0.003	<0.0004	<0.001	<0.001
8/19/2021	<0.00046	<0.00036	<0.0009	<0.0009
9/21/2022	<0.00046	<0.00036	<0.00081	<0.0009
10/4/2023	<0.00046	<0.00036	<0.00081	<0.0009

MW-15 Groundwater Data
Delphi Harrison Thermal Systems Site

Date	TCE	PCE	1,2-DCE	VC
8/8/2001	<0.002	0.013	<0.002	<0.002
10/30/2001	<0.002	0.02	<0.002	<0.002
1/12/2005	<0.002	0.006	<0.002	<0.002
10/24/2006	<0.002	0.007	<0.002	<0.002
11/28/2007	<0.002	0.007	<0.002	<0.002
11/4/2008	<0.002	0.0059	<0.002	<0.002
7/16/2009	<0.005	0.0097	<0.005	<0.005
4/28/2010	0.0007	0.0077	<0.0008	<0.0009
4/21/2011	0.0007	0.0067	<0.0008	<0.0009
4/18/2012	0.0007	0.0081	<0.0008	<0.0009
5/1/2013	0.00064	0.0068	<0.00081	<0.0009
5/19/2014	0.00064	0.0062	<0.00081	<0.0009
5/6/2015	0.0005	0.0054	<0.00081	<0.0009
5/5/2016	0.00068	0.0056	<0.00081	<0.0009
4/27/2017	0.001	0.008	0.003	<0.0009
5/9/2018	0.001	0.009	0.002	<0.0009
5/16/2019	<0.003	0.014	0.004	<0.001
6/25/2020	0.002	0.004	<0.001	<0.001
8/19/2021	0.0015	0.0058	<0.0009	<0.0009
9/21/2022	0.0009	0.0061	<0.0009	<0.0009
10/4/2023	0.00095	0.0068	<0.0009	<0.0009

MW-13 Groundwater Data
Delphi Harrison Thermal Systems Site

Date	TCE	PCE	1,2-DCE	VC
8/8/2001	<0.002	<0.002	<0.002	<0.002
10/29/2001	<0.002	<0.002	<0.002	<0.002
1/12/2005	<0.002	<0.002	<0.002	<0.002
10/24/2006	0.002	<0.002	<0.002	<0.002
11/28/2007	<0.002	<0.002	<0.002	<0.002
11/5/2008	<0.002	<0.002	<0.002	<0.002
7/16/2009	<0.005	<0.005	<0.005	<0.005
4/28/2010	<0.0005	<0.0004	<0.0008	<0.0009
4/21/2011	<0.0005	<0.0004	<0.0008	<0.0009
4/19/2012	<0.0005	<0.0004	<0.0008	<0.0009
5/2/2013	<0.00046	<0.00036	<0.00081	<0.0009
5/2/2013	<0.00046	<0.00036	<0.00081	<0.0009
5/20/2014	<0.00046	<0.00036	<0.00081	<0.0009
5/7/2015	<0.00046	<0.00036	<0.00081	<0.0009
5/5/2016	<0.00046	<0.00036	<0.00081	<0.0009
5/3/2017	<0.0005	<0.0004	<0.0008	<0.0009
5/10/2018	<0.0005	<0.0004	<0.0008	<0.0009
5/17/2019	<0.001	<0.001	<0.001	<0.001
6/25/2020	<0.001	<0.001	<0.001	<0.001
8/19/2021	<0.00046	<0.00036	<0.0009	<0.0009
9/22/2022	<0.00046	<0.00036	<0.0009	<0.0009
10/5/2023	<0.00046	<0.00036	<0.0009	<0.0009

NOTES:

1. BASE MAP ADAPTED FROM A 2015 AERIAL PHOTOGRAPH DOWNLOADED FROM GOOGLE EARTH PRO AND SITE OBSERVATIONS.

2. ANALYTICAL TESTING WAS COMPLETED BY EUROFINS/TEST AMERICA LABORATORIES.

3. UNITS ARE LISTED IN MILLIGRAMS PER LITER (mg/l). (< - INDICATES COMPOUND NOT DETECTED ABOVE THE SPECIFIED DETECTION LIMIT)

4. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

LEGEND:

MW-4 — APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL INSTALLED BY GZA

TCE = TRICHLOROETHENE

PCE = TETRACHLOROETHENE

1,2-DCE = TRANS & CIS 1,2-DICHLOROETHENE

VC = VINYL CHLORIDE

0.006 — HIGHLIGHTED VALUES INDICATE EXCEEDANCE OF NYS CLASS GA GROUNDWATER CRITERIA

NORTH

APPROXIMATE SCALE IN FEET
0 90 180 360

DRAWN BY: TAK
DATE: JANUARY 2024

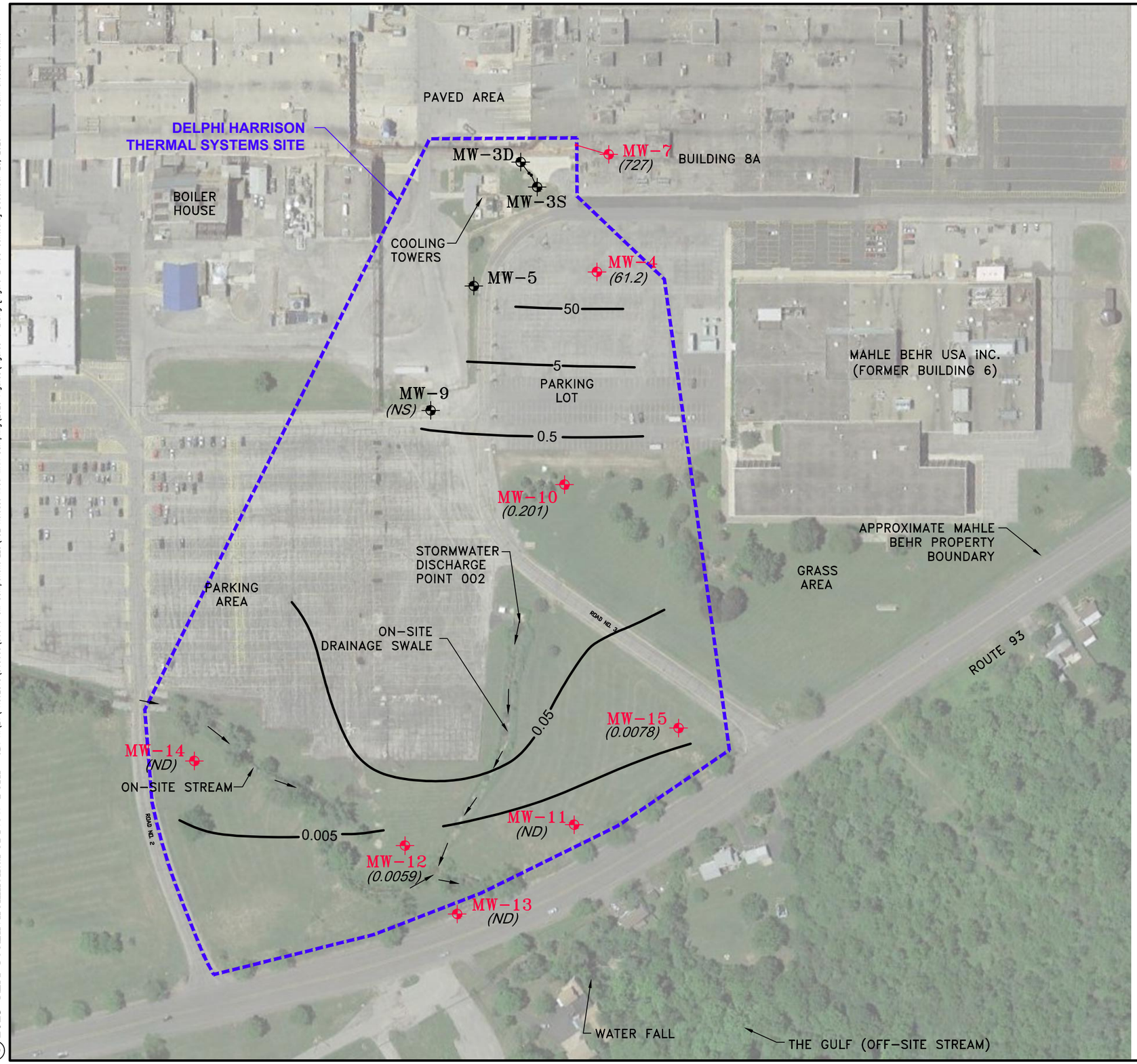
GZA GeoEnvironmental of New York

GM COMPONENTS HOLDINGS, LLC
DELPHI HARRISON THERMAL SYSTEMS SITE
200 UPPER MOUNTAIN ROAD
LOCKPORT, NEW YORK
OCTOBER 2023 GROUNDWATER SAMPLING

GROUNDWATER ANALYTICAL RESULTS

PROJECT No.
21.0056546.20

FIGURE No.
1



NORTH

NOTES:

1. BASE MAP ADAPTED FROM A 2005 AERIAL PHOTOGRAPH DOWNLOADED FROM http://www.nysgis.state.ny.us/gateway/mg/interactive_main.html AND SITE OBSERVATIONS.

2. ANALYTICAL TESTING WAS COMPLETED BY EUROFINS/TEST AMERICA LABORATORIES.

3. UNITS ARE LISTED IN MILLIGRAMS PER LITER (mg/l). (< - INDICATES COMPOUND NOT DETECTED ABOVE THE SPECIFIED DETECTION LIMIT)

4. THE SIZE AND LOCATION OF EXISTING SITE FEATURES SHOULD BE CONSIDERED APPROXIMATE.

LEGEND:

50 — APPROXIMATE LOCATION AND CONCENTRATION OF TOTAL VOC CONTOUR

MW-4 (61.2) — APPROXIMATE LOCATION AND DESIGNATION OF MONITORING WELL INSTALLED BY GZA SHOWN WITH TOTAL VOC CONCENTRATION

NS = NOT SAMPLED

ND = NON-DETECT

DRAWN BY: TAK

DATE: JANUARY 2024

GZA GeoEnvironmental of New York

APPROXIMATE SCALE IN FEET

0 90 180 360

GM COMPONENTS HOLDINGS, LLC

DELPHI HARRISON THERMAL SYSTEMS SITE

200 UPPER MOUNTAIN ROAD

LOCKPORT, NEW YORK

OCTOBER 2023 GROUNDWATER SAMPLING

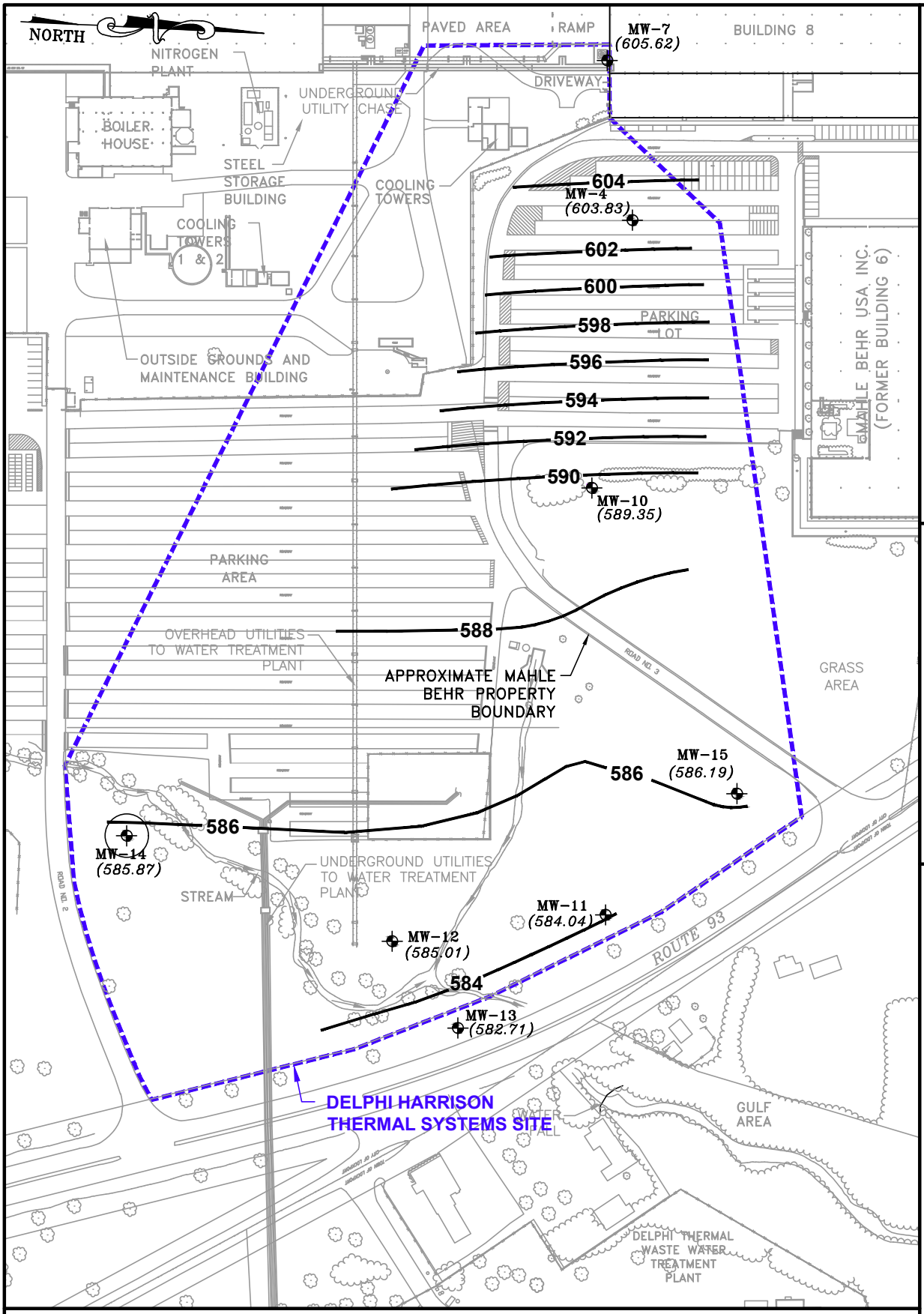
TOTAL COC CONTOUR MAP

PROJECT No.

21.0056546.20

FIGURE No.

2



LEGEND:

MW-4 (603.33) — APPROXIMATE LOCATION AND DESIGNATION OF EXISTING MONITORING WELL INSTALLED BY GZA

APPROXIMATE GROUNDWATER ELEVATION MEASURED ON DATE SHOWN IN TITLE BLOCK

NOTES:

1. BASE MAP ADAPTED FROM AN AUTOCAD FILE PROVIDED BY DELPHI HARRISON THERMAL SYSTEMS.

2. GROUNDWATER ELEVATIONS MEASURED ON 10-2-2023.

DRAWN BY: TAK

DATE: JANUARY 2024

GZA GeoEnvironmental of New York

SCALE IN FEET

0 100 200 400

GM COMPONENTS HOLDINGS, LLC

DELPHI HARRISON THERMAL SYSTEMS SITE

200 UPPER MOUNTAIN ROAD

OCTOBER 2023 **GROUNDWATER SAMPLING**

GROUNDWATER ISOPOTENTIAL MAP

(OCTOBER 2, 2023)

PROJECT No.

21.0056546.20

FIGURE No.

3

GZA–K:\21\PROJECTS\56500s\56546 GM Component LLC\TCE Release Area MNA Sampling\2023 Figures\Figure 3 GW Contours.dwg [FIGURE 3] December 28, 2023 – 11:50am theodore.kle

APPENDIX A

GROUNDWATER FIELD FORMS

SAMPLE COLLECTION DATA SHEET - GROUNDWATER SAMPLING PROGRAM

PROJECT NAME: Delphi Harrison Thermal Systems Site — PROJECT NO.: 56546.20 T.4

SAMPLING CREW MEMBERS: M. Brown — SUPERVISOR: Bohlen

DATE OF SAMPLE COLLECTION: 10-3-23 - 10-6-23

[Note: For 2" dia. well, 1 ft. = 0.14 gal (imp) or 0.16 gal (us)]

Sample I.D. Number	Well No.	Measuring Point Elev. (ft. AMSL)	Bottom Depth (ft. btoc)	Water Depth (ft. btoc)	Water Elevation (ft. AMSL)	Well Volume (gallons)	Bailer Volume No. Bails	Volume Purged (gallons)	Field pH	Field Temp.	Field Cond.	Time	Sample Description & Analysis
MW-4-100323	MW-4	613.07	34.93	9.75	585.02	4.1		0.6	6.94	19.2	8.284	1130	VOC MNA H_2 VFA
MW-7 100623	MW-7	613.86	28.97	8.14	605.72	3.4		5.1	7.13	19.6	1.820	0945	VOC MNA VFA
MW-10 100323	MW-10	604.70	23.70	15.36	589.34	1.4		0.5	7.28	17.5	3.773	1300	VOC MNA H_2 VFA
MW-11 100423	MW-11	590.16	15.17	6.13	584.03	1.5		2.5	7.41	17.9	1.285	1500	VOC MNA H_2 VFA
MW-12 100423	MW-12	590.71	16.40	5.72	584.99	1.7		1.0	6.97	16.9	8.256	0900	VOC MNA H_2 VFA
MW-13 100523	MW-13	589.02	14.08	5.57	583.45	1.4		0.9	7.00	19.0	5.978	1100	VOC MNA H_2 VFA
MW-14 100523	MW-14	592.77	21.39	6.99	583.02	2.4		1.1	6.94	19.9	10.266	1330	VOC MNA H_2 VFA
MW-15 100423	MW-15	594.04	16.92	7.87	586.17	1.5		3.2	6.93	18.3	2.411	1200	VOC MNA H_2 VFA

Additional Comments:

Copies to:

FMC MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

PID @ TOR = 7.9 PID @ Breathing Space = 0.0

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Delphi Harrison Thermal Systems Site
Ref. No.: 56546.20 Task 4
Date: 10-3-23
Personnel: M. Brown

Monitoring Well Data:

Well No.: MW-4
Measurement Point: TOR
Constructed Well Depth (ft): 32.5
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 17.5 - 32.5 = 17'
Depth to Pump Intake (ft)[1]: 26
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]: 4.1
Initial Depth to Water (ft): 9.75

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
1032	75	10.29		6.65	18.9	8.300	32.0	1.60	-2.14	0.0	
1042		10.47		6.90	19.1	8.271	-11.0	0.76	-2.94	0.15	
1047		10.52		6.92	19.2	8.279	-8.2	0.68	-2.95	0.2	
1052		10.53		6.93	19.3	8.280	-18.7	0.63	-2.95	0.35	
1057		10.55		6.94	19.3	8.278	-20.6	0.59	-2.90	0.35	
1102		10.59		6.94	19.2	8.284	-21.5	0.58	-2.87	0.5	

Notes:

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

(2) The well screen volume will be based on a 5-foot screen length. $V_s = p^*(D/2)^{2*}(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(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 stablization criteria and appear to be stablizing). No. of Well Screen Volumes Purged= Vp/Vs

WELL PURGING FIELD INFORMATION FORM

JOB# 565461-20

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site

WELL# MW-14

WELL PURGING INFORMATION

PURGE DATE (MM/DD/YY)	SAMPLE DATE (MM/DD/YY)	WATER VOL IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10/3/23	10/3/23	4.1	10.6

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT: DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT: DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	B	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRAT	X - PURGING OTHER (SPECIFY)
SAMPLING DEVICE	B	C - BLADDER PUMP	F - DIPPER BOTTLE		X - SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X - PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X - SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/POLYPROPYLENE	X - PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - ROPE	X - (SPECIFY)		X - SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	613.07 (m/ft)	GROUNDWATER ELEVATION	588.02 (m/ft)
DEPTH TO WATER	19.75 (m/ft)	WELL DEPTH	34.93 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
(std)	(ntu)	(µs/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µs/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µs/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µs/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µs/cm) AT 25°C	(mV)	(mg/L)	(°C)

FIELD COMMENTS

SAMPLE APPEARANCE: Good ODOR: Solvent COLOR: clear TURBIDITY: Slone

WEATHER CONDITIONS: WIND SPEED: 5-10 DIRECTION: SW PRECIPITATION/SUN OUTLOOK: N

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE SOP PROTOCOLS

DATE: 10/3/23 PRINT: Morgan Brown SIGNATURE: Morgan Brown

EMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

PID @ TOR = 141.9 PID @ Breathing Space = 0.0

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Delphi Harrison Thermal Systems Site
Ref. No.: 56546.20 Task 4

Date: 10/5/23 - 10/6/23
Personnel: M. Brown

Monitoring Well Data:

Well No.: MW-7
Measurement Point: TOR
Constructed Well Depth (ft): 27.20
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 15
Depth to Pump Intake (ft)[1]: 22
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]: 3.4 99
Initial Depth to Water (ft): 8.14

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
10/5/23 0827	until dry	8.79		7.18	19.4	1.693	34.3	1.55	-2.55	0.1	
0832		9.63		7.24	19.0	1.695	-22.7	0.73	-1.68	0.3	
0842		11.22		7.20	19.2	1.689	-39.9	0.55	20.03	1.0	
0852		12.47		7.20	19.3	1.681	-45.7	0.52	114.08	1.7	
0902		13.75		7.21	19.4	1.650	-49.5	0.57	209.97	2.5	
0920		16.04		7.24	19.4	1.668	-74.9	0.92	263.60	3.5	
0930		17.85		7.22	19.3	1.703	-75.7	0.58	226.33	4.0	
0940		20.9		7.26	19.3	1.702	-55.5	3.22	170.71	4.5	
0950		22.35		7.26	19.2	1.694	-48.4	2.78	155.48	5.0	
10/6/23 0930		9.11		7.13	19.6	1.820	155.0	6.85	-1.79	0.1	

Notes:

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

(2) The well screen volume will be based on a 5-foot screen length. $V_s = p^*(D/2)^{2*}(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(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 stablization criteria and appear to be stablizing). No. of Well Screen Volumes Purged= Vp/Vs.

WELL PURGING FIELD INFORMATION FORM

JOB# 5|6|5|4|6 - 2|0

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site

WELL# M|W|-|7

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10|05|25	10|06|23	3.4	5.1

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT ... DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQIPMENT ... DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	B	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	B	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/ POLYPROPYLENE	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - ROPE	X- (SPECIFY)		X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	611.816 (m/ft)	GROUNDWATER ELEVATION	601.72 (m/ft)
DEPTH TO WATER	18.14 (m/ft)	WELL DEPTH	28.97 (m/ft)

	pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
	(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
	(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
	(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
	(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
	(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)

FIELD COMMENTS

SAMPLE APPEARANCE: Good ODOR: strong solvent COLOR: sheen TURBIDITY: none

WEATHER CONDITIONS: WIND SPEED: 5-15 DIRECTION: S PRECIPITATION Y/N OUTLOOK: N

SPECIFIC COMMENTS

Purged dry 10/5/23 Sampled 10/6/23

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

10/5/23 DATE | Morgan Brown PRINT | SIGNATURE

EMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

PID @ TOR = 0.0

PID @ Breathing space = 0.0

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Delphi Harrison Thermal Systems Site
Ref. No.: 56546.20 Task 4

Date: 10/3/23
Personnel: M. Brown

Monitoring Well Data:

Well No.: MW-10
Measurement Point: TOR
Constructed Well Depth (ft): 21.3
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 8.8'
Depth to Pump Intake (ft)[1]: ~17'
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]: 1.4
Initial Depth to Water (ft): 15.36

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1228		15.70		7.28	17.3	3.746	117.1	1.48	-0.08	0.0	
1233		15.74		7.22	17.7	3.725	115.6	1.00	-2.00	0.1	
1238		15.76		7.27	17.7	3.736	108.4	0.88	-2.85	0.2	
1243		15.77		7.28	17.5	3.741	103.2	0.76	-2.84	0.3	
1248		15.78		7.28	17.5	3.773	97.7	0.70	-2.95	0.4	

Notes:

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

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(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 stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

WELL PURGING FIELD INFORMATION FORM

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site

JOB# 5|6|5|4|6 - 2|0

WELL# M|W| - |1|0|

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
1|0|0|3|2|3	1|0|0|3|2|3	1|1|1|9	1|1|1|0|5

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT ..... DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQIPMENT ..... DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	B	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	B	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/ POLYPROPYLENE	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - ROPE	X- (SPECIFY)		X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	1|6|0|4|7|0 (m/ft)	GROUNDWATER ELEVATION	1|5|8|9|3|4 (m/ft)
DEPTH TO WATER	1|5|8|6 (m/ft)	WELL DEPTH	2|3|7|0 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)

FIELD COMMENTS

SAMPLE APPEARANCE: Good ODOR: none COLOR: clear TURBIDITY: none

WEATHER CONDITIONS: WIND SPEED: 5-10 DIRECTION: SW PRECIPITATION Y/N OUTLOOK: N

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

10/5/23 (DATE) Morgan Brown (PRINT) (SIGNATURE)

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

PID @ TOR = 0.0 PID @ Breathing Space = 0.0

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Delphi Harrison Thermal Systems Site
Ref. No.: 56546.20 Task 4

Date: 10-4-23
Personnel: M. Brown

Monitoring Well Data:

Well No.: MW-11
Measurement Point: TOR
Constructed Well Depth (ft): 24.10
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 9-21.4
Depth to Pump Intake (ft)[1]: 15
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]: 1.5 qt
Initial Depth to Water (ft): 6.13

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1420	80+	6.94		7.64	19.1	1.542	-35.9	1.37	-0.45	0.0	
1425		6.98		7.55	18.0	1.416	-54.3	0.93	-0.81	0.1	
1430		7.26		7.51	17.7	1.335	-53.7	0.76	-0.64	0.2	
1435		7.36		7.49	17.8	1.311	-75.6	0.71	-0.31	0.3	
1440		7.43		7.46	17.8	1.283	-85.1	0.65	-0.04	0.4	
1445		7.52		7.45	17.6	1.274	-87.7	0.62	0.35	0.5	
1450		7.57		7.43	17.8	1.277	-94.6	0.59	2.26	0.6	
1455		7.59		7.41	17.9	1.285	-97.7	0.58	1.39	0.8	

Notes:

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

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(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 stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

WELL PURGING FIELD INFORMATION FORM

JOB# 5 6 5 4 6 - 2 0

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site

WELL# M W - 1 1

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10 04 23	10 04 23	1.5	3.5

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT..... DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQIPMENT..... DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	B	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	B	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/ POLYPROPYLENE	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - ROPE	X- (SPECIFY)		X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	591.16 (m/ft)	GROUNDWATER ELEVATION	581.03 (m/ft)
DEPTH TO WATER	6.13 (m/ft)	WELL DEPTH	11.17 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)

FIELD COMMENTS

SAMPLE APPEARANCE: (cloudy) ODOR: none COLOR: clear TURBIDITY: none

WEATHER CONDITIONS: WIND SPEED: 5-10 DIRECTION: SSW PRECIPITATION Y/N OUTLOOK: N

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CAI PROTOCOLS

10/4/23 (DATE) Morgan Brown (PRINT) (SIGNATURE)

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

PID @ TOR = 0.0 PID @ Breathing Space = 0.0

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Delphi Harrison Thermal Systems Site
Ref. No.: 56546.20 Task 4

Date: 10-4-23
Personnel: M. Brown

Monitoring Well Data:

Well No.: MW-12
Measurement Point: TOR
Constructed Well Depth (ft): 15.10
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 7.1
Depth to Pump Intake (ft)[1]: 13
Well Diameter, D (in): 2
Well Screen Volume, V_s (~~mL~~ qt)[2]: 1.7
Initial Depth to Water (ft): 5.72

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
0825		6.11		6.78	16.7	7.834	-17.6	1.42	0.55	0.0	
0830		6.23		~~8~~.00	16.5	7.942	-47.2	0.95	-0.29	0.1	
0840		6.23		6.97	16.7	8.129	-60.7	0.77	-1.06	0.2	
0845		6.21		6.97	16.9	8.206	-69.5	0.67	-2.17	0.3	
0850		6.21		6.97	16.9	8.243	-72.8	0.64	-2.27	0.4	
0855		6.21		6.97	16.9	8.256	-74.4	0.63	-2.29	0.5	

Notes:

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

(2) The well screen volume will be based on a 5-foot screen length. $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(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 stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

WELL PURGING FIELD INFORMATION FORM

JOB# 5 6 5 4 6 - 2 0

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site

WELL# M W - 1 2

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10/4/23	10/4/23	11.7	11.0

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT ... DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT ... DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	B	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	B	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/ POLYPROPYLENE	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - ROPE	X- (SPECIFY)		X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	590.71 (m/ft)	GROUNDWATER ELEVATION	581.99 (m/ft)
DEPTH TO WATER	57.12 (m/ft)	WELL DEPTH	16.40 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)

FIELD COMMENTS

SAMPLE APPEARANCE: Good ODOR: none COLOR: clear TURBIDITY: none

WEATHER CONDITIONS: WIND SPEED: 5-10 DIRECTION: SSE PRECIPITATION Y/N OUTLOOK: N

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

10/4/23 DATE — Morgan Brown PRINT — SIGNATURE

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

PID @ TOR = 0.0 PID @ Breathing Space = 0.0

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Delphi Harrison Thermal Systems Site
Ref. No.: 56546.20 Task 4

Date: 10/5/23
Personnel: M. Brown

Monitoring Well Data:

Well No.: MW-13
Measurement Point: TOR
Constructed Well Depth (ft): 15
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 7
Depth to Pump Intake (ft)[1]: ~12
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]: 1.4
Initial Depth to Water (ft): 5.57

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
1015		5.82		7.01	19.3	7.742	58.0	1.61	-0.54	0.0	
1020		5.82		7.01	18.9	7.515	49.2	1.05	-1.18	0.15	
1025		5.83		7.00	18.8	6.573	48.3	0.71	-1.63	0.25	
1030		5.83		6.99	19.0	6.087	53.2	0.71	-1.42	0.3	
1035		5.82		7.00	19.2	6.023	55.4	0.74	-0.65	0.4	
1040		5.82		7.00	19.0	6.978	58.8	0.76	-0.57	0.5	

Notes:

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

(2) The well screen volume will be based on a 5-foot screen length. $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(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 stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

WELL PURGING FIELD INFORMATION FORM

JOB# 5 6 5 4 6 - 2 0

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site

WELL# M W - 1 3

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10 05 23	10 05 23	14	19

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT ... DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQPMENT ... DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	B	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	B	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/ POLYPROPYLENE	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - ROPE	X- (SPECIFY)		X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	589.02 (m/ft)	GROUNDWATER ELEVATION	583.45 (m/ft)
DEPTH TO WATER	5.57 (m/ft)	WELL DEPTH	14.08 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)

FIELD COMMENTS

SAMPLE APPEARANCE: Good ODOR: none COLOR: clear TURBIDITY: none

WEATHER CONDITIONS: WIND SPEED: 5-10 DIRECTION: S PRECIPITATION Y/N OUTLOOK: N

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

10/5/23 DATE — Morgan Brown PRINT — SIGNATURE

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

PID @ TOR = 0.0 PID @ Breathing Space = 0.0

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Delphi Harrison Thermal Systems Site
Ref. No.: 56546.20 Task 4

Date: 10/5/23
Personnel: M. Brown

Monitoring Well Data:

Well No.: MW-14
Measurement Point: TOR
Constructed Well Depth (ft): 19.1
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 9.1 - 19.1
Depth to Pump Intake (ft)[1]: 14
Well Diameter, D (in): 2
Well Screen Volume, V_s (~~mL~~ qal)[2]: 2.4
Initial Depth to Water (ft): 6.99

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, Vp (mL)	No. of Well Screen Volumes Purged[4]
1230		7.60		6.87	20.1	12.606	-15.3	1.52	2.11	0.0	
1235		7.61		6.88	19.4	12.945	-14.3	1.09	1.98	0.1	
1240		8.17		6.92	19.9	11.446	-15.1	0.76	1.39	0.2	
1250		8.31		6.91	20.2	10.066	-18.3	0.71	2.50	0.3	
1255		8.55		6.92	19.8	10.980	-23.9	0.63	2.76	0.4	
1300		8.58		6.94	19.8	10.420	-27.2	0.57	6.24	0.5	
1305		8.62		6.94	19.9	10.266	-28.3	0.55	6.23	0.6	

Notes:

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

(2) The well screen volume will be based on a 5-foot screen length. $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(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 stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

WELL PURGING FIELD INFORMATION FORM

JOB# 5 6 5 4 6 - 2 0

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site

WELL# M W - 1 1 4

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10/5/23	10/5/23	2.4	UC

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT ..... DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQIPMENT ..... DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	B	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	B	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/POLYPROPYLENE	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - ROPE	X- (SPECIFY)		X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	591.77 (m/ft)	GROUNDWATER ELEVATION	581.02 (m/ft)
DEPTH TO WATER	9.99 (m/ft)	WELL DEPTH	21.39 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)

FIELD COMMENTS

SAMPLE APPEARANCE: Good ODOR: none COLOR: clear TURBIDITY: none

WEATHER CONDITIONS: WIND SPEED: 9-10 DIRECTION: SW PRECIPITATION Y/N OUTLOOK: N

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

DATE	PRINT	SIGNATURE
10/5/23	Morgan Brown	Morgan Brown

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

PID @ TOR = 0.0 PID @ Breathing Space = 0.0

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Delphi Harrison Thermal Systems Site
Ref. No.: 56546.20 Task 4

Date: 10-4-23
Personnel: M. Brown

Monitoring Well Data:

Well No.: MW-15
Measurement Point: TOR
Constructed Well Depth (ft): 17.90
Measured Well Depth (ft):
Depth of Sediment (ft):

Screen Length (ft): 7
Depth to Pump Intake (ft)[1]: 13
Well Diameter, D (in): 2
Well Screen Volume, V_s (mL)[2]: 1.5
Initial Depth to Water (ft): 7.87

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level[3] (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V_p (mL)	No. of Well Screen Volumes Purged[4]
1055	80*	8.07		7.05	20.0	2.492	99.2	1.35	-1.23	0.0	
1105		8.13		6.96	18.6	2.431	100.6	0.77	-1.83	0.1	
1110		8.19		6.95	18.3	2.432	99.3	0.66	-2.92	0.25	
1115		8.21		6.95	18.2	2.433	98.4	0.60	-2.58	0.35	
1120		8.22		6.94	18.3	2.440	97.2	0.59	-1.85	0.5	
1125		8.22		6.94	18.3	2.439	96.6	0.57	-0.06	0.6	
1130		8.23		6.94	18.3	2.440	96.3	0.56	0.68	0.75	
1135		8.23		6.93	18.3	2.437	96.2	0.55	0.99	0.85	
1140		8.23		6.93	18.3	2.441	95.9	0.54	1.08	1.0	

Notes:

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

(2) The well screen volume will be based on a 5-foot screen length, $V_s = p*(D/2)^2*(5*12)*(2.54)^3$

(3) The drawdown from the initial water level should not exceed 0.3 ft.

(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 stablization criteria and appear to be stablizing), No. of Well Screen Volumes Purged= Vp/Vs.

* As slow as possible

WELL PURGING FIELD INFORMATION FORM

SITE/PROJECT NAME: Delphi Harrison Thermal Systems Site

JOB# 5 6 5 4 6 - 2 0

WELL# M W - 1 5

WELL PURGING INFORMATION

PURGE DATE (MM DD YY)	SAMPLE DATE (MM DD YY)	WATER VOL IN CASING (LITRES/GALLONS)	ACTUAL VOLUME PURGED (LITRES/GALLONS)
10 04 23	10 04 23	15	32

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT ..... DEDICATED (Y) N (CIRCLE ONE)

SAMPLING EQUIPMENT ..... DEDICATED (Y) N (CIRCLE ONE)

PURGING DEVICE	B	A - SUBMERSIBLE PUMP B - PERISTALTIC PUMP	D - GAS LIFT PUMP E - PURGE PUMP	G - BAILER H - WATERRA®	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	B	C - BLADDER PUMP	F - DIPPER BOTTLE		X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - STAINLESS STEEL	D - PVC E - POLYETHYLENE		X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - POLYPROPYLENE			X- SAMPLING OTHER (SPECIFY)
PURGING DEVICE	E	A - TEFLON B - TYGON	D - POLYPROPYLENE E - POLYETHYLENE	F - SILICONE G - COMBINATION TEFLON/ POLYPROPYLENE	X- PURGING OTHER (SPECIFY)
SAMPLING DEVICE	E	C - ROPE	X- (SPECIFY)		X- SAMPLING OTHER (SPECIFY)
FILTERING DEVICES 0.45		A - IN-LINE DISPOSABLE	B - PRESSURE	C - VACUUM	

FIELD MEASUREMENTS

WELL ELEVATION	591401 (m/ft)	GROUNDWATER ELEVATION	586117 (m/ft)
DEPTH TO WATER	7 8 7 (m/ft)	WELL DEPTH	16912 (m/ft)

pH	TURBIDITY	CONDUCTIVITY	ORP	DO	SAMPLE TEMPERATURE
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)
(std)	(ntu)	(µm/cm) AT 25°C	(mV)	(mg/L)	(°C)

FIELD COMMENTS

SAMPLE APPEARANCE: Good ODOR: none COLOR: clear TURBIDITY: none

WEATHER CONDITIONS: WIND SPEED: 5-10 DIRECTION: SSW PRECIPITATION Y/N OUTLOOK: N

SPECIFIC COMMENTS:

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE GM PROTOCOLS

10/4/23 (DATE) Morgan Brown (PRINT) (SIGNATURE)

FMG MODIFICATIONS MUST BE ACCOMPANIED BY A REVISION REQUEST FORM APPROVED BY THE PROJECT MANAGER

APPENDIX B

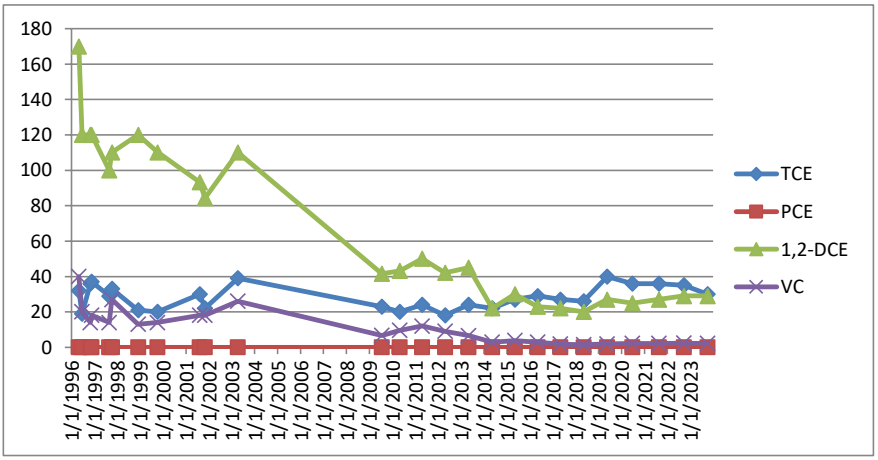
COCs, Total VOCs and TOC DATA GRAPHS

MW-4 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TCE	PCE	1,2-DCE	VC
4/30/1996	32	<0.5	170	40
6/20/1996	19	<0.5	120	20
10/30/1996	36	<0.5	120	14
11/21/1996	37	<0.5	120	18
8/28/1997	29	<0.5	100	14
10/10/1997	33	<0.2	110	27
12/2/1998	21	<0.2	120	13
10/7/1999	20	<0.05	110.14	14
8/9/2001	30	0.003	93.28	18
10/31/2001	22	<0.002	84.25	18
4/7/2003	39	0.08	110	26
7/20/2009	23	<0.05	41.5	6.7
4/29/2010	20	0.0012	43.2	9.6
4/22/2011	24	0.0018	50	12
4/20/2012	18	0.0014	42.16	9.1
5/1/2013	24	<0.18	45	6.6
5/13/2014	22	<0.18	22	2.9
5/8/2015	27	<0.36	30	3.8
5/5/2016	29	<0.36	23	2.9
5/2/2017	27	<0.18	22	1.8
5/8/2018	26	<0.18	20	1.4
5/16/2019	40	0.005	27	1.9
6/24/2020	36	<0.072	25	2.2
8/17/2021	36	<0.29	27	2.1
9/20/2022	35	<0.29	29	2.4
10/3/2023	30	<0.29	29	2.2

Notes:
Results are provided in parts per million (ppm)
Non Detect values expressed with "<" and MDL. 1,2 DCE value includes total cis-1,2 DCE and trans 1,2 DCE.
If "<" value, the listed value is the higher of the two method detection limits.

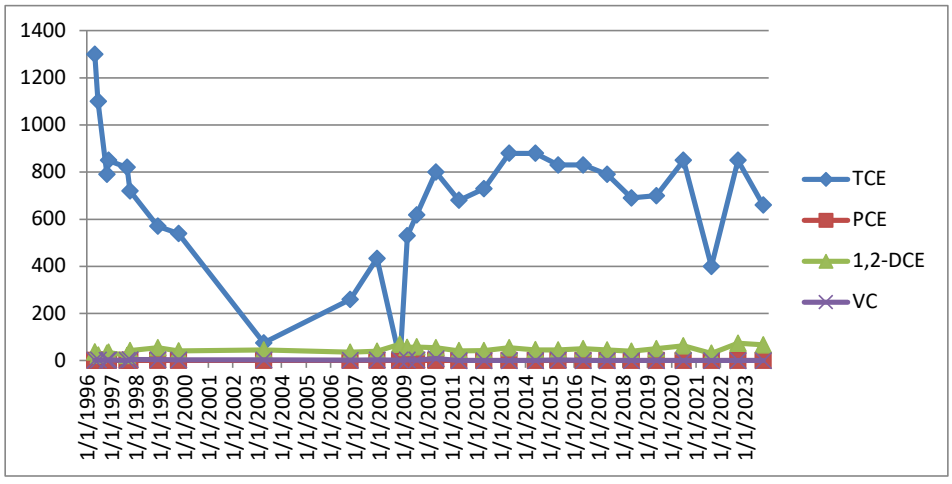
Duplicate samples were collected from this location on 6/20/96, 10/30/96 and 12/2/98.
The higher of the two concentrations were recorded in this graph.



MW-7 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TCE	PCE	1,2-DCE	VC
4/30/1996	1300	<0.5	37	1.8
6/20/1996	1100	<0.5	24	2.4
10/30/1996	790	<0.5	32	2.3
11/21/1996	850	<0.5	35	3.1
8/28/1997	820	<0.2	22	1.1
10/10/1997	720	<0.2	43	4.8
12/3/1998	570	<0.2	55	4.2
10/7/1999	540	<0.5	41	3.5
4/7/2003	75	<0.2	45	3
10/25/2006	260	0.077	36	1.7
11/29/2007	434	0.049	40	3.2
11/5/2008	1.1	<0.2	70	2.6
2/24/2009	530	0.071	56	3.6
7/15/2009	618	0.112	58.3	2.5
4/29/2010	800	0.14	55.2	9
4/11/2011	680	<1.8	42	<4.5
4/20/2012	730	<1.8	43	<4.5
5/3/2013	880	<3.6	55	<9
5/30/2014	880	<7.2	46	<18
5/7/2015	830	0.14	45	3
5/17/2016	830	<3.6	51	<9
5/11/2017	790	<7.2	45	<18
5/10/2018	690	<7.2	40	<18
5/17/2019	700	<7.2	51	<18
6/26/2020	850	<7.2	63	<18
8/19/2021	400	<7.2	31	<18
9/23/2022	850	<7.2	74	<18
10/6/2023	660	<3.6	67	<9

Notes:
Results are provided in parts per million (ppm)
Non Detect values expressed with "<" and MDL. 1,2 DCE value includes total cis-1,2 DCE and trans 1,2 DCE.
If "<" value, the listed value is the higher of the two method detection limits.



MW-10 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

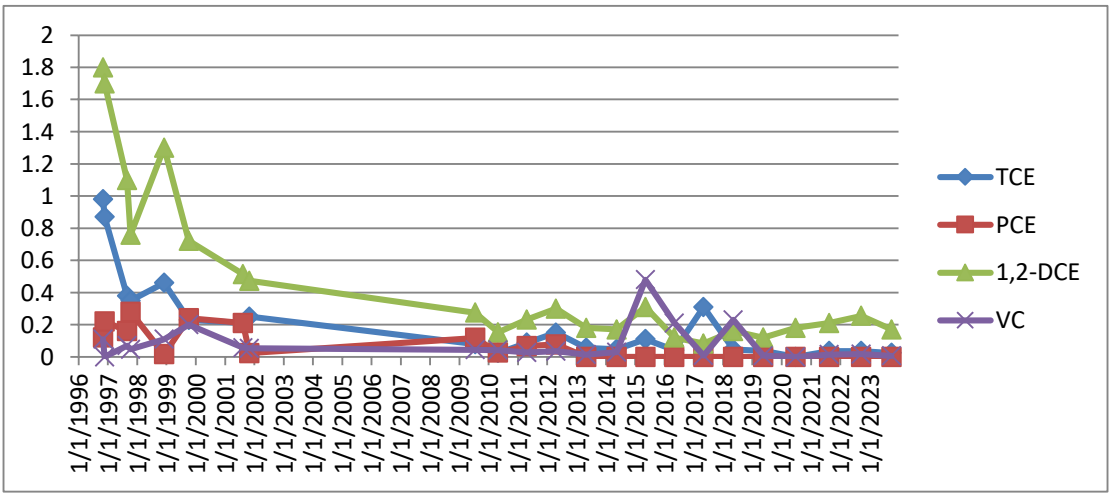
Date	TCE	PCE	1,2-DCE	VC
10/30/1996	0.98	0.12	1.8	0.11
11/21/1996	0.87	0.22	1.7	<0.1
8/28/1997	0.38	0.16	1.1	0.07
10/10/1997	0.35	0.28	0.76	0.047
12/1/1998	0.46	0.016	1.3	0.11
10/6/1999	0.23	0.24	0.722	0.2
8/9/2001	0.21	0.21	0.514	0.057
10/31/2001	0.25	0.023	0.473	0.053
7/15/2009	0.079	0.118	0.275	0.044
4/28/2010	0.024	0.026	0.153	0.042
4/21/2011	0.088	0.067	0.232	0.027
4/19/2012	0.15	0.077	0.3	0.035
5/1/2013	0.056	<0.0014	0.18	0.014
5/14/2014	0.048	<0.0014	0.17	0.029
5/8/2015	0.11	<0.0014	0.31	0.48
5/5/2016	0.041	<0.0014	0.12	0.21
5/2/2017	0.31	<0.0007	0.083	0.008
5/9/2018	0.046	<0.0007	0.16	0.23
5/16/2019	0.038	<0.00072	0.12	0.007
6/24/2020	<0.092	<0.072	0.18	<0.18
8/17/2021	0.036	<0.0014	0.21	0.014
9/20/2022	0.036	<0.0018	0.2548	0.017
10/3/2023	0.024	<0.0018	0.17	0.0065

Notes:

Results are provided in parts per million (ppm)

Non Detect values expressed with "<" and MDL. 1,2 DCE value includes total cis-1,2 DCE and trans 1,2 DCE.

If "<" value, the listed value is the higher of the two method detection limits.

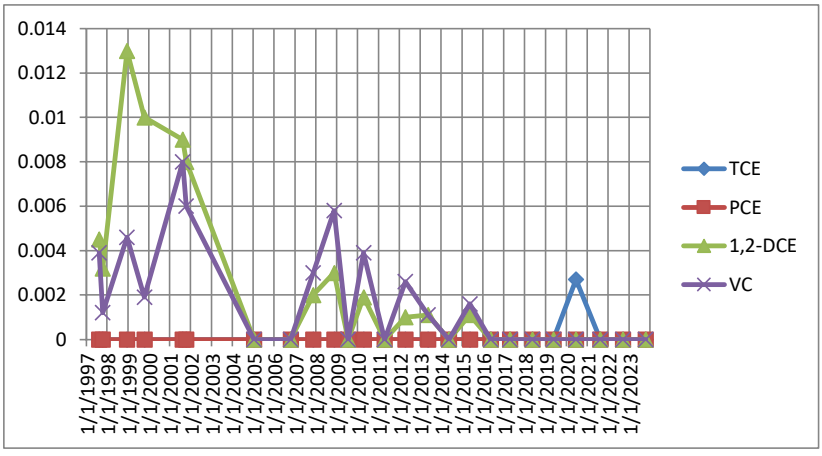


MW-11 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TCE	PCE	1,2-DCE	VC
8/28/1997	<0.0005	<0.0005	0.0045	0.0039
10/10/1997	<0.0005	<0.0005	0.0032	0.0012
12/1/1998	<0.0005	<0.0005	0.013	0.0046
10/5/1999	<0.0005	<0.0005	0.01	0.0019
8/8/2001	<0.002	<0.002	0.009	0.008
10/30/2001	<0.002	<0.002	0.008	0.006
1/12/2005	<0.002	<0.002	<0.002	<0.002
10/24/2006	<0.002	<0.002	<0.002	<0.002
11/28/2007	<0.002	<0.002	0.002	0.003
11/4/2008	<0.002	<0.002	0.003	0.0058
7/16/2009	<0.005	<0.005	<0.005	<0.005
4/28/2010	<0.0005	<0.0004	0.0019	0.0039
4/21/2011	<0.0005	<0.0004	<0.0008	<0.0009
4/19/2012	<0.0005	<0.0004	0.001	0.0026
5/2/2013	<0.00046	<0.00036	0.0011	0.0011
5/20/2014	<0.00046	<0.00036	<0.00081	<0.0009
5/6/2015	<0.00046	<0.00036	0.0011	0.0016
5/5/2016	<0.00046	<0.00036	<0.0009	<0.0009
4/28/2017	<0.00046	<0.00036	<0.00090	<0.0009
5/10/2018	<0.00046	<0.00036	<0.00090	<0.0009
5/17/2019	< 0.0005	<0.0004	<0.0009	<0.0009
6/25/2020	0.0027	<0.00036	<0.0009	<0.0009
8/19/2021	<0.00046	<0.00036	<0.0009	<0.0009
9/21/2022	<0.00046	<0.00036	<0.00081	<0.0009
10/4/2023	<0.00046	<0.00036	<0.00081	<0.0009

Notes:
Results are provided in parts per million (ppm)
Non Detect values expressed with "<" and MDL. 1,2 DCE value includes total cis-1,2 DCE and trans 1,2 DCE.
If "<" value, the listed value is the higher of the two method detection limits.

Duplicate samples were collected from this location on 10/10/97. The higher of the two concentrations were recorded in this graph.

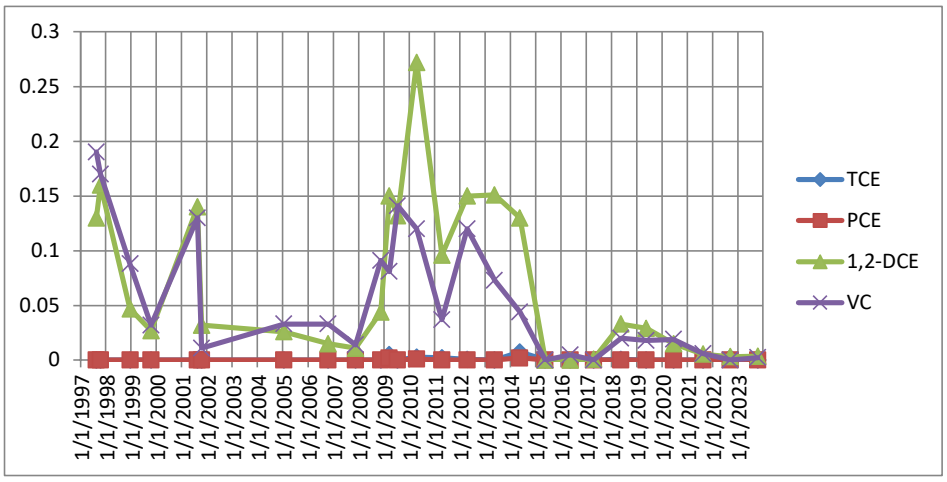


MW-12 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TCE	PCE	1,2-DCE	VC
8/28/1997	<0.0005	<0.0005	0.13	0.19
10/10/1997	<0.0005	<0.0005	0.16	0.17
12/1/1998	<0.0005	<0.0005	0.047	0.088
10/6/1999	<0.0005	<0.0005	0.027	0.032
8/8/2001	<0.002	<0.002	0.14	0.13
10/30/2001	<0.002	<0.002	0.032	0.011
1/12/2005	<0.002	<0.002	0.026	0.033
10/25/2006	<0.002	<0.002	0.015	0.033
11/28/2007	<0.002	<0.002	0.011	0.014
11/14/2008	<0.002	<0.002	0.044	0.091
3/16/2009	0.005	0.002	0.15	0.081
7/16/2009	<0.005	<0.005	0.132	0.141
4/28/2010	0.0028	0.0011	0.272	0.12
4/20/2011	0.0021	<0.0004	0.096	0.037
4/18/2012	0.00083	<0.0004	0.15	0.12
5/3/2013	<0.002	<0.00036	0.151	0.073
5/19/2014	0.0074	0.002	0.13	0.044
5/7/2015	<0.00046	<0.00036	<0.00081	<0.0009
5/6/2016	<0.00046	<0.00036	<0.0051	0.0049
4/28/2017	<0.00046	<0.00036	0.001	<0.0009
5/9/2018	0.0007	<0.00036	0.033	0.02
5/17/2019	<0.00092	<0.00072	0.029	0.018
6/26/2020	<0.00092	<0.00072	0.015	0.019
8/20/2021	<0.00092	<0.00072	0.0056	0.0059
9/23/2022	0.0021	<0.00072	0.0032	<0.0018
10/4/2023	<0.00092	<0.00072	0.0036	0.0023

Notes:
Results are provided in parts per million (ppm)
Non Detect values expressed with "<" and MDL. 1,2 DCE value includes total cis-1,2 DCE and trans 1,2 DCE.
If "<" value, the listed value is the higher of the two method detection limits.

Duplicate samples were collected from this location on 8/28/97 and 8/8/01. The higher of the two concentrations were recorded in this graph.

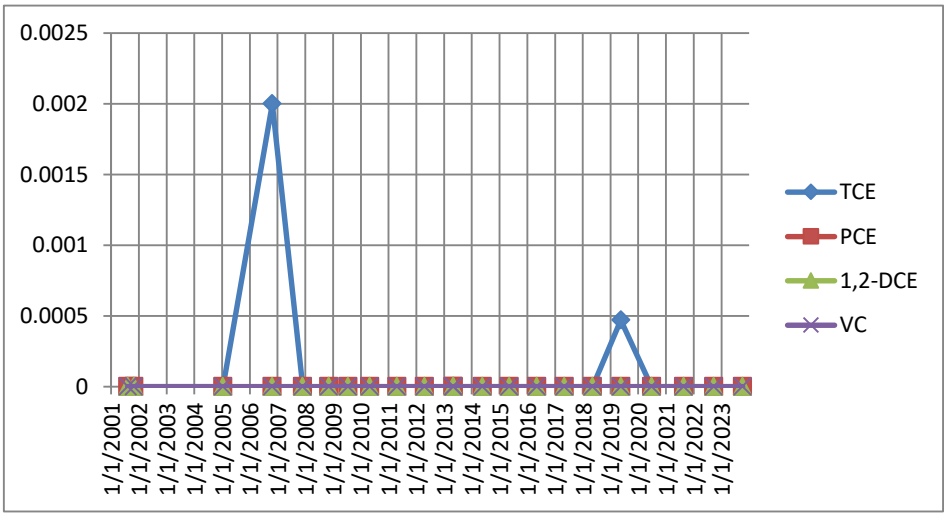


MW-13 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TCE	PCE	1,2-DCE	VC
8/8/2001	<0.002	<0.002	<0.002	<0.002
10/29/2001	<0.002	<0.002	<0.002	<0.002
1/12/2005	<0.002	<0.002	<0.002	<0.002
10/24/2006	0.002	<0.002	<0.002	<0.002
11/28/2007	<0.002	<0.002	<0.002	<0.002
11/5/2008	<0.002	<0.002	<0.002	<0.002
7/16/2009	<0.005	<0.005	<0.005	<0.005
4/28/2010	<0.0005	<0.0004	<0.0008	<0.0009
4/21/2011	<0.0005	<0.0004	<0.0008	<0.0009
4/19/2012	<0.0005	<0.0004	<0.0008	<0.0009
5/2/2013	<0.00046	<0.00036	<0.00081	<0.0009
5/2/2013	<0.00046	<0.00036	<0.00081	<0.0009
5/20/2014	<0.00046	<0.00036	<0.00081	<0.0009
5/7/2015	<0.00046	<0.00036	<0.00081	<0.0009
5/5/2016	<0.00046	<0.00036	<0.0009	<0.0009
5/3/2017	<0.00046	<0.00036	<0.0009	<0.0009
5/10/2018	<0.00046	<0.00036	<0.0009	<0.0009
5/17/2019	0.00047	<0.00036	<0.0009	<0.0009
6/25/2020	<0.00046	<0.00036	<0.0009	<0.0009
8/19/2021	<0.00046	<0.00036	<0.0009	<0.0009
9/22/2022	<0.00046	<0.00036	<0.0009	<0.0009
10/5/2023	<0.00046	<0.00036	<0.0009	<0.0009

Notes:
Results are provided in parts per million (ppm)
Non Detect values expressed with "<" and MDL. 1,2 DCE value includes total cis-1,2 DCE and trans 1,2 DCE.
If "<" value, the listed value is the higher of the two method detection limits.

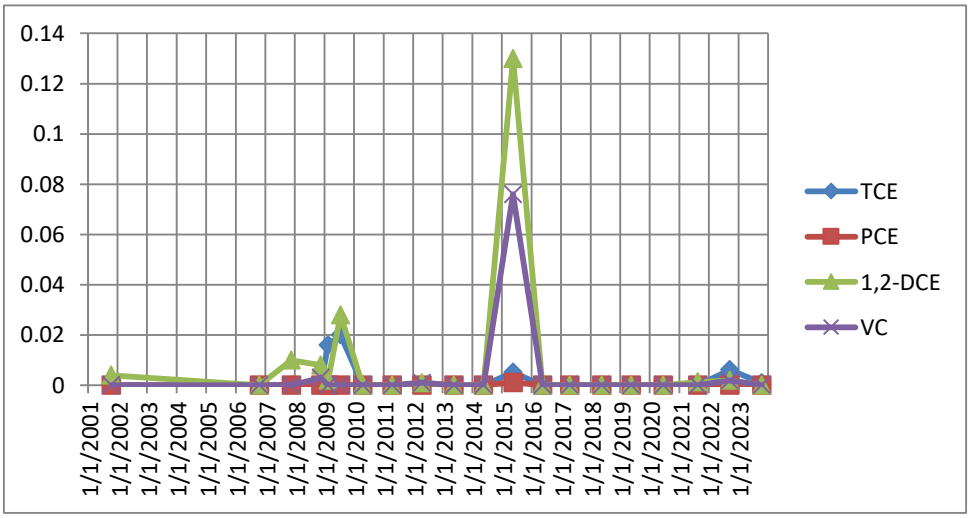
A duplicate sample was collected from this location on 4/19/2012.
The higher of the two concentrations were recorded in this graph.



MW-14 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TCE	PCE	1,2-DCE	VC
8/10/2001	<0.002	<0.002	0.005	<0.002
10/30/2001	<0.002	<0.002	0.004	<0.002
10/24/2006	<0.002	<0.002	<0.002	<0.002
11/29/2007	<0.002	<0.002	0.01	<0.002
11/4/2008	<0.002	<0.002	0.008	0.003
2/24/2009	0.016	<0.002	0.002	<0.002
7/19/2009	0.02	<0.005	0.028	<0.005
4/27/2010	<0.005	<0.0004	<0.0008	<0.0009
4/21/2011	<0.005	<0.0004	<0.0008	<0.0009
4/19/2012	<0.005	<0.0004	0.001	0.001
5/3/2013	<0.00046	<0.00036	<0.00081	<0.0009
5/23/2014	<0.00046	<0.00036	<0.00081	<0.0009
5/7/2015	0.0051	0.0011	0.13	0.076
5/6/2016	<0.00046	<0.00036	<0.0009	<0.0009
4/28/2017	<0.00046	<0.00036	<0.0009	<0.0009
5/11/2018	<0.00046	<0.00036	<0.0009	<0.0009
5/21/2019	<0.00046	<0.00036	<0.0009	<0.0009
6/26/2020	<0.00046	<0.00036	<0.0009	<0.0009
8/20/2021	<0.00046	<0.00036	0.0013	<0.0009
9/23/2022	0.0062	<0.00036	0.002	0.0019
10/5/2023	0.00092	<0.00072	<0.0016	<0.0018

Notes:
Results are provided in parts per million (ppm)
Non Detect values expressed with "<" and MDL. 1,2 DCE value includes total cis-1,2 DCE and trans 1,2 DCE.
If "<" value, the listed value is the higher of the two method detection limits.

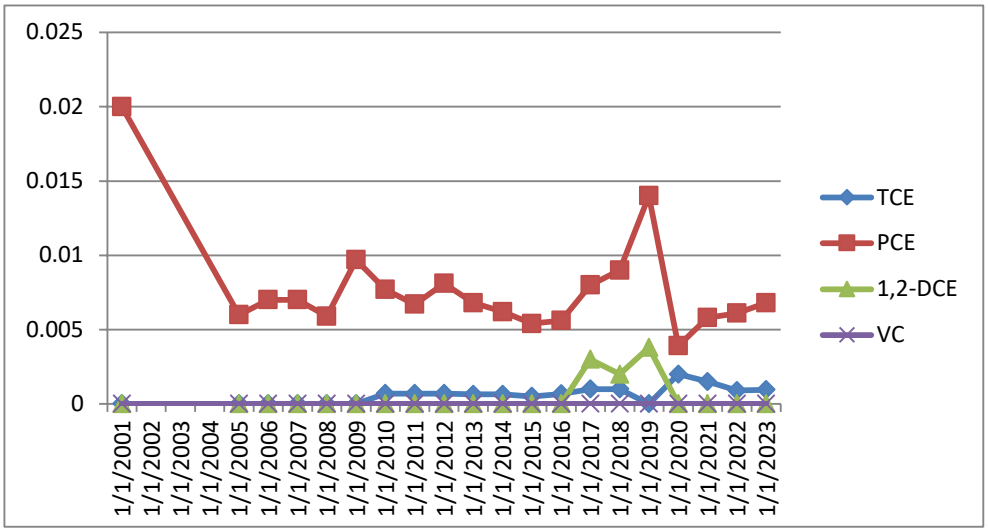


MW-15 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TCE	PCE	1,2-DCE	VC
8/8/2001	<0.002	0.013	<0.002	<0.002
10/30/2001	<0.002	0.02	<0.002	<0.002
1/12/2005	<0.002	0.006	<0.002	<0.002
10/24/2006	<0.002	0.007	<0.002	<0.002
11/28/2007	<0.002	0.007	<0.002	<0.002
11/4/2008	<0.002	0.0059	<0.002	<0.002
7/16/2009	<0.005	0.0097	<0.005	<0.005
4/28/2010	0.0007	0.0077	<0.0008	<0.0009
4/21/2011	0.0007	0.0067	<0.0008	<0.0009
4/18/2012	0.0007	0.0081	<0.0008	<0.0009
5/1/2013	0.00064	0.0068	<0.00081	<0.0009
5/19/2014	0.00064	0.0062	<0.00081	<0.0009
5/6/2015	0.0005	0.0054	<0.00081	<0.0009
5/5/2016	0.00068	0.0056	<0.0009	<0.0009
4/27/2017	0.001	0.008	0.003	<0.0009
5/9/2018	0.001	0.009	0.002	<0.0009
5/16/2019	< 0.0026	0.014	0.0038	<0.0009
6/25/2020	0.002	0.0039	<0.0009	<0.0009
8/19/2021	0.0015	0.0058	<0.0009	<0.0009
9/21/2022	0.0009	0.0061	<0.0009	<0.0009
10/4/2023	0.00095	0.0068	<0.0009	<0.0009

Notes:
Results are provided in parts per million (ppm)
Non Detect values expressed with "<" and MDL. 1,2 DCE value includes total cis-1,2 DCE and trans 1,2 DCE.
If "<" value, the listed value is the higher of the two method detection limits.

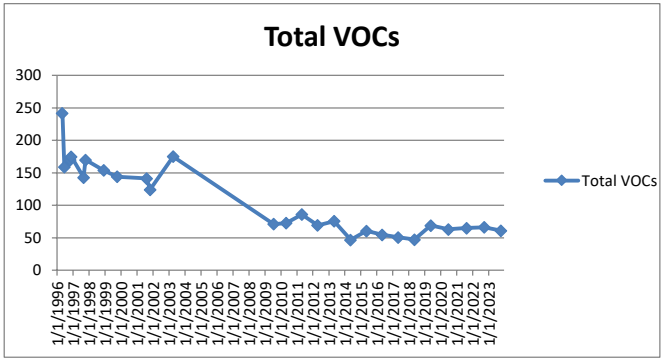
Duplicate samples were collected from this location on 10/30/01. The higher of the two concentrations were recorded in this graph.



MW-4 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	Total VOCs
4/30/1996	242
6/20/1996	159
10/30/1996	170
11/21/1996	175
8/28/1997	143
10/10/1997	170
12/2/1998	154
10/7/1999	144.14
8/9/2001	141.283
10/31/2001	124.25
4/7/2003	175.08
7/20/2009	71.2
4/29/2010	72.8012
4/22/2011	86.0018
4/20/2012	69.2614
5/1/2013	75.6
5/13/2014	46.9
5/8/2015	60.8
5/5/2016	54.9
5/2/2017	50.8
5/8/2018	47.4
5/16/2019	68.905
6/24/2020	63.2
8/17/2021	65.1
9/20/2022	66.4
10/3/2023	61.2

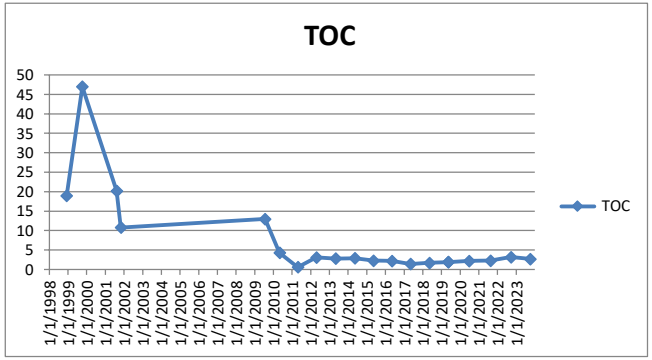
Notes:
Results are provided in parts per million (ppm)



MW-4 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TOC
12/2/1998	19
10/7/1999	47
8/9/2001	20.2
10/31/2001	10.8
7/20/2009	13
4/29/2010	4.3
4/22/2011	0.6
4/20/2012	3.1
5/1/2013	2.8
5/13/2014	2.9
5/8/2015	2.3
5/5/2016	2.2
5/2/2017	1.4
5/8/2018	1.7
5/16/2019	1.9
5/16/2019	1.9
6/24/2020	2.2
8/17/2021	2.3
9/20/2022	3.2
10/3/2023	2.7

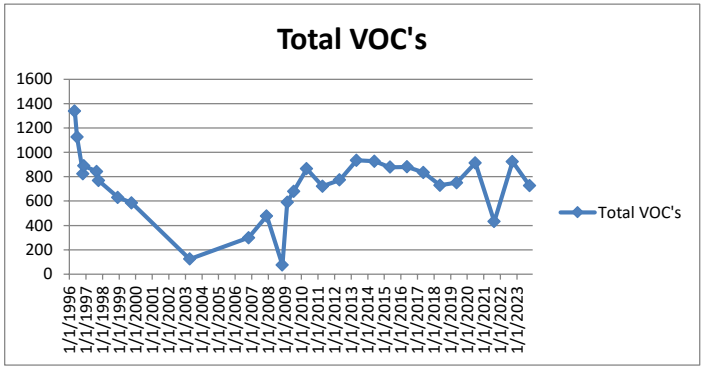
Notes:
Results are provided in parts per million (ppm)



MW-7 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	Total VOC's
4/30/1996	1338.8
6/20/1996	1126.4
10/30/1996	824.3
11/21/1996	888.1
8/28/1997	843.1
10/10/1997	767.8
12/3/1998	629.2
10/7/1999	584.5
4/7/2003	123
10/25/2006	297.777
11/29/2007	477.249
11/5/2008	73.7
2/24/2009	589.671
7/15/2009	678.912
4/29/2010	864.34
4/11/2011	722
4/20/2012	773
5/3/2013	935
5/30/2014	926
5/7/2015	878.14
5/17/2016	881
5/11/2017	835
5/10/2018	730
5/17/2019	751
6/26/2020	913
8/19/2021	431
9/23/2022	924
10/6/2023	727

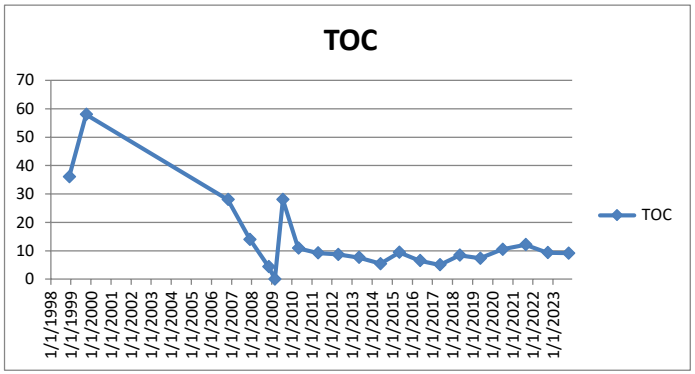
Notes:
Results are provided in parts per million (ppm)



MW-7 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TOC
12/3/1998	36
10/7/1999	58
10/25/2006	28
11/29/2007	14
11/4/2008	4.4
2/24/2009	NM
7/20/2009	28
4/29/2010	10.9
4/22/2011	9.2
4/20/2012	8.7
5/3/2013	7.6
5/30/2014	5.4
5/7/2015	9.4
5/17/2016	6.5
5/11/2017	5
5/10/2018	8.4
5/17/2019	7.3
6/26/2020	10.5
8/19/2021	12.1
9/23/2022	9.3
10/6/2023	9.1

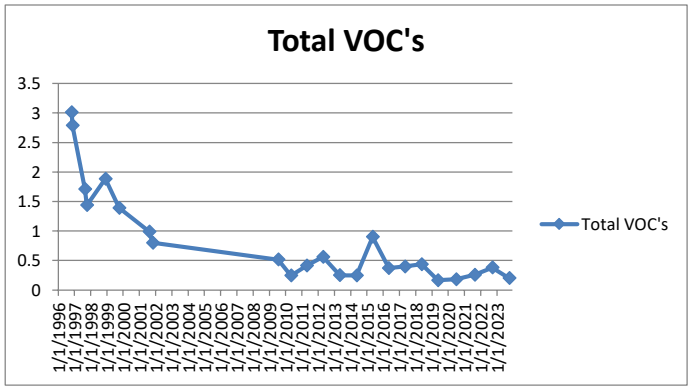
Notes:
Results are provided in parts per million (ppm)



MW-10 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	Total VOC's
10/30/1996	3.01
11/21/1996	2.79
8/28/1997	1.71
10/10/1997	1.437
12/1/1998	1.886
10/6/1999	1.392
8/9/2001	0.991
10/31/2001	0.799
7/15/2009	0.516
4/28/2010	0.245
4/21/2011	0.414
4/19/2012	0.562
5/1/2013	0.25
5/14/2014	0.247
5/8/2015	0.9
5/5/2016	0.371
5/2/2017	0.401
5/9/2018	0.436
5/16/2019	0.165
6/24/2020	0.18
8/17/2021	0.26
9/20/2022	0.38
10/3/2023	0.201

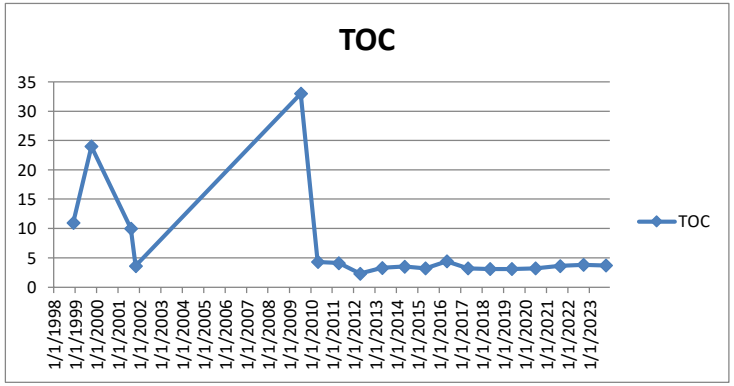
Notes:
Results are provided in parts per million (ppm)



MW-10 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TOC
12/1/1998	11
10/5/1999	24
8/9/2001	10
10/31/2001	3.6
7/15/2009	33
4/28/2010	4.3
4/21/2011	4.1
4/19/2012	2.3
5/1/2013	3.3
5/14/2014	3.5
5/8/2015	3.2
5/5/2016	4.4
5/2/2017	3.2
5/9/2018	3.1
5/16/2019	3.1
6/24/2020	3.2
8/17/2021	3.6
9/20/2022	3.8
10/4/2023	3.7

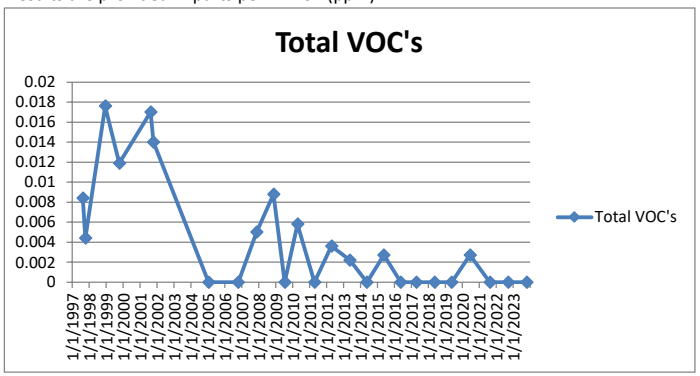
Notes:
Results are provided in parts per million (ppm)



MW-11 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	Total VOC's
8/28/1997	0.0084
10/10/1997	0.0044
12/1/1998	0.0176
10/5/1999	0.0119
8/8/2001	0.017
10/30/2001	0.014
1/12/2005	0
10/24/2006	0
11/28/2007	0.005
11/4/2008	0.0088
7/16/2009	0
4/28/2010	0.0058
4/21/2011	0
4/19/2012	0.0036
5/2/2013	0.0022
5/20/2014	0
5/6/2015	0.0027
5/5/2016	0
4/28/2017	0
5/10/2018	0
5/17/2019	0
6/25/2020	0.0027
8/19/2021	0
9/21/2022	0
10/4/2023	0

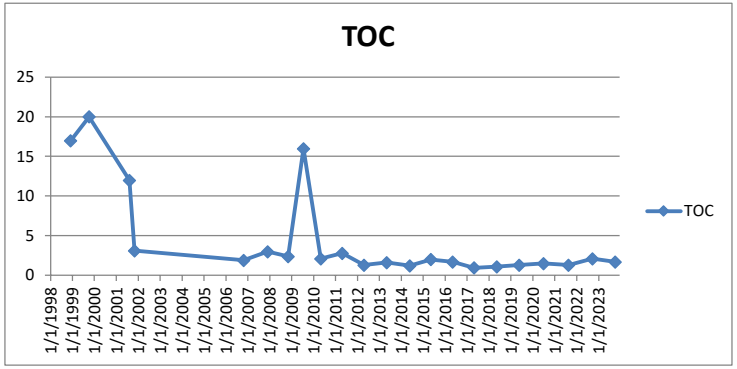
Notes:
Results are provided in parts per million (ppm)



MW-11 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TOC
12/1/1998	17
10/5/1999	20
8/8/2001	12
10/30/2001	3.1
10/24/2006	1.9
11/28/2007	3
11/4/2008	2.38
7/16/2009	16
4/28/2010	2.1
4/21/2011	2.8
4/18/2012	1.3
5/2/2013	1.6
5/20/2014	1.2
5/6/2015	2
5/5/2016	1.7
4/28/2017	0.96
5/10/2018	1.1
5/17/2019	1.3
6/25/2020	1.5
8/19/2021	1.3
9/21/2022	2.1
10/4/2023	1.7

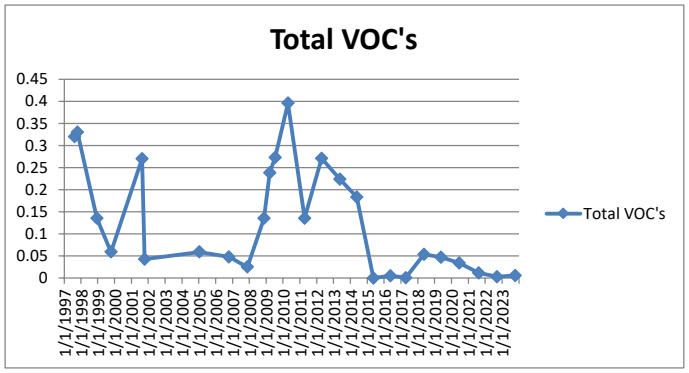
Notes:
Results are provided in parts per million (ppm)



MW-12 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	Total VOC's
8/28/1997	0.32
10/10/1997	0.33
12/1/1998	0.135
10/6/1999	0.059
8/8/2001	0.27
10/30/2001	0.043
1/12/2005	0.059
10/25/2006	0.048
11/28/2007	0.025
11/14/2008	0.135
3/16/2009	0.238
7/16/2009	0.273
4/28/2010	0.3959
4/20/2011	0.1351
4/18/2012	0.27083
5/3/2013	0.224
5/19/2014	0.1834
5/7/2015	0
5/6/2016	0.0049
4/28/2017	0.001
5/9/2018	0.0537
5/17/2019	0.047
6/26/2020	0.034
8/20/2021	0.0115
9/23/2022	0.0032
10/4/2023	0.0059

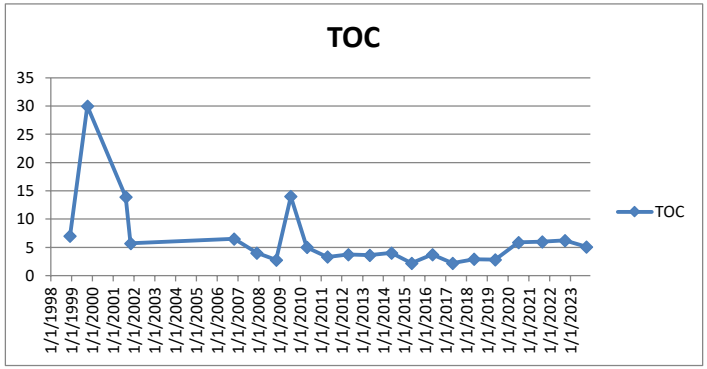
Notes:
Results are provided in parts per million (ppm)



MW-12 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TOC
12/1/1998	7
10/5/1999	30
8/8/2001	13.9
10/30/2001	5.7
10/25/2006	6.5
11/28/2007	4
11/4/2008	2.74
7/16/2009	14
4/28/2010	5
4/20/2011	3.3
4/18/2012	3.7
5/3/2013	3.6
5/19/2014	4
5/7/2015	2.2
5/6/2016	3.7
4/28/2017	2.2
5/9/2018	2.9
5/17/2019	2.8
6/26/2020	5.9
8/20/2021	6
9/23/2022	6.2
10/4/2023	5.1

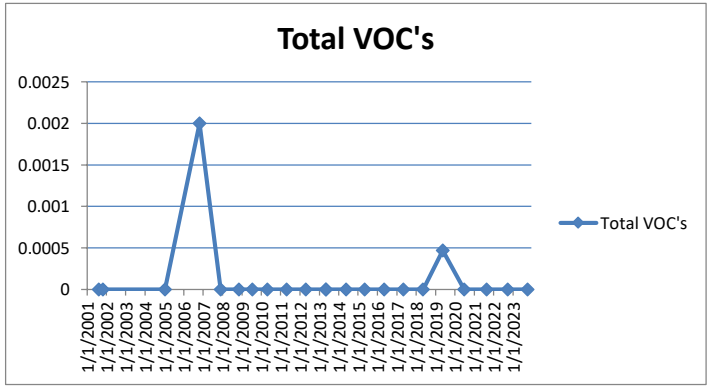
Notes:
Results are provided in parts per million (ppm)



MW-13 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	Total VOC's
8/8/2001	0
10/29/2001	0
1/12/2005	0
10/24/2006	0.002
11/28/2007	0
11/5/2008	0
7/16/2009	0
4/28/2010	0
4/21/2011	0
4/19/2012	0
5/2/2013	0
5/2/2013	0
5/20/2014	0
5/7/2015	0
5/5/2016	0
5/3/2017	0
5/10/2018	0
5/17/2019	0.00047
6/25/2020	0
8/19/2021	0
9/22/2022	0
10/5/2023	0

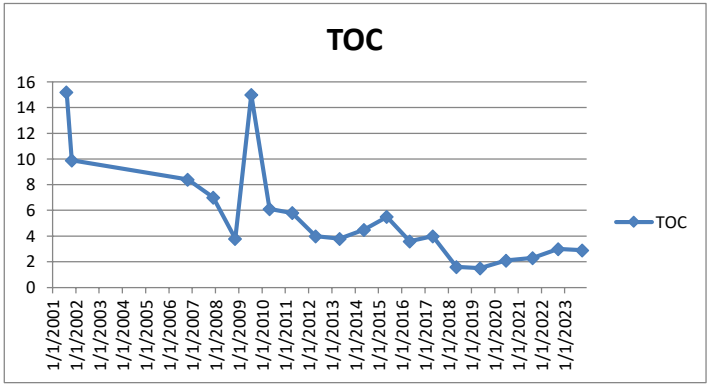
Notes:
Results are provided in parts per million (ppm)



MW-13 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TOC
8/8/2001	15.2
10/29/2001	9.9
10/24/2006	8.4
11/28/2007	7
11/5/2008	3.8
7/16/2009	15
4/28/2010	6.1
4/21/2011	5.8
4/19/2012	4
5/2/2013	3.8
5/20/2014	4.5
5/13/2015	5.5
5/5/2016	3.6
5/3/2017	4
5/10/2018	1.6
5/17/2019	1.5
6/25/2020	2.1
8/19/2021	2.3
9/22/2022	3
10/5/2023	2.9

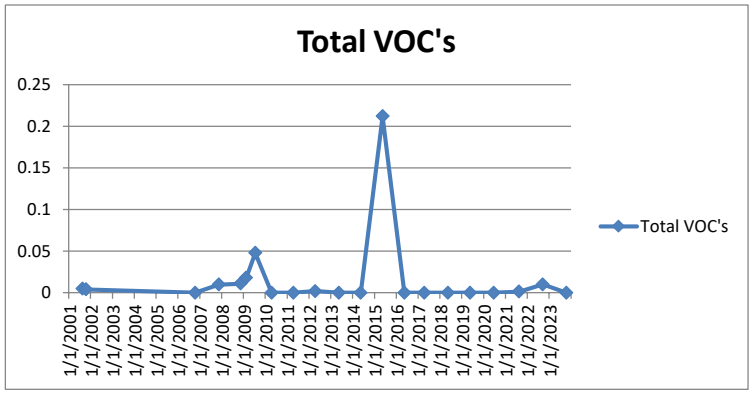
Notes:
Results are provided in parts per million (ppm)



MW-14 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	Total VOC's
8/10/2001	0.005
10/30/2001	0.004
10/24/2006	0
11/29/2007	0.01
11/4/2008	0.011
2/24/2009	0.018
7/19/2009	0.048
4/27/2010	0
4/21/2011	0
4/19/2012	0.002
5/3/2013	0
5/23/2014	0
5/7/2015	0.2122
5/6/2016	0
4/28/2017	0
5/11/2018	0
5/21/2019	0
6/26/2020	0
8/20/2021	0.0013
9/23/2022	0.0101
10/5/2023	0

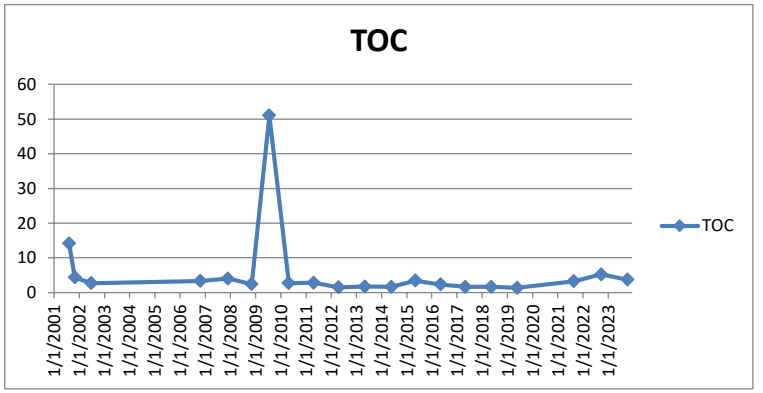
Notes:
Results are provided in parts per million (ppm)



MW-14 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TOC
8/9/2001	14.1
10/30/2001	4.3
10/24/2006	3.3
11/29/2007	4
11/4/2008	2.4
7/16/2009	51
4/27/2010	2.7
4/21/2011	2.8
4/19/2012	1.5
5/3/2013	1.7
5/23/2014	1.6
5/7/2015	3.4
5/6/2016	2.3
4/28/2017	1.6
5/11/2018	1.6
5/21/2019	1.3
6/26/2002	2.7
8/20/2021	3.2
9/23/2022	5.2
10/5/2023	3.7

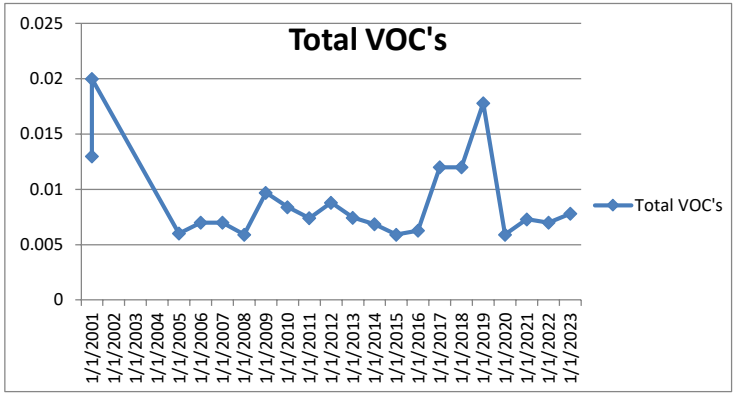
Notes:
Results are provided in parts per million (ppm)



MW-15 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	Total VOC's
8/8/2001	0.013
10/30/2001	0.02
1/12/2005	0.006
10/24/2006	0.007
11/28/2007	0.007
11/4/2008	0.0059
7/16/2009	0.0097
4/28/2010	0.0084
4/21/2011	0.0074
4/18/2012	0.0088
5/1/2013	0.00744
5/19/2014	0.00684
5/6/2015	0.0059
5/5/2016	0.00628
4/27/2017	0.012
5/9/2018	0.012
5/16/2019	0.0178
6/25/2020	0.0059
8/19/2021	0.0073
9/21/2022	0.007
10/4/2023	0.0078

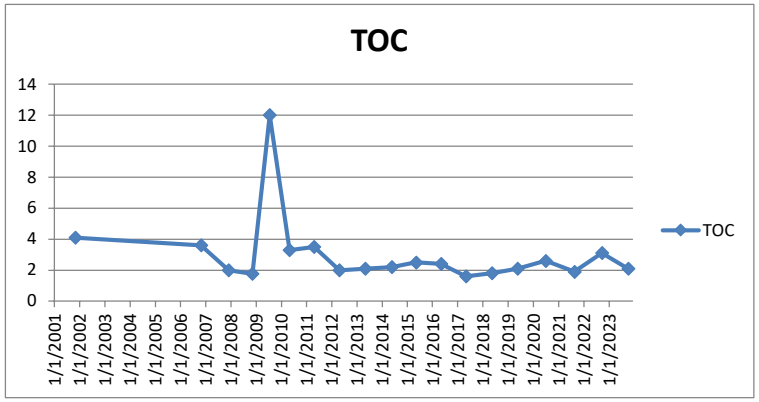
Notes:
Results are provided in parts per million (ppm)



MW-15 Groundwater Data
Delphi Harrison Thermal Systems Site
GM Components Holdings, LLC
Lockport, New York

Date	TOC
10/30/2001	4.1
10/24/2006	3.6
11/28/2007	2
11/4/2008	1.77
7/16/2009	12
4/28/2010	3.3
4/21/2011	3.5
4/18/2012	2
5/1/2013	2.1
5/19/2014	2.2
5/6/2015	2.5
5/4/2016	2.4
4/27/2017	1.6
5/9/2018	1.8
5/16/2019	2.1
6/25/2020	2.6
8/19/2021	1.9
9/21/2022	3.1
10/4/2023	2.1

Notes:
Results are provided in parts per million (ppm)



APPENDIX C

RESULTS EPA CVOC MONITORED NATURAL ATTENUATION RANKING SYSTEM

EPA cVOC MONITORED NATURAL ATTENUATION RANKING SYSTEM

2023 Strength of Evidence Scorecard
Delphi Harrison Thermal Systems Site
GM Component Holdings, LLC
Lockport, New York

Analysis	Concentration in Most Contaminated Zone	Value	EXAMPLE Lab or Field Analysis Value (mg/L)	EXAMPLE Score	MW-4	MW-7	MW-10	MW-11	MW-12	MW-13	MW-14	MW-15
DO	<0.5 mg/L	3	3.5		0	-3	0	0	0	0	0	0
DO	>5 mg/l	-3										
Nitrate	<1 mg/L	2	ND	2	2	2	2	2	2	2	2	2
Iron II	>1 mg/l	2	0.2		2	0	0	0	2	0	2	0
Sulfate	<20 mg/L	2	243		2	0	0	0	0	0	0	0
Sulfide	>1 mg/L	3	0.6		NT	NT	NT	NT	NT	NT	NT	NT
Methane	<0.5 mg/L	0	0.26	0	3	3	3	3	3	3	3	3
Methane	>0.5 mg/L	3										
ORP	<50 mV	1	-98.5	1	1	2	0	1	1	0	1	0
ORP	<-100 mV	2										
pH	5< pH <9	0	6.8	0	0	0	0	0	0	0	0	0
pH	5> pH >10	-2										
TOC	>20 mg/L	2	1.5		0	0	0	0	0	0	0	0
Temp	> 20°C	1	20.4	1	0	0	0	0	0	0	0	0
Carbon Dioxide	>2 times background (4.2)	1	6.8		1	1	1	1	1	1	1	1
Alkalinity	>2 times background (200)	1	372		1	1	1	1	1	1	1	1
Chloride	>2 times background (1440)	2	338		0	0	0	0	2	2	2	0
Hydrogen	>1 nM	3	NT		3	NT	3	3	3	3	3	3
Hydrogen	<1nM	0	NT									
Volatile Fatty Acids	>0.1 mg/L	2	ND		NT	NT	NT	NT	NT	NT	NT	NT
BTEX	>0.1 mg/L	2	ND		NT	NT	NT	NT	NT	NT	NT	NT
PCE		0	ND		0	0	0	0	0	0	0	0
TCE	If Daughter Product	2	190		2	2	2	0	0	0	0	2
DCE	If Daughter Product	2	10,034	2	2	2	2	0	2	0	0	0
VC	If Daughter Product	2	380.00	2	2	0	2	0	2	0	0	0
1,1,1-TCA		0	ND		NT	NT	NT	NT	NT	NT	NT	NT
DCA	If Daughter Product	2	ND		NT	NT	NT	NT	NT	NT	NT	NT
Carbon Tetrachloride		0	ND		NT	NT	NT	NT	NT	NT	NT	NT
Chloroethane	If Daughter Product	2	ND		NT	NT	NT	NT	NT	NT	NT	NT
Ethene/Ethane	>0.01 mg/L or	2	0.0097		3	3	0	0	0	0	0	0
	>0.1 mg/L	3										
Chloroform	If Daughter Product	2	ND		NT	NT	NT	NT	NT	NT	NT	NT
Dichloromethane	If Daughter Product	2	ND		NT	NT	NT	NT	NT	NT	NT	NT
				8	**24**	**13**	**16**	**11**	**19**	**12**	**15**	**12**

Scoring Interpretation	
0 to 5	Inadequate evidence for anaerobic biodegradation* of chlorinated organics
6 to 14	Limited evidence for anaerobic biodegradation* of chlorinated organics
15 to 20	Adequate evidence for anaerobic biodegradation* of chlorinated organics
>20	Strong evidence for anaerobic biodegradation* of chlorinated organics
*reductive dechlorination	

Values Taken from EPA Document **EPA/600/R-98/128,** *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* , 1998, Table 2.3 and Table 2.4

Notes:
1. ND=not detected
2. NT=not tested
3. EM=Equipment malfunction

APPENDIX D

DATA VALIDATION AND ANALYTICAL LABORATORY REPORTS

Data Verification Report

December 05, 2023

To	Claire Mondello [cmondello@haleyaldrich.com]	**Project No.**	12616852-256073
Copy to	Tom Bohlen [thomas.bohlen@gza.com]	**DVR No.**	N/A
From	Christopher Arcuri/eew/9	**Contact No.**	717-585-6408
Project Name	GM - Lockport	**Email**	Christopher.Arcuri@ghd.com
Subject	Analytical Results and Data Verification Routine Groundwater Quality Monitoring 2023 GM – Lockport Facility Lockport, New York October 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 Routine Groundwater Quality Monitoring at the Lockport site during October 2023. Samples were submitted to Eurofins Environment Testing located in Buffalo, New York. Samples submitted for dissolved gases were subcontracted Eurofins TestAmerica located in South Burlington, Vermont. Samples submitted for dissolved hydrogen were subcontracted to Pace Analytical Services located in Baton Rouge, Louisiana. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard GHD report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate 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 methods referenced in Table 3 and applicable guidance from the documents entitled:

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

These items will subsequently be referred to as the "Guidelines" in this report.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. Most samples were prepared and analyzed within the required holding times, with the exception of one sample submitted for nitrates and nitrites. The sample results were qualified and rejected as presented in Table 4.

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

3. Laboratory Method Blank Analyses

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

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per analytical batch of 20 samples or less.

Most method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation. Sample results that were qualified due to method blank contamination are presented in Table 5.

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 extraction and/or 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) and semi-volatile organic compound (SVOC) determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

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

5. Laboratory Control Sample Analyses

LCS or LCS/laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS or LCS/LCSD were analyzed at a minimum frequency of 1 per analytical batch of 20 samples or less.

Organic Analyses

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

Inorganic Analyses

The LCS or LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines" using the laboratory control limits. All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

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 or MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

If the original sample concentration is significantly greater than the spike concentration (> four times), the recovery is not assessed.

If only the MS or MSD recovery was outside of control limits, no qualification of the data was performed based on the acceptable recovery of the companion spike and the acceptable RPD.

Due to necessary sample dilutions of five times and greater for extractable parameters, some MS/MSD recoveries could not be assessed.

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

Organic Analyses

The MS/MSD samples were spiked with all compounds of interest. Most percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision. Sample results that were qualified or rejected due to outlying MS/MSD recoveries are presented in Table 6.

Inorganic Analyses

The MS or MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines" using the laboratory control limits. Most percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision. Sample results that were qualified due to outlying MS or MS/MSD recoveries are presented in Table 6.

7. Duplicate Sample Analyses – Inorganic Analyses

Analytical precision is evaluated based on the analysis of laboratory duplicate samples. For this study, duplicate samples were prepared and analyzed by the laboratory for inorganic analyses as specified in Table 1. The laboratory performed additional site-specific duplicate analyses internally. The duplicate results were evaluated per the "Guidelines" using the laboratory control limits.

All duplicate analyses performed met the above criteria demonstrating acceptable analytical precision.

8. Field QA/QC Samples

The field QA/QC consisted of 11 trip blank samples and 2 field duplicate sample sets.

Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, 11 trip blanks were 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, two field duplicate sample sets were 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.

Most field duplicate results met the above criteria demonstrating acceptable sampling and analytical precision. The sample results qualified due to field duplicate variability are presented in Table 7.

9. 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. Non-detect results were presented as non-detect at the RL in Table 2.

10. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific exceptions and qualifications noted herein.

Regards,

Christopher Arcuri
Data Intelligence – Data Validator

Table 1

Sample Collection and Analysis Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Sample Delivery Group	Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Parameters										Comments
						VOCs	SVOCs	Dissolved Gases	Metals	Anions	Ammonia	Nitrate/Nitrite	Alkalinity	Sulfide	TOC	VFAs	
4802133011	MW-10-100323	MW-10	Groundwater	10/03/2023	13:00	X		X	X	X	X	X	X	X	X	X	MS
	MW-11-100423	MW-11	Groundwater	10/04/2023	15:00	X		X	X	X	X	X	X	X	X	X	MS
	MW-12-100423	MW-12	Groundwater	10/04/2023	09:00	X		X	X	X	X	X	X	X	X	X	MS
	MW-13-100523	MW-13	Groundwater	10/05/2023	11:00	X		X	X	X	X	X	X	X	X	X	
	MW-14-100523	MW-14	Groundwater	10/05/2023	13:30	X		X	X	X	X	X	X	X	X	X	MS/MSD
	MW-15-100423	MW-15	Groundwater	10/04/2023	12:00	X		X	X	X	X	X	X	X	X	X	MS, DUP
	MW-4-100323	MW-4	Groundwater	10/03/2023	11:30	X		X	X	X	X	X	X	X	X	X	MS/MSD, DUP
	MW-7-100623	MW-7	Groundwater	10/06/2023	09:45	X		X	X	X	X	X	X	X	X	X	MS
	TRIP BLANK	-	Water	-	-	X											TRIP BLANK
	TRIP BLANK	-	Water	-	-	X											TRIP BLANK
	TRIP BLANK	-	Water	-	-	X											TRIP BLANK
4802133922	BLDG-10-MW-1-101623	BLDG-10-MW-1	Groundwater	10/16/2023	17:00	X		X	X	X	X	X	X	X	X		MS/MSD, DUP
	DUPE-101023	MW-8-003-B	Groundwater	10/10/2023	14:00	X		X	X	X	X	X	X	X	X		FD(MW-8-003-B-101023), DUP
	DUPE-2-101923	MW-7-5	Groundwater	10/19/2023	10:00	X		X	X	X	X	X	X	X	X		FD(MW-7-5-101923)
	MW-10-2-101323	MW-10-2	Groundwater	10/13/2023	10:00	X		X	X	X	X	X	X	X	X		MS/MSD
	MW-10-3-101123	MW-10-3	Groundwater	10/11/2023	15:00	X		X	X	X	X	X	X	X	X		MS, DUP
	MW-6-1-101623	MW-6-1	Groundwater	10/16/2023	13:00	X		X	X	X	X	X	X	X	X		
	MW-6-2-101623	MW-6-2	Groundwater	10/16/2023	15:00	X		X	X	X	X	X	X	X	X		DUP
	MW-6-F-8-100623	MW-6-F-8	Groundwater	10/06/2023	13:00	X		X	X	X	X	X	X	X	X		MS
	MW-7-1R-101123	MW-7-1	Groundwater	10/11/2023	11:30	X		X	X	X	X	X	X	X	X		
	MW-7-2-101723	MW-7-2	Groundwater	10/17/2023	13:00	X		X	X	X	X	X	X	X	X		

Table 1

Sample Collection and Analysis Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Sample Delivery Group	Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Parameters										Comments
						VOCs	SVOCs	Dissolved Gases	Metals	Anions	Ammonia	Nitrate/Nitrite	Alkalinity	Sulfide	TOC	VFAs	
4802133922	MW-7-3-101123	MW-7-3	Groundwater	10/11/2023	10:00	X		X	X	X	X	X	X	X	X		MS
	MW-7-4-101823	MW-7-4	Groundwater	10/18/2023	12:30	X		X	X	X	X	X	X	X	X		
	MW-7-5-101923	MW-7-5	Groundwater	10/19/2023	09:50	X		X	X	X	X	X	X	X	X		MS, DUP
	MW-7-6-101023	MW-7-6	Groundwater	10/10/2023	16:45	X		X	X	X	X	X	X	X	X		
	MW-7-7-101323	MW-7-7	Groundwater	10/13/2023	13:30	X		X	X	X	X	X	X	X	X		
	MW-7-8-101723	MW-7-8	Groundwater	10/17/2023	15:30	X		X	X	X	X	X	X	X	X		MS/MSD
	MW-7-A-6-101923	MW-7-A-6	Groundwater	10/19/2023	11:30	X		X	X	X	X	X	X	X	X		
	MW-7-C-2-101023	MW-7-C-2	Groundwater	10/10/2023	13:30	X		X	X	X	X	X	X	X	X		MS
	MW-7-P-1-101823	MW-7-P-1	Groundwater	10/18/2023	10:45	X		X	X	X	X	X	X	X	X		MS/MSD, DUP
	MW-8-003-B-101023	MW-8-003-B	Groundwater	10/10/2023	10:00	X		X	X	X	X	X	X	X	X		MS, DUP
	MW-8-1-100923	MW-8-1	Groundwater	10/09/2023	13:45	X		X	X	X	X	X	X	X	X		
	MW-8-2-100923	MW-8-2	Groundwater	10/09/2023	11:30	X		X	X	X	X	X	X	X	X		MS/MSD
	MW-8-3-101023	MW-8-3	Groundwater	10/10/2023	17:45	X		X	X	X	X	X	X	X	X		MS
	MW-8-4-101123	MW-8-4	Groundwater	10/11/2023	13:30	X		X	X	X	X	X	X	X	X		
	MW-9-101-A-100623	MW-9-101-A	Groundwater	10/06/2023	11:00	X	X	X	X	X	X	X	X	X	X		
	MW-9-12-101723	MW-9-12	Groundwater	10/17/2023	11:00	X	X	X	X	X	X	X	X	X	X		MS, DUP
	TK-6-100523	TK-6	Groundwater	10/05/2023	15:30	X		X	X	X	X	X	X	X	X		
	TRIP BLANK	-	Water	-	-	X											TRIP BLANK
	TRIP BLANK	-	Water	-	-	X											TRIP BLANK
	TRIP BLANK	-	Water	-	-	X											TRIP BLANK
	TRIP BLANK	-	Water	-	-	X											TRIP BLANK

Table 1

Sample Collection and Analysis Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Sample Delivery Group	Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Parameters										Comments
						VOCs	SVOCs	Dissolved Gases	Metals	Anions	Ammonia	Nitrate/Nitrite	Alkalinity	Sulfide	TOC	VFAs	
4802133922	TRIP BLANK	-	Water	-	-	X										TRIP BLANK
	TRIP BLANK	-	Water	-	-	X										TRIP BLANK
	TRIP BLANK	-	Water	-	-	X										TRIP BLANK
	TRIP BLANK	-	Water	-	-	X										TRIP BLANK

Notes:

DUP - Laboratory Duplicate
FD - Field Duplicate Sample of sample in parenthesis
MS - Matrix Spike
MS/MSD - Matrix Spike/Matrix Spike Duplicate
VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds
TOC - Total Organic Carbon
VFAs - Volatile Fatty Acids
"-" - Not Applicable

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		BLDG-10-MW-1	MW-4	MW-6-1	MW-6-2	MW-6-F-8	MW-7	MW-7-1
Sample Name:		**BLDG-10-MW-1-101623**	**MW-4-100323**	**MW-6-1-101623**	**MW-6-2-101623**	**MW-6-F-8-100623**	**MW-7-100623**	**MW-7-1R-101123**
Sample Date:		**10/16/2023**	**10/03/2023**	**10/16/2023**	**10/16/2023**	**10/06/2023**	**10/06/2023**	**10/11/2023**
Parameters	**Unit**							
Volatile Organic Compounds								
cis-1,2-Dichloroethene	µg/L	5000 U	29000	1.0 U	1.0 U	1.0 U	67000	4.0 U
Tetrachloroethene	µg/L	170000	800 U	1.0 U	1.0 U	1.0 U	10000 U	4.0 U
trans-1,2-Dichloroethene	µg/L	5000 U	800 U	1.0 U	1.0 U	1.0 U	10000 U	4.0 U
Trichloroethene	µg/L	5100	30000	1.0 U	1.0 U	0.67 J	660000	4.0 U
Vinyl chloride	µg/L	5000 U	2200	1.0 U	1.0 U	1.0 U	10000 U	4.0 U
Semi-volatile Organic Compounds								
Acenaphthene	µg/L	--	--	--	--	--	--	--
Acenaphthylene	µg/L	--	--	--	--	--	--	--
Anthracene	µg/L	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--
Fluoranthene	µg/L	--	--	--	--	--	--	--
Fluorene	µg/L	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--
Phenanthrene	µg/L	--	--	--	--	--	--	--
Pyrene	µg/L	--	--	--	--	--	--	--

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		**BLDG-10-MW-1**	**MW-4**	**MW-6-1**	**MW-6-2**	**MW-6-F-8**	**MW-7**	**MW-7-1**
Sample Name:		**BLDG-10-MW-1-101623**	**MW-4-100323**	**MW-6-1-101623**	**MW-6-2-101623**	**MW-6-F-8-100623**	**MW-7-100623**	**MW-7-1R-101123**
Sample Date:		**10/16/2023**	**10/03/2023**	**10/16/2023**	**10/16/2023**	**10/06/2023**	**10/06/2023**	**10/11/2023**
Parameters	**Unit**							
Dissolved Gases								
Hydrogen	nmol/L	--	1.6 J	--	--	--	--	--
Carbon dioxide	µg/L	74000	56000	120000	57000	28000	20000	67000
Ethane	µg/L	7.5 U	58	7.5 U	7.5 U	7.5 U	330 U	7.5 U
Ethene	µg/L	1.5 J	410	7.0 U	7.0 U	7.0 U	860	7.0 U
Methane	µg/L	3.7 J	1100	220	4.0 U	4.0 U	110 J	33
Metals								
Iron	mg/L	1.0	1.1	24.6	0.16	0.19	0.031 J	0.12
Magnesium	mg/L	103	81.5	63.7	50.6	53.1	39.8	126
Manganese	mg/L	0.70	0.45	4.8	0.35	0.17	0.012	0.87
Potassium	mg/L	4.6	18.4	5.0	5.2	2.3	10.8	7.7
Sodium	mg/L	134	1490	577	677	777	187	1230
General Chemistry								
2-Hydroxypropanoic acid	mg/L	--	50.0 U	--	--	--	5.0 U	--
Acetic acid	mg/L	--	50.0 U	--	--	--	8.6	--
Alkalinity, total (as CaCO3)	mg/L	310	330 J-	512	436	289	248	337 J-
Ammonia-N	mg/L	0.16	1.5	1.7	0.025	0.076 J-	0.61	0.050
Butanoic acid	mg/L	--	50.0 U	--	--	--	5.0 U	--
Chloride	mg/L	570	25.0 U	1100	1450	1530	158	2720
Formic acid	mg/L	--	50.0 U	--	--	--	5.0 U	--
Nitrate (as N)	mg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.15	0.050 U	0.050 U
Nitrite (as N)	mg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		**BLDG-10-MW-1**	**MW-4**	**MW-6-1**	**MW-6-2**	**MW-6-F-8**	**MW-7**	**MW-7-1**
Sample Name:		**BLDG-10-MW-1-101623**	**MW-4-100323**	**MW-6-1-101623**	**MW-6-2-101623**	**MW-6-F-8-100623**	**MW-7-100623**	**MW-7-1R-101123**
Sample Date:		**10/16/2023**	**10/03/2023**	**10/16/2023**	**10/16/2023**	**10/06/2023**	**10/06/2023**	**10/11/2023**
Parameters	**Unit**							
General Chemistry (Continued)								
Nitrite/Nitrate	mg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.19 J+	0.050 U	0.050 U
Propionic acid	mg/L	--	50.0 U	--	--	--	5.0 U	--
Pyruvic acid	mg/L	--	75.0 U	--	--	--	7.5 U	--
Sulfate	mg/L	231	100 U	29.8	101	175	121	132
Sulfide	mg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total organic carbon (TOC)	mg/L	4.7	2.7	7.2	1.9	4.8	9.1	1.5

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-7-2	MW-7-3	MW-7-4	MW-7-5	MW-7-5	MW-7-6	MW-7-7
Sample Name:		MW-7-2-101723	MW-7-3-101123	MW-7-4-101823	MW-7-5-101923	DUPE-2-101923	MW-7-6-101023	MW-7-7-101323
Sample Date:		10/17/2023	10/11/2023	10/18/2023	10/19/2023	10/19/2023 Duplicate	10/10/2023	10/13/2023
Parameters	**Unit**							
Volatile Organic Compounds								
cis-1,2-Dichloroethene	µg/L	1.0 U	2.0 U	1.0 U	1100	1500	630	36000
Tetrachloroethene	µg/L	1.0 U	2.0 U	1.0 U	7500 J	14000 J	560	100000
trans-1,2-Dichloroethene	µg/L	1.0 U	2.0 U	1.0 U	200 U	200 U	10 U	1000 U
Trichloroethene	µg/L	1.0 U	2.0 U	3.3	1200	1900	310	20000
Vinyl chloride	µg/L	1.0 U	2.0 U	1.0 U	200 U	200 U	9.2 J	6000
Semi-volatile Organic Compounds								
Acenaphthene	µg/L	--	--	--	--	--	--	--
Acenaphthylene	µg/L	--	--	--	--	--	--	--
Anthracene	µg/L	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--
Fluoranthene	µg/L	--	--	--	--	--	--	--
Fluorene	µg/L	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--
Phenanthrene	µg/L	--	--	--	--	--	--	--
Pyrene	µg/L	--	--	--	--	--	--	--

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-7-2	MW-7-3	MW-7-4	MW-7-5	MW-7-5	MW-7-6	MW-7-7
Sample Name:		MW-7-2-101723	MW-7-3-101123	MW-7-4-101823	MW-7-5-101923	DUPE-2-101923	MW-7-6-101023	MW-7-7-101323
Sample Date:		10/17/2023	10/11/2023	10/18/2023	10/19/2023	10/19/2023 Duplicate	10/10/2023	10/13/2023
Parameters	**Unit**							
Dissolved Gases								
Hydrogen	nmol/L	--	--	--	--	--	--	--
Carbon dioxide	µg/L	38000	94000	43000	96000	100000	44000	56000
Ethane	µg/L	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.8	330 U
Ethene	µg/L	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	420
Methane	µg/L	4.0 U	300	4.0 U	12	9.9	250	870
Metals								
Iron	mg/L	0.021 J	7.6	0.075	0.14	0.10	0.13	0.11
Magnesium	mg/L	35.7	111	42.8	106	93.3	84.5	151
Manganese	mg/L	0.0059	0.51	0.0068	1.1	0.99	0.32	0.036
Potassium	mg/L	1.3	25.5	3.3	15.0	10.7	13.5	39.6
Sodium	mg/L	104	4950	255	2600	2840	3480	1550
General Chemistry								
2-Hydroxypropanoic acid	mg/L	--	--	--	--	--	--	--
Acetic acid	mg/L	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	362 J-	434 J-	384 J-	464 J-	440 J-	327 J-	298 J-
Ammonia-N	mg/L	0.020 U	1.6	0.017 J	0.081	0.081	0.071 J-	3.2
Butanoic acid	mg/L	--	--	--	--	--	--	--
Chloride	mg/L	181	8240	442	5610	5490	5830	3410
Formic acid	mg/L	--	--	--	--	--	--	--
Nitrate (as N)	mg/L	0.050 U	0.038 J	0.045 J	0.90	1.0	0.050 U	0.050 U
Nitrite (as N)	mg/L	0.050 U	0.050 U	0.050 U	0.10 J-	0.099 J-	0.050 U	0.050 U

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-7-2	MW-7-3	MW-7-4	MW-7-5	MW-7-5	MW-7-6	MW-7-7
Sample Name:		MW-7-2-101723	MW-7-3-101123	MW-7-4-101823	MW-7-5-101923	DUPE-2-101923	MW-7-6-101023	MW-7-7-101323
Sample Date:		10/17/2023	10/11/2023	10/18/2023	10/19/2023	10/19/2023 Duplicate	10/10/2023	10/13/2023
Parameters	**Unit**							
General Chemistry (Continued)								
Nitrite/Nitrate	mg/L	0.050 U	0.038 J	0.045 J	1.0	1.1	0.050 U	0.050 U
Propionic acid	mg/L	--	--	--	--	--	--	--
Pyruvic acid	mg/L	--	--	--	--	--	--	--
Sulfate	mg/L	23.2	771	57.9	507	497	274	482
Sulfide	mg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.2
Total organic carbon (TOC)	mg/L	1.3	3.5	1.0 U	8.2	6.8	1.8	10.3

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-7-8	MW-7-A-6	MW-7-C-2	MW-7-P-1	MW-8-1	MW-8-2	MW-8-3
Sample Name:		**MW-7-8-101723**	**MW-7-A-6-101923**	**MW-7-C-2-101023**	**MW-7-P-1-101823**	**MW-8-1-100923**	**MW-8-2-100923**	**MW-8-3-101023**
Sample Date:		**10/17/2023**	**10/19/2023**	**10/10/2023**	**10/18/2023**	**10/09/2023**	**10/09/2023**	**10/10/2023**
Parameters	**Unit**							
Volatile Organic Compounds								
cis-1,2-Dichloroethene	µg/L	410 J	95000	540	2.0 U	1.0 U	R	2.0 U
Tetrachloroethene	µg/L	710 J	64000	5.0 U	2.0 U	1.0 U	100 U	2.0 U
trans-1,2-Dichloroethene	µg/L	10 U	2000 U	5.0 U	2.4	1.0 U	100 U	2.0 U
Trichloroethene	µg/L	220	13000	5.0 U	2.0 U	1.0	1400	7.9
Vinyl chloride	µg/L	590 J	72000	81	2.0 U	1.0 U	470	2.0 U
Semi-volatile Organic Compounds								
Acenaphthene	µg/L	--	--	--	--	--	--	--
Acenaphthylene	µg/L	--	--	--	--	--	--	--
Anthracene	µg/L	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--
Fluoranthene	µg/L	--	--	--	--	--	--	--
Fluorene	µg/L	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--
Phenanthrene	µg/L	--	--	--	--	--	--	--
Pyrene	µg/L	--	--	--	--	--	--	--

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-7-8	MW-7-A-6	MW-7-C-2	MW-7-P-1	MW-8-1	MW-8-2	MW-8-3
Sample Name:		**MW-7-8-101723**	**MW-7-A-6-101923**	**MW-7-C-2-101023**	**MW-7-P-1-101823**	**MW-8-1-100923**	**MW-8-2-100923**	**MW-8-3-101023**
Sample Date:		**10/17/2023**	**10/19/2023**	**10/10/2023**	**10/18/2023**	**10/09/2023**	**10/09/2023**	**10/10/2023**
Parameters	**Unit**							
Dissolved Gases								
Hydrogen	nmol/L	--	--	--	--	--	--	--
Carbon dioxide	µg/L	43000	300000	53000	110000	58000	44000	45000
Ethane	µg/L	54	140	7.5 U	34	15	83 U	7.5 U
Ethene	µg/L	21	5500	8.1	7.0 U	7.0 U	77 U	7.0 U
Methane	µg/L	150	1400	320	6100	160	350	35
Metals								
Iron	mg/L	18.4	16.8	0.58	94.5	0.034 J	4.5	0.047 J
Magnesium	mg/L	180	142	133	344	121	41.6	60.5
Manganese	mg/L	0.99	2.0	0.35	4.1	0.11	0.52	3.0
Potassium	mg/L	39.4	5.1	5.6	39.3	19.1	9.6	414
Sodium	mg/L	2740	481	118	163	614	74.1	362
General Chemistry								
2-Hydroxypropanoic acid	mg/L	--	--	--	--	--	--	--
Acetic acid	mg/L	--	--	--	--	--	--	--
Alkalinity, total (as CaCO3)	mg/L	108 J-	516 J-	338 J-	132 J-	276	343	235 J-
Ammonia-N	mg/L	0.81	0.15	0.18 J-	197	1.2 J-	0.31 J-	5.2 J-
Butanoic acid	mg/L	--	--	--	--	--	--	--
Chloride	mg/L	5060	1420	178	3560	1320	158	1790
Formic acid	mg/L	--	--	--	--	--	--	--
Nitrate (as N)	mg/L	0.050 U	0.050 U	0.050 U	0.038 J-	0.050 U	0.050 U	0.21
Nitrite (as N)	mg/L	0.050 U	0.050 U	0.050 U	R	0.050 U	0.050 U	0.047 J

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-7-8	MW-7-A-6	MW-7-C-2	MW-7-P-1	MW-8-1	MW-8-2	MW-8-3
Sample Name:		**MW-7-8-101723**	**MW-7-A-6-101923**	**MW-7-C-2-101023**	**MW-7-P-1-101823**	**MW-8-1-100923**	**MW-8-2-100923**	**MW-8-3-101023**
Sample Date:		**10/17/2023**	**10/19/2023**	**10/10/2023**	**10/18/2023**	**10/09/2023**	**10/09/2023**	**10/10/2023**
Parameters	**Unit**							
General Chemistry (Continued)								
Nitrite/Nitrate	mg/L	0.050 U	0.050 U	0.050 U	0.038 J-	0.050 U	0.050 U	0.26
Propionic acid	mg/L	--	--	--	--	--	--	--
Pyruvic acid	mg/L	--	--	--	--	--	--	--
Sulfate	mg/L	235	25.0 J	860	23.5 J	869	62.3	73.9
Sulfide	mg/L	1.0 U	1.0 U	1.0 U	1.0 U	6.0	1.0 U	1.0 U
Total organic carbon (TOC)	mg/L	1.5	26.3	0.89 J	2.2	1.0 U	1.0 U	8.0

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-8-003-B	MW-8-003-B	MW-8-4	MW-9-12	MW-9-101-A	MW-10	MW-10-2
Sample Name:		MW-8-003-B-101023	DUPE-101023	MW-8-4-101123	MW-9-12-101723	MW-9-101-A-100623	MW-10-100323	MW-10-2-101323
Sample Date:		10/10/2023	10/10/2023	10/11/2023	10/17/2023	10/06/2023	10/03/2023	10/13/2023
			Duplicate					
Parameters	**Unit**							
Volatile Organic Compounds								
cis-1,2-Dichloroethene	µg/L	1200	1100	46	1.0 U	1.0 U	170	430
Tetrachloroethene	µg/L	1200	1800	1.0 U	1.0 U	1.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	50 U	50 U	1.0 U	1.0 U	1.0 U	5.0 U	8.2
Trichloroethene	µg/L	330	380	11	1.0 U	1.1	24	3.6 J
Vinyl chloride	µg/L	50 U	50 U	24	1.0 U	1.0 U	6.5	180
Semi-volatile Organic Compounds								
Acenaphthene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Acenaphthylene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Anthracene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Benzo(a)anthracene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Benzo(a)pyrene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Chrysene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Fluoranthene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Fluorene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Naphthalene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Phenanthrene	µg/L	--	--	--	5.0 U	5.0 U	--	--
Pyrene	µg/L	--	--	--	5.0 U	5.0 U	--	--

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-8-003-B	MW-8-003-B	MW-8-4	MW-9-12	MW-9-101-A	MW-10	MW-10-2
Sample Name:		MW-8-003-B-101023	DUPE-101023	MW-8-4-101123	MW-9-12-101723	MW-9-101-A-100623	MW-10-100323	MW-10-2-101323
Sample Date:		10/10/2023	10/10/2023	10/11/2023	10/17/2023	10/06/2023	10/03/2023	10/13/2023
			Duplicate					
Parameters	**Unit**							
Dissolved Gases								
Hydrogen	nmol/L	--	--	--	--	--	1.7 J	--
Carbon dioxide	µg/L	10000 U	11000	27000	30000	37000	44000	23000
Ethane	µg/L	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	6.9 J
Ethene	µg/L	7.0 U	7.1	7.0 U	7.0 U	7.0 U	7.0 U	88 J
Methane	µg/L	4.0 U	4.7	530	17	4.0 U	59	72 J
Metals								
Iron	mg/L	0.12	0.10	0.38	0.18	0.050 U	0.050	0.78
Magnesium	mg/L	11.2	10.9	44.6	34.4	109	26.8	50.2
Manganese	mg/L	0.56	0.47	0.29	0.60	0.047	0.36	0.23
Potassium	mg/L	6.2	6.3	13.1	5.4	24.5	2.5	8.9
Sodium	mg/L	2070	2030	2220	676	1920	717	1390
General Chemistry								
2-Hydroxypropanoic acid	mg/L	--	--	--	--	--	10.0 U	--
Acetic acid	mg/L	--	--	--	--	--	10.0 U	--
Alkalinity, total (as CaCO3)	mg/L	279 J-	294 J-	332 J-	331 J-	276	389 J-	238 J-
Ammonia-N	mg/L	0.16 J-	0.18 J-	0.057	0.12	0.020 U	0.020 U	0.30
Butanoic acid	mg/L	--	--	--	--	--	10.0 U	--
Chloride	mg/L	2900	2880	3220	1040	3210	886	2250
Formic acid	mg/L	--	--	--	--	--	10.0 U	--
Nitrate (as N)	mg/L	0.062	0.055	0.021 J	0.14	0.13	0.024 J	0.050 U
Nitrite (as N)	mg/L	0.048 J	0.044 J	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-8-003-B	MW-8-003-B	MW-8-4	MW-9-12	MW-9-101-A	MW-10	MW-10-2
Sample Name:		MW-8-003-B-101023	DUPE-101023	MW-8-4-101123	MW-9-12-101723	MW-9-101-A-100623	MW-10-100323	MW-10-2-101323
Sample Date:		10/10/2023	10/10/2023	10/11/2023	10/17/2023	10/06/2023	10/03/2023	10/13/2023
			Duplicate					
Parameters	**Unit**							
General Chemistry (Continued)								
Nitrite/Nitrate	mg/L	0.11	0.099	0.021 J	0.14	0.17 J+	0.024 J	0.050 U
Propionic acid	mg/L	--	--	--	--	--	10.0 U	--
Pyruvic acid	mg/L	--	--	--	--	--	15.0 U	--
Sulfate	mg/L	106	106	297	119	1150	167	180
Sulfide	mg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total organic carbon (TOC)	mg/L	1.7	1.8	2.5	1.5	4.4	3.7	1.8

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-10-3	MW-11	MW-12	MW-13	MW-14	MW-15	TK-6
Sample Name:		**MW-10-3-101123**	**MW-11-100423**	**MW-12-100423**	**MW-13-100523**	**MW-14-100523**	**MW-15-100423**	**TK-6-100523**
Sample Date:		**10/11/2023**	**10/04/2023**	**10/04/2023**	**10/05/2023**	**10/05/2023**	**10/04/2023**	**10/05/2023**
Parameters	**Unit**							
Volatile Organic Compounds								
cis-1,2-Dichloroethene	µg/L	1.6	1.0 U	3.6	1.0 U	2.0 U	1.0 U	2.0 U
Tetrachloroethene	µg/L	2.7	1.0 U	2.0 U	1.0 U	2.0 U	6.8	2.0 U
trans-1,2-Dichloroethene	µg/L	1.0 U	1.0 U	2.0 U	1.0 U	2.0 U	1.0 U	2.0 U
Trichloroethene	µg/L	4.9	1.0 U	2.0 U	1.0 U	2.0 U	0.95 J	2.0 U
Vinyl chloride	µg/L	1.0 U	1.0 U	2.3	1.0 U	2.0 U	1.0 U	2.0 U
Semi-volatile Organic Compounds								
Acenaphthene	µg/L	--	--	--	--	--	--	--
Acenaphthylene	µg/L	--	--	--	--	--	--	--
Anthracene	µg/L	--	--	--	--	--	--	--
Benzo(a)anthracene	µg/L	--	--	--	--	--	--	--
Benzo(a)pyrene	µg/L	--	--	--	--	--	--	--
Benzo(b)fluoranthene	µg/L	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	µg/L	--	--	--	--	--	--	--
Benzo(k)fluoranthene	µg/L	--	--	--	--	--	--	--
Chrysene	µg/L	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	µg/L	--	--	--	--	--	--	--
Fluoranthene	µg/L	--	--	--	--	--	--	--
Fluorene	µg/L	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	µg/L	--	--	--	--	--	--	--
Naphthalene	µg/L	--	--	--	--	--	--	--
Phenanthrene	µg/L	--	--	--	--	--	--	--
Pyrene	µg/L	--	--	--	--	--	--	--

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		MW-10-3	MW-11	MW-12	MW-13	MW-14	MW-15	TK-6
Sample Name:		MW-10-3-101123	MW-11-100423	MW-12-100423	MW-13-100523	MW-14-100523	MW-15-100423	TK-6-100523
Sample Date:		10/11/2023	10/04/2023	10/04/2023	10/05/2023	10/05/2023	10/04/2023	10/05/2023
Parameters	**Unit**							
Dissolved Gases								
Hydrogen	nmol/L	--	10.9	1.2 J	2.0	1.5 J	1.9 J	--
Carbon dioxide	µg/L	10000 U	18000	81000	63000	57000	81000	42000
Ethane	µg/L	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U	7.5 U
Ethene	µg/L	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U
Methane	µg/L	4.0 U	19	340	2.3 J	370	4.0 U	4.0 U
Metals								
Iron	mg/L	0.050 U	0.28	8.5	0.18	1.7	0.050 U	0.050 U
Magnesium	mg/L	24.5	36.3	51.3	41.9	146	38.3	102
Manganese	mg/L	0.0030 U	0.10	6.1	1.6	1.2	0.32	0.0041
Potassium	mg/L	7.8	8.9	6.2	9.8	12.3	4.1	2.5
Sodium	mg/L	136	135	1530	962	1710	296	1450
General Chemistry								
2-Hydroxypropanoic acid	mg/L	--	5.0 U	20.0 U	20.0 U	50.0 U	10.0 U	--
Acetic acid	mg/L	--	5.0 U	20.0 U	20.0 U	50.0 U	10.0 U	--
Alkalinity, total (as CaCO3)	mg/L	157 J-	257 J-	395 J-	488	414	443 J-	320
Ammonia-N	mg/L	0.020 U	0.25	1.5	0.16	0.65	0.020 U	0.020 UJ
Butanoic acid	mg/L	--	5.0 U	20.0 U	20.0 U	50.0 U	10.0 U	--
Chloride	mg/L	134	218	2250	1600	3480	512	2450
Formic acid	mg/L	--	5.0 U	20.0 U	20.0 U	50.0 U	10.0 U	--
Nitrate (as N)	mg/L	0.81	0.036 J	0.025 J	0.21	0.050 U	0.28	0.87
Nitrite (as N)	mg/L	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U	0.050 U

Table 2

Analytical Results Summary
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Location ID:		**MW-10-3**	**MW-11**	**MW-12**	**MW-13**	**MW-14**	**MW-15**	**TK-6**
Sample Name:		**MW-10-3-101123**	**MW-11-100423**	**MW-12-100423**	**MW-13-100523**	**MW-14-100523**	**MW-15-100423**	**TK-6-100523**
Sample Date:		**10/11/2023**	**10/04/2023**	**10/04/2023**	**10/05/2023**	**10/05/2023**	**10/04/2023**	**10/05/2023**
Parameters	**Unit**							
General Chemistry (Continued)								
Nitrite/Nitrate	mg/L	0.81	0.050 U	0.050 U	0.25 J+	0.050 U	0.30	0.90 J+
Propionic acid	mg/L	--	5.0 U	20.0 U	20.0 U	50.0 U	10.0 U	--
Pyruvic acid	mg/L	--	7.5 U	30.0 U	30.0 U	75.0 U	15.0 U	--
Sulfate	mg/L	191	112	130	99.3	97.4 J	57.2	135
Sulfide	mg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Total organic carbon (TOC)	mg/L	0.86 J	1.7	5.1	2.9	3.7	2.1	1.2

Notes:

"--" - Not analyzed
J - Estimated concentration
J- - Estimated concentration; implied low bias
J+ - Estimated concentration; implied high bias
R - Rejected
U - Not detected at the associated reporting limit
UJ - Not detected; associated reporting limit is estimated

Table 3

Analytical Methods
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

			Holding Time	
Parameter	**Method**	**Matrix**	**Collection to Extraction (Days)**	**Collection or Extraction to Analysis (Days)**
VOCs	SW-846 8260B	Groundwater	-	14
SVOCs	SW8270	Groundwater	7	40
Dissolved Gases	RSK 175	Groundwater	-	14
Dissolved Gases (Hydrogen)	AM20GAX	Groundwater	-	14
Metals	SW6010C	Groundwater	-	180
Anions (Chloride, Sulfate)	E300	Groundwater	-	28
Ammonia	E350.1	Groundwater	-	28
Nitrate/Nitrite	E353.2	Groundwater	-	48 Hours
Sulfide	SM4500-S2-F	Groundwater	-	7
TOC	SW9060	Groundwater	-	28
VFAs	VFA	Groundwater	-	28
Alkalinity	SM 2320 B	Groundwater	-	14

Notes:

VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds
TOC - Total Organic Compounds
VFAs - Volatile Fatty Acids
"-" - Not Applicable

Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
SM - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions
RSK 175 - EPA Internal Standard Operating Procedure #175 dated 8/11/94 by Bryan Newell at the USEPA R.S. Kerr Laboratory

Table 4

Qualified Sample Data Due To Sample Holding Time Violations
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Parameter	Sample ID	Holding Time (Hours)	Holding Time Criteria (Hours)	Analyte	Qualified Result		Units
General Chemistry	MW-7-P-1-101823	>48	48	Nitrate (as N)	0.038	J-	mg/L
				Nitrite (as N)		R	
				Nitrite/Nitrate	0.038	J-	mg/L

Notes:

J- - Estimated concentration; implied low bias
R - Rejected

Table 5

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result *	Sample ID	Original Result	Qualified Result	Units
General Chemistry	Nitrite (as N)	10/05/2023	0.0229 J	MW-15-100423	0.023 J	0.050 U	mg/L
General Chemistry	Nitrite/Nitrate	10/05/2023	0.0237 J	MW-11-100423	0.036 J	0.050 U	mg/L
	Nitrite/Nitrate	10/05/2023	0.0237 J	MW-12-100423	0.025 J	0.050 U	mg/L
General Chemistry	Nitrite (as N)	10/06/2023	0.0390 J	MW-13-100523	0.042 J	0.050 U	mg/L
	Nitrite (as N)	10/06/2023	0.0390 J	MW-6-F-8-100623	0.044 J	0.050 U	mg/L
	Nitrite (as N)	10/06/2023	0.0390 J	MW-9-101-A-100623	0.041 J	0.050 U	mg/L
	Nitrite (as N)	10/06/2023	0.0390 J	TK-6-100523	0.035 J	0.050 U	mg/L
Metals	Manganese	10/14/2023	0.000540 J	MW-10-3-101123	0.0013 J	0.0030 U	mg/L

Notes:

* - Blank result adjusted for sample factors where applicable

U - Not detected at the associated reporting limit

J - Estimated concentration

Table 6

Qualified Sample Results Due to Outlying MS/MSD Results
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Qualified Result	Units
Dissolved Gases	MW-10-2-101323	Ethene	167	155	3	75 - 129	50	88 J	µg/L
	MW-10-2-101323	Methane	211	177	6	38 - 150	50	72 J	µg/L
VOCs	MW-8-2-100923	cis-1,2-Dichloroethene	0	0	5	74 - 124	15	R	
	MW-7-8-101723	cis-1,2-Dichloroethene	70	68	1	74 - 124	15	410 J	µg/L
	MW-7-8-101723	Tetrachloroethene	45	31	4	74 - 122	20	710 J	µg/L
	MW-7-8-101723	Vinyl chloride	43	37	2	65 - 133	15	590 J	µg/L
General Chemistry	MW-10-100323	Alkalinity, total (as CaCO3)	53	-	-	60 - 140	-	389 J-	mg/L
	MW-11-100423	Alkalinity, total (as CaCO3)	53	-	-	60 - 140	-	257 J-	mg/L
	MW-12-100423	Alkalinity, total (as CaCO3)	53	-	-	60 - 140	-	395 J-	mg/L
	MW-15-100423	Alkalinity, total (as CaCO3)	53	-	-	60 - 140	-	443 J-	mg/L
	MW-4-100323	Alkalinity, total (as CaCO3)	53	-	-	60 - 140	-	330 J-	mg/L
	MW-13-100523	Nitrite/Nitrate	116	-	-	90 - 110	-	0.25 J+	mg/L
	MW-6-F-8-100623	Nitrite/Nitrate	116	-	-	90 - 110	-	0.19 J+	mg/L
	MW-9-101-A-100623	Nitrite/Nitrate	116	-	-	90 - 110	-	0.17 J+	mg/L
	TK-6-100523	Nitrite/Nitrate	116	-	-	90 - 110	-	0.90 J+	mg/L
	DUPE-101023	Ammonia-N	89	83	3	90 - 110	20	0.18 J-	mg/L
	MW-6-F-8-100623	Ammonia-N	89	83	3	90 - 110	20	0.076 J-	mg/L
	MW-7-6-101023	Ammonia-N	89	83	3	90 - 110	20	0.071 J-	mg/L
	MW-7-C-2-101023	Ammonia-N	89	83	3	90 - 110	20	0.18 J-	mg/L

Table 6

Qualified Sample Results Due to Outlying MS/MSD Results
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Qualified Result	Units
General Chemistry	MW-8-003-B-101023	Ammonia-N	89	83	3	90 - 110	20	0.16 J-	mg/L
	MW-8-1-100923	Ammonia-N	89	83	3	90 - 110	20	1.2 J-	mg/L
	MW-8-2-100923	Ammonia-N	89	83	3	90 - 110	20	0.31 J-	mg/L
	MW-8-3-101023	Ammonia-N	89	83	3	90 - 110	20	5.2 J-	mg/L
	TK-6-100523	Ammonia-N	89	83	3	90 - 110	20	0.020 UJ	mg/L
	DUPE-101023	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	294 J-	mg/L
	MW-10-3-101123	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	157 J-	mg/L
	MW-7-1R-101123	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	337 J-	mg/L
	MW-7-3-101123	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	434 J-	mg/L
	MW-7-6-101023	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	327 J-	mg/L
	MW-7-C-2-101023	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	338 J-	mg/L
	MW-8-003-B-101023	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	279 J-	mg/L
	MW-8-3-101023	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	235 J-	mg/L
	MW-8-4-101123	Alkalinity, total (as CaCO3)	90	-	-	60 - 140	-	332 J-	mg/L
	MW-10-2-101323	Alkalinity, total (as CaCO3)	34	0	14	60 - 140	20	238 J-	mg/L
	MW-7-7-101323	Alkalinity, total (as CaCO3)	34	0	14	60 - 140	20	298 J-	mg/L
	DUPE-2-101923	Nitrite (as N)	79	-	-	90 - 110	-	0.099 J-	mg/L
	MW-7-5-101923	Nitrite (as N)	79	-	-	90 - 110	-	0.10 J-	mg/L
	MW-7-2-101723	Alkalinity, total (as CaCO3)	56	-	-	60 - 140	-	362 J-	mg/L
	MW-7-8-101723	Alkalinity, total (as CaCO3)	56	-	-	60 - 140	-	108 J-	mg/L
	MW-9-12-101723	Alkalinity, total (as CaCO3)	56	-	-	60 - 140	-	331 J-	mg/L

Table 6

Qualified Sample Results Due to Outlying MS/MSD Results
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits % Recovery	Control Limits RPD	Qualified Result	Units
General Chemistry	DUPE-2-101923	Alkalinity, total (as CaCO3)	56	-	-	60 - 140	-	440 J-	mg/L
	MW-7-4-101823	Alkalinity, total (as CaCO3)	56	-	-	60 - 140	-	384 J-	mg/L
	MW-7-5-101923	Alkalinity, total (as CaCO3)	56	-	-	60 - 140	-	464 J-	mg/L
	MW-7-A-6-101923	Alkalinity, total (as CaCO3)	56	-	-	60 - 140	-	516 J-	mg/L
	MW-7-P-1-101823	Alkalinity, total (as CaCO3)	56	-	-	60 - 140	-	132 J-	mg/L

Notes:

MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference
J - Estimated concentration
J+ - Estimated concentration; implied high bias
J- - Estimated concentration; implied low bias
UJ - Not detected; associated reporting limit is estimated
R - Rejected
"-" - Not applicable
VOCs - Volatile Organic Compounds

Table 7

Qualified Sample Data Due to Variability in Field Duplicate Results
Routine Groundwater Quality Monitoring 2023
GM - Lockport Facility
Lockport, New York
October 2023

Sample Delivery Group	Parameter	Analyte	RPD/Diff	Sample ID	Qualified Result	Field Duplicate Sample ID	Qualified Result	Units
4802133922	VOCs	Tetrachloroethene	60 6500	MW-7-5-101923	7500 J	DUPE-2-101923	14000 J	µg/L

Notes:

Diff - Difference (i.e., >1X RL for waters)
RPD - Relative Percent Difference
J - Estimated concentration
VOCs - Volatile Organic Compounds

GZA GeoEnvironmental, Inc.